

EDUCATION QUALITY IN THE MIDDLE EAST

DAVID W. CHAPMAN and SUZANNE L. MIRIC

Abstract – Some of the most dramatic growth in the provision of primary and secondary education over the last decade has occurred across countries of the Middle East and North Africa (MENA). Yet student achievement across MENA is lagging compared to many other parts of the world. Low quality of education is a primary concern and one of the greatest challenges facing education and government leaders across the region. This paper summarises recent evidence regarding student learning in the MENA region and draws on Galal's model of policy formulation in considering ways that governments across the Middle East might address this problem.

Résumé – ÉDUCATION DE QUALITÉ AU MOYEN-ORIENT – L'enseignement primaire et secondaire des pays du Moyen-Orient et de l'Afrique du Nord (MENA) a connu l'une des croissances les plus spectaculaires au cours de la dernière décennie. Les résultats scolaires des élèves de la région MENA accusent cependant un retard par rapport à de nombreuses autres régions du monde. La qualité insuffisante de l'enseignement constitue dans cette région un souci majeur et l'un des plus grands défis auquel sont confrontés les responsables des secteurs éducatifs et des gouvernements. Les auteurs de cet article font la synthèse des données récemment collectées sur l'apprentissage des élèves dans la région MENA et se réfèrent au modèle de Galal pour la formulation de politiques, en examinant les moyens par lesquels les gouvernements du Moyen-Orient pourraient s'attaquer au problème des résultats insuffisants de l'apprentissage scolaire.

Zusammenfassung – BILDUNGSQUALITÄT IM NAHEN OSTEN – Im letzten Jahrzehnt ist das Bildungsangebot im Primar- und Sekundarbereich in den Ländern des Nahen Ostens und Nordafrikas (MENA) mit am stärksten gewachsen. Dennoch hinkt die MENA-Region in puncto Schulleistungen hinter vielen anderen Weltregionen her. Die mangelnde Bildungsqualität ist ein wichtiges Thema und eine der größten Herausforderungen für Funktionsträger des Bildungswesens und der Regierungen in der gesamten Region. In diesem Papier werden Erkenntnisse über schulisches Lernen in der MENA-Region zusammengefasst. Bei den Überlegungen, wie die Regierungen in Nahost das Problem mangelhafter Schulleistungen angehen könnten, wird auf Galals Modell zur Erarbeitung politischer Handlungskonzepte zurückgegriffen.

Resumen – LA CALIDAD DE LA EDUCACIÓN EN ORIENTE MEDIO – Durante la última década se ha registrado uno de los crecimientos más espectaculares en provisión de enseñanza primaria y secundaria a lo largo y a lo ancho de los países de Oriente Medio y Norte de África (MENA, por sus siglas en inglés). Sin embargo, el rendimiento escolar de la región MENA están quedando a la zaga de muchas otras partes del mundo. La baja calidad de la enseñanza es una de las principales preocupaciones y uno de los mayores desafíos para los responsables de la educación y gobernantes de la región. En este trabajo, los autores resumen los datos recogidos

recientemente sobre estudiantes de la región MENA y se aproximan al modelo de políticas formulado por Galal en cuanto a la búsqueda de caminos para que los gobiernos de Oriente Medio aborden estos problemas de bajo nivel de aprendizaje.

Резюме – КАЧЕСТВО ОБРАЗОВАНИЯ НА БЛИЖНЕМ ВОСТОКЕ – На протяжении последнего десятилетия в странах Ближнего Востока и Северной Африки (БВСА) наблюдается наиболее драматический рост предоставления начального и среднего образования. Тем не менее, уровень успеваемости учащихся в БВСА отстает по сравнению со многими другими странами мира. Низкое качество образования является первостепенной проблемой и одной из самых больших задач, стоящих перед деятелями образования и политиками в данном регионе. В данной статье подытоживаются последние данные относительно обучения учащихся в регионе БВСА, и приводится модель Галала по формулировке политики с учетом тех способов, посредством которых правительства стран Ближнего Востока могут решать проблему низкого уровня образования учащихся.

Education in the Middle East: the discrepancy between quality and achievement

Some of the most dramatic growth in the provision of primary and secondary education over the last decade has occurred across countries of the Middle East and North Africa (MENA). However, this growth is accompanied by a paradox. Teachers across MENA countries, albeit with some notable exceptions, tend to be relatively well trained, well paid (compared to other jobs), enjoy high levels of job security and have moderately good student-teacher ratios. Yet student achievement across MENA lags behind many other parts of the world. Given the centrality of the teacher's role in student learning, how can this discrepancy be explained? The authors draw on Galal's 2002 framework of educational reform, as elaborated by Welmond (2006), to examine this paradox and how countries might address the problem of low achievement.

Background

The history of modern education in the MENA region reflects that of other developing regions in many aspects. Following the end of the colonial period, during which access to formal education was limited (Akkari 2004), post-independence governments introduced publicly-funded mass education systems, which helped new governments to build their nations, secure political legitimacy and win public support. In the process, they also largely displaced pre-modern Islamic education systems that centred on the madrasa, the mosque and the *kuttab* (Kadi 2006).

During the second half of the twentieth century, education increasingly came to be seen as an important investment in human capital. Despite considerable historical and cultural variation across the region, the establishment, expansion and reform of education systems was by and large a centrally-driven, top-down enterprise (Welmond 2006). The labour-intensive nature of education also meant that large numbers of teachers swelled the public sector. In many MENA countries, the public sector provided the foundation for a new middle-class culture in which technicians and bureaucrats work as clients of governing regimes (Gregg 2005). At the same time, a much smaller number of traditional teachers associated with pre-modern Islamic education systems continue to function, often – but not always – in a complementary capacity. In some parts of MENA, such as rural Morocco, government-sponsored primary teachers have been shunned by communities and traditional teachers, or *foqaha*, who see them as outsiders (Tawil 2006).

Successive reforms by governments across the MENA region have, at different times, sought to enhance national identity, expand enrolment to formal education for eligible children and adults, and improve the quality and efficiency of education services delivery (Welmond 2006). Nonetheless, the MENA region is facing what many view as an educational crisis (UNDP 2002). Three converging factors contribute to this crisis: an increase in the educational disparity within countries, a decrease in the quality of education despite high per capita education expenditures, and a mismatch between labour market needs and the output of educational systems (UNDP 2002).

Virtually all countries within the MENA region share a major concern: how to improve the quality of education (UNDP 2002: 54). Yet while there is general consensus that the quality of education in the MENA region poses a problem, there is little agreement as to why this is the case (Heyneman 1997). One result is that teachers in the MENA region have come under increasing scrutiny. Despite a scarcity of available studies on education quality in the region (UNDP 2002: 54; Akkari 2004: 152), teachers are increasingly viewed as a key issue.

Teachers mediate students' access to content and control the classroom activities most directly related to learning. As such, they have the greatest influence on student achievement. Even other materials- or technology-based innovations depend heavily on the support of the classroom teacher for their success (Chapman et al. 1993). Nevertheless, teachers in the MENA region have been criticised for using outdated teaching strategies that overemphasise student test scores (Bacchus 2006; Benard 2006), propagate a culture of elitism, fail to deliver differentiated instruction and neglect the need for professionalisation (Heyneman 1997). Thus, most countries consider that an improvement in educational quality must go hand in hand with a drive to improve teachers and teaching practices.

Until now, successive educational reforms, as they relate to teachers, have concentrated on ensuring that schools are equipped with adequate numbers of qualified teachers. In this sense, governments in MENA have largely succeeded in addressing the daunting challenges with which they are confronted.

Large numbers of teachers have been hired and trained according to each country's own national standards. More recently, in-service training in new pedagogical practices and the opportunity to use globalised curricula (Coupe et al. 2004; GlobalSchoolNet 2007) are being offered to the existing cadre of teachers, most of whom are still civil servants (Welmond 2006).

Nonetheless, achievement rates continue to disappoint and there is widespread concern in the region that educational investments have not yielded the intended – and expected – learning outcomes. Indeed, poor quality has become the Achilles' heel of education in the Arab world, a flaw that undermines its quantitative achievements (UNDP 2002: 54).

Methodology

This study was conducted as a document review supplemented with targeted interviews with key policy-makers and education development experts in the MENA region. The study employed the World Bank designation of MENA countries since it is widely used in other literature. However, data on the full set of countries were not always available, hence the narrower list used in some tables. Documents were identified through an extensive search of books, journals, web-based information and donor agency reports.

To supplement the document review, eleven interviews were conducted between December 2005 and February 2006 with policy-makers and education development experts in the MENA region. Interview participants were selected through mixed purposeful sampling, involving both maximum variation sampling (to select as wide a range of countries as possible) and critical-case sampling (to ensure that those we interviewed had knowledge of important education projects or reforms). Seven participants held positions at education ministries or universities in the region. Four participants were Western consultants based in the region. The interviews followed a 20-question interview protocol based on Galal's 2002 framework for effective educational reform. They were conducted by phone, and lasted from 60 to 90 min each. Two participants were interviewed twice. Eight interviews were conducted in English and two in French.

The pursuit of quality

In its most common use, education quality refers to the extent that an education system is able to achieve the generally accepted goals of education, central to which are cognitive knowledge and skills development (Randall 2004). For the most part, education systems are deemed to be of higher quality when students demonstrate higher levels of learning. While education systems have multiple goals (e.g. the development of relevant employment skills or attitudes that promote civic engagement), most observers still regard the transmission of cognitive

knowledge as its principal objective (Chapman et al. 2005). From this perspective, improving quality involves taking actions that increase student achievement.

Student achievement across MENA

While there is substantial anecdotal evidence that student achievement across MENA countries is low, systematic evidence of educational quality, measured against either national learning objectives or international standards, is limited. Only Jordan, Oman and Egypt have attempted to assess the performance of their students in relation to national learning standards (Berryman 1997). Moreover, only a few MENA countries have participated in international assessments of students' learning achievements in mathematics and science.

Both types of assessments have shown mediocre levels of learning for the region's students (Berryman 1997). For example, only Iran, Morocco and Tunisia participated in the 2003 Trends in International Mathematics and Science Study (TIMSS) comparison of fourth-grade students' mathematics and science achievement.¹ Student scores from these countries placed all three countries (along with the Philippines) at the bottom of the 25 countries which participated in these two studies in both science and maths (National Center for Educational Statistics 2005; IEA 2005). Of the 45 countries that participated in the 2003 TIMSS study of eighth-grade mathematics and science achievement, ten were MENA countries. In the mathematics comparison, nine of those ten were placed in the bottom third of participating countries. Only Israel scored higher, coming 19th. In the science study, Israel, Jordan, and Iran were in the middle third of the country distribution; the remaining seven countries were in the bottom third of participating countries (Table 1).

Perhaps a more telling indicator is the change in national rankings identified by the three studies (1995, 1999 and 2003), although the number of MENA countries that participated in more than one of these studies is limited. In eighth-grade maths, Israel showed substantial gains in student achievement between 1999 and 2003, whereas student test performance declined in Jordan, Iran, and Tunisia during the same period.² In eighth-grade science, Israel, Jordan, and Iran showed positive change, while student scores in Tunisia dropped. These international comparisons suggest that student achievement is low and does not appear to be improving across most of the MENA countries for which data is available. Hence, governments and educational leaders find themselves faced with the central question of how to improve student achievement. What kinds of actions can be taken that can have a meaningful and positive impact on student learning? (Table 2).

A framework for considering national strategies to raise education quality

A useful framework for considering possible government responses to low education quality is provided by Galal (2002) and elaborated by Welmond

Table 1. Differences in average mathematics scale scores of eighth-grade students, by country: 1995, 1999, and 2003

Country	1995	1999	2003	Difference ^a	
				(2003–1995)	(2003–1999)
Singapore	609	604	605	–3	1
Republic of Korea	581	587	589	8 [▲]	2
Hong Kong SAR ^{b,c}	569	582	586	17 [▲]	4
Chinese Taipei	–	585	585	†	#
Japan	581	579	570	–11 [▼]	–9 [▼]
Belgium-Flemish (Netherlands) ^b	550 529	558 540	537 536	–13 [▼] 7	–21 [▼] –4
Hungary	527	532	529	3	–2
Malaysia	–	519	508	†	–11
Russian Federation	524	526	508	–16 [▼]	–18 [▼]
Slovak Republic (Latvia-LSS) ^d	534 488	534 505	508 505	–26 [▼] 17 [▲]	–26 [▼] #
(Australia) ^e	509	–	505	–4	†
(United States)	492	502	504	12 [▲]	3
Lithuania ^f	472	482	502	30 [▲]	20 [▲]
Sweden	540	–	499	–41 [▼]	†
(Scotland) ^b	493	–	498	4	†
(Israel) ^g	–	466	496	†	29 [▲]
New Zealand	501	491	494	–7	3
(Slovenia) ^e	494	–	493	–2	†
Italy ^g	–	479	484	†	4
(Bulgaria)	527	511	476	–51 [▼]	–34 [▼]
(Romania)	474	472	475	2	3
Norway	498	–	461	–37 [▼]	†
Republic of Moldova	–	469	460	†	–9
Cyprus	468	476	459	–8 [▼]	–17 [▼]
(Republic of Macedonia)	–	447	435	†	–12 [▼]
Jordan	–	428	424	†	–3
Islamic Republic of Iran	418	422	411	–7	–11 [▼]
Indonesia ^f	–	403	411	†	8
Tunisia	–	448	410	†	–38 [▼]
Chile	–	392	387	†	–6
Philippines	–	345	378	†	33 [▲]
South Africa ^h	–	275	264	†	–11

Note: Countries are sorted by 2003 average scores. The tests for significance take into account the standard error for the reported difference. Thus, a small difference between averages for one country may be significant while a large difference for another country may not be significant. Parentheses indicate countries that did not meet international sampling or other guidelines in 1995, 1999, or 2003. See appendix A for details regarding 2003 data. See Gonzales et al. (2000) for details regarding 1995 and 1999 data. Countries were required to sample students in the upper of the two grades that contained the most number of 13-year-olds. In the United States and most countries this corresponds to grade 8. See Table A1 in appendix A for details. Detail may not sum to totals because of rounding.

Table 1. Footnote continued

Source: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995, 1999, and 2003.

–Not available.

†Not applicable.

#Rounds to zero.

▲ $p < .05$, denotes a significant increase.

▼ $p < .05$, denotes a significant decrease.

^aDifference calculated by subtracting 1995 or 1999 from 2003 estimate using unrounded numbers.

^bMet international guidelines for participation rates in 2003 only after replacement schools were included.

^cHong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

^dDesignated LSS because only Latvian-speaking schools were included in 1995 and 1999. For this analysis, only Latvian-speaking schools are included in the 2003 average.

^eBecause of national-level changes in the starting age/date for school, 1999 data for Australia and Slovenia cannot be compared to 2003.

^fNational desired population does not cover all of the international desired population in all years for Lithuania, and in 2003 for Indonesia.

^gBecause of changes in the population tested, 1995 data for Israel and Italy are not shown.

^hBecause within classroom sampling was not accounted for, 1995 data are not shown for South Africa.

(2006). They posit three approaches (engineering, organisational and public accountability) to improving education practice and argue that effective reform requires adopting appropriate measures in each case. Each approach places a somewhat different constellation of demands on education decision-makers. The engineering approach sees education as a production function in which the quantity, quality and mix of inputs determine educational outputs and longer-term outcomes. When outputs or outcomes are unsatisfactory, the quantity, quality of combination of inputs must be improved. The organisational approach³ views education as a principal-agent problem. The principal (e.g. a ministry official) is interested in particular outcomes (such as good quality education), but has to rely on an agent (e.g. teachers) to obtain these outcomes. The challenge, therefore, is for individuals at one level of the system to get individuals at a different level of the system to act in desired ways. The public accountability approach concerns the relationship between citizens and policy-makers. This approach posits that citizens can improve educational outcomes provided that they are able to influence the way in which decision-makers, politicians and education managers formulate education policies, set education priorities and allocate resources.

Engineering approach

From an engineering perspective, the main responsibility of government and education officials is to secure sufficient financial resources for education,

Table 2. Differences in average science scale scores of eighth-grade students, by country: 1995, 1999, and 2003

Country	1995	1999	2003	Difference ^a	
				(2003–1995)	(2003–1999)
Singapore	580	568	578	–3	10
Chinese Taipei	–	569	571	†	2
Republic of Korea	546	549	558	13 [▲]	10 [▲]
Hong Kong SAR ^{b,c}	510	530	556	46 [▲]	27 [▲]
Japan	554	550	552	–2	3
Hungary	537	552	543	6	–10 [▼]
(Netherlands) ^b	541	545	536	–6	–9
(United States)	513	515	527	15 [▲]	12 [▲]
(Australia) ^d	514	–	527	13 [▲]	†
Sweden	553	–	524	–28 [▼]	†
(Slovenia) ^d	514	–	520	7 [▲]	†
New Zealand	511	510	520	9	10
(Lithuania) ^e	464	488	519	56 [▲]	31 [▲]
Slovak Republic	532	535	517	–15 [▼]	–18 [▼]
Belgium-Flemish	533	535	516	–17 [▼]	–19 [▼]
Russian Federation	523	529	514	–9	–16 [▼]
(Latvia-LSS) ^e	476	503	513	37 [▲]	11
(Scotland) ^b	501	–	512	10	†
Malaysia	–	492	510	†	18 [▲]
Norway	514	–	494	–21 [▼]	†
Italy ^g	–	493	491	†	–2
(Israel) ^g	–	468	488	†	20 [▲]
(Bulgaria)	545	518	479	–66 [▼]	–39 [▼]
Jordan	–	450	475	†	25 [▲]
Republic of Moldova	–	459	472	†	13 [▲]
(Romania)	471	472	470	–1	–2
Islamic Republic of Iran	463	448	453	–9 [▼]	5
(Republic of Macedonia)	–	458	449	†	–9
Cyprus	452	460	441	–11 [▼]	–19 [▼]
Indonesia ^e	–	435	420	†	–15 [▼]
Chile	–	420	413	†	–8
Tunisia	–	430	404	†	–26 [▼]
Philippines	–	345	377	†	32 [▲]
South Africa ^h	–	243	244	†	1

Note: Countries are sorted by 2003 average scores. The tests for significance take into account the standard error for the reported difference. Thus, a small difference between averages for one country may be significant while a large difference for another country may not be significant. Parentheses indicate countries that did not meet international sampling and/or other guidelines in 1995, 1999, and/or 2003. See appendix A for details regarding 2003 data. See Gonzales et al. (2000) for details regarding 1995 and 1999 data. Countries were required to sample students in the upper of the two grades that contained the largest number of 13-year-olds. In the United States and most countries, this corresponds to grade 8. See Table A1 in appendix A for details. Detail may not sum to totals because of rounding.

Table 2. Footnote continued

Source: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995, 1999, and 2003.

–Not available.

†Not applicable.

▲ $p < .05$, denotes a significant increase.

▼ $p < .05$, denotes a significant decrease.

^aDifference calculated by subtracting 1995 or 1999 from 2003 estimate using unrounded numbers.

^bMet international guidelines for participation rates in 2003 only after replacement schools were included.

^cHong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

^dBecause of national-level changes in the starting age/date for school, 1999 data for Australia and Slovenia cannot be compared to 2003.

^eNational desired population does not cover all of the international desired population in all years for Lithuania, and in 2003 for Indonesia.

^fDesignated LSS because only Latvian-speaking schools were included in 1995 and 1999. For this analysis, only Latvian-speaking schools are included in the 2003 average.

^gBecause of changes in the population tested, 1995 data for Israel and Italy are not shown.

^hBecause within classroom sampling was not accounted for, 1995 data are not shown for South Africa.

convert these into more direct educational inputs, (e.g. teaching staff, students, buildings and textbooks), and allocate the right number and combination of inputs to foster delivery of education in a way that yields desired outputs and outcomes (Windham and Chapman 1990). Teachers are widely considered the central input within a production function model because they mediate the influence and impact of most other inputs. They control the introduction of new practices, manage the time that students spend learning tasks, and largely determine the adoption of innovative procedures at the classroom level. In these respects, teachers operate as the gatekeepers of educational reform. Policies that shape teachers' recruitment, preparation and conditions of work are central to enabling a country to achieve a return on its educational investment.

Faced with low student achievement, a reasonable first line of response would be to examine the adequacy of teacher supply and conditions of teacher service, such as workload and salary. These inputs are largely under the control of government and, within an engineering approach, adjusting the supply and working conditions of teachers – given their centrality to student learning – would be a first line of intervention. The dilemma facing government and education leaders is that across much of MENA, many of the teacher-related interventions aimed at improving student learning (e.g. adequate staffing, well-trained teachers and relatively good working conditions) have already taken place, yet student achievement continues to lag behind other regions.

Teacher supply

The rapid increase in student enrolment during the 1980s was followed by a levelling or decline in enrolment rates in the late 1990s. While the number of teachers also increased during the 1980s, the number has now either stabilised or continues to rise, even as student enrolments drop. Only in a few countries has the number of teachers actually declined in line with the rate of student enrolment (see Tables 3 and 4). Consequently, there is currently an ample supply – and, in many cases, an over-supply – of teachers across most of MENA.⁴ Key factors contributing to this development include successful efforts to raise student participation rates, declines in the number of school-age children, restrictive civil service laws that protect teachers' jobs and a lack of attractive alternative employment options for teachers.

In Jordan, for example, the average student-teacher ratio has declined from 39:1 in 1970 to 20:1 in 2004, indicating that more teachers have been hired relative to the number of students enrolled (World Bank 2004a). In urban areas of Egypt, the student-teacher ratio has fallen from about 23:1 in 1993 to about 20:1 in 2000 (World Bank 2002: 14). Current projections suggest that, by 2010, the average class size in Egypt will fall below 20 at the primary and below seven at the secondary levels, causing government outlays for personnel to double (World Bank 2002: 38). Likewise, in Libya, student-teacher ratios have fallen sharply over the past 10 years (World Bank 2004: 40).

Similarly, a sharp decrease in Iran's school-age population has resulted in a substantial surplus of teaching staff. Between 1993 and 2003, Iran's population of 0–14 year olds dropped from 9.29 to 7.8 million, with further declines expected (World Bank 2005: 4). In the late 1990s, Yemen estimated that its available body of teaching staff was large enough to cater for all children aged 6–17 and consequently practically halted its teacher recruitment process and reduced its pre-service training intake (World Bank 1999a: 15, 18). In Tunisia, while the primary school-age population is projected to fall by six per cent by 2015, the number of primary teachers is not expected to decline (World Bank 2003a, b: 2). Few incentives exist for Tunisian teachers to leave teaching, as teacher salaries are competitive and comparable with private-sector employee salaries (World Bank 2003a, b: 32).

In short, more teachers relative to the number of students has translated into lower student-teacher ratios and smaller class sizes region-wide. Student-teacher ratios have either stayed the same or declined over the last 10 years, resulting in smaller class sizes (though aggregate data may mask regional disparities within individual countries). While lowering class size can, for the most part, be attributed to demographic change rather than intentional policies, MENA countries have failed to seize the advantages that lower class size is presumed to offer. Instructional practice has not improved, nor has student learning increased despite the potential of smaller class sizes to enable individualised instruction.

The over-supply of teachers raises the possibility of governments boosting educational quality by being more selective in their choice of teachers or

Table 3. Number of primary school teachers, selected countries in MENA

Country	1970	1985	1990	1995	1998	1999	2000	2001	2002
Algeria	47178	125034	151262	169010	169519	170562	169559	170039	167529
Bahrain		2856	3092			4245	4471	4953	
Egypt	99918	194929	279315	302916	345981	345828	352911	349182	354902
Iran	105295	309736	298759		326990	316939	314654	308105	297711
Iraq	49822	118442	134081	145455	141479	170141	190350	197003	220366
Israel	27780	41943	40571		53935		61294	61294	52454
Jordan	7150	16979	36930	51721				38204	39441
Kuwait	3555	9623	7034	9747	10389	10176	10489	10940	11594
Lebanon	34735				28353	27653	26719	26847	26428
Libya	12304	63122	85537			94079			
Morocco	34277	81867	91680	109817	123021	127582	136558	142335	145553
Oman	196	6681	9551	11925	12421	12598	13394	13560	14911
Qatar	772	3154	4286	5864	4648	4654	4961	5201	5684
Saudi Arabia	17435	83420	119881	169321	184755	190654	195201	187558	198181
Syria	25134	78388	97811	113530	110547	111983	117540	120884	
Tunisia	19712	40887	50609	59887	60470	60912	60541	60556	59297
United Arab Emirates	806	6123	12526	15779	16889	16916	17573	18704	16323
West Bank/Gaza									11145
Yemen					77173				

Note: Data refer to both full-time and part-time primary teachers. Differences among countries in the proportions of part-time teachers may affect the comparability of data.

Source: UNESCO Institute for Statistics.

Table 4. Number of secondary school teachers, selected countries in MENA

Country	1970	1985	1990	1995	1998	1999	2000	2001	2002
Algeria	11487	82218	127024	150397	.	.	.	.	170252
Bahrain	.	.	2742	.	.	4355	4620	5198	.
Egypt	57986	187580	286797	369107	453967	473712	490648	480685	485186
Iran	30886	.	216273	.	321997	336116	337912	343258	352518
Iraq	13276	42998	.	62296	56130	62034	.	.	84090
Israel	14031	37735	46473	.	54915	.	72369	72369	60914
Jordan	4252	19174	6940	8615	.	.	.	32332	34294
Kuwait	5476	18795	.	19097	22264	22244	23311	23673	.
Lebanon	.	.	.	.	42057	.	43959	46827	46208
Libya	4343	10765	.	.	.	.	.	.	.
Morocco	14680	67733	79657	85865	87932	90799	.	.	97146
Oman	.	3911	6946	11438	12862	13528	14422	15165	16941
Qatar	324	2539	3547	.	4370	4689	4591	4909	5111
Saudi Arabia	5064	.	71149	109529	138777	146252	156178	159108	171280
Syria	15045	53250	54115	62917	70184	.	62816	.	.
Tunisia	6883	25245	33058	.	56466	58132	60708	58278	.
United Arab Emirates	363	4237	8565	10061	16302	16399	16950	17832	20078
West Bank/Gaza	.	.	.	.	.	.	.	.	22436
Yemen	.	.	.	.	73813	.	.	.	.

Note: Data refer to both full-time and part-time secondary teachers. Differences among countries in the proportions of part-time teachers may affect the comparability of data.

Source: UNESCO Institute for Statistics.

improving the training and preparation of teachers already in the system. Indeed, from an engineering perspective, low student achievement might signal the need for more or better teacher preparation. Yet not only are there adequate numbers of teachers across MENA, the proportion of teachers considered by their governments to be suitably qualified for the level at which they are teaching has increased (Miric and Chapman 2006). Lack of formal training (at least of the length and type now mandated by governments in the region) does not appear to be the main reason why students are performing poorly. This suggests that either (a) teacher preparation programmes are ineffective; (b) that these programmes are effective in what they teach but are imparting the wrong knowledge and skills; (c) teachers receive adequate training but, once trained, do not (or cannot) utilise their training in the classroom; or (d) some combination of the above. It is not yet clear which of these represents the root problem.

Many of the engineering strategies governments would typically use to improve education quality have already been implemented, yet achievement lags. As crucial as sufficient inputs are to ensuring an effective educational process, it will take more than adjusting the amount or mix of inputs to the education process if student performance is to improve.

Organisational approach

The central issue in Galal's organisational approach is how central government can influence teacher practice at the classroom level. Generally, this is accomplished through a combination of incentives to encourage the desired behaviour, and monitoring and accountability measures to ensure that the desired behaviours actually occur.

Teacher incentives consist of direct and indirect monetary and non-monetary benefits offered to teachers as extrinsic motivators (Kemmerer 1990). Direct benefits include salaries, allowances and fringe benefits. Indirect benefits include things that improve teachers' working lives, such as subsidised housing, food, teacher guides, in-service training, status in their community, choice of location for the next assignment, and recognition and approval of significant people in the teacher's life (Kemmerer 1990; Chapman et al. 1993). The most powerful incentives are those that link direct compensation (as opposed to non-monetary rewards) to the performance of the target behaviour (Windham and Chapman 1990). As people generally prefer their compensation in a form that allows them to choose their work benefits, teachers' salaries, although they can be seen as an engineering approach input, also shape teachers' behaviour and thus form an input in the organisational approach (Table 5).

Teacher compensation poses a paradox across much of MENA. As a proportion of GDP, teachers' salaries are relatively high, suggesting that teachers do better economically than many others in their respective countries (Miric and Chapman 2006). In Tunisia, for example, the average annual salary of a primary school teacher is about 3.2 times the per capita GDP (World Bank 2003a, b: 21). Meanwhile, experienced teachers in Jordan

Table 5. Types of teacher incentives

Remuneration				
<i>Monetary</i>				
Salary				
Beginning salary				
Salary scale				
Regularity of payment				
Merit pay				
Materials allowance				
Cost of living allowance				
Hardship allowance				
Travel allowance				
Instructional support				
<i>Materials</i>				
Teacher guides				
on time				
in all subject areas				
in appropriate language				
Student textbooks				
on time				
in all subject areas				
in appropriate language				
Classroom charts				
Science equipment				
Copy books				
Pencils				
Chalkboard				
Safe storage for materials				
	<i>In-kind supplements</i>	<i>Benefits</i>	<i>Bonuses</i>	
	Free or subsidized housing	Paid leave	Bonus for regular attendance	
	Free or subsidized food	Sick leave	Bonus for student achievement	
	Plots of land	Maternity leave	Grants for classroom project	
	Low interest loans	Health insurance		
	Scholarships for children	Medical assistance		
	Free books	Pension		
		Life insurance		
		Additional employment		
		Additional teaching jobs		
		(e.g. adult education)		
		Examination grading		
		Textbook writing		
		Development projects		
	<i>Supervision</i>	<i>Teacher Training</i>	<i>Career Opportunities</i>	
	Observation	Classroom management	Master teacher	
	Feedback	Materials use	Principal	
	Coaching	Lesson preparation	Supervisor	
		Test administration		

Table 5. Continued

Working conditions
Positive school climate
School facilities
Classroom facilities
Number of students
Age range of students
Collegiality

Source: Adapted from Kemmerer (1990).

can earn up to 290% of the per capita GDP (World Bank 2004a: vi). However, this may not be fully appreciated by the teachers, many of whom still regard their pay as low. Salary satisfaction depends heavily on the benchmarks used and teachers in the MENA region tend to compare themselves with teachers in other parts of the world, particularly the West (Miric and Chapman 2006).

At the same time, there is frequently a difference between how teachers' salaries are perceived by their countrymen and how teachers view their own situation. In Algeria, for example, teachers see themselves as underpaid, whereas the general public perceives them as generally overpaid. In Tunisia and Oman, most citizens believe teachers to be well paid (Miric and Chapman 2006). Teachers observe that few of them can afford cars and, in some countries (e.g. Egypt, Yemen and Iraq), are more poorly remunerated than less-educated compatriots, such as taxi drivers. On the other hand, citizens generally perceive teachers as having stable jobs, generous holiday allowances and ample opportunities to earn extra income. In some MENA countries, teachers supplement or even far surpass their regular salaries through private tutoring (see Table 6, below).

With notable exceptions, MENA countries have exceeded other regions in terms of public expenditure on education as a proportion of GDP, with a large proportion of those funds allocated to teacher remuneration. This concentration of funds going into salaries is clearly illustrated in Egypt, where increases in education spending over the past decade (especially since 1997) have been allocated almost entirely to wages and salaries. Oman spends 95% of its recurrent resources on salaries and student transportation (World Bank 2001: 17). In Lebanon, 84.7% of the Ministry of National Education, Youth and Sports' budget is allocated to school staff salaries – a high proportion compared to OECD countries where the average wage bill amounts to 82% of total expenditure (World Bank 1999a: 19). Again, in Jordan, the education budget is skewed overwhelmingly towards salaries and allowances (World Bank 2004a: vii).

Although MENA countries have invested heavily in teacher salaries, it has not necessarily been in ways that lead to better instructional practices at the classroom level. In particular, salary increases have been awarded on the basis of criteria other than the quality of teaching (e.g. seniority). Consequently, the substantial investment in salaries does not necessarily operate as an incentive to teach more effectively. Where salaries have increased substantially, there is little evidence to suggest that this has improved student learning outcomes (see Ayyash-Abdo 2000).

At the same time as governments are seeking incentives that encourage productive teacher behaviour, teachers are also presented with a number of “perverse incentives” that encourage them to pursue other directions (Chapman and Miric 2005). Perhaps the most clearly perverse incentive in MENA is the emergence of private tutoring. In Egypt, for example, private tutoring is in great demand because of the highly competitive and restricted

Table 6. Teachers' education requirements and characteristics in selected MENA countries

Country	General requirements/ teacher characteristics	Primary level teacher requirements/teacher characteristics	Secondary level teacher requirements/teacher characteristics	Quality of teacher training institutes/ other institutes
Djibouti	High formal standards	–	University degree of 2 years in math or French required	Teacher training institutes highly selective
Algeria	New standards being established; current level of training low	–	New requirement: Baccalaureate + 5	–
Egypt	Mixed data World Bank report – Inadequately qualified at primary level, due to previous policy allowing teachers with no tertiary education; almost half of teachers with tertiary education have no pedagogical training) UNESCO report – almost 100% of primary teachers have received pedagogical training)	–	–	–
Israel	–	–	–	In 2002/03, 60% of the 21,000 students in teacher training institutes were studying for a B.Ed.

Table 6. Continued

Country	General requirements/ teacher characteristics	Primary level teacher requirements/teacher characteristics	Secondary level teacher requirements/teacher characteristics	Quality of teacher training institutes/ other institutes
Tunisia	Most teachers in primary have a BAC, and large proportion of secondary teachers have post-BAC additional years of schooling; UNESCO report – more than 90% of primary teachers have pedagogical training	In 2002, 9.1% of teachers had a primary school certificate; 6.0% a lower secondary certificate; 60.8% a BAC, and 24% other	In 2002, 6% of teachers had a lower secondary certificate; 48.3% a BAC, and 45.6% other	–
Yemen	Low standards	Fifty percent of teachers in primary did not finish secondary education	–	–
Iran	More than 90% of primary teachers have received pedagogical training, but well-trained teachers are scarce in rural and nomadic areas; teachers have inferior social status	Post grade 10, students admitted to 2-year teaching training institute.	High school diploma holders required to study further 2 years in teacher training institute (grade 6–8); secondary teachers must pass the national entrance exam (KONKUR) and have a bachelor's degree in both academic and technical areas.	Since 1987, correspondence universities attract teachers and civil servants

Table 6. Continued

Country	General requirements/ teacher characteristics	Primary level teacher requirements/teacher characteristics	Secondary level teacher requirements/teacher characteristics	Quality of teacher training institutes/ other institutes
Jordan	Not clear, prevalent use of contract teachers (12% of the teaching force) to fill teacher quality gaps; new standards in the 1990 s require teaching staff to have a first university degree	More than half of teachers have at least a university degree	–	–
Malta	The majority of teachers (both Non-Bahraini and Bahraini) have at least a Bachelor's degree; since 183/4, only bachelor degree holders eligible for teaching job – a pretest required since 1994/95	–	–	University graduates who hold non-educational qualifications may seek a one-year postgraduate diploma in education
Bahrain	–	–	–	–
Lebanon	UNRWA reports difficulty recruiting qualified teachers (for Palestinian refugee populations)	–	–	–

Note: Unless included below, all information came from individual country World Bank reports.

UNRWA: http://www.un.org/unrwa/programmes/education/teacher_training.html.

UNESCO EFA Global Monitoring Report: http://64.233.167.104/search?q=cache:F0m9zoMz994J:www.unesco.org/education/efa_report/chapter2.pdf+teacher+qualifications+Morocco&hl=en.

Education System in Iran, Embassy of the Islamic Republic of Iran in Canada: http://www.salamiran.org/Embassy/Embassy/StudentAdvisory/Iran_education/Iran_Education_system.html.

Bahrain: National report presented to the 45th session of the International Conference on Education, Geneva, 30 September–5 October 1996. <http://www.ibe.unesco.org/International/Databanks/Dossiers/rbahrain.htm>.

university entrance examination that can only be taken once (World Bank 2002: 42; Bray 2000). While research indicates that students who receive private tutoring perform no better than other students (World Bank 2002: 14), the pervasiveness of the practice suggests that parents think it does. Yet despite the fact that parents see private tuition as a way of compensating for weaknesses in the education system, it may in fact weaken the system still further by encouraging teachers to withhold their best work during school hours (Bray 2000).

Incentives are only half the picture. An essential feature of principal-agent relationships is the monitoring and evaluation process which enables organisations (through supervisors) to keep track of workers (e.g., teachers). Empirical data document the importance of supervision in teacher effectiveness (Rogers et al. 2004). However, across MENA, lax or ineffective teacher supervision is frequently cited as a weakness of the education system, as recent studies have Egypt, Lebanon, Yemen and Iran indicate (World Bank 1999b, c: 20; 2002: ii; 2005: 30). In Lebanon, the success of teachers in private schools is credited in part to the better systems of supervision and accountability in those institutions (World Bank 1999b: 20).

Constraints on more effective supervision include teachers' political clout, head teachers' limited supervisory skills and experience, and bureaucratic inertia. There is room to improve incentives and accountability systems, but the changes are likely to come at a political cost that governments must be ready to accept.

Public accountability approach

Across MENA, central level managers have experienced difficulty in implementing effective incentive systems capable of shaping teacher practice. One potential solution, widely advocated by international organisations, has been to shift responsibility for linking incentives to classroom practice from the central ministry to individuals and organisations closer to the community and schools themselves (Winkler 1991, 1999). This move towards decentralisation has been one of several factors sparking government interest in the public accountability approach. This approach involves three major strategies: (a) decentralisation, which seeks to diversify and share responsibility for the conditions of teacher service and supervision of teacher practice; (b) efforts to involve teachers in the political process, for example through teachers' unions; and (c) a move to professionalise the teaching force as a means of encouraging teachers to take greater responsibility for the outcomes of their work (Welmond 2006).

Decentralisation

Seen by some as a means of improving the responsiveness of schools to their communities, decentralisation can take different forms (e.g. devolution, dele-

gation, deconcentration and privatisation). One essential feature that all of these forms of decentralisation have in common, however, is the progressive delegation of responsibility, and presumably authority, for decision-making to lower levels of the education system. Depending on the country, this may give communities more say in the hiring and supervision of teachers, the construction and maintenance of facilities, and the ways in which school funds are spend (see also: Bray 1996; Rondinelli 1983). According to how decentralisation is implemented, it may also give teachers greater control over their own teaching.

Advocates argue that decentralisation will encourage greater community participation, more financial support for schools, decisions that respond better to local conditions, closer supervision of teacher behaviour, and more pressure on teachers to perform well. Opponents suggest that decentralising authority and responsibility will simply shift old problems to levels of the system less equipped to cope with them, and that decentralising management invites corruption and inefficiency. They point out that, since communities do not necessarily speak with a single voice, decentralisation has in the past led to increased tension at the local level. Both groups may be right. Whether decentralisation is a force for positive change or simply creates confusion is determined largely by the way it is actually implemented.

When it comes to the issue of decentralisation, there is some necessary overlap between the industrial organisation approach and the political accountability approach. While decentralisation is often considered a cornerstone of political accountability, it frequently accords parents and community leaders to oversee teachers in a principal-agent relationship. The former may have trouble assuming their role, as they may be unsure what mechanisms are available to them to encourage (or coerce) desired teacher behaviour. This shift can also be complicated for teachers, as they are answerable to parents and community members on some dimensions of their work, yet still responsible to state authorities on others.

Most MENA countries have formulated official policies endorsing some level of decentralisation, though there is considerable variation in the form and extent of its implementation. In Libya, Iran, Yemen and Lebanon, for example, the policy is being pursued aggressively. In Libya, where the move to greater decentralisation has been particularly ambitious, 50% of the administrative budget and 60% of the development budget have been decentralised (World Bank 2004b: 52). Lebanon, meanwhile, already has one of the most privatised – and therefore decentralised – education systems in the world. In Iran, where primary and secondary education are already quite decentralised, the education system is a five-tier structure in which management has been fairly widely decentralised at the provincial level (World Bank 2005: ii).

In 1997, the MoE in Yemen de-concentrated central ministry responsibilities to the governorate level. Its aim in doing so was to streamline and strengthen administrative processes, thereby eliminating line management,

re-allocating central-level administrators to governorate-level offices, and reducing the salary budget (World Bank 1999a: 6). Similarly, the Palestine education ministry has allocated authority for decisions concerning teacher deployment to individual districts and schools in an effort to trigger a faster and more flexible response to ever-changing circumstances (World Bank 2004c: 60). Morocco has proposed a system of administrative decentralisation and community involvement in school management at the central, regional, and school levels (World Bank 2004d: 2). Education legislation (2000) in Djibouti provides for the inclusion of parents and students in school management committees (World Bank 2003a, b: 4).

Other countries recognise the need for greater decentralisation, but have made somewhat less progress in implementing it. Jordan, for instance, has some mechanisms in place to enable financial and administrative decision-making at decentralised levels; however, these are not underpinned by the autonomy or incentives needed to hold MoE staff accountable for results (World Bank 2004a: ix). Similarly, Egypt recognises the need to strengthen schools management by decentralising decisions, promoting accountability and ensuring that educational managers have the information they need to inform their decisions. A stated objective of the Egyptian MoE is to devolve school management responsibilities to local levels and involve parents in primary and secondary schools (World Bank 2002: 6). As a step towards achieving this, the government is expanding the training of primary and lower-secondary head teachers so that they are equipped to assume more responsibility (p. 11).

Despite these efforts, however, continued reports of teacher dissatisfaction with their lack of control (over the curriculum, instructional materials used and their conditions of employment) indicate that teachers in the MENA region may not yet have assumed much decision-making responsibility. In Morocco, for example, teachers believe that curricular changes had been imposed on them from above and that they had little influence over what to teach, how to teach, and how much time to spend teaching it (Benmansour 1998). In Saudi Arabia, a cycle of recrimination seems to have developed between educational administrators – who blame teachers for failing to achieve the goal of teaching critical thinking – and teachers – who blame administrators for the rigidity of the curriculum and students for not wanting to learn how to think (Al-Qahtani 1995). One implication of these examples is that the effectiveness of decentralisation strategies depends, in large part, on the quality of the head teacher's leadership within a school. While community input may introduce innovative ideas, that input is likely to face continued obstacles if devolution of authority does not extend to teachers.

Several factors might explain the slow adoption of decentralisation in education systems across MENA. First, it has often been implemented as top-down decentralisation by central governments in response to advocacy for decentralisation by external organisations (e.g. World Bank, bilateral aid agencies). Second, although decentralisation is advocated as a means through which community members can have a greater say in local decisions about

schooling, they are often uncertain about what they want from their schools. They are sometimes unsure what characteristics indicate an effective school and lack dimensionality in the way they assess their local school (Chapman et al. 2002). Third, communities are conservative. Parents and teachers may perceive any change as a threat to the balance of advantage across students. They are often unwilling to risk their children's future by adopting new ideas that would change the way their schools operate. Finally, decentralisation can foster inequities and threaten social cohesion, as richer communities are able to finance their schools at a much higher level than poorer communities. This can exacerbate gender and regional inequities, as illustrated in Egypt, where competing views within a single community on how to upgrade schools has resulted in limited changes and mixed outcomes (Herrera 2003).

While the need for greater decentralisation across much of MENA is clear, there is also a risk that the concept has been "oversold". Some observers fear that, compared to their counterparts in other parts of the world, parents and community members across the region may have less experience of participating in formal political channels, including that of public education (DeJong et al. 2005). At the same time, the extent to which community input can influence teachers who already feel constrained by top-down authority structures is questionable. If MENA countries are to move towards a more decentralised decision-making process, it is vital that these concerns be addressed.

While a number of MENA countries have implemented decentralisation strategies, this move has not, to date, been met with as much enthusiasm or pursued as aggressively as it has in sub-Saharan Africa and Latin America. While the extent to which communities contribute financially to schools varies across the region, many citizens consider the provision of schooling to be a central government responsibility and one that competes with the demand for community resources from other sectors (e.g. health and water conservation). A further reason for the slowness in embracing this movement may be that education systems across the MENA region have tended to operate as "steep hierarchies", which shape and control the flow of communication. In doing so, they control patterns of staff interaction and, in particular, the formation of peer networks, which operate as gatekeepers and facilitators of new ideas and practices (Savage 1990).

The dynamics of steep hierarchies influence the dynamics of decentralisation, since the nature of a country's educational hierarchy has implications for receptivity to educational reform. Teachers' lack of enthusiasm for new ideas and methods is sometimes interpreted as teacher resistance, whereas the real problem is in fact the energy that each local network must spend in order to consider a new idea without the encouragement and support of a peer group. Inertia often prevails. Indeed, devolution of responsibility and authority within a steep hierarchy tends to increase pressure and expectations on school-level staff, which in turn adds a further, complex and unwelcome dimension to teachers' working lives (see Benmansour 1998; Abu-Saad and Hendrix 1995). While this complexity can be partially offset through

well-designed in-service professional development training, such support is not always provided as part of the decentralisation process.

However, teachers' crucial contribution to the success of decentralisation policies should not be understated. Although teachers in the MENA region do not yet appear to have been greatly affected by official decentralisation policies in their daily work, they are viewed by some MENA policy-makers as influential agents who hold the key to the eventual success or failure of decentralisation initiatives (Miric and Chapman 2006: 74). In Egypt, for example, the success of decentralisation is viewed by some as largely dependent on the cooperation of teachers (Miric and Chapman 2006). In Oman, the Ministry of Education is attempting to involve teachers in the country's contested decentralisation process, largely because teachers are viewed as independent thinkers, trusted agents of change and loyal civil servants (Miric and Chapman 2006).

Yet although teaching remains a popular career choice in most MENA countries, largely due to the job security it offers (see Table 7, below), and despite the large number of people who enter the profession, teachers as a public sub-group may wield less political influence than they did two to three decades ago. One reason for this is that teachers' prestige appears to be slipping in many MENA countries, especially in urban areas (see Table 8). In Tunisia, for example, where teaching is still a prestigious profession, the social status of teaching is declining because there are too many teachers with degrees and too few teaching positions available to provide them all with employment (Miric and Chapman 2006). Even rising educational levels among teachers does not appear to have halted the decline in their social status, in part because teachers are no longer the only educated people within rural communities (Miric and Chapman 2006) (Tables 9, 10).

Unionisation and professionalisation

Another aspect of the public accountability framework discussed by Galal is greater teacher ownership of their own work and accomplishments, as

Table 7. Prevalence of private tutoring in the MENA region

Algeria	15–20% of teachers tutor privately
Egypt	About 90% of teachers tutor privately, increasing their salary by 5 to 10 times, and placing them in the middle-class income bracket
Iraq	More than 50% of teachers tutor privately – depending on their reputation – which increases their salary by half
Jordan	Quite a bit
Oman	Very little
Tunisia	About 60% of teachers tutor privately
Yemen	Very little

Source: Interviews with key informants in each country.

Table 8. Public expenditure in education as percentage of GDP (1995–2003)

Countries	1995	1996	1997	1998	1999	2000	2001	2002	2003
Algeria	6.4	6.1	6.0	6.8	6.4	5.4	6.5	6.8	6.6
Djibouti				3.47		7.10	5.45	6.27	6.75
Egypt	6.3	6.6	5.9	6.0	5.3 ^a	5.4			
Iran	4.08			4.55	4.94	4.64	4.85	4.93	
Jordan	8.23	7.41	6.3	6.15	6.00	5.88	6.01	5.98	6.44
Lebanon	2.73	2.58		3.90	3.60	3.90	4.40	2.68	
Libya					2.67				
Morocco	5.6	5.13	4.88	5.97	6.07	6.4	6.23	6.49	
Syria	3.18	3.7	2.84						
Tunisia	6.48	6.4	6.3	6.4	6.2	6.2	6.3	6.5	7.2
WBG									
Yemen	4.49	5.06	5.25	6.72	5.74	5.77	6.25	6.79	6.45
<i>GCC countries</i>									
Bahrain	3.63	3.51	3.55						
Kuwait	6.11	5.66	6.14						
Oman	3.93	3.22	3.36	4.11	4.11		4.24	4.64	
Qatar				3.58					
Saudi Arabia	5.54	4.61	6.68	8.34					
UAE	1.86	1.73	1.77					1.59	
<i>World regions</i>									
MENA	4.67	4.78	5.19	4.55	4.3				
EAP	2.95	2.87	3.17	2.18		2.31	3.21		
ECA	5.05	4.84			4.29				
LAC	3.41	3.4		4.02	4.52	4.49			
SA	3.05	3.04		2.89	2.68	3.08	2.32		
SSA	4.25			3.32	3.39				
LMC	4.29	4.23		4.02					
UMC	4.84	4.72		4.21	4.4	4.38			

Table 8. Continued

Countries	1995	1996	1997	1998	1999	2000	2001	2002	2003
MIC	4.51	4.61		4.2	4.52				
LIC	3.52	3.75		2.54	2.5	3.09			

Source: All the data except for those with notes are from UNESCO through EdStats.

Algeria – The World Bank, *Democratic and Popular Republic of Algeria Public Expenditure Review of the Social Sector Volume I*, January 2002 (Report No. 22591-AL).

Algeria – Ministry of National Education, Ministry of Finance and National Office for Statistics through Banque mondiale, *Étude sur la restructuration de l'enseignement post-obligatoire en Algérie*, 2005.

Djibouti – Résultats des travaux de la mission de préparation de la Phase II Programme d'Accès et d'Amélioration de l'Éducation, (Octobre 24-31, 2004).

Egypt – Ministry of Finance through The World Bank, *Arab Republic of Egypt Education Sector Review: Progress and Priorities for the Future Volume II*, 2002 (Report No. 24905-EGT).

Jordan – Budget Law, 1998–2003 through The Education and Training Task Force, Jordan Public Expenditure Review Education Sector Part I. Diagnostic Draft September 7, 2004.

Lebanon – Lebanese Republic Ministry of Education & Higher Education Educational Center for Research & Development, *Educational Indicators In Lebanon 2002–2003*.

Tunisia – Ministry of Education through The World Bank, *Tunisia Policy Note on Higher Education Expenditures*, 2004 (Under Revision). Tunisia – The World Bank, Tunisia Development Review, Concept Note (n.d.).

Yemen – Ministry of Finance, calculated by a consultant based on the following sources.

MOF, Bulletin of Government Finance Statistics, Issue No. 17, 3rd Quarter 2004.

Note: (a) The consistency of data in 1993 and 1994 is questionable.

Definition: Public expenditure as a percentage of GDP is total government capital and current spending on education, expressed as a percentage of the GDP (EdStats).

^aBudgeted amount.

Table 9. Primary incentives for becoming and remaining a teacher in the MENA region, selected countries

Algeria	Job security, job affinity
Egypt	Job security, respectability
Iraq	Job security, pensions, housing, time off
Jordan	Job security and pensions
Oman	Availability of home-town jobs, three-month summer holidays, short working days, high salaries, job security
Tunisia	Job security, paid vacations, relatively good pay
Yemen	Prestige

Source: Interviews with key informants in each country.

Table 10. Teacher status/prestige in the MENA region

Algeria	Not very prestigious; has declined sharply since the 1960s
Egypt	Declining prestige mixed with resentment – higher prestige in rural areas and for good private tutors. Profession attracts university students with higher grades. Teachers working as private tutors are categorised as middle-class
Iraq	Fairly prestigious in rural areas, less so in urban areas and/or in comparison to medical, engineering and scientific profession. Categorised as middle-class
Jordan	Very low (higher in rural areas) – lack of autonomy, salary covers essentials only, high teacher workload, profession attracts mediocre university students. 60% would probably prefer alternative work
Oman	Declining but still prestigious (higher in rural areas) – most in-demand profession. Salaries almost on a par with doctors but with fewer accompanying responsibilities, classified as a middle-class profession
Tunisia	In decline since the 1950s due to a lack of jobs and higher number of people with higher degrees, but still prestigious
Yemen	Prestigious – not as prestigious as a doctor, but more so than any other civil service job. Classified as a middle-class profession

Source: Interviews with key informants in each country.

evidenced by the emergence of unions and teacher professionalisation movements. Neither of these appears to have developed strong roots in MENA. Internationally, teachers widely view their unions as a means of assuring political accountability. However, unlike other parts of the world such as Latin America, where teacher unions tend to facilitate collective responses to government policy, teachers in the MENA region appear to implement government policy (or not) as autonomous, unorganised service providers. They appear to act as individuals who may inadvertently shape national policy due to the collective impact of their large numbers and social visibility (Miric and Chapman 2006). For example, some observers in Jordan suggest that general policy pronouncements from the Jordanian monarchy that encourage decentralisation and professional autonomy have had no significant impact on teachers (Miric and Chapman 2006).

There has been much discussion of efforts to professionalise the teaching force by preparing teachers in the MENA region to teach in a knowledge-intensive world (UNDP 2002: 55; World Bank 1999a). Advocates recommend transforming the way in which teachers are prepared and trained, changing the professional structure within the education system in order to promote better teacher performance and participation (UNDP 2002: 59), and training teachers in knowledge-constructing processes, computer technology and educational software (Badran 1999). They further argue that there is a need for teachers to develop stronger problem-solving and risk-taking skills, as well as a greater trust in the collaborative process, both with other educators and with the communities served by their schools (Hargreaves 2003).

Such strategies could serve to enhance government policies that call for more employer and parent involvement in schools. In most Gulf countries, for example, parental involvement in government schools is limited to teacher-parent councils. Such involvement is more pronounced in private schools, which often view this as one of the main keys to their success (Al-Sulayti 1999). Such concerns draw attention to the quality of teacher–parent interactions in government schools and point to greater teacher professionalism as a means of increasing overall participation and collaboration.

Summary: the dilemma of low quality

As stated at the outset of the article, despite the fact that teachers in MENA countries generally tend to be well trained and paid, with secure jobs and good student-teacher ratios, student achievement is still comparatively low. Galal's framework indicates that one reason for this may be that the allocation of inputs has not been consistently managed in a way that promotes the desired educational outputs, namely student learning. However, while more inputs may be useful and necessary for education systems striving to improve their effectiveness, it is unlikely that simply increasing the number of resources will yield the desired results if they continue to be distributed as in the past. Future resources must be allocated in more strategic ways. Galal's framework suggests three distinct ways in which resources could be allocated more strategically.

From an engineering perspective, a more nuanced approach to teacher-related interventions – and, in some cases, a reassessment of existing practices that have proven successful in an era of rapid educational expansion – may be useful in improving student performance. In terms of the changes that could be made, some are easily identified: for example, funds currently spent on teacher salaries in countries with a surplus of teaching staff could be redirected to other inputs, such as textbooks and learning materials. Others changes are more difficult to identify. There are no magic strategies that, if implemented, would have a major impact (Chapman et al. 2005). Meta-analyses of the relationship between education inputs and student achievement indicate that

each of these inputs only partially explains why student learning is lagging, and that the relationship between inputs and achievements differs depending on the country setting (Anderson et al. 1989; Fuller 1987; Hanushek and Luque 2003). To be effective, educators need to have a clear understanding of which inputs and instructional processes increase student learning and which can be reduced without seriously compromising achievement, yet many lack this awareness. Furthermore, there has been a lack of consensus to date regarding the relative importance of the different inputs, which has impeded effective collective action.

By contrast, most MENA governments have not yet adopted an organisational approach to education quality that emphasises incentives and accountability. To date, these governments have not been particularly effective at using incentives in ways that effectively shape teacher practice towards the provision of better instruction. Benefits and conditions of service are generally distributed in a manner largely divorced from teachers' classroom performance, undermining the effectiveness of current incentive systems as means of promoting higher education quality. To better link incentives and performance requires the operation of a valid, clear and consistent accountability system – and only when MENA countries implement such a system is the quality of classroom teaching likely to improve.

However, the incentives/accountability approach is still essentially a top-down strategy and one that has met with only limited success across MENA. Galal's third approach, public accountability, shifts decision-making power in ways that allow and encourage local educators and community leaders to take more direct responsibility for the outcomes of schooling. While some MENA countries are already fairly decentralised, the governance of education in the region as the whole is still characterised by steep hierarchies in which teachers and communities have relatively little power. While it is likely that countries will increasingly embrace decentralisation in education (for reasons that often extend beyond the educational merit of the move), parents and community leaders will need considerable support and training to ensure that they participate in ways that foster and encourage quality in their local schools. Even then, it is likely that the impact of decentralisation on schooling will be largely mediated and controlled by local school head teachers.

The main challenge facing MENA is how to raise the quality of school instruction and, by extension, student learning. To address this, education ministries across the region will need to employ strategies associated with all three of Galal's approaches simultaneously. This will entail (a) developing teacher preparation programmes that can introduce new teaching methods to trainees that may lack the prerequisite knowledge and have very different beliefs as to what constitutes effective teaching; (b) finding ways to either reduce or better utilise the teaching force; (c) creating strategies that motivate teachers and establish classroom conditions that foster higher quality instruction; and (d) engaging parents and communities in ways that broaden

responsibility for implementing these reforms. As Galal (2002) has argued, meaningful efforts to improve education quality will require a thoughtful application of inputs, an effective application of incentives, and clear and consistent accountability measures, all undertaken by means of partnerships between education authorities, parents and communities.

Notes

1. While some Arab countries have argued that TIMSS is biased in favour of countries with better resources and more experience in test-taking, it still represents one of the most credible comparisons currently available.
2. Based on a comparison of data from 1995, 1999 and 2003 from the International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS).
3. Galal (2002) refers to this as the industrial organisation approach.
4. A recent UNESCO Institute for Statistics (2006) regional profile projects a teacher shortage by 2015, based on an estimated 6.5% teacher turnover rate. It also forecasts that countries will make significant progress in achieving EFA goals. Nonetheless, the current picture is generally one of over-supply.

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The authors

David W. Chapman is the Wallace Professor of Education at the University of Minnesota, where he teaches graduate courses in international development in the College of Education and Human Development. He has worked on development assistance activities in over 45 countries and has authored or edited seven books and over 100 journal articles, many of them on issues related to the development of education systems in international settings. His research has examined the impact of national policy on school practice, the impact of teacher training on teachers' classroom behaviour, and the role of higher education in national development.

Contact address: Department of Educational Policy and Administration, University of Minnesota, 330 Wulling Hall, 86 Pleasant St. SE, Minneapolis, MN 55455, USA. E-mail: chapm026@umn.edu.

Suzanne L. Miric is an advanced doctoral student in Comparative and International Education at the University of Minnesota, where she is also professionally employed in the Preparation to Practice Group which works on the professional development of

educators. She has worked on development assistance projects in Uganda, Malawi, Lesotho, Serbia and Kosovo. Her research interests include education in emergency and post-conflict settings, and teacher professional development in urban and developing country contexts.

Contact address: University of Minnesota, 130 Burton Hall, 178 Pillsbury Dr. SE, Minneapolis, MN 55455, USA.