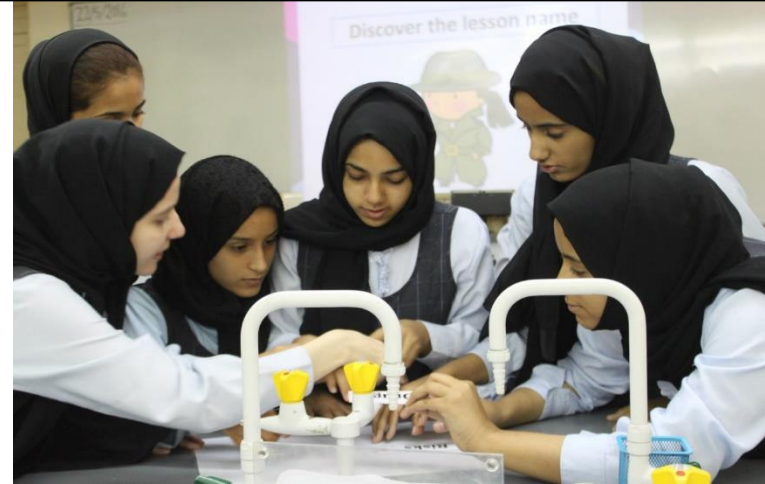


Momentum for Education 2030 Educational Quality and Improved Learning Outcomes in the Gulf Cooperation Council States (GCC)

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OUTLINE

- I. I. INTRODUCTION**
- II. RESEARCH OBJECTIVES**
- III. METHODOLOGY**
- IV. REVIEW OF REGIONAL TRENDS**
 - A) Progress achieving Education Goals
 - B) Preliminary analysis of international (PISA, TIMSS) and national assessments
- V. CHALLENGES OF EDUCATION IN GCC**
- VI. EMERGING LESSONS FROM LEARNING ASSESSMENTS**
- VII. POLICY IMPLICATIONS FOR DECISION-MAKERS**

Education 2030

Framework for Action

Towards Inclusive and Equitable Quality
Education and Lifelong Learning for All



4 QUALITY EDUCATION



Sustainable Development Goal 4:
Ensure inclusive and equitable quality
Education and promote lifelong learning
opportunities for all.

I. INTRODUCTION

Context

-Within the context of the GCC States, despite the progress made over the past decades in developing educational systems, results in quality of learning outcomes are low when compared to other countries at similar income levels

- Unique context of the Gulf States merits further exploration of the education system with attention to the quality conundrum, e.g. high investments in education sector, language of instruction, high proportions of non-citizen population (teachers and learners), single sex schools, amongst others

II. RESEARCH OBJECTIVES

To analyze and identify the challenges and opportunities for improving Educational Quality and Enhancing the Performance of Education Systems in the GCC

To gather information on the bottlenecks and country- specific weaknesses and priorities in Education to provide evidence to inform the ED 2030 policy dialogue

Further explore and analyze results of GCC countries in key international studies, provide analysis to tackle the identified weaknesses in the GCC

To gather information on what characterizes the differences between improved learning outcomes in male and female schools across districts, content areas (Reading, Maths, Science) and grade levels (in countries that gave access to schools);

III. METHODOLOGY

RESEARCH QUESTIONS

The GCC case studies address the following research questions:

- What are the learning outcomes, content and cognitive processes, specifically in Grades 4 and 8 in terms of math, science, reading and literacy?
- What are the instructional strategies that teachers employ to help students achieve these outcomes?
- What characterizes the differences between improved learning outcomes in male and female schools as reflected in self-efficacy measures across districts, content areas and Grade levels?
- What are the major achievements in the GCC towards realizing EFA Goals? What are best practices in education that contribute to post 2015 agenda?
- What are the key challenges and constraints that serve as obstacles to enhancing the performance of education system in the GCC, with a focus on quality?
- What are the key priorities for setting a future agenda for education 2030, with a focus on quality in GCC?

III. METHODOLOGY

Data

- ❑ Document analysis: Literature review; Interpretation; Identifying Research questions
- ❑ Information and Data Collection: surveys, interviews, tests, focus groups, observations, meetings with selected government officials
- ❑ Data Analysis: quantitative and qualitative data
- ❑ Case Study Research: Several case- studies to investigate country- specific strengths and weaknesses;
- ❑ Focused Group Discussions: Platforms for different target groups that work on a specific topic; meetings, workshops, seminars, study visits, meetings with target group officials for triangulation of data
- ❑ Peer Review and Analysis of Key Findings
- ❑ Final Report

III. METHODOLOGY

THEORETICAL FRAMEWORKS

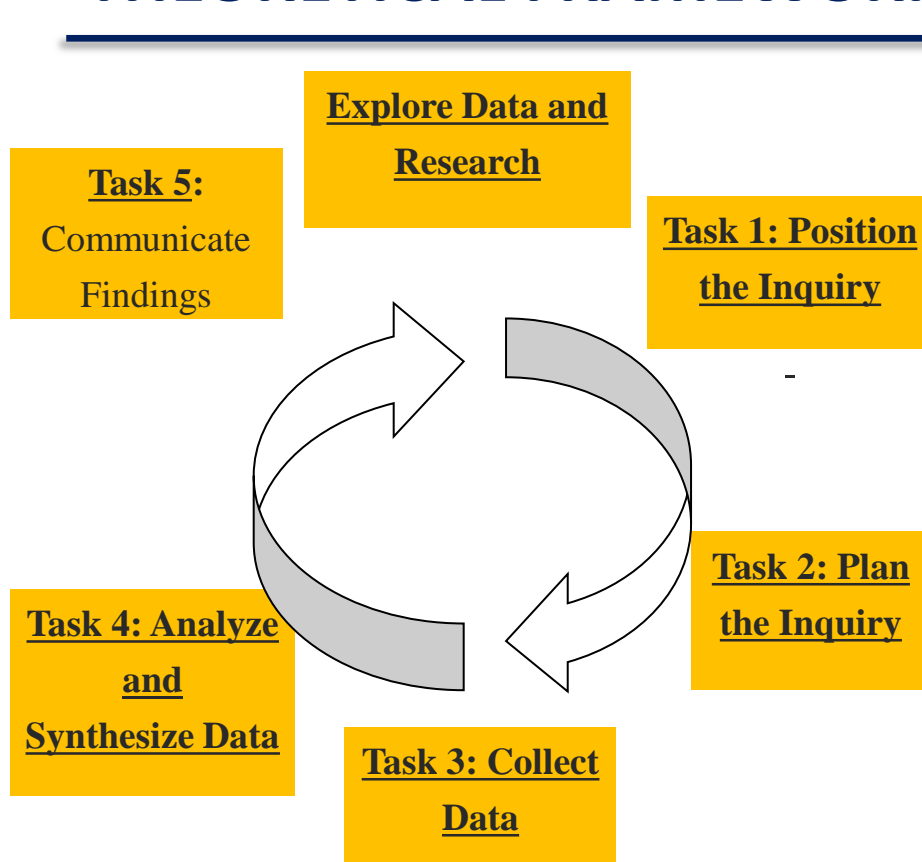


Figure 1: Evaluative Inquiry Cycle Model (Chahine & King 2012)

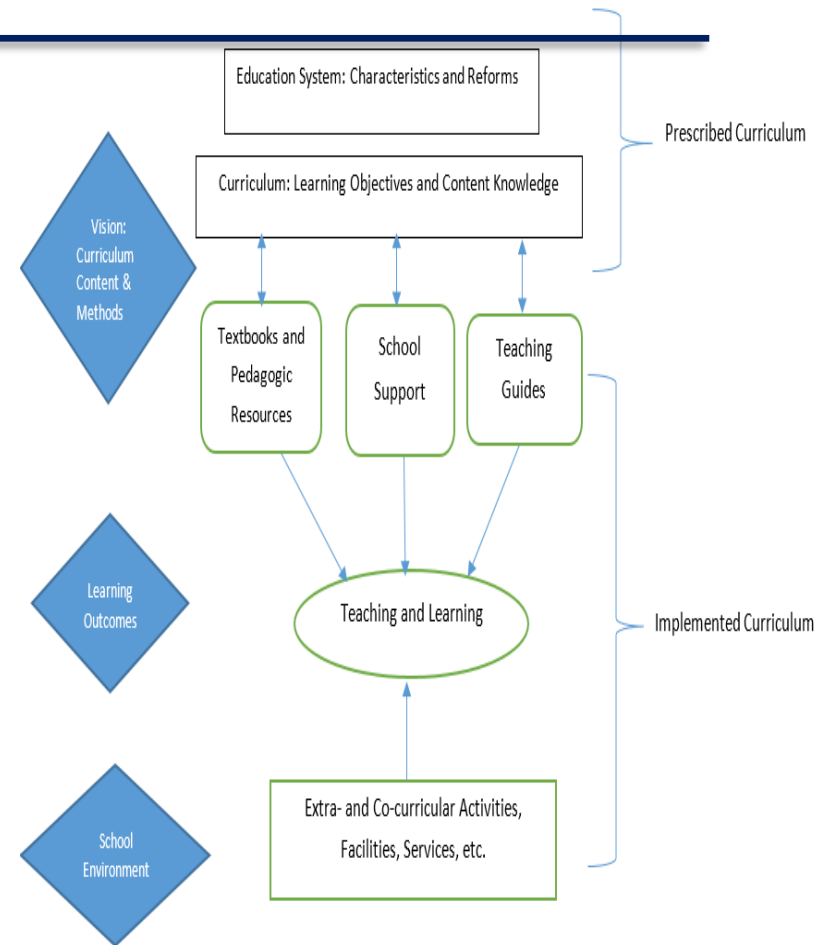


Figure 2: Curriculum Development Process (Panchaud & Aq Muptah, 2007)

III. METHODOLOGY

DATA COLLECTION

Tier 1 policy level

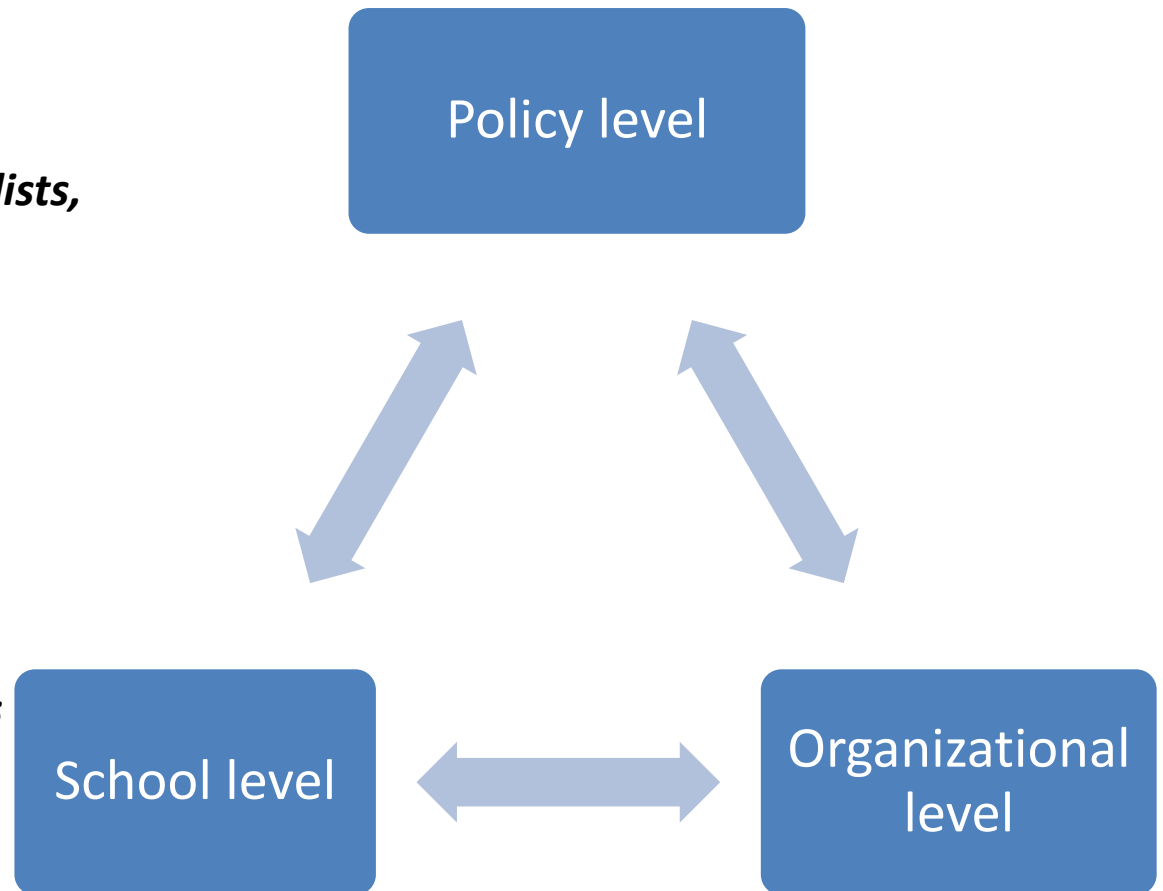
***Education, curriculum specialists,
and other stakeholders***

Tier 2 organization level

***institutions, universities,
education partners, civic
communities***

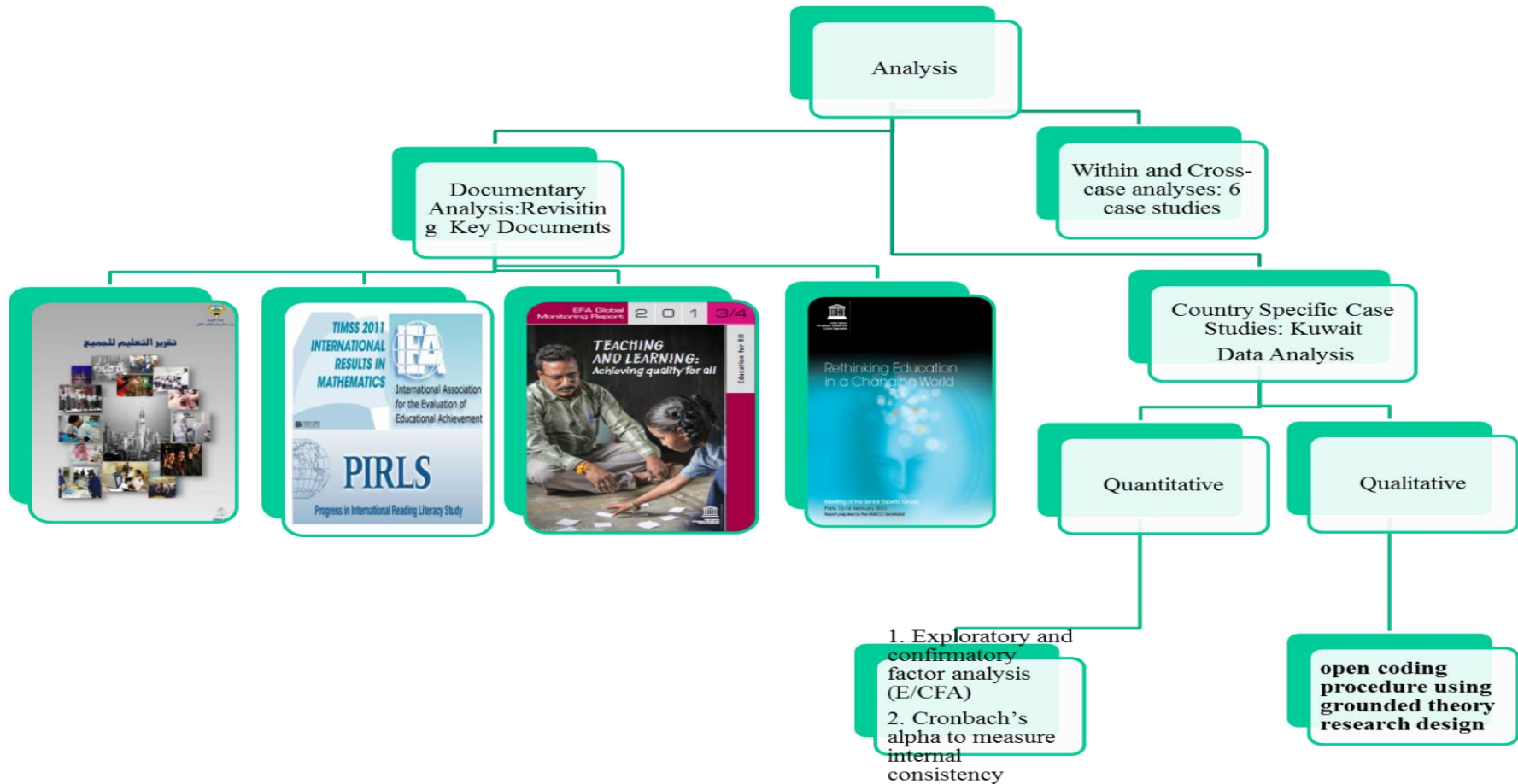
Tier 3 school level

teachers, principals, students



III. METHODOLOGY

DATA ANALYSIS



III. METHODOLOGY

QUANTITATIVE INSTRUMENTS

- ❑ Mathematics/science/literacy Efficacy Belief Instrument (Teachers: Grades 4 & 8). It is a modified version of the *Mathematics Teaching Efficacy Belief Instrument (MTEBI)* developed by Enochs et al. (2000). Revised MTEBI (Ryang, 2010; permission granted from author) consists of 21 items, 13 items on the Personal Mathematics Teaching Efficacy (PMTE) subscale and 8 items on the Mathematics Teaching Outcome Expectancy (MTOE) subscale. Each item is scored on a 5-point Likert scale response: strongly agree, agree, uncertain, disagree, and strongly disagree.
- ❑ Teacher Math/Science/Language Performance Survey (Teachers: Grades 4 & 8). Developed and adapted from TIMSS (2011) questionnaire battery and consists of 12 single response math-related questions. The science version comprises 11 single response questions.
- ❑ Curriculum survey (school principals/coordinators). Developed and adapted from TIMSS (2011) questionnaire battery and consists of 11 single response math-related questions. In addition, the science version comprises 11 single response questions.
- ❑ Student Questionnaire (Grades 4 & 8). Developed and adapted from TIMSS (2011) questionnaire battery and includes 8 single response math-related questions.
- ❑ Math tests. Grade 4 test comprised 50 questions and sub-questions and based on the math content across 5 benchmarks: numbers; operations on numbers; algebra; geometry; data and statistics. Grade 8 test included a total of 22 questions.

III. METHODOLOGY

QUALITATIVE INSTRUMENTS

- ❑ Key informations Interviews
- ❑ Focus group discussions, round table discussions, brainstorming
- ❑ Observations of classroom practices
- ❑ Collection of documents
- ❑ Case study on Al Bairaqa Best Practice in Science

III. METHODOLOGY

Preliminary Review of Data and Studies

UNESCO Doha analyzed and interpreted the findings for the GCC Countries in the following data- bases and studies:

- UNESCO EFA Global Monitoring Report 2012 / 2013 - 2014
- PISA (Programme for International Student Assessment), 2009
- TIMSS (Trends in International Mathematics and Science Study) 2011
- UNESCO International Bureau of Education, World Data on Education, 2011
- World Bank Education Data

IV. REVIEW OF REGIONAL TRENDS

A) Progress of GCC Countries on EFA Goals

EFA Goals	Goal 1: Early Childhood Education	Goal 2: Universal Primary Education	Goal 3: Youth and adult skills	Goal 4: Adult Literacy	Goal 5: Gender parity and equality	Goal 6: Quality of education	
Indicators	Preprimary enrollment target of at least 70%	Primary enrolment target of 95%	Lower secondary education enrolment of at least 95%	Adult literacy target of at least 95%	Gender parity in primary education	Survival rate to last grade (2010)	Pupil/teacher ratio in primary education
Target reached or close (\geq 95%)	Qatar	Oman, Qatar, UAE	Oman, Qatar	Bahrain, Kuwait, Qatar	Oman, Qatar	Bahrain, Kuwait	Kuwait (9) Qatar (11) Saudi Arabia(11) UAE (17)
Far from target (80- 94%)				Oman, Saudi Arabia, UAE			
Very far from target (< 80%)						UAE	
Insufficient Data	Bahrain, Kuwait, Oman, Saudi Arabia, UAE	Bahrain, Kuwait, Saudi Arabia	Bahrain, Kuwait, Saudi Arabia, UAE		Bahrain, Kuwait, Saudi Arabia, UAE	Oman, Qatar, Saudi Arabia	Bahrain Oman

IV. REVIEW OF REGIONAL TRENDS

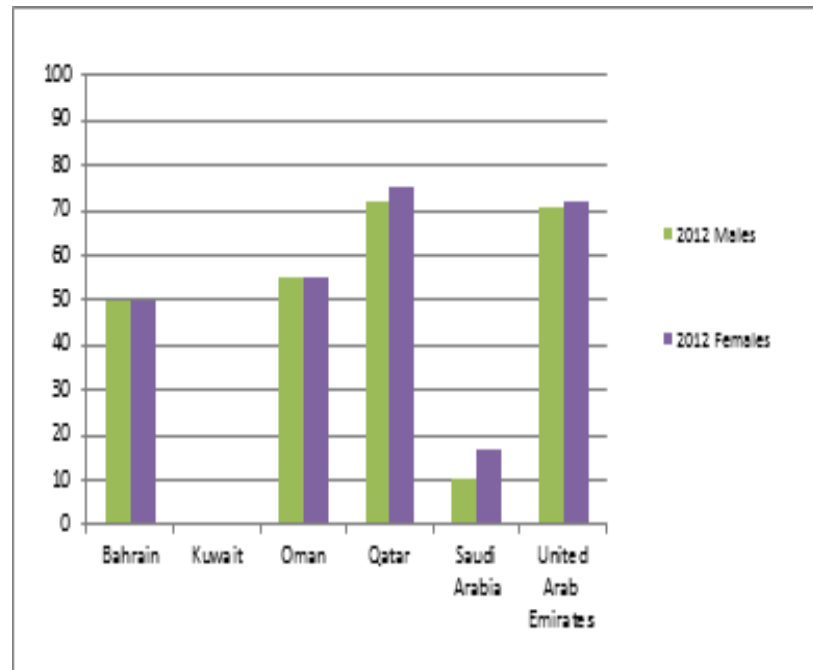
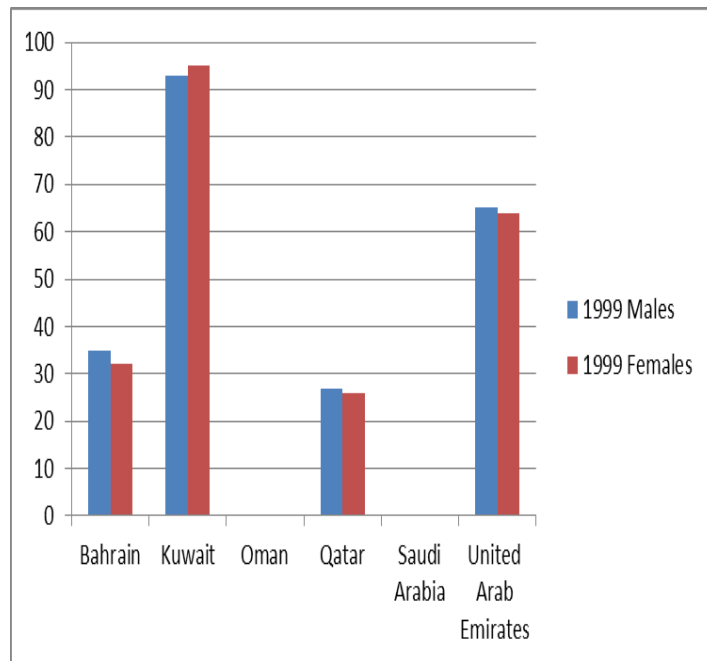
A) Progress of GCC Countries on EFA Goals

1) EFA Goal 1: Expanding and improving comprehensive **early childhood care and education**, especially for the most vulnerable and disadvantaged children

- It is clear that there is significant progress of early childhood care and education
- Percentage of students in pre-primary education who are female has increased in each country
- As challenge, it shows that all pre-primary teachers are trained in Bahrain at 49.7% in 2014 and Kuwait at 72% in 2011

Figure Gross Enrollment Ratio (GER) in pre-primary education for male and female pupils in 1999 and 2012 (%).

Source: UNESCO Global Monitoring Report April, 2015



IV. REVIEW OF REGIONAL TRENDS

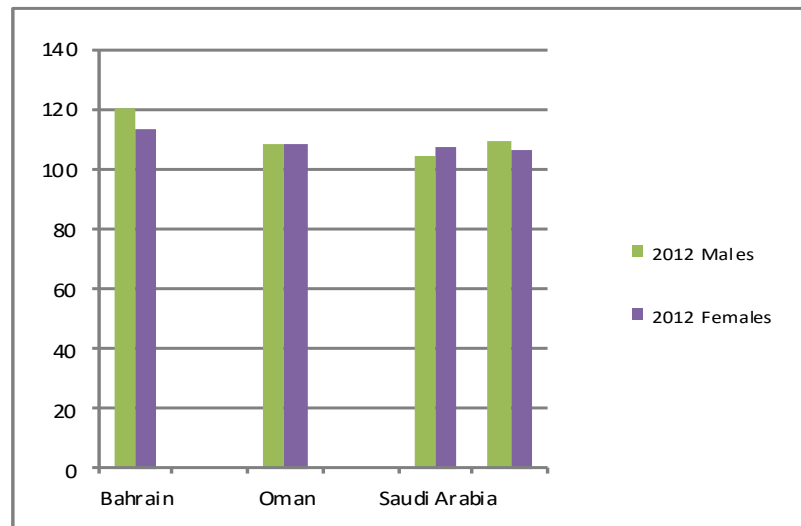
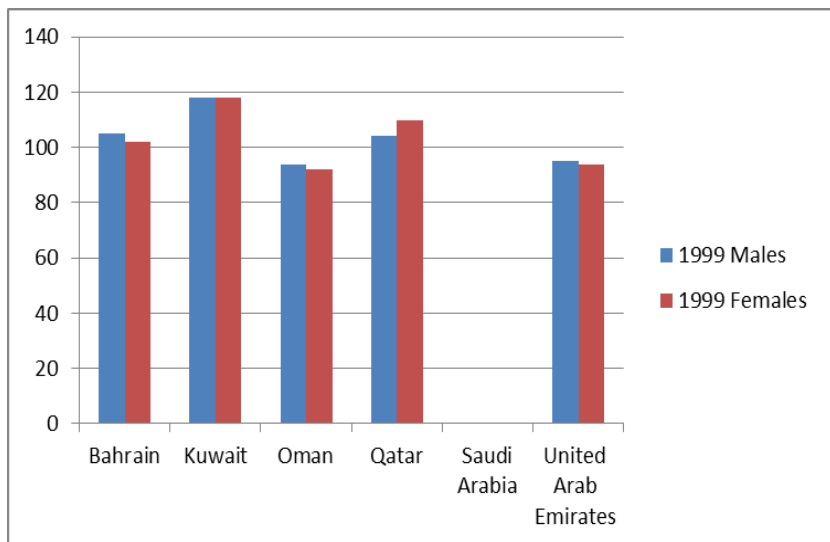
A) Progress of GCC Countries on EFA Goals

2) EFA Goal 2: Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete, free and compulsory **primary education of good quality**

- GER has increased from 1999 to 2012
- GER values exceeded 100% in 2012 for pupils for both genders
- However, there is pupils repeating a year in their primary schooling counted

Figure: Gross Enrolment Ratios (GER) in Primary Education in 1999 and 2012 (%) for male and female pupils

Source: UNESCO Global Monitoring Report April, 2015



IV. REVIEW OF REGIONAL TRENDS

A) Progress of GCC Countries on EFA Goals

3) EFA Goal 3 :Ensuring that **the learning needs of all young people** and adults are met through equitable access to appropriate learning and life skills programmes.

- Transition from primary to secondary education, there is GCC achieved learning needs.
- Survival Rate to the last grade exceed 95% in each country
- The transition rate exceeded 97% for pupils of both gender-> high level of access or transition from primary to secondary education
- According to first figure below, it is evidence that the learning needs of young male and female pupils are being met in all the GCC countries
- Enrollment in technical and vocational training education amongst the GCC countries was highest in Bahrain and UAE where TEVET enrolment rate were higher for male students than female students.

Figure: Breakdown of Total enrolment in secondary education by gender in 2012

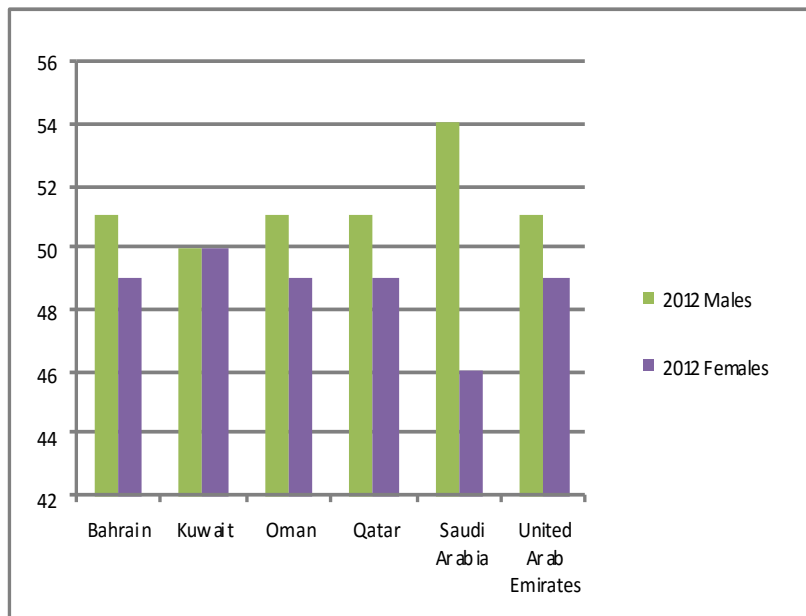
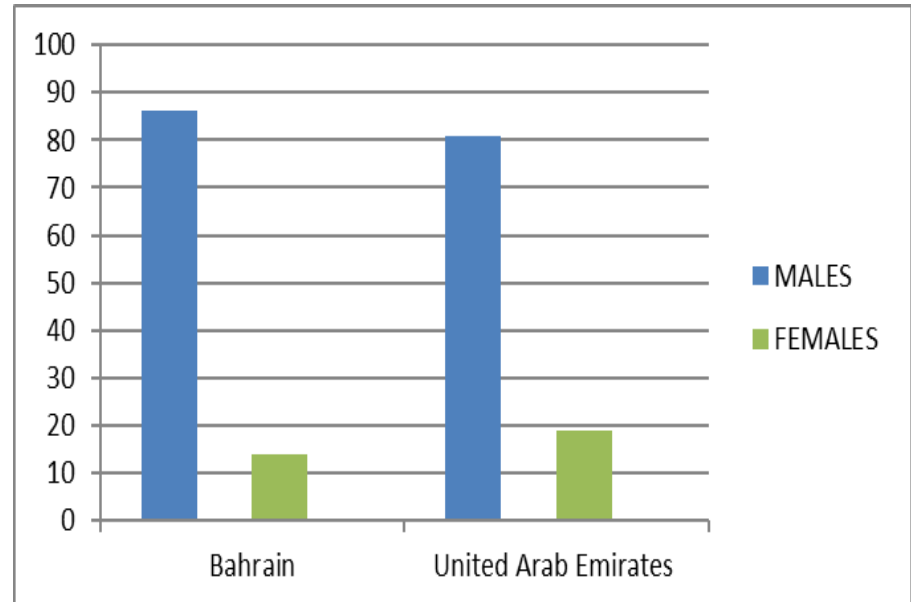


Figure: Enrolment in technical and vocational (%) in 2012



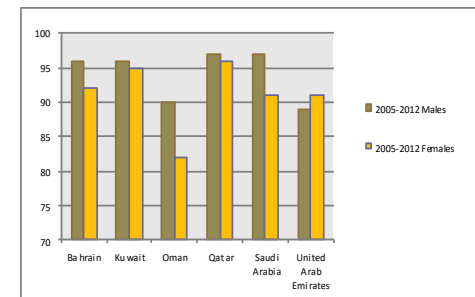
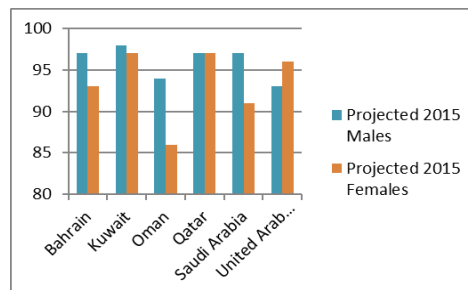
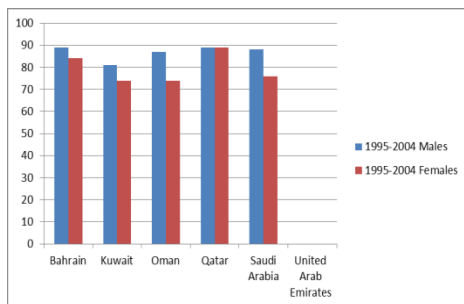
IV. REVIEW OF REGIONAL TRENDS

A) Progress of GCC Countries on EFA Goals

4) EFA Goal 4: Achieving a 50 percent **improvement in levels of adult literacy** by 2015, especially for women, and equitable access to basic and continuing education for all adults.

- Skills are applicable to daily life, are essential to communicating using the written word and to studying at a post-primary level. Low levels of literacy inhibit intellectual growth and the ability of individuals to contribute to the socio-economic and cultural development of their society.
- Youth literacy in the GCC for youth of both genders are either 100% or 99%.
- the adult literacy rate for male and female adults is expected to exceed 90 per cent.
- However, the absolute number of non-literate adults will actually increase, due on the one hand to population growth and on the other because of a lack of capacity in the schooling system to meet the educational needs of the growing population.
- An increased inward migration of low-skilled laborers to many GCC countries will also add to the non-literate adult population.

Figure: Adult literacy rates in three time series: (a) 1999-2004, (b) 2005-2012, and (c) Projected Values for 2015.



IV. REVIEW OF REGIONAL TRENDS

A) Progress of GCC Countries on EFA Goals

5) EFA Goal 5: **Eliminating gender disparities** in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality

- Gender differences in education can be measured by finding the value of the gender parity index of a given education indicator.
- The Gender Parity Index (GPI) of the Gross Enrollment Ratio (GER) in all six GCC countries is either equal to 1 or almost equal to 1, suggesting that parity has nearly been achieved between the two genders in pre-primary education enrolment.
- In 2015, in terms of absolute values, there were more illiterate male adults than female adults in all the GCC countries except for in Bahrain and Saudi Arabia where there were more illiterate female adults

1) The Gender Parity Index of the secondary Gross Enrolment Ratio (GER)

Indicator: Gross enrolment ratio, secondary, gender parity index (GPI) Indicator: Youth illiterate population, 15-24 years, female (number)

Time		1999	2012	2013	2014
Country					
Bahrain		1.1	..	..	..
Kuwait		1.0	1.1	1.1	1.1
Oman		1.0	..	..	..
Qatar		1.1	..	..	..
Saudi Arabia		..	..	0.8	0.8
United Arab Emirates		1.1	..	..	..

Time		1999	2012	2013	2014	2015
Country						
Bahrain		206
Kuwait		..	2657	..	..	1025
Oman		2277
Qatar		..	114	..	..	48
Saudi Arabia		18395	..	13598
United Arab Emirates		3701

IV. REVIEW OF REGIONAL TRENDS

A) Progress of GCC Countries on EFA Goals

6) EFA Goal 6 Improving all aspects of the **quality of education** and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy, and essential life skills.

The quality of education is a multidimensional phenomenon, so there is no single definitive interpretation of educational quality.

- Includes literacy, numeracy and life skills, in addition to linking critical components such as trained teachers, content, methodologies, curriculum, examination systems, policy, planning, and management and administration the pupil/ teacher ratio (PTR) has been an important measure for assessing progress towards the goal of good quality education.
- Between 1999 and 2012, the global average PTR in primary education improved from 26:1 to 24:1, whilst in secondary education it changed from 18:1 to 17:1.

Pupil/teacher ratio in Pre-primary Education

Indicator	Pupil-teacher ratio in pre-primary education (headcount basis)	
Time	1999	2014
World		24
Bahrain	21	15
Kuwait	15	10
Oman	..	27
Qatar	21	14
Saudi Arabia	..	11
United Arab Emirates	19	19

Source: UNESCO Institute of Statistics Data base, 2016

IV. REVIEW OF REGIONAL TRENDS

b) Preliminary analysis of international (PISA, TIMSS) and national assessments

Post 2015 Global Education Goals Muscat Agreement 2014

Target 1:

By 2030, at least x% of girls and boys are ready for primary school through participation in quality early childhood care and education, including at least one year of free and compulsory pre-primary education, with particular attention to gender equality and the most marginalized.

Target 2:

By 2030, all girls and boys complete free and compulsory quality basic education of at least 9 years and achieve relevant learning outcomes, with particular attention to gender equality and the most marginalized.

Target 3:

By 2030, all youth and at least x% of adults reach a proficiency level in literacy and numeracy sufficient to fully participate in society, with particular attention to girls and women and the most marginalized.

Target 4:

By 2030, at least x% of youth and y% of adults have the knowledge and skills for decent work and life through technical and vocational, upper secondary and tertiary education and training, with particular attention to gender equality and the most marginalized.

Target 5:

By 2030, all learners acquire knowledge, skills, values and attitudes to establish sustainable and peaceful societies, including through global citizenship education and education for sustainable development.

Target 6:

By 2030, all governments ensure that all learners are taught by qualified, professionally-trained, motivated and well-supported teachers.

Target 7:

By 2030, all countries allocate at least 4-6% of their Gross Domestic Product (GDP) or at least 15-20% of their public expenditure to education, prioritizing groups most in need, and strengthen financial cooperation for education, prioritizing countries most in need.

Global EFA Meeting Muscat, 2014

Key theme 1:
Right to
Education

Key theme 2:
Equity

Key theme 3:
Inclusion

Key theme 4:
Quality
Education

Key theme 5:
Lifelong
learning

Arab States Regional Conference on Education Post-2015 Sharm Elsheikh, Egypt January, 2015

Priority 1:
Equitable and inclusive
access for all

Priority 2:
Quality and relevance of
education, and teachers

Priority 3:
Citizenship & Education
for Sustainable
Development

Priority 4:
Governance and
Financing: Enabling
policies & mechanisms for
future education agenda

World Education Forum (WEF) 2015 Incheon, Korea May 2015

Target 1: ensure all girls and boys complete free, equitable, and quality primary and secondary

Target 2: ensure all girls and boys have access to quality early childhood development, care and pre-primary education

Target 3: ensure equal access for all women and men to affordable quality technical, vocational and tertiary education

Target 4: increase the number of youth and adults for employment

Target 5: eliminate gender disparities in education and ensure equal access

Target 6: ensure that all youth and at least x% of adults, achieve literacy and numeracy.

Target 7: ensure all learners acquire knowledge and skills needed to promote sustainable development

Special Summit on Sustainable Development New York September 2015

Global
Roadmap
for
Education

Framework
for Action

4 QUALITY
EDUCATION



Classification of large-scale learning assessments

IV. REVIEW OF REGIONAL TRENDS

b) Preliminary analysis of international (PISA, TIMSS)

International assessments: IEA-type assessments (TIMSS, PIRLS,) and OECD-sponsored assessments (PISA)

National assessments reflect knowledge and skills acquired by students from the intended curriculum

IV. REVIEW OF REGIONAL TRENDS

b) Preliminary analysis of international (PISA, TIMSS) and national assessments

GCC country Participation in International Assessments (TIMSS and PISA)

Country	2007	2009	2011	2012	2015
Bahrain	TIMSS 2007	NA	TIMSS 2011	NA	TIMSS 2015
Kuwait	TIMSS 2007	NA	TIMSS 2011	NA	TIMSS 2015
Oman	TIMSS 2007	NA	TIMSS 2011	NA	TIMSS 2015
Qatar	TIMSS 2007	PISA 2009	TIMSS 2011	PISA 2012	TIMSS 2015 PISA 2015
Saudi Arabia	TIMSS 2007	NA	TIMSS 2011	NA	TIMSS 2015
UAE	TIMSS 2007	PISA 2009	TIMSS 2011	PISA 2012	TIMSS 2015 PISA 2015

What learning has been assessed in international assessments?

TIMSS, PIRLS and PISA are all **summative** and **low-stakes** assessments, mainly for stakeholders external to the school.

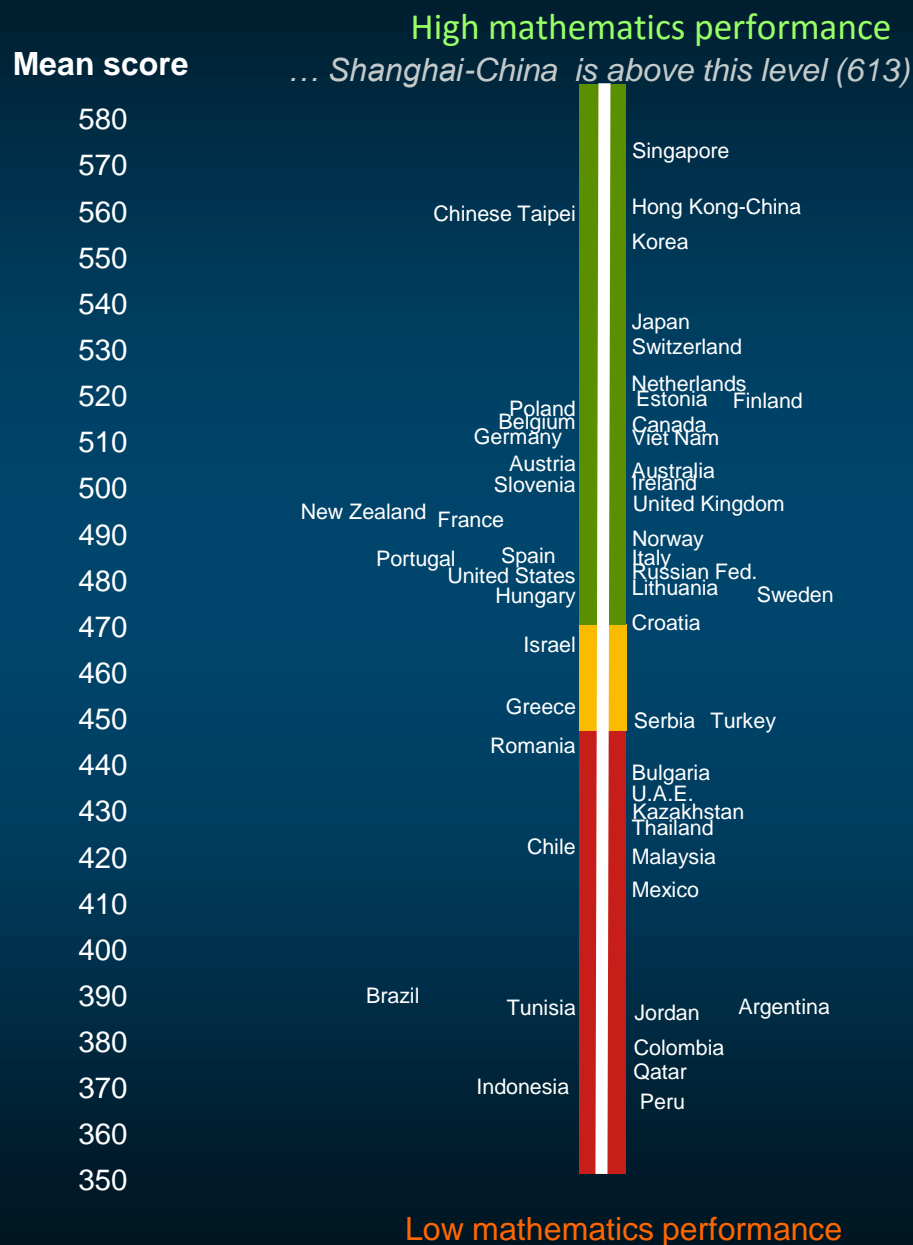
IEA-type studies collect information on what the pupil learned (**attained curriculum**), what the teacher is expected to teach (**intended curriculum**), and what the teacher has in fact taught (**implemented curriculum**) .

The distinguishing features of PISA have been its **age-based sampling design** and **its non-curricular focus**.

Increasing interest in soft skills: problem solving ability; critical thinking; ICT skills.

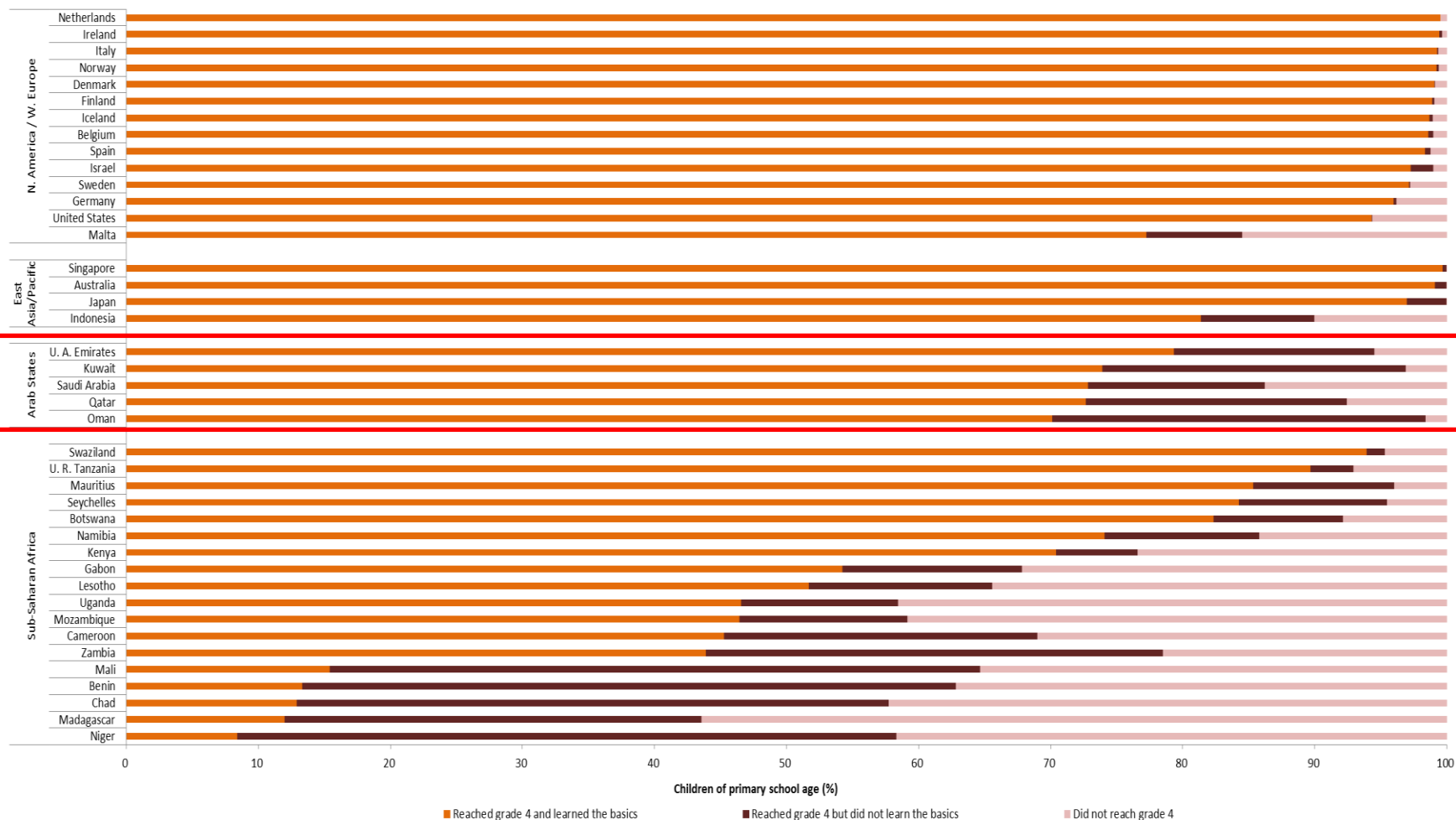
Mean performance in mathematics – PISA 2012

Fig I.2.13



International divide in learning outcomes

Observed failure of GCC states to translate investment in education into improved learning



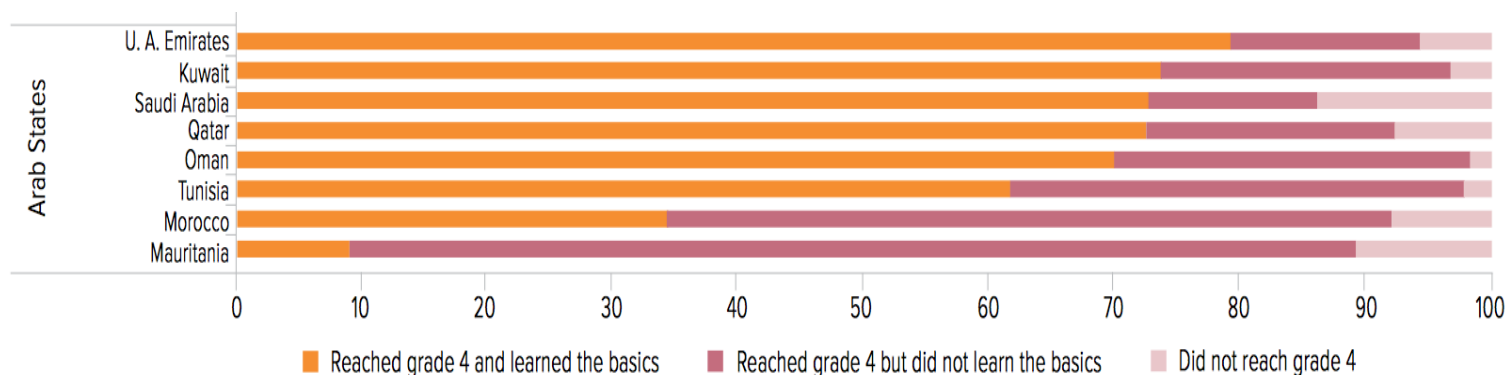
Source: EFA Global Monitoring Report team calculations (2013) based on PIRLS (2011), SACMEQ (2007), PASEC (2004-2008), ASER India (2012) and Pakistan (2012).

IV. REVIEW OF REGIONAL TRENDS

b) Preliminary analysis of international (PISA, TIMSS) and national assessments

GMR 2013/14: Figure 4.2. Learning outcomes vary by widely between countries

Percentage of children of primary school age who reached grade 4 and achieved minimum learning standard in reading, in selected countries

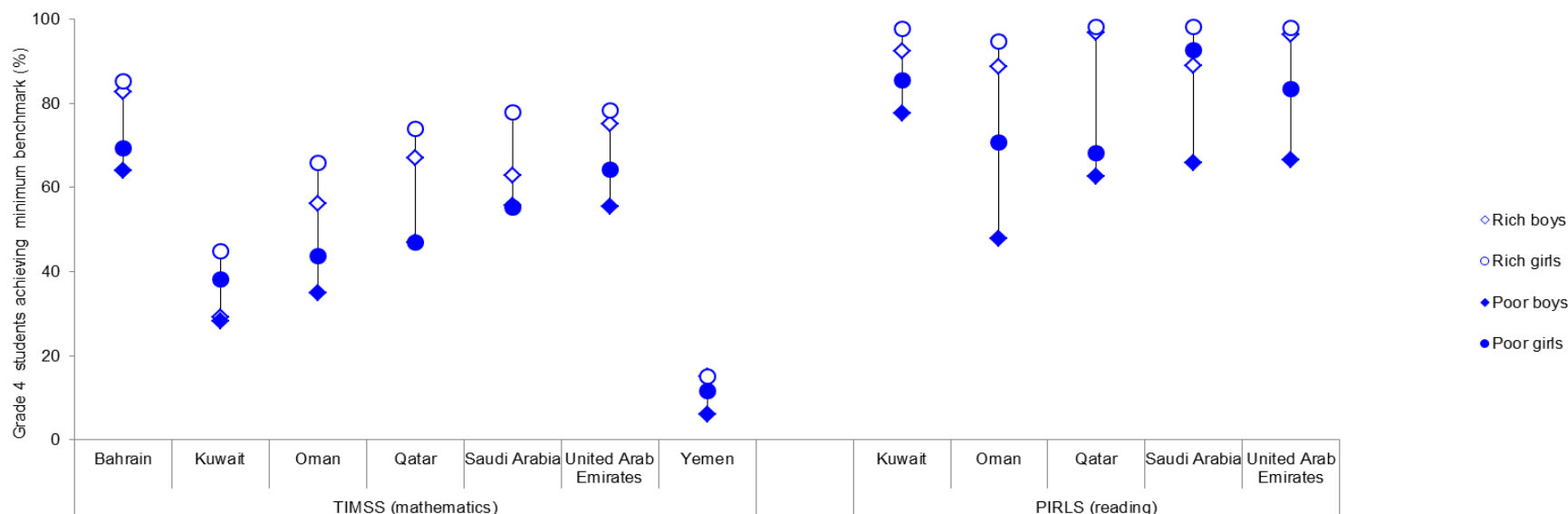


Note: See notes to Figure 4.1.

Sources: EFA Global Monitoring Report team calculations (2013) based on (1) expected cohort survival rate to grade 4: UIS database; (2) learning achievement: Altinok (2013b), using data from the 2011 PIRLS, 2007 SACMEQ, 2004-2008 PASEC, 2006 SERCE; and analysis by the 2012 ASER India and 2012 ASER Pakistan survey teams.

Wide learning inequalities within countries (I)

Socio-economic status affects learners' chance to learn

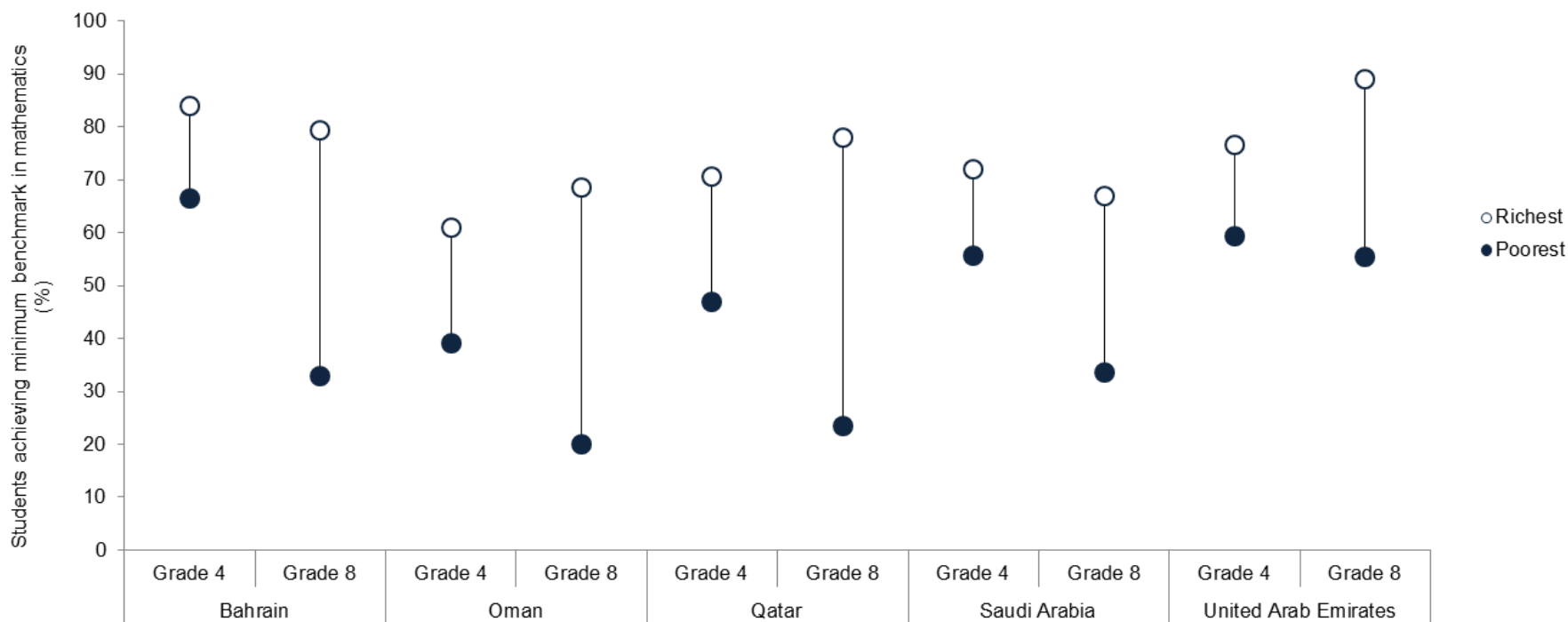


Source: World Inequality Base on Education based on the 2011 PIRLS and TIMSS data.

<http://www.education-inequalities.org/>

Wide learning inequalities within countries (II)

The gap between high and low SES widens as children progress through the system in many countries of the region

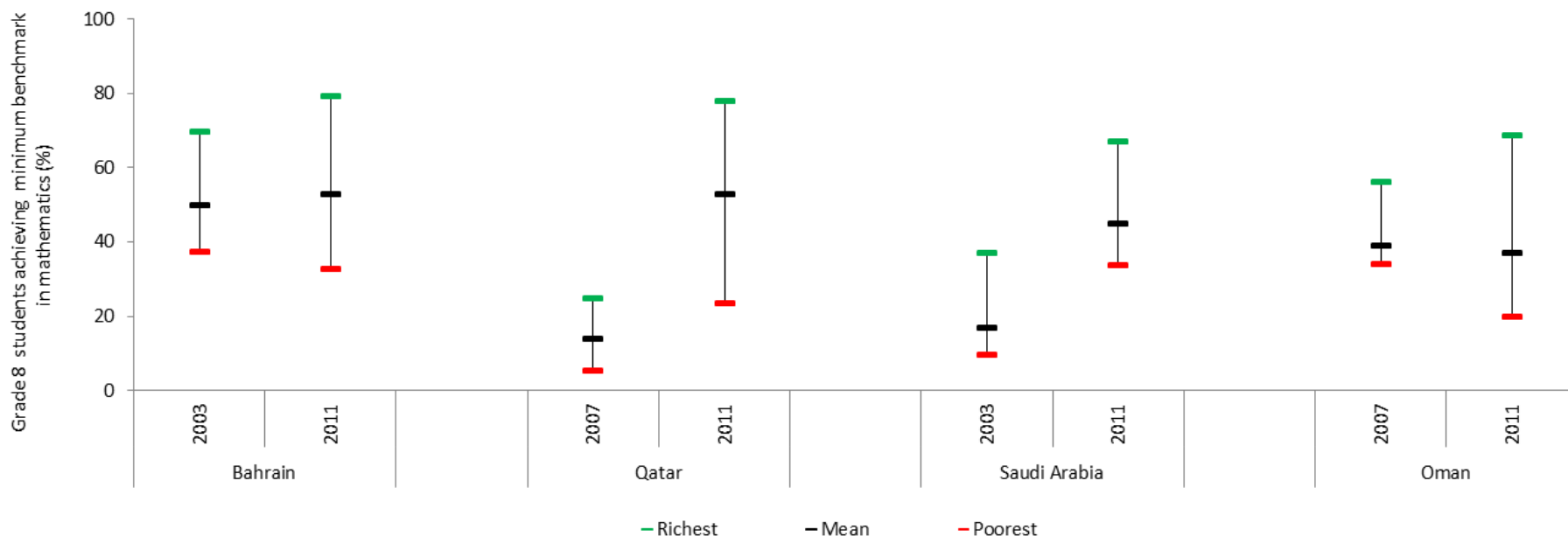


Source: World Inequality Base on Education based on the 2011 TIMSS data.
<http://www.education-inequalities.org/>

Progress triggles down more slowly to disadvantaged groups

Countries have not been always successful at addressing inequality.

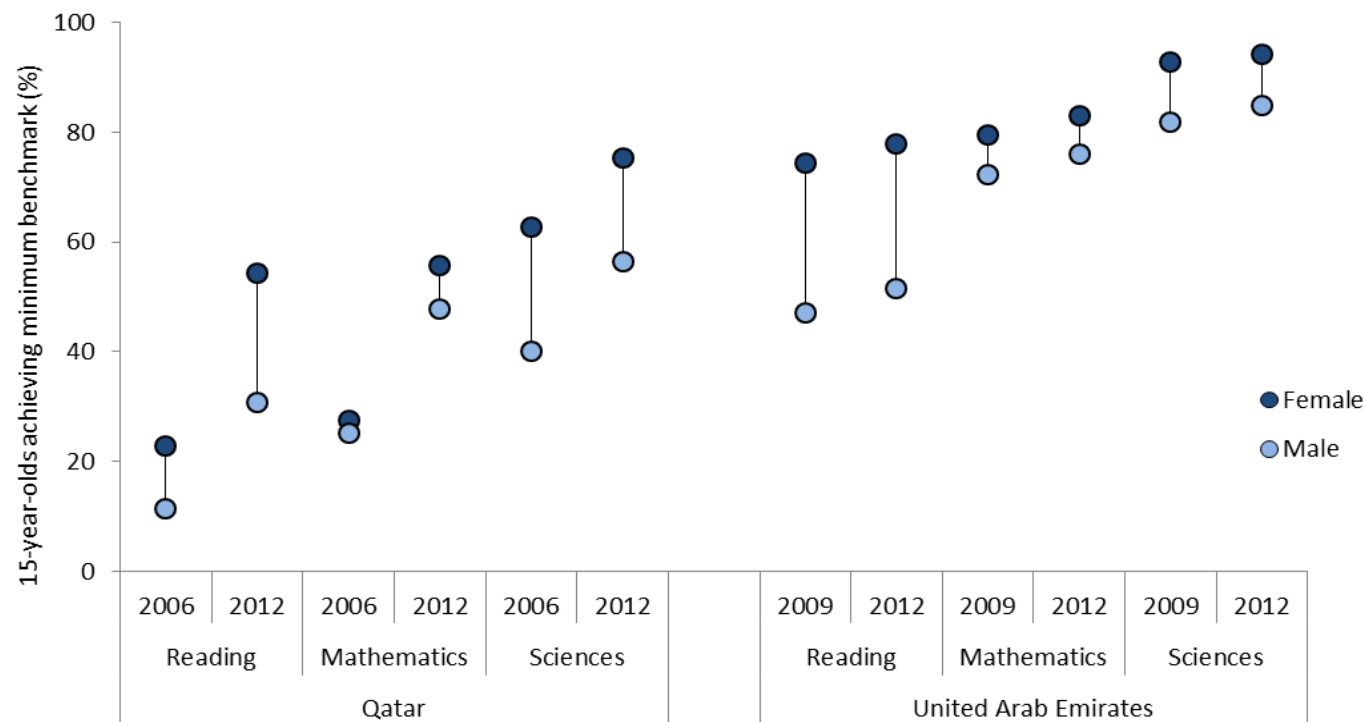
Oman experienced a trend of declining learning outcomes coupled with widening inequality.



Source: World Inequality Base on Education based on the 2003, 2007 and 2011 TIMSS data.
<http://www.education-inequalities.org/>

Gender and subject performance

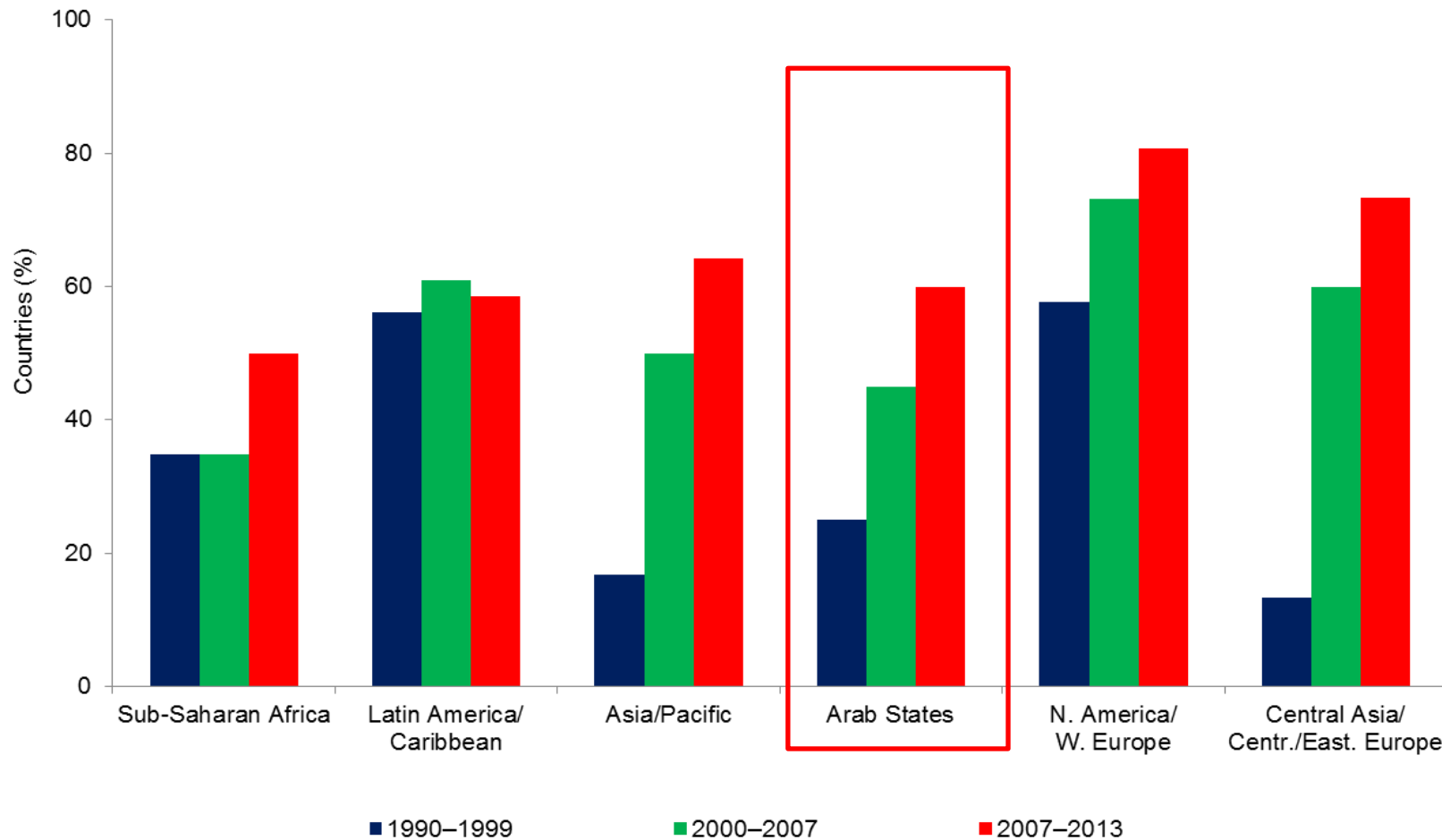
In Qatar and UAE, girls out perform boys in every subject, the gap being wider in reading.



Source: World Inequality Base on Education based on PISA (2012) data
<http://www.education-inequalities.org/>

Participation in national assessments

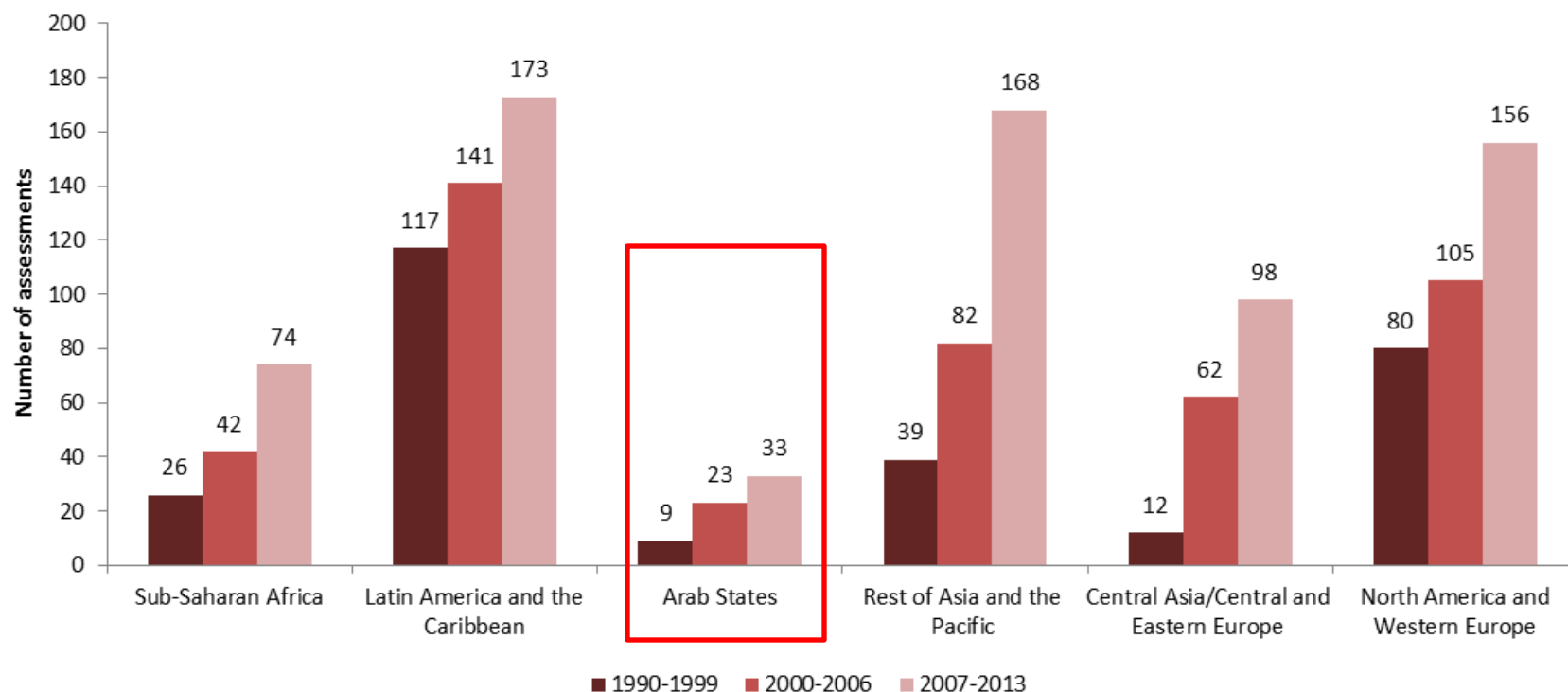
A larger share of countries in the region are carrying out national assessments.



Sources: Benavot and Koseleci, 2015

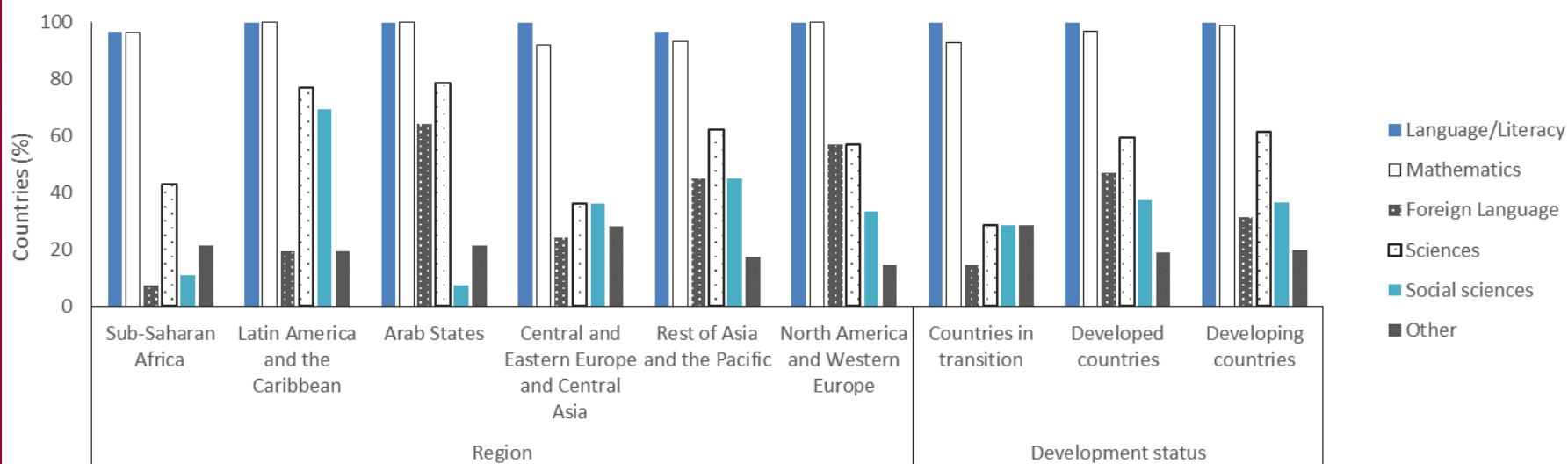
Participation in national assessments

The cumulative number of national assessments conducted in the region increased from 9 between 1990-1999 to 33 between 2007-2013



Participation in national assessments

The emphasis on foreign language and sciences is strongest in the Arab States



Sources: Benavot and Koseleci, 2015

IV. REVIEW OF REGIONAL TRENDS

b) Preliminary analysis of international (PISA, TIMSS) and national assessments

TIMSS

What steps and measures have been taken to improve learning outcomes in Mathematics with focus on TIMSS in the GCC countries?

- Electing to teach Mathematics and Sciences in Arabic (Qatar);
- Adopting a McGraw-Hill series as a developed curriculum for teaching Mathematics and Sciences (Qatar);
- Implementing a policy for the extension of study time;
- Adopting and implementing the question bank project in Bahrain and Qatar;
- Teacher training;

V. CHALLENGES OF EDUCATION IN GCC

- **Gender disparity:** Gender gap in access, equity and in scientific fields
- **Youth unemployment / TVET:** Students to be advised during secondary school before they enter higher education about potential careers and they need to be encouraged to study disciplines that for which there is demand by the labour market.
- **Education policy:** Instability regarding the curriculum and Misalignment of curriculum with student abilities
- **Performance evaluation and monitoring:** More measure need to be adopted for performance evaluation and monitoring purposes.
- **Strategic Action Plans for low-performing schools:** A strategic action plan should be developed and implemented for low-performing schools so that they are able to provide their current pupils with a high-standard of education.
- **Focus on developing skills in core subjects:** A strategy to improve Mathematics, Science and English achievement in various school stages and streams needs to be developed.
- **Training teachers and special education:** Teacher training, Teacher certification
- **Educational teaching approaches:** Teachers need to be encouraged further about adopting a system of teaching that encourages analytical thinking, developing practical skills and initiative instead of teaching by rote.
- **Increase and rebalance the education budget:** Schools with limited facilities and learning resources should be reequipped to offer quality learning experiences and to improve the safety of students being affected by hazards in the vicinity of their school.
- **Reduce the turnover of administrative and teaching staff in government schools:** Schools need to develop effective management and quality assurance procedures for ensuring student development and progression.
- **Reduce the gap between male and female levels of performance and academic achievement:** A strategy needs to be developed to improve the academic achievement of male students.
- **Provide teacher training for the usage of ICT in education:** Provide teachers with further ICT training that would transform the teaching and learning experiences of students. Create more opportunities to use computer laboratories and education technology more efficiently
- **Involvement of parents:** Parents need to be further encouraged to participate in order to raise their level of understanding of the importance of their participation in the learning process.

VI. EMERGING LESSONS FROM LEARNING ASSESSMENTS

TIMSS

What are the recommendations for future planning?

- Elaborating procedural plans and strategies and implementing them between sessions after analyzing data and monitoring results;
- Calling upon the educational research institutes such as the Arab Bureau of Education for the Gulf States (ABEGS) to adopt and implement a test preparation project similar to international tests.
- Conduct competitions in the GCC states and subject students to TIMSS;
- Issue a regional report for TIMSS. Earlier issued for Arab States. What about GCC data reports with specialized analysis for the Gulf States (not glossy flashy reports but in-depth analysis).

VI. EMERGING LESSONS FROM LEARNING ASSESSMENTS

- There is a lack of evidence on how international and national assessments are used for decision making at local and national levels. Often, assessment results are only in a national report, which may or may not be publicly available.
- Informing teachers and schools about assessment results, with other accompanying policies (such as professional development or coaching), is essential to change the day-to-day instruction that occurs in the classroom.

VII. POLICY IMPLICATIONS FOR DECISION-MAKERS

- Need for evidence-based policy and strategies in setting the agenda for education 2030 in order to address the quality conundrum
- Implications for curriculum review in maths, science, reading and literacy
- Need for investments in teacher training for maths, science, reading and literacy
- Need for fostering critical thinking and analytical skills
- Financing for quality: are we investing where quality matters?

References

- TIMSS Mathematics and Science Report
- PISA report
- GMR reports
- Analysis conducted by GMR for QNRF research



Classroom observation in Kuwait



TIMMS Math Workshop in Doha



Focused group discussion with science students in Qatar, Al Baira



1st Panel of Experts Meeting, Doha, Qatar

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Q&A

THANK YOU

