

WORKING P A P E R

An Introduction to Qatar's Primary and Secondary Education Reform

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Abstract

Qatar—a small, natural-resource-rich country in the Persian Gulf—has embarked on an ambitious, comprehensive effort to upgrade its educational institutions. In 2001, the Emir of Qatar asked RAND, a US-based nonprofit research institution, to conduct an objective analysis of the existing education system. Based on this analysis, the RAND team and Qatari partners considered how the current organization of schooling dominated by the Ministry of Education was meeting the country's needs, and suggested systemic improvements. In 2002, the Emir announced a sweeping plan based on (1) new government-funded schools that are not operated by the Ministry of Education but by other parties and (2) standardized national student tests aligned with internationally-benchmarked curriculum standards. The reform includes the development of many types of schools and an information system about school performance that facilitates parental choice and involvement. Implementation of the reform began in Fall 2002. In this paper, we describe the background analysis underlying the reform and its main elements. We briefly discuss the progress of the reform, and highlight some of the challenges encountered.

I. Introduction

Leaders of many countries believe that to compete in the global economy and allow their citizens to take full advantage of advances in technology, a high quality school system is essential. Qatar, a small Islamic and Arab nation, rich in natural resources but with relatively few citizens, is one of these nations. Although the country has a well-developed system of government-provided education for both boys and girls, few of its citizens end up in positions that benefit the economy. The Qatari leadership seeks an upgrade in educational quality consistent with economic, social, and political changes underway in the country. To this end, RAND, a US-based nonprofit research institution, was asked to examine the entire system of schooling at the pre-college level. A research team collected and analyzed information about the system to identify its chief strengths and weaknesses.

This analysis found an educational system that will be familiar to many Arab region scholars: a rigid curriculum emphasizing rote learning, hierarchical institutions with unclear goals, lack of incentives or accountability, and misallocated resources. In January 2002, RAND presented three reform options to the Qatari leadership, and further developed the selected option, including plans for implementation. The reform chosen—independently operated, publicly-funded “independent” schools with limited government oversight, parental choice of schools, and an independent monitoring through student assessment—was an ambitious one and particularly unusual for the Middle East. Implementation began in 2002. Significant progress has been made, but major challenges associated with the scale and complexity of the reform, the need for human resources, and powerful status quo constituencies have posed important challenges.

The purpose of this chapter is to provide an introduction to this educational reform effort. Section II provides some context on Qatar and its education system before 2002. Section III describes the analysis of the existing Qatari education system and the conclusions reached. Section IV details the reform option chosen for implementation. Section V provides a brief overview of the early implementation phase and some of the challenges associated with implementation. Section VI concludes the chapter.

II. Context: Qatar and Its Education System

Qatar is one of the smallest of the Gulf States—only 11,427 sq. km (similar in size to the state of Connecticut)—but its oil and natural gas reserves, along with its strategic location and bold leadership, give it a unique status. Qatar is a very new country, having made the shift from tribal community to modern state in a matter of decades. The origins of the majority of the indigenous Qatari population can be traced to waves of migration by Kuwaiti, Saudi, and Omani tribes.¹ Most Qataris are Arabs and virtually all Qataris are Muslim with the vast majority being Sunni Muslim.² At the beginning of the 20th century, Qatar consisted of a small set of villages dependent on pearl diving, camel breeding, and fishing and was governed by Islamic principles and tribal custom. Its settled population of 27,000 was predominantly nomadic, consisting of twenty-five major clans³ and 15 settled tribes.⁴ In 1916, the country became a British protectorate: in exchange for Britain's military protection, Qatar relinquished autonomy in foreign affairs.⁵ This status lasted until 1971 when the fully independent State of Qatar was established.

Qatar is a monarchy, with rulers drawn from the Al-Thani family, who have full legislative and executive powers. The current Emir, His Highness Sheikh Hamad Bin Khalifa Al-Thani, ascended to the throne in 1995, succeeding his father in a bloodless coup. Sheikh Hamad's ideas

were progressive, geared toward building a democracy. He initiated discussions on moving toward elected municipal councils and a legislative body, as well as a permanent constitution, which was ratified by popular vote in April 2003. Voting for a new parliament will be universal for all Qatari citizens over the age of 18, male and female, and women will also be entitled to stand as candidates. The constitution also guarantees freedom of expression, press, and religion and the right of citizens to assemble and to establish civic and professional associations.

Oil was discovered in Qatar in 1939, and active development of oil resources after World War II gradually brought increasing revenues, substantial social progress, and rapid immigration introducing a large concentration of expatriates.⁶ The oil boom of the 1970s doubled the population. By 1977, the 2004 census documented a population of 744,000 residents with at least 36 percent of the population from India and Pakistan and another 24 percent from Iran and other countries. Oil and gas account for more than 55 percent of the \$17.5 billion GDP, roughly 85 percent of export earnings, and 70 percent of government revenues.⁷ From around \$14,500 in 1995, Qatar's per capita income doubled to more than \$29,000 in 2000.⁸ This figure is expected to grow to \$33,500 by the end of 2005⁹, and would be much higher if expatriates were excluded from the calculation. The same year that Qatar became independent, vast natural gas reserves—the third largest in the world—were discovered, and in the 1990s the country began exploiting this resource.¹⁰ Continuing attempts have been made to diversify the economy and semi-privatization of some sectors of industry is also underway.¹¹

Since the 1950s, the income from oil has enabled Qatar to provide its citizens with a number of social welfare benefits. The government provides free education and health care to all Qatari citizens. Family allowances for each child are granted to male heads of households employed in the public sector as part of the welfare system, and there are monthly allowances to

widows, divorcees, orphans, and those with special needs who have no providers. Other benefits include land interest-free loans for residential construction. Government employment is perhaps the major wealth distribution mechanism: with 86.5 percent of the Qatari national workforce employed in the government sector, 8.85 percent working in the joint sector, and 4.65 percent employed in the private sector mostly in managerial positions.¹²

Before oil was discovered, there was no formal education system in Qatar. Instead, some children memorized passages from the Qur'an and learned to read and write in a *kuttab* (informal school). The move toward a more comprehensive form of education began with a school for boys in Doha, opened in 1948. Government support of this school began in 1951, and expanded to other schools thereafter. The first public school for girls opened in 1956. Attendance of boys and girls was nearly equal by the late 1970s.¹³ Education regulations drafted in the mid 1950s led to the establishment of the first Ministry of Education (MoE), called at the time Wizarat Al-Maarif, one of the first ministries established in Qatar. Today, government-funded education is provided free to Qatari children, as well as to eligible expatriate children whose parents are employed by the government. Literacy rates in the country are high; illiteracy among Qatari nationals aged above 10 years has declined from 13.6 percent in 1997 to 9 percent in 2004.¹⁴ Three levels of general education are provided: primary (grades 1-6), preparatory (grades 7-9), and secondary (grades 10-12), with girls and boys in separate schools. Students attend school about 5 hours per day¹⁵ and are assigned to schools based primarily on geographic location. There were 220 public schools in the 2000-01 school year, employing 9,218 school administrators and teachers, and serving 71,325 students, of which 63 percent were Qatari. In 2000-01, 38,071 students in Qatar attended private schools; this is 35 percent of all students.¹⁶

Beginning in the 1980s, the quality of the education system became a subject of government concern and public discussion. Various studies (both internal and external) suggested areas for improvement.¹⁷ Several new schools were opened beginning in the 1999-2000 school year, known as the “complex schools” in which students progress through academically and pedagogically connected primary, preparatory, and secondary schools for the duration of their education. The language of instruction is English, the curriculum emphasizes science, and they were intentionally designed to be partially independent of the MoE, with teachers and administrators enjoying significantly more operational and instructional freedom than their colleagues in traditional schools. Although the introduction of the complex schools represents a clear effort toward reform, the vast majority of MoE schools have remained unchanged. While there is little hard data on the performance of the educational system, what little there is suggests a dismal picture.¹⁸

III. Evaluation: The Basis for Qatar’s K-12 Education Reform

Despite the small steps towards reform, there was a sense among many in Qatar that more drastic action was needed to produce an educational system that would provide young people with the skills needed to participate more fully in the nation’s economic and social life, and which was consistent with the other social, economic and political changes underway. Before developing a reform strategy, it was necessary to analyze the strengths and weaknesses of the existing structure. In this section we described the methods and findings of the RAND study, commissioned by the government of Qatar.

An interdisciplinary team of nine researchers with wide expertise in education research and policy analysis began on-site investigations in October 2001, working with a coordinating committee of high-ranking decisionmakers (both Qatari and non-Qatari). Data were gathered

through observations, interviews, and document analysis. The team conducted observations at approximately 15 schools, which included boys' and girls' schools at all three levels (primary, preparatory, secondary), MoE schools, and private institutions. Typically these visits included a meeting with school administrators, followed by a general tour of the grounds and classroom observations. The team also held interviews or focus groups with teachers, students, and parents. The school tours provided the opportunity to note the design and physical condition of the buildings, classrooms, and non-classroom areas. Classroom observations provided information on pedagogy and student-teacher interaction. The team conducted nearly 200 semi-structured interviews with key people including: schools administrators, teachers, students, and parents at all types of school; officials at all levels of the Ministry of Education; high-level officials in other Ministries (e.g., Civil Service, Finance); representatives of the business community (e.g., Chamber of Commerce), employers (e.g., Qatar Petroleum, Qatar Gas, Q-Tel) and higher education (e.g., Qatar University). The interviews were held under conditions of anonymity. Relevant documents and data from the Ministry of Education, including student test scores, curriculum materials, and regulations, were also collected and analyzed.

Our analysis identified a number of factors underlying poor system performance. Chief among these was the absence of an educational vision or goals for the nation. When the MoE was founded the emphasis was on building a system that would provide free education to a largely illiterate population. Scant attention was given to quality. Since that time, there had been piecemeal growth to meet situations as they arose, with proliferation of structures and functions, but little evaluation of new structures or processes. A very hierarchical structure did not foster innovation or change. Employees worked in isolation within their assigned department, and waited for orders to come from above. As they executed the orders, questions that arose were

directed back up the chain, and answers could be a long time coming. None of the MoE employees interviewed appeared to understand the system as a whole. Lines of authority were unclear. Parents did not know who should deal with their concerns or answer their questions. The MoE had little communication with employers or higher education.

Decisionmaking was highly centralized: top-down control applied to curriculum, resources, and all aspects of the system. Consequently, the MoE provided all textbooks and a curriculum guide, which was used daily to record minute details of each lesson taught. MoE inspectors reviewed this record to ensure compliance with the national curriculum. The curriculum itself was incrementally updated on a rigid schedule, with each subject reviewed and revised at one grade level each year. Teachers who chose to alter the curriculum (e.g., provide different examples or exercises) had to spend their own money on any additional materials, and still teach the lesson plan for that particular day. Creativity by teachers (and students) was implicitly discouraged. Students were generally unchallenged, with few opportunities for teacher-student interaction, and an emphasis on rote learning and memorization. School administrators had little authority. The MoE assigned principals to buildings, assigned teachers and other staff to schools, and provided furniture, equipment, textbooks, and all other instructional materials. School employees expressed frustration at their inability to influence MoE policies and procedures.

One surprising finding of our study was that although Qatar is a wealthy nation, its resources were not flowing to the schools. Within the MoE system, resources were used primarily to support the huge number of personnel, which numbered nearly 17,000 in 2000. Many school buildings were old and deteriorating to the point of being dangerous. Classrooms were overcrowded, with 40-50 students crammed side-by-side into spaces designed for fewer than half this number. Schools lacked modern equipment like computers and other instructional

technologies (a few schools had one computer and one printer for the whole school), as well as basic supplies. Teacher salaries in Qatar were also comparatively low. Most male teachers were expatriates, and while their average salaries were higher than in Saudi Arabia, they were 20 percent lower compared to other Gulf Cooperation Council countries (such as the United Arab Emirates). Annually renewed contracting arrangements fostered a continuous state of apprehension among expatriate teachers. Even though most contracts were renewed, many expatriate teachers refrained from disciplining Qatari students, for fear of offending a family with influence over hiring decisions. To supplement low salaries, teachers offered private tutoring outside of school, despite prohibitions against it. Teachers were moved from school to school with little advance notice and no consultation. More alarmingly, those with poorer performance reviews tended to be “demoted” to lower grades. Once the teachers were assigned to schools, they had few options for professional development.

While our analysis identified a number of weaknesses in the education system, it also noted some positive characteristics that could contribute to meaningful reform. For example, the Qatari leadership and many school administrators and teachers were familiar with international developments in curriculum and pedagogy. Many teachers expressed a desire to play a more active role in the learning process. Several recent developments demonstrated the potential for system change. “Model schools,” in which female teachers teach boys in grades 1 through 4, were an important innovation because they took advantage of the much larger supply of Qatari female teachers compared to male teachers. Another innovation was a vocational school, which provided an option for boys who wanted to study a trade rather than pursue an academic curriculum, and was founded under the guidance of a German technical advisory group. The Complex Schools, described previously, also represented some change in the school system.

Although past reform efforts appeared short on vision and strategies for implementation, it seemed clear that reforming the overly centralized, inefficient, compliance-oriented MoE would be a Herculean task. Clearly, major reform was needed, one that altered existing institutional arrangements.¹⁹ The solution is to fashion new institutions that expand the range of those who can provide education services and alter the distribution of authority and responsibility. In the next section we outline the reform plan chosen by Qatar to bring about systemic reform.

IV. Design: The Reform Model

Given these findings, the research team was charged with developing a blueprint for a new education system for Qatar. The goal was a plan that was informed by evidence on education reform around the world, yet suited to the Qatari situation. Designing a new system of education entails key decisions on several critical dimensions. First, variety: how much heterogeneity should there be among schools? How much variation in kinds of schools, curricula, and instructional approaches? Second, authority: Who should make which decisions (e.g., about which schools students attended, the content of the curriculum, the allocation of resources)? Third, incentives: How should desirable behavior be rewarded and undesirable discouraged? How can the system exploit preferences and talents? And fourth, monitoring: How should students, teachers, and schools be evaluated and for what purpose? These questions can be answered in many ways. For example, in determining who has authority to allocate students to schools, two obvious mechanisms are to allow parents to choose or to allow a central body to establish assignment rules. Among the many possible responses and combinations of responses, RAND developed three broad options: 1) a modified centralized option, 2) a charter option, and 3) a voucher option. While the options did not capture every single design possibility, they

served as an organizing mechanism for presenting complex alternatives to the Qatari leadership (see Table 1).

Table 1: Comparison of Design Options on Key Dimensions

	Modified Centralized	Charter School	Voucher
Variety	No change to current system	Potential for wide variety	Potential for wide variety
Authority	Mostly MoE, but with some school discretion on instructional matters; Limited parental choice	Limited government oversight; Most decisions made at school level; Parental choice	Parental choice; Most decisions made at school level
Incentives	Principals have authority to hire and fire teachers	Charter holders have freedom to innovate; Parental choice motivates school performance	Parental choice motivates school performance
Monitoring	More frequent and extensive student testing; Proper evaluation of new initiatives	More frequent and extensive student testing; Charter specifies conditions of compliance and performance; Information on performance publicly available	More frequent and extensive student testing; Information on performance publicly available; Government role greatly reduced

The “Modified Centralized” Option represented a government-led system that allowed some school-level flexibility with or without parental choice of schools. This option required the least amount of change to the existing system; the MoE would retain most of its control of the system, funding and operating schools. However, some decisions would be pushed down to school level, including those regarding pedagogy, and incentives for improving performance would be introduced. Parental choice could be introduced in some neighborhoods or for some types of schools. Monitoring changes in student outcomes would be accomplished through more frequent and extensive student testing (e.g., for all grade levels and multiple subjects) and systematic evaluation of new initiatives. Thus this approach preserved the overall authority of the MoE, but introduced some limited school-level autonomy and parental choice. It would be least disruptive to the system, but might not go far enough to promote reform. Indeed, past experience suggested that any design that retained authority within the MoE was not likely to bring about big changes.

The “Charter School” option represented a partially decentralized system of schools operated by nongovernmental parties subject to a charter or contract. Under this option, public charter schools would continue to be funded by the government with private schools maintained in a separate system. This option offered change at the system level and introduced some variety, choice, and decentralization of decision-making, more incentives, and increased accountability. Multiple types of schools would be encouraged, and parents would have choices about which schools their children could attend. Assuming an independent monitoring body, this option instituted student testing and school evaluations to provide information about school and student performance. This option had appeal for Qatar because it would retain some control over publicly funded schools through the charter mechanism, but would not require a large,

centralized bureaucracy. A government body could provide some common structure (e.g. setting performance standards or admission policies), but the system would be opened up to individuals and groups wishing to operate new schools and for parents to choose them. This approach assumes sufficient interest among parents for schooling alternatives and potential school operators willing to run a school. In Qatar, where centralized authority is the norm, the new “rules of the game” would need to be carefully designed. Adopting this option in Qatar would be much more risky than implementing the first, and would require significant behavioral change among many constituents.

The “Voucher” option was the most ambitious of the three: a highly decentralized and fully privatized system that would allow parents to choose any school using government-issued vouchers. Schools would make decisions about resources, staffing, curriculum, and instruction. An independent evaluation body would carry out student testing to provide parents with information about school performance. The MoE or another government body would maintain minimal oversight (e.g., regarding issues related to facilities or student safety). A pure voucher option would rely on parents making informed decisions and reacting to school performance data in a “desirable” way. This approach would dramatically reduce the degree of centralized control and would allow the market, through enrollment decisions, to help regulate the system.²⁰ This approach can be viewed as a more ambitious version of the Charter School approach as both break the government monopoly on the operation of schools but maintain government funding.²¹

²² The two options differ in the degree of regulation over schools that accept government funds. The Voucher approach relies on the operation of the market to promote choice, flexibility, and efficiency in the education system, while the Charter School approach relies more on some government oversight through enforcement of contracts, in addition to parental choice.

Undoubtedly, the voucher option would take longer to implement and seemed premature for the Qatari context, as there was no information on school performance, and little was known about how easy it would be to induce private entities to operate schools in sufficient numbers. On the other hand, Qatar's relatively small, urban, and homogenous population meant that some problems associated with voucher reforms elsewhere in the world might be minimized.

Ultimately, the Qatari leadership selected the charter school option (renamed "independent school" as it could be appropriately translated into Arabic). The design for this approach incorporated four key principles that were in alignment with the country's broader political goals. First, *autonomy*: in a decentralized system, decisionmaking authority rests with those closest to the work itself²³—a condition which is expected to empower educators to better meet the needs of their students.²⁴ Independent schools would operate autonomously, subject to the conditions specified in a time-limited contract. The State would grant the contract, which would contain regulations common to all schools and rules under which individual schools would operate.

Second, *accountability*: Independent schools would have greater autonomy than the current public schools, but would also be held accountable to the government through two mechanisms. Schools would apply for independent status and enter into a contractual arrangement. Regular audits and reporting mechanisms could be used to monitor compliance. Additionally, schools would be evaluated regularly through a set of measures, including standardized student assessments. The results would be publicly available at the school level, and parents could judge for themselves whether the educational approach and results satisfy their children's needs. Therefore, schools might close either through irregularities that the contracting authority deems unacceptable or through lack of enrollment.

Third, *variety*: interested parties would be encouraged to apply to operate schools. Diverse schooling options would be established, as independent schools would have the freedom to specify their educational philosophy and operational plans. The contracting authority could provide incentives to ensure diversity or to found a school that will meet particular societal demands and existing public and private schools could also apply to convert to independent status.

Finally, *choice*: provided with information on school characteristics and outcomes, parents would be able to choose a school that best fits their children's needs. In addition to the importance of choice as a principle by itself, choice reinforces accountability in the reform. The competition for students and resources should force all government-funded schools—traditional and independent—to be more responsive parents' demands.²⁵

Of course, many details must be specified to operationalize this reform design. The success of the reform in the long term will depend on a supply of new high-quality schools. The system will need “strong” providers—those that are relatively stable, sure of their purpose, technically competent, and committed to the product they provide.²⁶ To help ensure this outcome, the government would use financial and regulatory incentives to attract school operators. The rules under which independent schools would operate would literally be a contract, specifying the obligations of each party, granted for a finite period of time, revocable if the terms were not adhered to, and renewable should the operator be successful. Since a goal of the Independent School design is to maximize school autonomy and variety, decisions about admissions, pedagogy, and staffing would be made by school operators and staff. Students currently eligible for government funding would continue to be eligible in the new independent school system.

Independent schools could be fully funded by the government or partly funded (if the school also has tuition-paying students).

Although a key principle of this design is to develop a variety of schooling options, the independent schools would be expected to follow a set of national curriculum standards in four core subject areas deemed most important for Qatar's social and economic goals: Arabic, English, mathematics, and science. Other important subjects, such as history, would not follow a set of national standards, although schools would be free to offer any other subjects. Two types of curriculum standards would be defined: content standards--broad expectations about what students should know and be able to do in particular subjects and grade levels, and performance standards--explicit definitions of what students must do to demonstrate proficiency at a specific level on the content standards. Experts would specify the standards, but schools would have latitude in designing curricula and programs to meet them. Students in independent schools and other public and private schools would be regularly assessed using standardized tests (that needed to be developed) aligned to the standards. Test results would be publicly reported at the school level, so that parents know how well schools are performing. An independent monitoring body would collect additional objective, evaluative information.

History tells us that implementation of education reforms is notoriously difficult.²⁷ This reform, if fully implemented, would mean a radical overhaul for Qatar and establish its education system as unique in the region. But the reform is also ambitious. Establishing standards, developing the new tests, and opening new schools would not be accomplished overnight. Rather than abolish the MoE outright, the design called for a parallel structure with new institutions that would be operationally and physically separate from the MoE. Three new permanent organizations would be formed to provide the infrastructure needed to support the new

independent schools: a new governing body, the Supreme Education Council (SEC); and two new institutes, the Education and the Evaluation Institutes. The SEC, established by Amiri Decree and Chaired by the Crown Prince (with Her Highness Sheikha Mozah bint Nasser Al Missned as vice chair), was designed to be the main education policymaking body, setting broad policies and short- and long-term goals for the new education system. It would approve school contracts, hire the directors of the Education and Evaluation Institutes, and approve Institute budgets and major contractual agreements. The SEC's members included influential and respected individuals who represent key Qatari institutions.

The Education Institute would undertake the contracting of schools and provide them with the financial, professional development, and other resources necessary to educate students successfully. The Evaluation Institute would assess and evaluate the performance of schools, students, and other education constituents, programs, and service providers. It would be an independent monitoring agency with authority to assess students in most schools in Qatar— independent, Ministry of Education, and private Arabic schools. The two Institutes would operate alongside the MoE, although MoE schools would take part in the national assessments and have “report cards” just like the new independent schools. The new institutions were designed to be small and flexible, not like the MoE, and to seek outside technical expertise if Qatari experts were not available.

RAND recommended a phased approach, consisting of three distinct, yet overlapping phases. Phase I would begin in Fall 2002. In this phase, the SEC and the Institutes would be developed and resourced. Key products to support the reform (such as curriculum standards, standardized national tests, and a national education data system) would be developed during this phase. Phase II, lasting from three to seven years would begin in September 2004 when the first

generation of Independent Schools would open. Additional schools would open in each subsequent year; specific numbers would depend on the ability to identify and contract with suitable operators. The first school evaluation and assessment data would be collected and reported. Phase III would integrate the elements of the new system. If reform was successful and rapid, Phase III could begin as early as Fall 2007, three years after the opening of the first schools. Alternatively, the decision about system integration could be postponed into the future. As part of the implementation strategy, careful attention would be paid to communication of the reform, in order to build public support for its goals.

V. Implementation: An Overview of Progress and Challenges to Date

Implementation of the reform began in Fall 2002. In this section we review some of the highlights, covering mostly the time span from Fall 2002 to Fall 2004 when the first generation of independent schools opened. Before the new organizational structure could be established, a new legal structure was needed to define formally and empower the agencies charged with formulating education policies and initiating and monitoring the reform. In November 2002, the “Law Decree No. (37) of the Year 2002, Establishing the Supreme Education Council and Delineating its Jurisdictions,” was enacted, paving the way for the reform’s activities to proceed. In March 2003 the reform was publicly launched as “Education for a New Era.”

As the new education authority for the nation, the SEC faced a number of important decisions that would determine its relationship to the Institutes, the Ministry of Education, and the public. The SEC met for the first time on March 3, 2003 and during the early months developed policies and procedures to determine how it would operate. The establishment and development of the two new Institutes required a broad range of activities, such as hiring directors and staff, establishing facilities, and forming an organizational structure that would

sustain growth and support change. By January 2003, the two Institute Directors had been identified. By Spring 2003, the Institutes counted about 160 core resident staff, working in several separate buildings.

While this infrastructure was being built, the Qatari and international team—including RAND and other contractors—worked on key reform tasks. Some tasks were accomplished primarily by contractors, such as curriculum standards development, and others by Education and Evaluation Institute employees. Many tasks called for both local and international expertise, so Institute employees worked closely with contractors in these cases.

The Education Institute’s development of new curriculum standards for Qatar in Arabic, English, mathematics, and science was a significant early step, as the standards are an essential element of the reform. The process of developing the standards also provided a forum for discussions among educators and members of the community about schooling in Qatar and helped set high expectations for what the new Independent Schools needed to accomplish. The standards emphasize sophisticated yet practical skills like critical reasoning, rather than just memorization and recitation as in the traditional curriculum.

As a result of the standards development process, which joined international and local expertise, Qatar has a set of curriculum standards for grades K to 12 that are benchmarked against the best standards in the world. This is a significant accomplishment for Qatar, and a first for the region. The Arabic standards embodied a new approach to teaching Arabic as a native language. While the traditional study of Arabic includes memorization and recitation of the Qur’an and emphasizes complex grammar rules, the new approach incorporates a variety of texts and applications to stimulate students to use their language as a practical tool for communication. In addition, by separating the teaching of Islam and the Qur’an from the teaching of the Arabic

language, students are free to criticize the texts presented and therefore to acquire valuable reasoning skills in their native language.

Finally, the standards provide the framework for Independent Schools to adopt different curricula while still aiming at the same high national standards. Because the curriculum standards are clear without being prescriptive as to how to teach them, they enable autonomy and variety while also providing for accountability. These principles of autonomy and variety are both essential elements of the reform design.

The Evaluation Institute developed a new assessment system of for the four subjects covered by the standards (Arabic, English, mathematics, and science) for students in grades 1 through 12. Remarkably, the first complete set of tests was prepared and fielded in less than a year. These first tests, fielded in Spring 2004, were based on the standards, but not aligned to them as the standards were not yet complete at this point. These tests represented the first time that students in all grades in publicly-funded schools in Qatar were tested in a systematic, standardized way. Many private schools were also included in the testing. It is important that almost all students in the country were tested *before* any of the new schools opened. These tests form an important baseline for measuring the progress of the reform in future years.

Later test administrations were aligned to the standards (which were then complete), and incorporated many innovative test items to assess students' thinking and reasoning skills. The completed standards were endorsed by both leaders and educators in Qatar. Performance levels on the tests were set in consultation with Qatari educators to express their aspirations for students. The 2005 administration of these tests showed that much progress is needed in Qatar. In mathematics and science, none of the students in the MoE schools scored at the desired "proficient" level. Although a few students scored proficient in Arabic (three percent) and

English (one percent), there is a long way to go to bring the instruction in Qatar up to the high expectations set in the curriculum standards.

The Evaluation Institute also developed a data system, which includes surveys administered to every principal, teacher, social worker, student, and parent in the government schools (both MoE and Independent Schools) and many private schools teaching in Arabic. These surveys offered parents and students the first systematic chance to express their views about education in Qatar. The response rates were very high: over 90 percent for most surveys. The baseline 2004 survey results indicate that parents have very high aspirations for their children: 95 percent would like their children to pursue education past secondary school and 88 percent expect their children to earn a Bachelor's Degree or higher. Students report that they share similar aspirations. The present performance of schools in Qatar, however, suggests that few students will be able to reach these high aspirations in the current system. The reform is needed.

Nonetheless, parents indicate satisfaction with conditions before the reform got underway: 83 percent believe that their child's school offers a good education. This finding is similar to other settings where parents express satisfaction with their own child's school even if they have wider criticisms about the education system as a whole. Parents also did not yet have the results from the standardized testing when surveyed in 2004. Future survey administrations will enable the SEC to track how parents' expectations and responses to survey questions change as the reform progresses. The exception to parents' generally positive views of their students' school was that only 68 percent were satisfied with the school's communication with them.

In response to criticisms of communications in the past, the reform places a high priority on communication. At the national level, the SEC's Communications Office has established important information links to the public. In March 2004, this Office launched a bilingual

website containing news stories and regular updates on the reform's progress and activities.²⁸ It provides information about the reform geared to the needs and interests of parents, students, teachers, principals, and the media, as well as applications and other information for those interested in starting schools or providing services to them.

The Communications Office has also developed regular publications like an annual report on the reform and its accomplishments.²⁹ The Office also issues press releases on key developments, and organizes public and media events. The first national event was held in March 2004 to launch Qatar's Education for a New Era reform to the public. This event also served to inaugurate an annual forum for presenting the reform's goals and progress to the interested public and to allow that public to question the reform's leaders.

During the period while the standards, tests, and surveys were being developed, the Education Institute recruited operators to open the first generation of Independent Schools. There were some experimental schools already operating in Qatar: the two complexes of scientific schools (described in Section II) plus a vocational secondary school. These schools were incorporated into the reform as Independent Schools. The Education Institute recruited operators to open or convert another nine schools for the first generation. Many individuals came forward to apply, suggesting wide interest in the new reform even with little knowledge of the details. The Education Institute also contracted with international School Support Organizations to help operators develop and implement their education plans and to provide on-site support for all aspects of the school, including teacher professional development. The schools enjoy substantial autonomy, operating according to 3-year renewable contracts.

Given the short nine-month timeline, it was a breathless race to open the nine new schools in September 2004, but they all opened on time and generally with waiting lists of more parents

who wished to enroll their children than the schools had places. In September 2005, another 21 new schools opened and the Education Institute plans for about that number to open in September 2006. In a few short years, the reform will have a substantial number of the new Independent Schools and parents will have information to choose among these schools and the MoE schools.

It is still early to judge the performance of the Independent Schools, but we already see important signs of innovation and variety. Some schools, for example, have integrated information and communications technologies into the subject classrooms, in sharp contrast to the MoE schools where computers are isolated in a laboratory and used less than an hour per week per student.

Teachers in Independent Schools have redefined their roles, seeing themselves as facilitators of learning, rather than as the “teaching machines” that many felt themselves to be in the MoE schools. Now that they are responsible for curriculum and learning outcomes, teachers spend more time thinking about the goals of the lessons they present, and are more likely to reflect on their practice. Curriculum development groups organized in many Independent Schools to coordinate teaching and learning have been an important contributor to this reflection; teachers now work closely together to design curriculum and assure continuity across grade levels.

Independent School teachers—both Qatari and non-Qatari—are receiving a good deal of professional development. This situation contrasts sharply with the MoE schools where Qatari teachers receive little professional development and non-Qatari teachers are not even eligible. While most Independent School teachers recognize the importance of the topics covered and the

individual feedback they receive, professional development is also a considerable burden given their new teaching roles.

Independent School teachers and parents tell us that the changes in the new schools are real—and sometimes confusing to parents. Virtually all parents used largely unchanging MoE texts when they were students, and find the absence of textbooks in some Independent Schools a concern. Parents have told us that they see their children being more thoughtful, for example, considering options about how to use their allowance, such as spending it all now or saving it for a bigger purchase later. A few parents said they were worried because their children now enjoy school—can this be a good thing? Coming from a system where school was uniformly boring, parents worry that if students enjoy school it must be too easy. The new schools are reaching out to parents to make them partners in the education process. The schools are forming parent associations and advisory boards, and parents participate in workshops on how to help children with homework. In short, the new schools already look different from the traditional schools.

Implementation of this reform, like other reforms of education systems, has faced significant challenges. These challenges stem from three main factors: the wide scope of the reform, the rapid timeline, and the limited local capacity for implementation. This reform is exceptionally ambitious. It modifies many system elements at the same time. The design depends on participants to learning new behaviors, especially accepting responsibility in exchange for decentralized authority. In many education systems including Qatar's, these principles are largely unknown.

Furthermore, the reform is being implemented at a very rapid pace, which constrains the amount of time for Qatari participants to learn and get comfortable with new patterns of behavior. As a result of the rapid pace and the unavailability of relevant expertise in Qatar, the

reform has had to rely on international technical and managerial assistance. These international experts bring valuable knowledge and experience, but often have dissimilar work styles to their Qatari partners. This can result in friction and inefficiency in adopting the design principles for operating the new institutions, such as open discussion of issues, flat organizational hierarchies, information sharing, and joint decisionmaking. For the reform to achieve its goals, the international experts and Qatari partners must learn to work together effectively. But this will take time. Despite these and other challenges, however, major accomplishments were made during the first few years. These accomplishments hold the promise that remaining challenges can be overcome to continue strong progress into the future.

VI. Conclusions

Our goal in this chapter was to introduce readers to the major K-12 education reform currently underway in Qatar. The “Education for a New Era” reform represents a significant departure from the past and a far-reaching vision for the future. The overall vision of the reform had a ten-year implementation timeframe, and here we focus on the three-year period from the project’s inception in Summer 2001 through Fall 2004. It is, of course, too early to determine whether or not the reform as a whole, or which part, is successful.

Instituting a system that relies on parents having freedom to choose from among a variety of schooling options in the government sector is quite an accomplishment, particularly in a region where the principles of choice and variety are largely unknown. The Independent Schools will eventually offer real parental choice: the waiting list for places indicates a demand for these schools even without empirical evidence that they increase student learning. In addition to the choice offered, parents have more of a presence and voice in the new schools.

The decision by the Qatari leadership to adopt a system-changing design was risky, as it involved forming new institutions, changing educational standards, and establishing an accountability framework. Their decision to implement the reform within a very short timeframe increased the risk. It is too soon to tell how well these mechanisms will work to raise education quality. System-changing policy instruments may require long periods of time to produce their expected effects. Furthermore, the history of education reform efforts teaches us that the process of planned educational change is usually more complex than initially anticipated. This is largely due to the number of players involved and the number of factors that must be aligned to support fundamental change. A reform starts with a small group of people who share the same vision and goals. As the reform is implemented, the number of people involved expands dramatically. As the number of participants grows, it is challenging to maintain fidelity to the original vision and, indeed, it may sometimes be advisable to alter the implementation to suit the realities of the situation. As the reform unfolds, it will be important for Qatar to balance the contributions of international experts with the need to develop local capacity to manage and extend this reform.

¹ O. Winckler, *Population Growth, Migration, and Socio-Demographic Policies in Qatar* (2000).

² Economist Intelligence Unit (EIU), *Country Profile 2004, Qatar* (London, UK, 2004).

³ J. Crystal, *Oil and Politics in the Gulf. Rulers and Merchants in Kuwait and Qatar* (Cambridge University Press, 1990).

⁴ A. J. Al-Kobaisi, *The Development of Education in Qatar, 1950-1977, With an Analysis of Some Educational Problems* (University of Durham, School of Education, July 1979).

⁵ US Library of Congress, Federal Research Division, *Persian Gulf States, Country Studies*, H. C. Metz (ed.) (Lanham, MD: Bernan, 1994).

⁶ A. H. Cordesman, *Bahrain, Oman, Qatar, and the UAE. Challenges of Security* (Boulder, CO: Westview Press, 1997); J. Crystal, *Oil and Politics in the Gulf. Rulers and Merchants in Kuwait and Qatar* (Cambridge University Press, 1990).

⁷ Central Intelligence Agency (CIA), *World Fact Book 2004*. On-line at <http://www.thewebnewsroom.com/fact-book/factbook/index.html> (as of December 4, 2004).

⁸ Nadim Kawach, "UAE Becomes Second Richest in the Arab World," *Gulf News* (January 27, 2002).

⁹ *Peninsula* (Online Edition), *Qatar's Per Capita Income to Cross \$33,000 Mark by Year-End* (Online Edition, November 25, 2004).

¹⁰ Economist Intelligence Unit (EIU), *Country Profile 2004, Qatar* (London, UK, 2004): 18.

¹¹ A. Rathmell and K. Schulze, "Political Reform in the Gulf: The Case of Qatar," *Middle Eastern Studies* 36, no. 4 (2000): 47-62.

¹² *Peninsula* (Online Edition), *Private Sector Prefers Foreign Workers, says SCFA. Over 86 PC of Qataris Favor Government Jobs: Study* (February 20, 2003); O. Winckler, *Population Growth, Migration and Socio-Demographic Policies in Qatar* (2000).

¹³ US Library of Congress, Federal Research Division, *Persian Gulf States, Country Studies*, H. C. Metz (ed.), (Lanham, MD: Bernan, 1994).

¹⁴ *Peninsula* (Online Edition), *Qatar's Population Estimated at 744,029 by 2004* (December 20, 2004).

¹⁵ The school day and year is somewhat shorter in Qatar than in other countries. While Qatari students attend school for 160 days per year (with about 120 days devoted to instruction), the average in 40 other countries is 194 days.

¹⁶ In comparison, approximately 10 percent of students in the US are enrolled in private schools (National Center for Education Statistics (NCES), *Digest of Educational Statistics, Tables and Figures 2002, Percentage of 16-24 Year Olds who Were Drop Outs in 2000 and 2001*, Washington DC: US Department of Education, 2002), while private school enrollment in many small European countries is less than 5 percent. Between 1994 and 2000, the number of students attending private schools in Qatar increased by about 20 percent.

¹⁷ Qatar, Ministry of Education and UNESCO, *Evaluation of the Organization of Education in Qatar and Recommendations for Development: Report of UNESCO Experts* (Doha, Qatar, 1990); Qatar, Ministry of Education, Higher Committee for Oversight of the Politics of Education, *The Reality of General Education in the State of Qatar and Recommendations for Development of Education, Volumes I & II* (Doha, Qatar, 1996); and Qatar, Ministry of Education, *National Report on the Development of Education in the State of Qatar* (Doha, Qatar, 1996).

¹⁸ 13 percent of secondary students in Qatar repeat a grade, with boys much more likely to repeat a grade than girls. The secondary school exit exam requires only 50 percent of items correct to achieve a passing score but according to MoE data, approximately 20 percent of the students did not pass the examination in 2000/2001. Furthermore, a significant proportion of the students who pass the high school exit exam do not perform well on Qatar University entrance exams: for example, in 2000-01, only 47 percent of the students passing the high school exit

exam achieved sufficient scores on the entrance exams to be accepted in at least one of Qatar University's colleges. Only a quarter of students who score 90 percent or more on the high-school exit exams score at level 3, 4, or 5 on a quasi-independent assessment of students conducted by the Academic Bridge Program, a body established to improve high school graduates skills. Students who obtain a score of 5 (on a scale of 1-5) are considered eligible to compete for spots in the most selective English-speaking universities in the world. There is also evidence that graduates of the school system need additional training before they are ready for employment. Employers, such as Qatar Petroleum, have established extensive training programs to enable secondary school graduates to perform technical, clerical, and administrative jobs.

¹⁹ L. M. McDonnell and W. N. Grubb, *Education and Training for Work: The Policy Instruments and the Institutions* (Santa Monica, CA: RAND R-4026-NCRVE/UCB, 1991).

²⁰ Education vouchers have been tried in various parts of the world with mixed results, e.g., M. Carnoy, and P. J. McEwan, "Does Privatization Improve Education? The Case of Chile's National Voucher Plan," in David N. Plank and Gary Sykes (eds.), *Choosing Choice: School Choice in International Perspective* (New York, NY: Teachers College Press, 2003).

²¹ M. Miron, and C. Nelson, *What's Public About Charter Schools? Lessons Learned About Choice and Accountability*, (Thousand Oaks, CA: Corwin Press, Inc., 2002).

²² B. P. Gill, M. Timpane, K. E. Ross, and D. Brewer, *Rhetoric Versus Reality: What We Know and What We Need to Know About Vouchers and Charter Schools* (Santa Monica, CA: RAND MR-1118-EDU, 2001).

²³ J. Hannaway, "Decentralization in Two School Districts: Challenging the Standard Paradigm," in J. Hannaway and M. Carnoy (eds.), *Decentralization and School Improvement*,

(San Francisco, CA: Jossey-Bass, 1993); D. Plank and W. Boyd, "Antipolitics, Education, and Institutional Choice: The Flight from Democracy," *American Educational Research Journal* 31, no. 2 (1994): 263-281.

²⁴ T. Kolderie, "Chartering Diversity. Equity and Choice," *Phi Delta Kappan* (June 1992): 671-675.

²⁵ A. S. Wells, L. Artiles, S. Carnochan, C. W. Cooper, C. Grutzik, J. J. Holme, A. Lopez, J. Scott, J. Slayton, and A. Vasudeva, *Beyond the Rhetoric of Charter School Reform: A Study of Ten California School Districts*, (Los Angeles, CA: UCLA Charter School Study, 1998); McDonnell and Grubb, 1991.

²⁶ N.D. Finkelstein and W. N. Grubb, "Making Sense of Education and Training Markets: Lessons from England," *American Educational Research Journal* 37, no. 3 (2000): 601-631.

²⁷ Mark Berends, Susan Bodilly, and Sheila Nataraj Kirby, *Facing the Challenges of Whole-School Reform: New American Schools After a Decade*, (Santa Monica, CA: RAND MR-1498-EDU, 2002); Thomas K. Glennan, Susan J. Bodilly, Jolene Galegher, and Kerri A. Kerr, *Expanding the Reach of Education Reforms: Perspectives from Leaders in the Scale-Up of Educational Interventions* (Santa Monica, CA: RAND MG-248-FF, 2004); M. W. McLaughlin, "The RAND Change Agent Study Revisited: Macro Perspectives and Micro Realities," *Educational Researcher* 19, no. 9 (1990):11-16.

²⁸ Qatar, Supreme Education Council, *Supreme Education Council Website*, Doha, Qatar, 2004. <http://www.education.gov.qa/> (Arabic version) and <http://www.english.education.gov.qa/> (English version) (as of March 30, 2006).

²⁹ Qatar, Supreme Education Council , *Education Reform Becomes Reality: Building the Future of Qatar: 2004 Annual Report*, Doha, Qatar, 2005. Online at: http://www.english.education.gov.qa/files/1535_file_SEC_04_English.pdf (English version) (as of March 30, 2006); Qatar, Supreme Education Council, *2005 Annual Report*, Doha, Qatar, 2006. Online at: <http://www.education.gov.qa/news/ann06/enannual.pdf> (English version) (as of March 30, 2006).