

Public-Private Partnerships Transform Education in Jordan

The Jordan Education Initiative is expected to become a model for effective e-learning programs in developing countries

EXECUTIVE SUMMARY

PROJECT

Global Education Initiative: Jordan

FOCUS AREA

Education

CHALLENGES

- Achieve educational reform in order to develop a knowledge economy
- Stimulate economic growth and provide future employment opportunities

SOLUTION

The Jordan Education Initiative strives to:

- Improve the delivery of education through public-private partnerships
- Enhance the quality of education through the effective use of technology
- Build the capacity of the local technology industry
- Create a global education program model

RESULTS

- Over 45 local and global partners are lending their own specialist expertise
- Cisco and a local partner have developed a mathematics e-curriculum which is being used in all JEI schools
- Widespread deployment of technology and training
- Over US\$3.7 million transferred to local companies as part of JEI
- More than 12 countries in the Middle East region interested in the model

Under the auspices of the World Economic Forum, the progressive Kingdom of Jordan is pioneering a unique educational scheme. Delivered through public-private partnerships, the Jordan Education Initiative combines the strengths of government, the private sector, and nonprofit and nongovernmental stakeholders to advance education. It has the potential to transform the country's economic future.

CHALLENGES

Poor in natural resources and lacking a well-developed industrial base, Jordan is dependent on human resources to drive its economy. Despite some recent growth, Gross Domestic Product (GDP) per capita remains low and, with 38 percent of Jordan's population under 15 years of age, current rates of job creation are not rapid enough to provide employment opportunities for the next generation of workers. Unemployment is likely to increasingly become an issue unless action is taken.

In response to these challenges, the government of Jordan, with support from the World Bank and international donors, implemented the major Educational Reform for a Knowledge Economy (ERfKE) to create the knowledge, skills, and attitudes needed for the global market. The program's objectives include curriculum reform, teacher training, adoption of Information and Communications Technology (ICT) as an enabler of learning, and upgrading school ICT infrastructures. In this way, ERfKE aims to use technology to generate jobs and high-value export capabilities.



To further strengthen this government-led reform, John Chambers, Cisco CEO, invited business leaders at a World Economic Forum meeting in January 2003 to join Cisco in creating a high-quality education program that would harness technology to reduce the gap between developed and developing countries. The Jordan Education Initiative was subsequently launched in June 2003. So powerful is its capture that it is now supported by 45 organizations, including local and international companies, Jordanian government departments, global government donors, and nongovernmental organizations (NGOs).

“By empowering our youth through this initiative, Jordan and its World Economic Forum partners can create a dynamic and practical program model of public-private partnership in the area of ICT that can ignite the engines of growth for future generations in Jordan and the region.”

—His Majesty King Abdullah II Ibn Hussein, Hashemite Kingdom of Jordan

SOLUTION

The Jordan Education Initiative (JEI) is developing new models of technology-empowered education and building local competences to scale and sustain those models nationally. Its challenge is to achieve a step change in learning outcomes matched to the current and emerging competence requirements of the global economy. JEI also needs to test its innovative public-private partnership model to make it replicable across the developing world.

The 45 organizations involved in JEI are working together to transform the experience of learners at all levels and achieve a highly-educated workforce able to compete more effectively in the 21st-century economy. JEI also aims to advance lifelong learning and to foster development of the local ICT industry. In this way, JEI will position Jordan strongly as a burgeoning knowledge economy in the global market, helping the Jordanian government achieve its vision of education as a catalyst for socio-economic development.

To facilitate the expansive and complementary aims of ERfKE and JEI, the government is installing a National Broadband Learning and Research Network that will connect 1.5 million people at schools, colleges, universities, and community centers via fiber optics by 2006.

The fast-track to success

JEI is a fast-track project first executed across 100 specially selected ‘discovery schools’. It has a policy of holistic educational change, delivered through electronic content, teacher training, and technology—all within a controlled change management process. This initial phase will inform the future nationwide program and will show potential donors what can be achieved.

The e-learning strategy for JEI centers on the quality of education. It endeavors to use ICT to communicate complex concepts to students more effectively, to build confidence, to encourage critical thinking and applied learning, to instill motivation for learning, and to facilitate individual styles. Content is the key to education and teachers unlock the students’ potential. Electronic content creation and teacher training are therefore primary focus areas for the initiative.

The innovative JEI pedagogy is based on collaborative learning styles and supported by a curriculum revised against the best in the world. ICT is integrated throughout the teaching and learning process, to raise the quality of lessons, student tasks, assessments, and feedback. Teacher-led learning in the classroom, delivered with the aid of teacher laptops and projectors, enables technology to impact about 80 percent of student learning time whereas a computer lab only impacts around eight percent for the same cost. Through a ‘blended learning’ approach, teachers have been trained to integrate ICT into everyday classroom teaching so that students will have increased exposure to high-quality learning resources including multimedia simulations and video clips.

This strategy is designed to raise student attainment to the levels needed for economic growth. To this end, JEI has developed e-curricula for key subjects such as mathematics, science, ICT, Arabic, civics and English. Local companies were used for software development, ensuring local ownership and accountability and also facilitating the transfer of knowledge and capacity to Jordan. These companies in turn employed Jordanian teachers to help create the e-curricula. Building the capacity of the local ICT industry ensures the development of future innovative learning solutions and thus the sustainability of the reform.

Cisco initiated and funded the mathematics e-curriculum—‘Mathematics Online’—and the Cisco Learning Institute¹ developed the content with Rubicon, a Jordanian IT company. Experience from the Cisco Networking Academy® Program, the largest global e-learning program, also played an important role in the creation of Mathematics Online. Approximately 30 Jordanian teachers and supervisors, who were assigned by the Jordanian Ministry of Education to work on the development of the mathematics e-curriculum, have received training and support from Cisco Learning Institute and Rubicon. In September 2004, Mathematics Online was deployed across the discovery schools in grades 1 through 12.

“It is truly an honor to be part of such a groundbreaking educational model where private, public, and non-profit organizations come together to drive the marriage of education and technology for the greater good.”

—John Chambers, President and CEO, Cisco Systems

Cisco personnel have also been seconded to the Project Management Office. One, a systems engineer, is employed for the lifetime of JEI as a classroom technology specialist. Another, an education strategist, has spent several months on a part-time basis helping coordinate and lead the discovery school track. Cisco also brought in a program strategist to help architect the fundamentals of the program, including the strategies for use of technology and electronic content, organizing the project management office, setting up an independent evaluation, and managing change.

Alongside Microsoft, Intel and HP, Cisco has also contributed to the establishment of a Schools Technology Innovation Center which will develop and showcase new learning solutions.

RESULTS

JEI has made rapid progress in its first three years. The success achieved to date can be primarily attributed to the strength of the public-private partnerships model which has attracted a high degree of commitment from participating organizations. Direct contributions to the initiative from global and local partners have now reached over US\$25 million, with Cisco contributing over US\$4 million. Over half of the total has been spent on developing new electronic curricula specifically for Jordan’s needs. Partners’ enthusiasm has been maintained and international agencies and governments have been generous in their support. The initiative has received sustained support at the highest level, from sources such as chief executive officers of major companies and senior government ministers within Jordan. Funding levels reflect participants’ recognition of the potential of education to produce urgently needed economic and social change.

Formal assessment and evaluation frameworks have been put in place to measure progress, including the responses and attitudes of teachers and students to the new methods of teaching and learning. This is being done with the help of independent third parties, including the British Council and Keele University. Although it is still too early to assess whether the initiative is meeting

¹ The Cisco Learning Institute is a nonprofit public benefit corporation that promotes the effective use of technology to advance learning.

its long-term goals, early signs are extremely positive in terms of student and teacher feedback on the initiative as a whole and on Cisco's Mathematics Online. Preliminary feedback from teachers and students on the mathematics e-curriculum shows that it has enhanced understanding, thinking, problem-solving, and research. It also increases enthusiasm, participation, and enjoyment. The curriculum can be taught in less time and the scalability of the course makes it a suitable model for replication elsewhere, giving it high impact. The feedback also highlights some areas for improvement, including the need for a wider variety of student tasks particularly to challenge more able students.



Teachers will become more efficient as they spend less time on tasks such as lesson preparation and marking and more time on professional development. With automated delivery of some material, teaching auxiliaries could replace highly qualified teachers for some classroom activities. As a result, teachers' efficiency is expected to increase by 10 to 25 percent. This is a critical benefit in developing countries where the number of children entering the school system is expected to rise steeply in the next few years.

JEI will benefit Jordan by making learning more effective and creating a better educated workforce. Interactive techniques allow both teachers and students to take control of the learning process, helping students to grasp concepts more quickly and

deeply, and teachers to check for understanding more promptly. These techniques also maintain students' interest and encourage self reliance and self confidence, which means that they achieve more within the educational system and contribute more to the economy when they join the workforce. Preliminary economic modeling suggests that the new JEI program, if rolled out nationally and systematically enhanced, could easily pay for its costs within 10 years and could result in significant economic growth within 20 years.

The local ICT industry will gain new revenue sources if the electronic teaching materials created in Jordan are sold to other countries. Developing local ICT businesses ensures the sustainability of the solutions implemented in JEI and furthers the national economy. A McKinsey Report ('Building Effective Public-Private Partnerships: Lessons Learnt from the Jordan Education Initiative. An Initiative of the World', 2005) estimates that approximately US\$3.7 million has been transferred from global partners to local companies as a direct result of JEI programs. There have also been indirect benefits as JEI has encouraged global companies to take a closer look at Jordan by creating a favorable environment for investment. For example, in August 2004 Cisco Systems formed a strategic partnership with Estarta Solutions to develop a Cisco Technical Support Center in Amman, Jordan that will serve enterprise customers in Europe and the Middle East.

Finally, JEI demonstrates how much can be achieved when major companies work together on philanthropic activities, each contributing according to its area of expertise. Many participating organizations are convinced that this collaborative approach represents the future of corporate philanthropy.

THE FUTURE

JEI has resulted in a powerful e-learning strategy which has developed best practice for the integration of technology into the education process. If used wisely, ICT in education allows content to be tailored to specific local needs, enabling initiatives such as JEI to be replicated in other countries and different economic circumstances. The huge success of the public-private partnerships provides a robust model that can be repeated elsewhere.

Best practices from JEI will inform the World Economic Forum's Global Education Initiative (GEI) and similar models, and will potentially bring far-reaching benefits to all countries involved. The global community could also benefit, particularly if declining technology costs put these types of initiative within the reach of the poorest nations.

There are plans to create regional and international solutions based on those pioneered in Jordan, with a focus on innovation through partnership. JEI solutions are already being integrated into the national rollout of the education reform in Jordan, and new projects in Egypt, India, and Palestine are using JEI as a prototype. The strengths of GEI public-private partnerships in education demonstrated by the JEI have led to a partnership between the World Economic Forum and UNESCO to launch the Global Education Initiative. The partnership aims to codify and advise on the process of improving the quality of education for all through the involvement of the private sector.

GEI has a vision that goes beyond education. Goals that can be achieved through the program include stimulating national economies, improving health, encouraging environmental responsibility and social justice, and helping to eliminate poverty. Cisco is proud to support the Global Education Initiative and play its part in empowering developing nations to help themselves.

MORE INFORMATION

To read more about Cisco Corporate Citizenship projects, please visit: www.cisco.com/go/ccprojects

To read more about JEI, please visit: www.jei.org.jo

To read more about the Global Education Initiative, please visit: www.weforum.org/en/initiatives/gei

To read more about the World Economic Forum, please visit: www.weforum.org/en



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