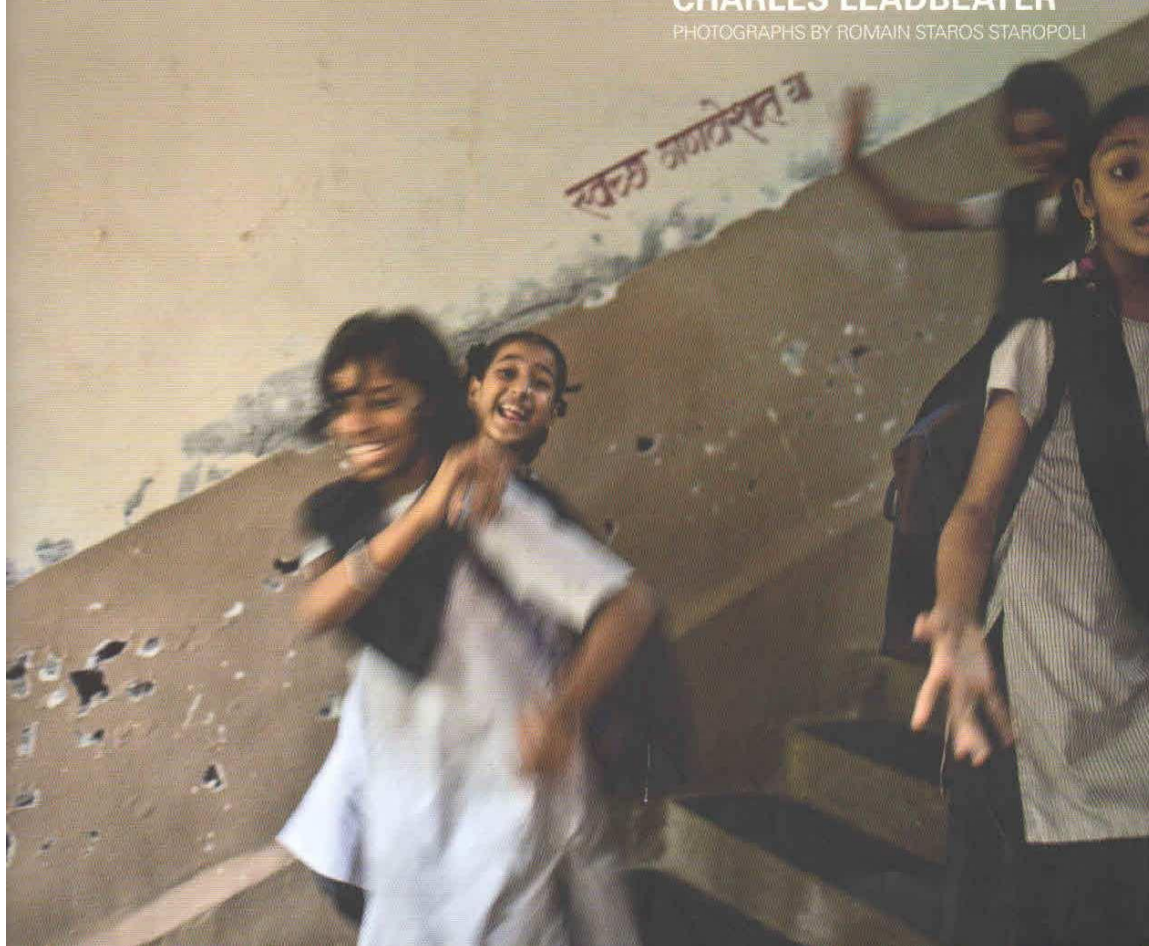


INNOVATION IN EDUCATION

LESSONS FROM PIONEERS
AROUND THE WORLD

CHARLES LEADBEATER

PHOTOGRAPHS BY ROMAIN STAROS STAROPOLI



Innovation can cut through the inertia that envelops many school systems by mobilising three key ingredients: the rising hopes and expectations of millions of parents and children; mounting frustration with the shortcomings of traditional models of education; and a commitment to develop new and more effective solutions. When these three – hope, frustration and experimentation – come together in the right way they can produce radical innovation that delivers much better outcomes for families, at affordable costs and on a large scale. Understanding where that kind of innovation comes from is the purpose of this book.

Innovation in Education: Lessons from Pioneers around the World is not a scientific, academic study of innovation. Nor is it a set of cookie-cutter recipes for people to follow. The focus is on the work of 16 pioneers around the world who have developed new and more effective approaches to education that work at scale. These pioneers are almost all drawn from applicants for awards from the World Innovation Summit for Education (WISE) in 2009 and 2010. By tracing the story of how these pioneering innovations came about, developed, spread and acquired scale we hope to raise awareness of why innovation in education is needed, where it comes from and how more can be generated.

A leading authority on innovation, creativity and learning, **Charles Leadbeater** has advised companies, cities and governments around the world on innovation strategy and the knowledge economy. In 2005 he was ranked by Accenture, the management consultancy, as one of the top management thinkers in the world. Charles wrote the first British report on the rise of social entrepreneurship, which has since become a global movement. He is the author of *We Think: Mass Innovation, Not Mass Production* and *Learning from the Extremes*, which examines how social entrepreneurs around the world are devising new approaches to learning in extreme social circumstances.

Born in the late 1970s, **Romain Staros Staropoli** describes himself as a photographer who is passionate about people, life stories and coincidences. Originally a photo reporter, he now applies the same vision and artistic approach in advertising and fashion: "Photography is a unique way of witnessing, capturing or creating moments that will never happen again. Above all, it has taught me to love and observe life." This is his first book.

Launched in 2009, the World Innovation Summit for Education (WISE) is an international forum dedicated to transforming education around the world. The annual WISE Summit in Doha, Qatar, brings together over 1,000 experts and thought-leaders from multiple sectors. WISE is also a platform for a growing range of collaborative initiatives. The WISE Awards recognize and showcase every year six innovative education projects in order to promote their expansion and replication: www.wise-qatar.org/en/awards

FOREWORD

H.E. Sheikh Abdulla bin Ali Al-Thani, PhD, Chairman of the World Innovation Summit for Education (WISE); President of Hamad Bin Khalifa University; and Vice President, Education, Qatar Foundation

When Her Highness Sheikha Moza bint Nasser, Chairperson of the Qatar Foundation for Education, Science and Community Development, asked us some three years ago to launch an international, multi-sectoral initiative aimed at upgrading education for all, we knew it was an ambitious but vitally important mission.

Throughout most of history, education has been the preserve of the few. As a result, regrettably, only a small part of our collective potential has been put to use. Today's rapid social, economic and technological developments have brought us to a point where education should no longer be seen as a privilege, but as a prerequisite to a decent quality of life – for individuals and communities, in developed and developing countries. In short, it is a passport both to inclusion and to opportunity.

Unfortunately, education systems have not always managed to adapt. Too often our children enter adulthood without the tools that will empower them to cope with an uncertain future. Incremental change is no longer sufficient – transformational leadership is required. Our challenge is to move in that direction, working within the wide range of circumstances that prevail, while respecting and nurturing the rich diversity of cultures that are our shared heritage.

These same global processes also offer tremendous opportunities – to connect and network, to share ideas and best practices. The World Innovation Summit for Education (WISE) aims to seize that opportunity by offering a global platform for collaborative action, using innovation as a key ingredient.

Since the launch of WISE, we have been immensely heartened to discover many real-life success stories, sometimes in the most unexpected places. We knew from the outset that, in building the future of education, we must start from those initiatives that are already making a positive difference.

Since 2009, the WISE Awards have identified, showcased and promoted annually six of the most innovative and promising educational projects around the world.

These projects, and others, are beacons of hope which, given the right conditions, might grow and converge into the education revolution that we need and which people around the world are yearning for. It is the strategy of WISE to create an environment in which this can happen.

In *Innovation in Education: Lessons from Pioneers around the World*, we have visited exciting educational projects that are achieving results, often in difficult circumstances. The individuals engaged in these projects – educators and organisers – are devoting their talents and energies to giving the next generation a better start. They are true heroes of our time, and I salute and thank them for their work, and for their cooperation in helping us compile this unique guide to breakthrough educational initiatives.

I also thank the WISE Qatar Foundation team and our partner organisations for their support, and the entire WISE community, whose combined experience, talent and passion will, I am confident, engender many great things in the years to come.

I hope that this book will raise awareness of one of the most significant issues of our age, that all who care about our shared future will be able to draw encouragement from these examples, and that it will inspire original thinking and concerted action both at the grassroots level and among policy-makers.

Find out more about the WISE initiative and join our growing online community at: www.wise-qatar.org

THE SIXTEEN CASES AROUND THE WORLD



PATHWAYS TO EDUCATION

Pathways to Education is a Canadian programme that provides young people from poor inner-city neighbourhoods with new incentives and support to complete their high school education and go on to college. Pathways, which is on track to spread to 16 sites, has dramatically improved educational outcomes among the most disadvantaged communities.

THE WEEKEND SCHOOL

The IMC Weekend School in the Netherlands is a secular Sunday school in which professionals from a wide variety of fields teach practical subjects and creative arts to students mainly from immigrant backgrounds.

REWRITE THE FUTURE

Rewrite the Future was a five-year campaign launched by Save the Children which improved education for almost 10m children in 20 conflict zones around the world.

MIT OPENCOURSEWARE

The OpenCourseWare platform launched by the Massachusetts Institute of Technology in 2001 provides free online materials for more than 2,000 courses, which have been used by 72m learners.

CRISTO REY

The Cristo Rey network in the United States is a network of 24 financially self-sufficient schools, serving poor inner-city neighbourhoods, in which the 6,400 students work a few days each month to pay for their education.

ESCUELA NUEVA

Escuela Nueva is a methodology, based on printed learning guides, to allow children to follow collaborative, self-paced approaches to learning. Escuela Nueva's methods have been adopted by 17,000 schools in Colombia and by education authorities in several other countries.

FUNDACIÓN PARAGUAYA

The San Francisco Agriculture School set up by Fundación Paraguaya in Cerrito, Paraguay, has inspired a worldwide movement of self-sufficient farm schools serving poor communities. The students grow food and run restaurants and hotels to earn the money to pay for a first class education.

APRENDIZ

Aprendiz, which started in São Paulo, Brazil, is developing ways for communities to provide richer learning opportunities outside and alongside schools. Aprendiz is one of the most influential educational NGOs in Brazil.

MOCEP

The Mother Child Education Program (MOCEP) in Turkey has trained more than 300,000 mothers to become the first educators of their children, to prepare them for school. Children of mothers who go through the programme are much more likely to go on to university or college.

WE LOVE READING

We Love Reading is a national campaign in Jordan to promote independent reading by training mothers to set up reading groups for children aged 6–12 in local mosques.

THE CITIZENS FOUNDATION

The Citizens Foundation operates 730 schools, serving more than 100,000 children, with roughly equal numbers of girls and boys, in Pakistan.

NANHI KALI

Nanhi Kali provides support for more than 70,000 girls from the very poorest homes in five states in India to ensure they do not fall behind and drop out of school.

HOLE IN THE WALL

The Hole in the Wall initiative has installed more than 500 computers across India and Africa to develop ways for children to learn, with one another and occasional adult support, but without formal teachers. So far, they have been used by about 1m children.

SHAFALLAH CENTER

The Shafallah Center in Doha, Qatar, is a state of the art campus for 600 disabled students that has become a world centre of excellence in education and disability.

TESSA

The Teacher Education in Sub-Saharan Africa (TESSA) programme is a partnership between the British Open University and 12 partner organisations in Africa to use online resources to provide in-service training to more than 400,000 teachers a year, helping them to develop more imaginative teaching techniques.

AIMS

The African Institute of Mathematical Sciences (AIMS), based in Cape Town, South Africa, employs collaborative and highly interactive learning to develop the next generation of African mathematical scientists.

To qualify for inclusion in this list of sixteen, our innovators had to satisfy two criteria:

First, the innovation must be significant: it must draw new people into learning and provide new skills, different modes of learning, and novel incentives. These schemes depart from the standard school model to reach their goal (Diagram 1). Escuela Nueva in Colombia created a new way for children to learn independently and collaboratively, in small, rural schools with one teacher and perhaps 50 children of different ages. In Uganda, Escuela Nueva's learning guides are known as "the silent teacher." Aprendiz in Brazil developed education and learning programmes so that an entire neighbourhood could be a platform for learning. The Hole in the Wall in India enabled millions of children to organise their own learning, sometimes with the support of a facilitator, using simple computer programmes. MIT pioneered the provision of free, open source courseware, with videos of lectures, so millions of teachers and students beyond the college could follow its courses. These innovations are all the more striking because of their context. The education provided in Cristo Rey's schools is in many respects unremarkable: it prepares young people to go to college. What is remarkable is that Cristo Rey has found a way to do this in the poorest inner city districts with students from immigrant families who often do not speak English and have never been near a university. What might appear to be standard practice in one setting can be highly innovative in another. Most of our high impact interventions are effective only because they have dared to challenge orthodox practice.

Second, these innovators have an impact well beyond the site where they first got started (or at least have credible plans in place) and they deliver proven benefits (Diagram 2). Rewrite The Future improved the education of about 10m children in conflict zones in 20 countries. MIT's OpenCourseWare is used by millions of independent learners each year. Millions of children have benefited from Escuela Nueva's model, which has been adopted in several other countries. The Open University's TESSA programme of open access, online teacher-training modules has been used by hundreds of thousands of teachers in Africa. Cristo Rey has grown from a single school in an inner-city neighbourhood in Chicago to a network of 24 schools across the United States. The African Institute of Mathematical Sciences, which has two campuses, one in South Africa and a second in Senegal, has well-developed plans to create a network of ten centres across the continent. The Shafallah Center in Doha is an international centre of excellence in teaching disabled children whose impact has spread as a model of excellence.

The appendix (page 157) encapsulates basic information about each of these high impact cases. In the remainder of this book we also refer to examples drawn from the larger set of 80 award nominees. But our main focus is on the lessons to be learned from these high impact innovators because they shed light on perhaps the most difficult challenge facing education systems around the world: how to develop proven innovations, which significantly improve educational outcomes, at large scale and affordable cost.

DIAGRAM 1 | DEGREE OF INNOVATION

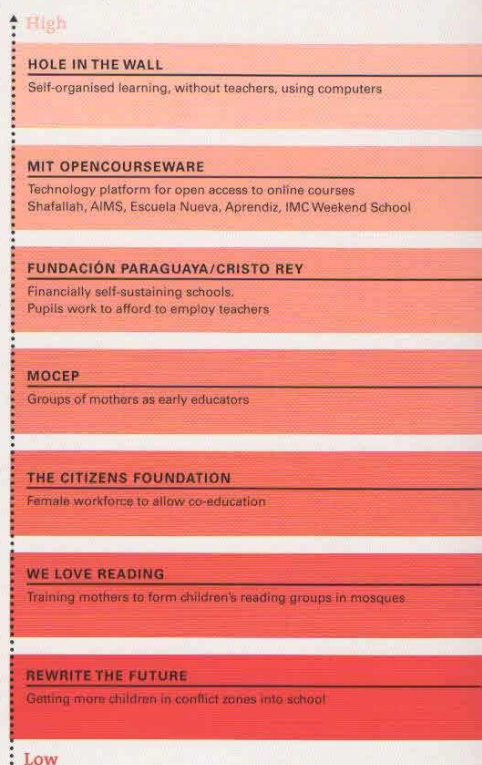


DIAGRAM 2 | REACH AND IMPACT

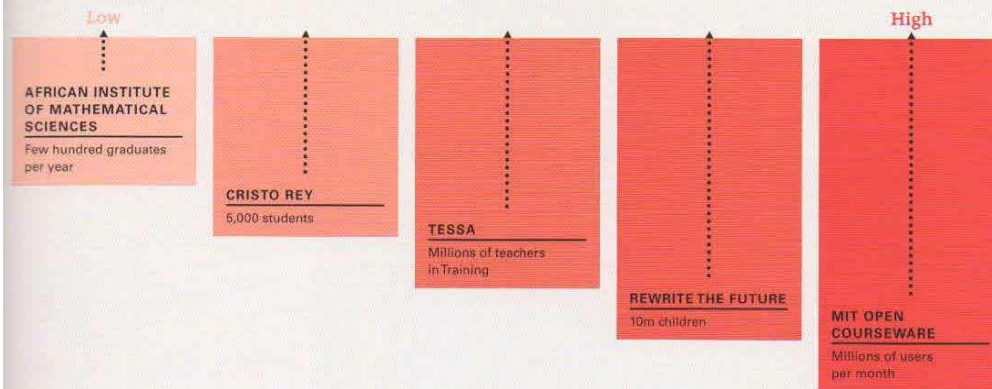
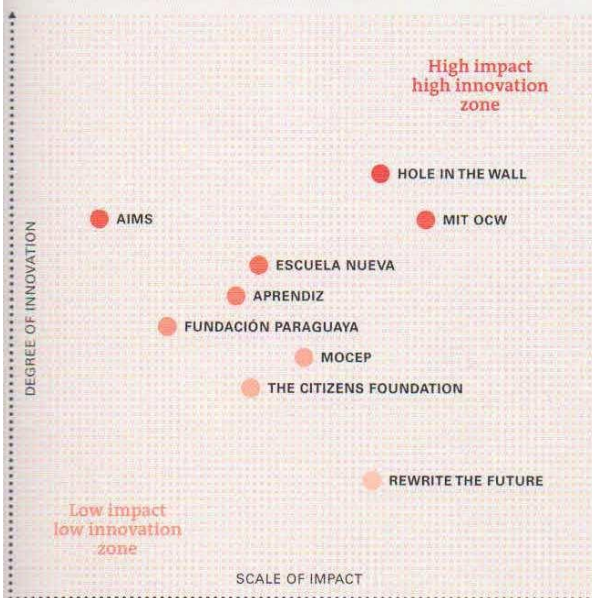


DIAGRAM 3 | THE HIGH IMPACT INNOVATION GRID



DEFINING HIGH IMPACT INNOVATION

These three diagrams convey visually the basic ingredients of our definition of high impact innovation.

Diagram 1 | **Degree of Innovation** ranks eight of the projects in terms of their degree of innovation: the extent to which they depart from the standard educational model in which teachers instruct classes in 50-minute blocks and test students in exams at the end of the course. Rewrite The Future is ranked low on the scale because its main aim was to get more children into school. Hole in the Wall is ranked high because it encourages self-organised learning using computers out of school.

Diagram 2 | **Reach and Impact** ranks the projects in terms of the number of students they reach. This takes no account of the intensity of the learning involved. The African Institute of Mathematical Sciences has the lowest reach (but with a high intensity). MIT's OpenCourseWare programme, at the other end of the scale, has reached more than 72m learners in a decade.

Diagram 3 | **The High Impact Innovation Grid** combines two dimensions to plot degree of innovation *and* scale of reach. AIMS is towards the top left because it has an innovative approach to pedagogy but low reach. Rewrite the Future is in the bottom right: it has reached millions but with fairly traditional approaches to schooling. Most of the projects cluster in the middle, combining some innovation with significant reach. Those that use technology creatively, such as Hole in the Wall and OpenCourseWare, are in the top right of the diagram because they are able to combine high reach with significant innovation. These rankings are subjective, not scientific.





CHAPTER 10

WE ARE A MOVEMENT

Young girls clamour for books
at the end of a We Love
Reading session in a mosque
in Amman

Men are pouring out of the first-floor prayer room in the Bir al-Walidain mosque on a street corner in the neighbourhood of Al-Rabia, close to the centre of Amman, the Jordanian capital. At the mosque's side entrance there are unmistakable signs that something quite different is taking place on the floor below: a large pile of children's shoes is gathered by the door. Downstairs, in the corner of a large open room, about 30 young children, mostly aged five to eight, mainly girls, are gathered intently around a woman sitting on a chair. Their mothers sit along the wall or on the floor, legs outstretched. Everyone is attentively focused on the woman, waiting to see what she does. From a colourful bag by her side she pulls out a toy watermelon and describes a story she is going to read for them. The children sit enraptured. Then she hands out finger puppets, before leading them in a song about birds. A girl of eight is selected to read a story to the group. Then comes the highlight of the hour: the children are invited forward to take a book from a selection of about 60 the reader carries with her. Mayhem breaks out. There is a mad dash to be first in the queue. Some children are so determined to get the book they want, they jump the queue to open direct negotiations with the reader. The children know the books, the authors and even the names of the illustrators. After helping the reader sort out the books the mothers linger in a gaggle, chatting, laughing, sharing dates, wafers and coffee. The room is a women's space but it is also a space for reading, books and the imagination.

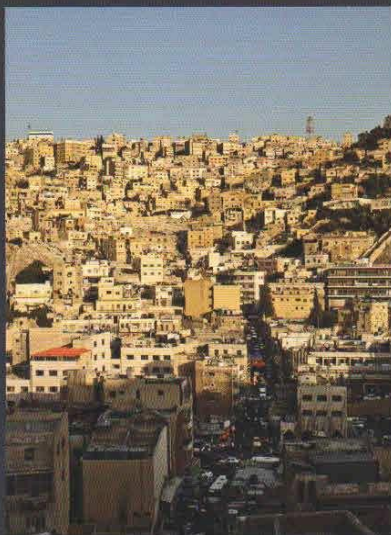
This little group was started by an Amman mother, Rola Abdel Hadi, after hearing on the radio about a scheme called We Love Reading that was training mothers to lead reading aloud to groups in mosques. Rola signed up and after two days' training recruited her first mothers by word of mouth and handing out leaflets in a local park. The group quickly reached its capacity. We Love Reading trained her to put drama, emotion and expression into her stories. It shows, according to one of the mothers staying behind: "The lady who reads aloud has made a unique environment in the mosque. The children wait day by day, hour by hour, to enjoy it, especially because they can then take the books home and read themselves."

This group in the Bir al-Walidain mosque is part of what is becoming a movement to promote a new culture of independent reading for pleasure in Jordan, and perhaps in time across the Middle East. The We Love Reading movement was started by a remarkable woman: Rana Dajani.

Dajani is Jordanian but she grew up in the United States, and eventually found herself with four children and studying a PhD in molecular biology at the University of Iowa: "I would spend all my time doing my research with my mice in the lab and my four children would spend all their time at the public library." They enjoyed a culture where reading was a pleasure. Yet when the family returned to Amman they found it very hard to keep up the habit. There were few libraries and even those that allowed in children were not keen to lend them books. So Dajani, as a diligent mother, started buying books to read to her children. Yet she became consumed by guilt that other children were not getting the same opportunity and as she was keen to make a larger contribution to her society, Dajani asked the local mosque whether she could set up a group where twice a month she would read to local children. The Imam announced the first session at Friday prayers in February 2006. Dajani was up and running, albeit slowly.

For three years she worked on her own. She would dress up in funny costumes, wear a special hat, read the children two or three books and then hand out others at the end of the session. Her house became known as the home of the *hakawati*, the story-teller. Eventually her work came to the attention of Synergos, a leading New York philanthropic non-profit, and in 2009 she won its Arab World Social Innovation prize. With that Dajani got both some money and a media profile that allowed her to take the next step and turn her personal project into an organisation: We Love Reading. "A lot of great innovations come from the individual and they never get carried on to the next stage, to the NGO, because they get lost. Like me. If I hadn't got this award I would still be reading in my neighbourhood but it wouldn't have spread or it would have taken a much longer time," she says.

We Love Reading is still a fledgling organisation, with just one full-time staff member as well as Dajani, who continues to be Professor of Molecular Biology at the Hashemite University. There are a few part-timers and a host of volunteers. We Love Reading trains mothers so they can set up their own read aloud group in their local mosque, for children aged 4–10. The mothers pay a nominal sum and Denise Assad, a Palestinian artist, trains them in storytelling techniques. They get a kit to start their group including a collection of about 30 different books for the children to take home each week. The kit sustains the group for about six months, by which time they can recruit more children to use the same books or buy more books to sustain the group. "They are children's books," Dajani says, "so the mothers do not need a university degree to be able to



LEFT MIDDLE: Rana Dajani, founder of We Love Reading, with a group in an Amman mosque; **ABOVE LEFT:** Amman in the evening sun; **ABOVE:** The still concentration of children at a We Love Reading group; **OTHER PICTURES:** We Love Reading in action



It is early days for We Love Reading but already it has trained about 420 people and about 100 groups have been set up, catering for perhaps

4,000 children

read them. They are well within their range." It is early days for We Love Reading but already it has trained about 420 people and about 100 groups have been set up, catering for perhaps 4,000 children. Yet Dajani has ambitions to take the scheme all over Jordan and perhaps beyond. She stands a good chance of succeeding because We Love Reading has the ingredients of what it takes to become a high impact innovator.

The key is not that she is a remarkable, entrepreneurial and charismatic leader. Nor is it essential that she create a highly professional organisation to take her idea forward. She needs a good organisation but not one that would pass muster with McKinsey consultants. We Love Reading already combines five elements that from the evidence of our pioneers seem critical to achieving impact at scale.



BELOW: Rana Dajani explains why she set up the We Love Reading programme. **RIGHT:** One of the books used in the programme



First, Dajani has developed a simple, effective product that appeals strongly to its market of mothers and children: a step-by-step guide to creating a read aloud group in your community. Dajani's training method is simple, useful, repeatable and reliable.

Second, she has turned a personal project, driven by her passion, into an organisation, with basic systems to sustain it: fundraising, grant application writing, delivering training programmes. This is the first step to scaling up.

Third, We Love Reading depends on networks. Many organisations, both commercial and social, mistake their own growth – in sales, revenues, profits, members – for success. The bigger the organisation gets the more successful it must be. We Love Reading measures its success by how many children it gets involved in reading groups. To achieve that it needs to connect three networks: a network of funders, who will provide the money; the mothers who set up and run the local groups; the mosques that will provide the space for the groups to meet. This is a frugal model because it relies on self-help and it piggybacks on the infrastructure that mosques already provide, as Dajani explains: "They have the space, it's safe, it's got a carpet, it's got a bathroom. I mean, it's perfect. You don't have to build it, it's just sitting there." High impact innovators achieve scale usually by drawing on networks that already exist and piggybacking on existing infrastructures.

Fourth, the women are becoming more than a network. They are already starting to resemble a movement to bring about social change through reading, albeit a movement that operates without attracting much attention, making much noise or seeking confrontation. We Love Reading could be renamed the Mothers Reading Aloud Movement, with the aim of bringing about long-term cultural change.

We Love Reading is not delivering a service, which it needs to support with a complex supply chain; it is creating a capability in hundreds upon hundreds of local women, enabling them to do something creative for themselves. "It's not just a reading project, you are changing a woman, you are giving her a lot of tools and a lot of confidence to do something on

her own and it's not too much of a push because she is still in the neighbourhood."

Fifth, organisations need hierarchies, but movements need causes, shared values, common goals and even enemies to pull them together and give them a purpose. That is the final ingredient, which Dajani has to provide: a common cause. For Dajani reading is the means, but her cause is to get children at a young age to realise they can and should think for themselves.

We Love Reading is several things at once. It is a method for training mothers to create reading groups. It is an organisation that supports that method. The organisation, however, is the junction box for a network of funders, women and mosques. The women are becoming akin to a movement for reading, which is animated by a common cause, opening the imagination of children so they can think for themselves. Dajani needs to innovate across all five of these areas at the same time – method, organisation, network, movement and cause – to be successful. That is the recipe almost all the other innovators have deployed to generate their impact.

Our high impact innovators follow a version of the approach that Crutchfield and McLeod Grant found in the United States. To put it in a nutshell they see themselves as building not just organisations, but movements. There are five elements to this approach. All are essential to success; none is sufficient on its own.



Drawing done by the daughter
of Rana Dajani, pioneer
of We Love Reading, Amman,
Jordan

Innovation in Education explores the work of 16 pioneers around the world who have developed new, effective approaches to education that work at scale. These pioneers are almost all drawn from applicants for awards from the World Innovation Summit for Education (WISE). By tracing the story of how these pioneering innovations came about, developed, spread and grew to scale, the book aims to raise awareness of why innovation in education is needed, where it comes from and how it can be generated.

WISE

world innovation summit for education
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