

Education in the GCC: Developments and Trends



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Overview and Introduction

The Cooperation Council for the Arab States of the Gulf, also known as the Gulf Cooperation Council (GCC), was established on May 25, 1981, in Abu Dhabi, United Arab Emirates. The GCC comprises six countries: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

From early on in its inception, the GCC has launched meetings and committees to represent joint educational cooperation regarding education.

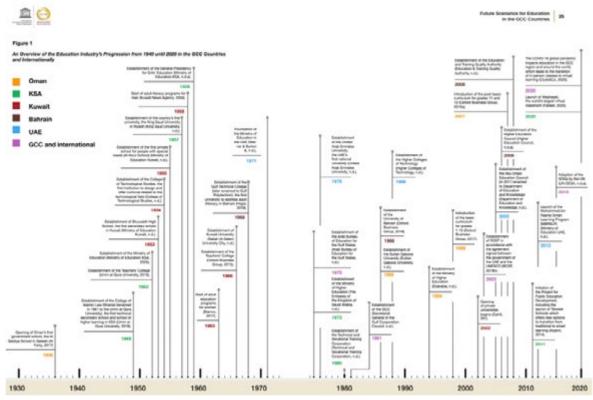


From the 7th session of the Supreme Council in Muscat in December 1985 to the 24th session in Kuwait in December 2003, the GCC countries on formulating a comprehensive developmental plan through deliberations and resolutions. Specifically, in Kuwait in November 1993. the higher education institutes, the Committee of the Directors and Presidents of Universities, and the Higher Education Institutions adopted a joint action plan. The plan addressed areas of mutual interest and objectives of cooperation, leading to the creation of committees, including deans of colleges of arts, science, and medicine, deanships of admission and registration, libraries,

students, vice-presidents of universities, and heads of certain scientific departments. By 1996, Ministries of Higher Education were established in most GCC countries, and consequently, a Ministerial Committee for Higher Education was established to supervise the areas of cooperation regarding education. At the same time, each of the six countries established their own mandates based on respective educational objectives and goals.

It is important to note that the role of the GCC is to establish coordination, integration, and interconnection among the six countries to achieve unity in the region, as stated in the GCC Charter. In addition, the GCC Charter states that other basic objectives of the Council include deepening and strengthening relations, links, and areas of cooperation prevailing between their peoples in various fields, formulating similar regulations in various sectors such as education, economy, finance, commerce, trade, customs, culture, tourism, legislation, administration, and health, and stimulating scientific and technological progress in the fields of industry, mining, agriculture, water, and animal resources in order to establish scientific research, joint ventures, and cooperation by the private sector.

Since this initial period, all six GCC countries have experienced significant social and economic changes over the years, such as diversifying their economies, promoting gender equality, and enhancing their education sector. The timeline below, taken from the Regional Center for Educational Planning's 2021 Future Scenarios for Education in the GCC Countries report, outlines the progression of education in the GCC States.



Source: Future Scenarios for Education in the GCC Countries (Regional Center for Educational Planning, 2021).

The timeline shows that, over the years, the GCC states have experienced tremendous growth in the education sector. The launch of Saudi Arabia's "Madrasati" e-learning platform in response to the COVID-19 pandemic, for example, has been cited as an important achievement regionally and internationally. The "Madrasati" platform was ranked among the best seven global e-learning platforms in a study conducted by the Online Learning Consortium (OLC). The study concluded that the Saudi "Madrasati" platform outperformed 174 countries, proving to be one of the comprehensive responses against the challenges resulting from the pandemic (Unified National Platform of the Kingdom of Saudi Arabia, 2021). Outside of such specific examples, much of the advances in education in the GCC states can be seen at the national level, reflected by the GCC states' national visions outlined in the next section.

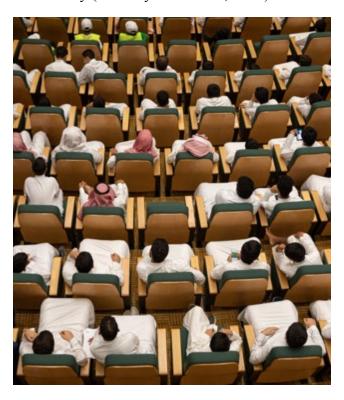
National Reforms Steps

The GCC countries have, over the past decade, announced long-term national visions with defined areas, objectives, targets, and initiatives. Much of the developments in the education sector can be seen at the national level. Given the socioeconomic and political importance of education, all of the GCC states have made education a main pillar in their respective national plans. This paper will now analyze each country's plan in enhancing its respective education sector.

Saudi Arabia:

Education is one of Saudi Arabia's key sector of focus in its Vision 2030. Moreover, Saudi Arabia is one of the leading countries in investing in the education sector. According to the Ministry of Finance's Budget Statement, key achievements in 2021 include: increasing the number of university admissions by over 10%, allocating 60 educational

facilities in Makkah, launching the Excellence Scholarship Path for 32 additional majors in 70 international universities, expanding the King Khalid University Hospital, and establishing a university center for oncology at the King Saud University (Ministry of Finance, 2022).



Saudi Arabia's Vision 2030 aims to improve citizens' and residents' quality of life under several Vision Realization Programs. The Human Capability Development Program is one of Saudi Vision 2030's programs and was created to "develop citizens' capabilities, prepare them for the future, and support them to seize opportunities" (Saudi Vision 2030). Significant objectives related to education include improving equal access to education, improving fundamental learning outcomes, improving the ranking of educational institutions, and ensuring the alignment of educational outputs with labor market needs (Saudi Vision 2030). One noteworthy commitment includes having at least 6 Saudi universities ranked within the top 200 universities globally by 2025. According to the Saudi Vision 2030, the Human Capability Development Program consists of three core pillars: developing a resilient and

strong educational base for everyone, preparing for the future labor market locally and globally, and providing lifelong learning opportunities (Saudi Vision 2030).

United Arab Emirates:

The United Arab Emirates is another leading country regarding education. In 2010, the United Arab Emirates launched the UAE Vision 2021, which has six national priorities, including putting forth a First-Rate Education System and a Competitive Knowledge Economy (UAE Vision 2021). Both the Dubai Plan 2021 and Abu Dhabi Economic Vision 2030 have launched plans to improve the quality of education via improved curriculum and infrastructure (GFH, 2020). In addition, the Ministry of Education launched the National Strategy for Higher Education 2030 in September 2017, which aimed to develop the country's scientific and professional education standards to serve future generations. Two of the initiatives in the strategies are the Investment in Knowledge initiative and the Competitive Research Funding initiative.

Kuwait:

The state of Kuwait has also taken steps to improve its education system. Education has been a cornerstone of Kuwait's Vision 2035, particularly as a way of social progress, economic diversification, and sustainable growth. Two specific programs are the quality of education program and the higher education program (GFH, 2020). Kuwait established the Kuwait Schools Development Programme (KSDP) that aims to develop nine schools with a capacity for 4350 pupils around Kuwait City, overseen by the Ministry of Education and the state's publicprivate partnership (PPP) programme Partnerships Technical Bureau, according to a report by Oxford Business Group.

Bahrain:

The Economic Vision 2030 for Bahrain has three main pillars: Economy, Government, and Society. In the Society pillar, there are two aspirations that are aimed at developing the education system. First, the Economic Vision 2030 for Bahrain aspires to set "a high standard of social assistance gives all Bahrainis an equal start," which includes "supporting and developing talented youths throughout the course of their education" (The Economic Vision 2030 for Bahrain).



Second, Bahrain aims to develop a first-rate education system that enables all Bahrainis to fulfill their ambitions and to enhance both performance and standard in schools, vocational institutions, and universities (The Economic Vision 2030 for Bahrain). The vision outlined four aspects of this strategy: (1) develop Bahraini teachers through improved recruitment, training, management, and perception, (2) attract new industries and provide quality training in advanced skills, (3) review the performance of educational and training institutions to set high standards of quality, and (4) enhance research programs in universities to create a knowledge-based economy (The Economic Vision 2030 for Bahrain).

Oman:

Oman Vision 2040 places a significant emphasis on the education sector. Specifically, Education, Learning, Scientific Research, and National Capabilities are main national priorities listed in the vision. In addition, Oman Vision 2040 lists the following objectives regarding improving the education sector: a high-quality educational system with societal partnership, an integrated and independent system to govern and evaluate the educational ecosystem against national and international standards, value-enforcing curricula that incorporate Islamic principles and Omani identity, a system that empowers human capabilities in the educational sector, and an effective national system that nurtures scientific research, innovation, and creativity to build a knowledge-based economy and society (Oman Vision 2040). Moreover, Oman aims to be among the top 10 performing countries in the education field by 2040.

Qatar:

Educated is a significant pillar in the Qatar National Vision 2030. The vision states that "Qatar aims to build a modern world-class educational system that provides students with a first-rate education, comparable to that offered anywhere in the world" (Qatar National Vision 2030). Some of Qatar's objectives include improving the educational curricula, providing high-quality educational and training opportunities, and developing educational programs. Qatar launched a state-led non-profit organization, the Qatar Foundation for Education, Science and Community Development, created by His Highness the Father Emir Sheikh Hamad Bin Khalifa Al Thani and Her Highness Sheikha Moza bint Nasser in 1995. Its flagship initiative, Qatar Education City, was inaugurated on October 13, 2003, and hosts branches of campuses from numerous leading educational institutes, such as Georgetown University, Northwestern University, Cornell University, and Texas A&M University, as well as a local university, Hamad bin Khalifa



University, as well as research centers (Qatar Foundation, 2022). Since then, Qatar Education City has brought together a total of 10,600 students across 8 universities and 13 schools that are part of its Pre-University Education network. Additionally, Oatar Foundation established the Qatar National Research Fund in 2006 to further establish the country as a knowledge-based economy.

Drivers for Progress

All six GCC states therefore provide excellent opportunities for further development in education. One of the most significant growth drivers is the GCC states' funding and financial commitments to improving their education sectors. In 2019, the GCC governments allocated an average of 13% of total government expenditure to education budgets (GFH, 2020). Graph 1, recreated below from GFH's 2020 Sector Report on GCC Education, shows the breakdown of the GCC countries' education budgets in 2019.

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Graph 1: GCC Governments' Education Budgets (% of Government Expenses, 2019)



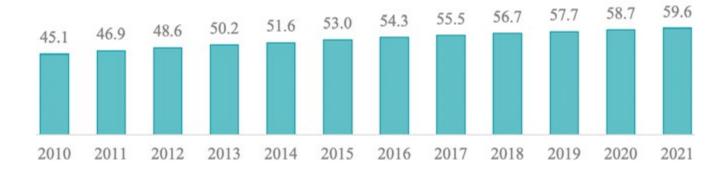
Source: Sector Report on GCC Education (GFH, 2020)

In 2022, the GCC states continued to increase their budgets regarding education. For instance, as stated by Saudi Arabia's Ministry of Finance's for the Fiscal Year 2022, SAR 185 billion out of SAR 955 billion will be allocated to education, making up the most significant share of sector expenditures at 19.37% (Ministry of Finance, 2022). According to the United Arab Emirates' Government portal, the government allocated AED 10.41 billion to education, which is around 14.8% of the federal budget. Kuwait for its Fiscal Year 2021-2022 allocated around KWD 2.8bn to education, which is roughly 12% of the federal budget (Ministry of Finance, 2021) while Bahrain allocated BHD 321mn to its education sector in 2021 and BHD 325mn in 2022 (Ministry of Finance and National Economy, 2021). Oman has also been investing in its education system. In its 2022 Federal Budget, Oman allocated the highest share of expenditures, 17% of the total 40% allocated to basic/social services. With a total public expenditure of RO 12.13 billion, the education sector received an estimated RO 2.06 billion (Ministry of Finance, 2022). In 2022, Qatar

announced that the state budget would continue to center around education. The education sector was allocated QR 17.8 billion, representing around 8.7% of total expenditures (Qatar News Agency, 2021). According to Qatar News Agency, part of the budget will be allocated to expanding and developing schools and educational institutions.

A key growth driver as far as education is concerned is the rising population in the GCC states. As Graph 2 demonstrates below, the population in the GCC has been increasing and is expected to reach 63.5mn in 2023, at a CAGR of 2.3% (GFH, 2020). Consequently, the GCC states have responded by developing their education system based on societal needs, leading to achievements such as an increase in student enrolment and advancing in technology-empowered education, described in the next section.

Graph 2: GCC Population (mn, 2010-2021)



Source: World Bank

Achievements

Student Enrollment

In addition to a growing economy, the GCC states have experienced an influx of student enrollment due to the increasing number of private universities in Capital's GCC Education Industry 2021 report, student enrollment reached around 12.2 million in 2019, a 0.7% CAGR from 2014. The pre-primary segment recorded the highest average growth in enrollment rate at 3.7%, while the tertiary segment increased by 1.9%, and the primary and secondary segment increased by 0.2%, as demonstrated in Graph 3 (Alpen Capital, 2021). In addition, the gross enrollment (GER) increased in the preprimary and tertiary segments, as shown in Graph 4.

Graph 3: Student Enrollment in the GCC, by Segment, in Thousands 14000 12000 10000 8000 6000 4000 2000 2014 2019 ■ Tertiary ■ Primary and Secondary ■ Pre-primary Graph 4: GER% across the GCC, by Segment (2014 vs. 2019) 120 108.1 102.1 80 60 40 Tertiary

Source: GCC Education Industry (Alpen Capital, 2021)



Technology-Empowered Education

Innovation and technology have been center-stage over the last decade, even prior to the spread of COVID-19. The GCC states have been consistently advancing their progress in innovation inputs and outputs. For example, the Global Innovation Index (GII), which ranks world economies based on innovation capabilities of around 80 indicators, demonstrates that each GCC country has improved since 2020. In the 2021 GII, the United Arab Emirates ranked 33rd, Saudi Arabia ranked 66th, Qatar ranked 68th, Kuwait ranked 72nd, Oman ranked 76th, and Bahrain ranked 78th among 132 economies (GII, 2021). Moreover, Table 1 below shows the GCC states' rankings in the United Nations Development Programme's 2019 Human Development Index Report and the World Economic Forum's Global Competitiveness Index 2019. All six GCC countries were in the "Very High Human Development" category and above the World Average in the United Nations Development Programme's 2019 Human Development Index Report. Moreover, Kuwait was also the most improved country in the Middle East in the World Economic Forum's Global Competitiveness Index 2019.

Table 1: GCC States in International Index Reports, 2019

	United Nations Development Programme's 2019 Human Development Index Report	World Economic Forum's Global Competitiveness Index 2019
Saudi Arabia	36^{th}	36^{th}
United Arab Emirates	35 th	25 th
Kuwait	57^{th}	46 th
Qatar	41 st	29 th
Bahrain	45 th	45 th
Oman	47 th	53 rd

Source: United Nations Development Programme's 2019 Human Development Index Report (United Nations Development Programme, 2019) and World Economic Forum's Global Competitiveness Index 2019 (World Economic Forum, 2019)

The COVID-19 pandemic undoubtedly set the stage for the rapid switch to eLearning. According to the Regional Center for Educational Planning, the GCC states have a projected growth of over \$490 million, or around 10%, between 2020 and 2024 (Regional Center for Educational Planning, 2021). In addition, GFH states that the eLearning market in the GCC is expected to grow at a CAGR of 14.0% during 2018-2022, driven by tremendous government investments and support (GFH, 2020). Amid the pandemic, "personalized learning" has become a more popular and preferred education model. Specifically, GFH explains that Saudi Arabia holds the largest market share of over 35%, followed by the United Arab Emirates with over 21% (GFH, 2020). According to Saudi Vision 2030, over 9 million people benefited from distance learning platforms, and over 300,000 students benefited from the virtual kindergarten platform (Saudi Vision 2030).

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Challenges

Despite the initiatives created by the GCC states, the education sector still faces a number of challenges. The next section will analyze the GCC states' performances in the three most commonly used international assessments: PISA, TIMSS, and PIRLS.

Programme for International Student Assessment (PISA)

The Programme for International Student Assessment (PISA) is a global assessment by the Organization for Economic Co-operation and Development (OECD) designed to assess academic performance by evaluating 15-year-old students in the subjects of mathematics, science, and reading (OECD, 2019). Following the initial evaluation in 2000, PISA has been repeated every three years to provide countries with data to enhance their educational strategies and results. Out of the six GCC countries, only three have participated in the PISA studies so far: Saudi Arabia (since 2018), the United Arab Emirates (since 2009), and Qatar (since 2006). In PISA 2018, Saudi Arabia was ranked 74th in mathematics, 72nd in science, and 66th in reading; the United Arab Emirates was ranked 51st in mathematics, 50th in science, and 47th in reading; and Qatar was ranked 61st in mathematics, 58th in science, and 61st in reading (Schleicher, 2019). Table 2 shows the mean score and ranking of the three countries alongside China, United Kingdom, Germany, United States, France, Turkey, Jordan, Lebanon, and Morocco, as well as the OECD Average. The United Arab Emirates' performance in mathematics has been increasing since 2009, whereas performance in science and reading decreased slightly. On the other hand, Qatar's performance in all three categories has been increasing steadily since 2006.

Table 2: PISA 2018 Results of Selected Countries

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	Mathematics		Science		Reading	
	Score	Rank	Score	Rank	Score	Rank
China	591	1	590	1	555	1
United Kingdom	502	17	505	15	504	15
Germany	500	20	503	16	498	21
United States	478	38	502	19	505	13
France	495	26	493	25	493	23
OECD Average	489		489		487	
Turkey	454	43	468	40	466	40
United Arab Emirates	435	51	434	50	432	47
Jordan	400	65	429	52	419	56
Qatar	414	61	419	58	407	61
Saudi Arabia	373	74	386	72	399	66
Lebanon	393	69	384	73	353	75
Morocco	368	75	377	75	359	74

Source: PISA 2018 Insights and Interpretations (Schleicher, 2019)

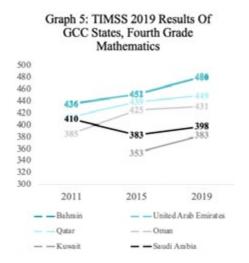
Trends in International Mathematics and Science Study (TIMSS)

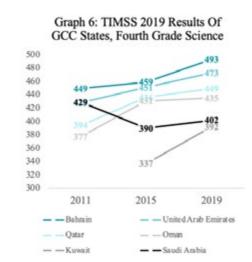
The Trends in International Mathematics and Science Study (TIMSS) is another international assessment developed by the International Association for the Evaluation of Educational Achievement (IEA). TIMSS evaluates fourth and eighth grade students' capabilities in mathematics and science every four years. Unlike the PISA assessment, all six GCC countries participated in the latest cycle in 2019. All came in under the international average (Mullis et al., 2019). Table 3 shows the mean score and ranking of the six GCC countries, as well as Singapore, Chinese Taipei, Russia, United States, and England, as well as the international average. Graphs 5-8 also show the GCC states' trends over time in the evaluated categories.

Table 3: TIMSS 2019 Results of Selected Countries

	Fourth Grade			Eighth Grade				
	Mathematics		Science		Mathematics		Science	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Singapore	625	1	595	1	616	1	608	1
Chinese Taipei	559	4	558	5	612	2	574	2
Russia	567	6	567	3	543	6	543	5
United States	535	15	539	8	515	12	522	11
England	556	8	537	11	515	12	517	14
International Average	500		500		500		500	
Bahrain	480	44	493	38	481	24	486	22
United Arab Emirates	481	43	473	41	473	26	473	26
Qatar	449	48	449	47	443	30	475	25
Oman	431	52	435	49	411	35	457	30
Kuwait	383	54	392	54	403	36	444	34
Saudi Arabia	398	53	402	53	394	37	431	35

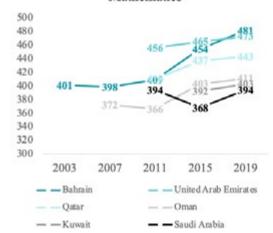
Source: PISA 2018 Insights and Interpretations (Schleicher, 2019)





Source: TIMSS 2019 International Results in Mathematics and Science (Mullis et al., 2019)

Graph 7: TIMSS 2019 Results Of GCC States, Eighth Grade Mathematics



Source: TIMSS 2019 International Results in Mathematics and Science (Mullis et al., 2019)

Graph 8: TIMSS 2019 Results Of GCC States, Eighth Grade Science



Source: TIMSS 2019 International Results in Mathematics and Science (Mullis et al., 2019)

Progress in International Reading Literacy **Study (PIRLS)**

The Progress in International Reading Literacy Study (PIRLS) is another international assessment by the IEA every five years. It is designed to evaluate fourth graders' reading comprehension and achievement. Just as with the TIMSS, all six countries averaged under the international average. Table 4 shows the average scores of the GCC countries in the different cycles of PIRLS.

Table 4: PIRLS Results of GCC Countries

	2001	2006	2011	2016
International	500	500	500	500
Average				
United Arab	N/A	N/A	439	450
Emirates				
Bahrain	N/A	N/A	N/A	446
Qatar	N/A	353	425	442
Saudi Arabia	N/A	N/A	430	430
Oman	N/A	N/A	391	418
Kuwait	396	330	N/A	393

Source: National Center for Education Statistics (NCES)

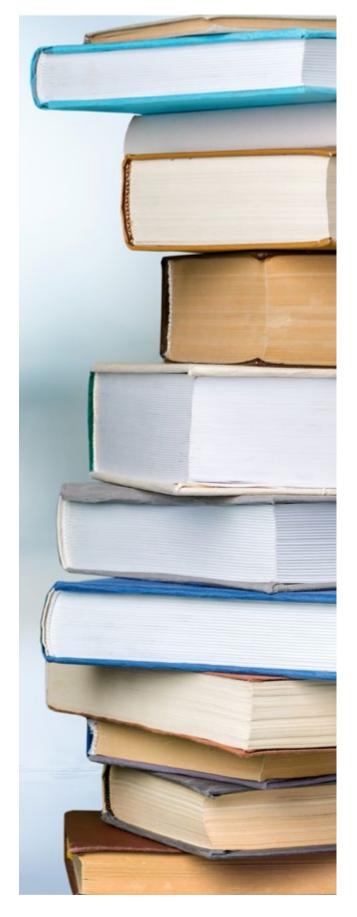
It is interesting to note that these international assessments have received numerous criticisms over the years. Many have argued that these studies have limited conclusions due to a narrow measurement. In addition, many have critiqued the studies, claiming that the international assessments are "an economic measurement, not an educational one" (Niyozov and Hughes, 2019). The authors also stated that the studies ignore "the importance of engagement and positive attitudes to learning for future success" (Niyozov and Hughes, 2019). Nevertheless, all six GCC states are taking steps to advance their ratings on these international assessments.

Conclusion

In conclusion, the GCC states experienced tremendous growth in the education sector. Specifically, the GCC states rebounded after the COVID-19 pandemic, increasing their economic growth by a projected 5.9% overall in 2022. The GCC states also continuously allocate large shares of their federal budgets to improve their respective education sectors. These efforts are driving an increase in student enrollment and educational benefits. Lastly, as part of their national visions, the GCC states continuously strive to improve the quality of their education, international status, and technological advancements.

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In conclusion, the GCC states experienced tremendous growth in the education sector.



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