Higher Education Dynamics 40

Larry Smith
Abdulrahman Abouammoh *Editors*

Higher Education in Saudi Arabia

Achievements, Challenges and Opportunities

Springer

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HIGHER EDUCATION DYNAMICS

VOLUME 40

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Editors
Larry Smith
University of New England
Armidale, New South Wales
Australia

Abdulrahman Abouammoh
Centre for Higher Education
Research and Studies (CHERS)
Riyadh
Saudi Arabia

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Foreword

It is my great pleasure to write the foreword for this book on behalf of the Higher Education community in Saudi Arabia. Higher Education in Saudi Arabia is undergoing unprecedented change and development, and I am very optimistic about the capacity of our universities to achieve and maintain international quality standards and to contribute significantly to the future of our country.

This book details many of the major initiatives and exciting developments taking place in Higher Education in the Kingdom of Saudi Arabia. Inevitably, of course, rapid and in many ways fundamental change will also be accompanied by a range of issues to be addressed, challenges to be overcome and failures from which to learn. Such is the case with Saudi Arabia, and this book analyses not only the achievements but also the problems and concerns in a rigorous yet constructive manner.

Saudi Arabia has adopted a long-term strategic plan for its Higher Education system which we call 'Afaaq'. A major goal of this plan is to ensure that the Higher Education sector not only supports but also is a major driver of the transformation of the Saudi economy from one primarily dependent on oil revenues to one that reflects a much broader resource and manufacturing base.

It is for this reason that the Higher Education budget in Saudi Arabia has tripled in the last 5 years and currently comprises $US160 billion or 12 % of the national budget. Similarly, funding provided for research, most of which directly includes universities or university staff, now comprises 1.1 % of the national domestic product (NDP). Individual universities have also become much more entrepreneurial in chasing funds from nongovernment sources, and these 'endowments' now constitute more than $US1.4 billion income for the sector.

Saudi Arabia is a Kingdom of more than two million square kilometres and a current population of about 27 million, 60 % of which are youth less than 25 years of age. To meet the increased participation goals contained in Afaaq, many new universities have been established over the last decade such that more than 70 cities and towns in Saudi Arabia now have a university or university campus. There are now 1.2 million students in Higher Education in the Kingdom, accommodated by 24 government and 8 private universities.

A major achievement for Saudi Arabia has been the very significant advances made in the provision of university education for women. In 1970, there were just seven females in university courses in the Kingdom. By 2011, that number had reached 700,000, which represents more than 60 % of all enrolments in Saudi universities. Further, 25 % of enrolments in master's and doctoral degrees at Saudi universities are now women, so that we can be very optimistic about the capacity of women to directly and positively contribute to the future development and prosperity of the Kingdom.

Quality is now central to the operation of Saudi universities, and many have achieved or are working towards the accreditation of their academic programmes with international professional bodies such as AACSP and ABET. Further, the Saudi government has established the National Commission for Academic Assessment and Accreditation (NCAAA) to ensure that all universities reach national quality benchmarks in all aspects of their operation, and the National Centre for Assessment in Higher Education (NCAHE) which – among other things – oversees the entry tests and selection processes for secondary students moving to university study. I am very grateful for the significant contribution made by many of the international and Saudi authors of this book to the establishment and development of these quality assurance mechanisms for our university sector.

The chapters in this book provide a rigorous analysis of all aspects of the Higher Education system in Saudi Arabia. They provide valuable insights into what initiatives are working well and why, and what areas still need careful attention. I am particularly grateful for the range of innovative suggestions made throughout the book as to how the university sector in Saudi Arabia can further improve and achieve a strong international reputation. In this respect, I do need to stress that this book represents the independent perspectives of the individual authors and in no way necessarily reflects the views of the Ministry. I have the greatest respect for all the authors in the book – they are renowned experts and scholars in their particular fields – and thus give high value to the opinions they express, whether they concur with my own views or not.

This book is unique. It is the only English language book that comprehensively and independently details and analyses the Higher Education system in the Kingdom of Saudi Arabia. I commend all of the authors for their very valuable contribution and strongly recommend it to all readers who have an interest in the future development of the Kingdom of Saudi Arabia.

Minister of Higher Education — Khalid bin Mohammed Al Ankari
Kingdom of Saudi Arabia

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Contributors

Professor Abdulrahman Abouammoh is a Senior Consultant to the Centre for Higher Education Research and Studies (CHERS) in the Saudi Ministry of Higher Education and a Professor of Statistics at King Saud University in Riyadh.

Professor Saeed Ali Abu-Eshy holds a Chair in Surgery at Najran University near the border with Yemen in south-west Saudi Arabia.

Professor Waleed Al-Dali holds the position of Supervisor, Directorate of Private Higher Education, Ministry of Higher Education, Riyadh.

Dr. Einas S. Al-Eisa is an Assistant Vice Chancellor for Academic and Educational Affairs, and she is also an Assistant Professor in the College of Applied Medical Sciences at King Saud University, Riyadh.

Professor Saleh Al-Ghamdi holds a Chair in Social Sciences at Imam Muhammad ibn Saud Islamic University in Riyadh and is a Consultant to the National Commission for Academic Assessment and Accreditation (NCAAA).

Dr. Nadia Al-Ghreimil is Vice Dean for Female Students Affairs in the College of Computer and Information Sciences at King Saud University in Riyadh. She is also Assistant Director of the External Joint Supervision Program (EJSP) at KSU.

Professor Saleh A. Alnassar holds a Chair in Curriculum and Arabic Instruction in the College of Education at King Saud University.

Dr. Mohammed Al-Ohali is Deputy Minister for Educational Affairs in the Ministry of Higher Education, Riyadh.

Professor Mohammad Yahya Al-Shehri is Vice President for Health Colleges and Professor of Surgery at King Saud University in Riyadh.

Dr. Omar Al-Swailem is Dean of Admissions and Registration at King Fahd University of Petroleum & Minerals in Dhahran.

Professor Philip G. Altbach is Director of the Center for International Higher Education and the J. Donald Monan SJ Professor of Higher Education, at Boston College in the USA.

Dr. Fawzy Bukhari is Deputy Director of the Scholarships Program in the Ministry of Education, Saudi Arabia.

Professor Steve Burdon is Visiting Professor to the University of London Business School and the University of Technology in Sydney and Chair of the Australian Institute of Management (AIM) Academic Advisory Committee.

Professor Steve Campbell is Head of the School of Nursing and Midwifery at the University of Tasmania in Australia.

Dr. Phil Cardew is Pro Vice Chancellor (academic) at London South Bank University in England.

Professor Stephen Colbran is a Professor of Law at Central Queensland University in Australia.

Dr. Eqbal Darandari is a Consultant to the National Commission for Academic Assessment and Accreditation (NCAAA) and Assistant Professor in the Department of Psychology at King Saud University, Riyadh.

Professor Mohd Zahedi Daud holds a Chair in Parasitology and Public Health at King Saud University in Riyadh.

Dr. Brian Denman is a Visiting Professor at the University of Hiroshima in Japan and a Senior Lecturer in Higher Education Policy and Management at the University of New England in Australia.

Professor Kwong Lee Dow OAM is an Honorary Fellow at the University of Melbourne in Australia and previously Vice Chancellor at the University of Ballarat and Deputy Vice Chancellor at the University of Melbourne.

Professor Geoffrey Elliott is Pro-Dean (Academic) and Professor of Information Systems Education at the London South Bank University in the United Kingdom.

Dr. Mohammed Fnais is an Assistant Professor in the College of Science at King Saud University, Riyadh.

Professor Fatima B. Jamjoom is Vice President for Female Students and holds a Chair in Mathematics at King Saud University in Riyadh.

Dr. Philippa Kelly is an Adjunct Professor at the University of California (Berkeley) in the USA and a Visiting Senior Research Fellow in the School of English, Media and Performing Arts at the University of New South Wales in Australia.

Dr. Essam Hussain Mattar is an Assistant Professor of Radiological Sciences at King Saud University in Riyadh.

Dr. Abdulhalem Mazi is Director of the Centre for Higher Education Research and Studies (CHERS) in the Ministry of Higher Education in Riyadh.

Dr. Anne Murphy is Director of Academic Affairs at the Dublin Institute of Technology in the Republic of Ireland.

Professor Ian Newbould has recently retired from the position of President of the Richmond American University in London.

Professor M. Gary Sayed holds a Chair in Radiology at Alfaisal University College of Medicine in Riyadh.

Professor Jung Cheol Shin is Coordinator, Education Administration and Policy Studies, at Seoul National University in South Korea.

Professor Larry Smith holds a Chair in Management and Leadership and is a member of the Centre for Higher Education Management and Policy at the University of New England in Australia. He is also a member of the Register of Experts for the Tertiary Education Quality and Standards Authority in Australia.

Professor Malcolm Tight is Chair of the Department of Educational Research at the University of Lancaster in the United Kingdom.

Chapter 1
Higher Education in Saudi Arabia: Reforms, Challenges and Priorities

Larry Smith and Abdulrahman Abouammoh

Introduction

The government of Saudi Arabia has recognised, in both policy and practice, the necessity of developing its university system to world-class standard and of significantly increasing access to and participation in higher education across a range of traditional and non-traditional disciplines directly relevant to the future social and economic growth of the country. Saudi Arabia currently supplies 60 % of the world's oil and can be expected to continue to do so for the foreseeable future. Nevertheless, ways of decreasing dependence on oil for the supply of energy are at the forefront of research and government policy worldwide. Strategies and opportunities for the future economic, social and political development of Saudi Arabia are, therefore, of immense relevance and interest to Saudi businesses, industries, academics and students operating in a rapidly changing and increasingly global business world.

This book provides scholarly descriptions and analyses of the major elements of the Saudi higher education system, including its history, aspirations, structure, governance, strategic planning approaches, teaching and learning culture, research productivity, quality assurance processes (including accreditation), progress towards internationalisation, initiatives to improve access for women and the emergence of a private university sector.

L. Smith (✉)
Centre for Higher Education Management and Policy, University of New England, Armidale, NSW, Australia
e-mail: lsmith35@une.edu.au

A. Abouammoh
Centre for Higher Education Research and Studies (CHERS), Saudi Ministry of Higher Education, Riyadh, Saudi Arabia

Department of Statistics, King Saud University, Riyadh, Saudi Arabia
e-mail: abouammoh@yahoo.com

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Each of the chapters in the book has been written by a team of authors that includes one or more Saudi academics and an author of international standing from a non-Saudi university. The editors chose this approach in order to provide both internal and external perspectives on all issues, place information and ideas in the context of the international higher education scene, maximise the integrity of the data and interpretations by submitting all internal information to external scrutiny and provide the opportunity for Saudi academics, many of whom are making in this book their first major foray into the world of international academic writing, to be mentored by well-published international co-authors.

This first chapter provides an overview of the issues, challenges and opportunities addressed in the book. It begins with an overview of the higher education system and then discusses the reform agenda for higher education along with some significant challenges and opportunities identified in individual chapters of the book. Problems associated with the collection and analysis of information relating to Saudi higher education are highlighted, along with some key strategic priorities for the system.

The Saudi Higher Education System: An Overview

Education in Saudi Arabia has four defining characteristics: a focus on the teaching of Islam, a centralised system of control and educational support, state funding (thus education is free at all levels in Saudi Arabia) and a general policy of gender segregation.

Four agencies have responsibility for the implementation of education policy: the Ministry of Education, with primary responsibility for elementary schools (years 1–6), intermediate schools (years 7–9) and male secondary schools (years 10–12); the General Presidency of Girls' Education, with primary responsibility for the segregated education of girls and women; the Ministry of Higher Education, with primary responsibility for universities; and the General Organization for Technical Education and Vocational Training, with primary responsibility for technical colleges and trade training.

In line with the social status of women in Saudi Arabia, Article 155 of the *Saudi Arabia Education Policy* requires a strict separation of males and females at all levels of education, with four exceptions: kindergarten, nursery school, some privately run elementary schools and some medical schools in universities. The curriculum used for male and female education is, however, the same, with the exception of subjects in physical education and home economics. A significant proportion of the curriculum at all levels in Saudi Arabia, both in terms of content and teaching time, is devoted to religious subjects and the study of Islam. Rote learning is the dominant pedagogical approach for teaching and learning.

According to the Ministry of Higher Education, there were 757,770 students enrolled in Saudi universities in 2009–2010, of which 414,420 (54.69 %) were females. The great majority of the enrolments are at the bachelor's and associate

degree levels, with only 13,650 students (1.80 %) enrolled in master's and doctoral degrees. Women comprise over 62 % of enrolments in bachelor's degrees, but only around 25 % for master's and doctoral degrees offered within the country. Non-Saudi students represent 2.63 % of all enrolments in Saudi universities, with the greatest concentration at the Ph.D. level where they represent over 19 % of all enrolments.

The first university in Saudi Arabia was King Saud University (KSU), established in 1957 in the capital city of Riyadh. King Saud is now the largest university in the Kingdom and offers a wide range of courses in the sciences, humanities and professional studies. Students of both sexes attend King Saud University, with instruction in undergraduate programmes being conducted in English (except for Arabic and Islamic studies). There are no fees for Saudi students. In 2010, King Saud University was placed 221 in the Times Higher Education-QS World University Rankings – the highest for any Arab university.

There are now 24 public and 9 private universities in Saudi Arabia. All of the private universities and 16 of the public universities have been established in the last decade, reflecting a massive injection of public funding into the sector in recent times. The private university sector represents approximately 4 % of all Saudi university enrolments. Students in private Saudi universities receive significant government subsidies in the form of scholarships and 'soft' loans.

With two exceptions, all Saudi universities now have both male and female students, although the sexes are segregated on campus, including in most lecture rooms. The two exceptions are the King Fahd University for Petroleum and Minerals (KFUPM) in Dharan, which is a male-only university, and Princess Nora bint Abdulrahman University (PNU) in Riyadh, which is a female-only university. KFUPM specialises in advanced training and research in science, engineering and management directly linked to the Kingdom's petroleum and mineral industries. PNU is the first women's university in Saudi Arabia and the largest women-only university in the world. It was founded in 1970 as Riyadh University for Women but moved to a massive new campus in 2011 designed to accommodate 40,000 students and 12,000 staff. It has a 700-bed teaching hospital along with specialist research centres in information technology, nanotechnology and bioscience.

Figures supplied by the Ministry of Economy and Planning in Saudi Arabia indicate that in January 2011, there were 107,706 Saudi students studying at universities outside the country. Approximately 85 % of Saudi students studying at international universities are supported by government funding, most notably through the King Abdullah Scholarship Program which was introduced in 2005 and which covers all travel, tuition and living expenses for recipients as well as their spouses and children. Approximately one-fifth of Saudi students studying abroad are female. The most popular destinations for Saudi international students are, in order, the USA, United Kingdom, Canada, Australia, Egypt and Jordan.

The Ministry of Higher Education was established in 1975 with responsibility for planning, coordinating and supervising the higher education system in Saudi Arabia. The Ministry operates in a predominantly centralist manner and is supported

by a number of specialist centres, including: the National Centre for Assessment in Higher Education (NCHAE) which oversees standard tests for entry to Saudi universities; the National Commission for Academic Accreditation and Assessment (NCAAA) which has responsibility for the achievement of quality standards in Saudi universities; the Centre for Higher Education Statistics which collects and analyses quantitative data about the higher education sector; and the Centre for Higher Education Research and Studies (CHERS) which undertakes system-level research for the purpose of informing both policy and practice.

The Reform Agenda

In February 2007, the Saudi Cabinet approved the King Abdullah Project for the development of public education, which involves the expenditure of $US 3.1 billion over a 5-year period for a major overhaul of the Saudi education system. Funds are specifically targeted for a range of related initiatives, including teacher training and professional development, curriculum and textbook review, the provision of contemporary information technology for both teaching and learning (including Internet services for teachers and students) and programmes for developing innovative practice. While there is a particular focus on scientific and technological development in order to improve the international competitiveness of the Kingdom, there is also a significant allocation of funds for programmes aimed at 'deepening Islamic values, morals and allegiance to family, society and nation, and appreciating and preserving national achievements' (*Arab News* 2007).

The component of the King Abdullah Project that specifically addresses the future of higher education in the Kingdom is known as 'AAFAQ' or 'Horizon'. It defines the mission and outcomes for the higher education system as a whole and proposes a mechanism though which methods of strategic planning are to be adopted by all public universities in the country. Details of this plan are discussed in several chapters of this book, but what is important to note is that the plan itself is strong on stating objectives and outcomes but is weak on specific detail about the strategies and action plans necessary to convert the vision into reality. Nor is there any robust quality framework for ongoing review and evaluation of progress, although the plan stipulates that this will occur after a 5-year period. It is, therefore, reasonable to assert, as several chapter authors have done in this book, that while Saudi Arabia is demonstrating remarkable energy and enthusiasm for effecting improvements to its higher education system, both at the system and institutional levels, it is at considerable risk of trying to do too much too quickly. Strategic planning is a process underpinned by conceptual discipline and procedural rigour, and success cannot be achieved unless the necessary human and physical resources, administrative infrastructure, technology systems and collaborative networks are in place. If ambition and impatience are allowed to overpower reality, the system can ultimately end up going backwards, not forwards.

The Vision of 'World Class'

The authors of individual chapters in this book consistently refer to the overwhelming desire of Saudi universities to achieve 'world-class' standards, but they also make it clear that there is no realistic and generally held understanding of what the universities and the system as a whole must achieve in order to be viewed as 'world class'. Without a clearly articulated vision with an attendant set of strategic objectives, system improvement is likely to be ad hoc and overall progress less than desired. In Chap. 2, Abdulhalem Mazi and Philip Altbach address the characteristics generally associated with a 'world-class university' and then evaluate a range of initiatives being employed to motivate Saudi universities to achieve world class status in teaching and research. The authors argue that university rankings have received too much emphasis in Saudi Arabia and that the Kingdom needs to focus more closely on what is useful in the rankings and use those ideas to improve its higher education system.

Governance and Leadership

The higher education reform agenda for Saudi Arabia reflects an official commitment to increase autonomy and flexibility of decision-making at the level of individual universities. The fact is, however, that traditional Saudi culture is heavily focused on compliance and central control so that neither the government nor the higher education community has much experience with institutional autonomy. As a consequence, appropriate infrastructure for institutional self-governance is lagging in most universities. Further, as decision-making powers are increasingly delegated to institutions, there has been a tendency for central monitoring of the application of those powers to be increased. In Chap. 3, Einas Al-Eisa and Larry Smith explore the traditional models of academic governance that have dominated Saudi universities for decades and then analyse the potential impact of recent higher education reforms on processes of university governance in Saudi Arabia. The authors conclude that the challenges that lie ahead in relation to the governance of Saudi universities are significant but that the development of an appropriate and sustainable governance model for Saudi universities is critical if the Saudi higher education system is to reach its goal of 'world-class standard'.

Reforms to increase the level of self-governance at the level of individual universities in Saudi Arabia need to be supported by strong strategic leadership at the institutional level that fosters innovation, creativity and collaboration. In this context, a core function of institutional leadership is to mediate the tensions and challenges that exist within the university world and between the university and government agendas. In Chap. 4, Omar Al-Swailem and Geoffrey Elliott discuss how educational leadership has evolved in the Saudi university sector and evaluate proposed strategies for building the type of strong institutional leadership

needed to take the Saudi higher education sector into the future. In particular, the chapter discusses the potentially important role to be played by the Academic Leadership Centre (ALC), established by the Ministry of Higher Education in 2009 to provide preparation for potential university leaders and professional development for existing university administrators. There are, however, many as yet unanswered questions about the operation of the ALC, including the following: What leadership paradigm and models will be promoted? Who will staff the centre, and what qualifications and experience will be sought? How will 'potential university leaders' be chosen? How will the effectiveness of the centre and its programmes be evaluated?

Teaching and Learning

Saudi Arabia has received sustained international criticism over many years about the quality of its education system, with major concern directed at the content of its curriculum and the didactic nature of its pedagogy. Achieving high quality teaching and learning standards is one of the major challenges being confronted by Saudi universities. This challenge includes a student's ability to acquire learning skills, efficient interactive delivery of knowledge, contemporary developed curriculum and advanced technological teaching facilities. In Chap. 5, Saleh Alnassar and Kwong Lee Dow review and analyse current approaches to teaching and learning practices and curriculum development in Saudi Arabia, based on the various national plans and views expressed in interviews with a range of Saudi academics. The authors argue that responsibility for improving teaching and learning must be a shared partnership between individual teachers, department heads, college and institutional leaders and the national government itself, through its Ministry of Higher Education. Among the key challenges they note are the following: the lack of formal training of academic staff for their teaching role; a lack of incentives to improve the quality of teaching; and the constraining nature of a rigid curriculum that does not sufficiently promote the skills in critical thinking, problem solving and 'learning how to learn' necessary for participation in an information-based global environment.

In Chap. 6, Eqbal Darandari and Anne Murphy overview the traditional teacher-centred approaches to assessment that have dominated Saudi higher education. In order to challenge this culture, the authors suggest that a more proactive approach to staff training and development is needed and that contemporary student-centred and learning outcome-based assessment models should be considered by Saudi universities. This chapter highlights a number of major concerns regarding the nature and quality of the assessment of student learning in Saudi universities. The purpose of assessing learning is not just to rank students in order of achievement: It can and should provide extremely valuable information about the success and appropriateness of teaching and learning approaches and about curriculum development and delivery. Assessment models, therefore, should be developed in

tandem with pedagogical practice and curriculum design and development, as part of an integrated strategy designed to improve the quality of teaching and learning. This does not appear to be the case in Saudi Arabia, whether it be at the system, university or individual classroom level. Saudi higher education institutions are still largely dominated by a norm-referenced assessment culture. However, where alternative assessment approaches are being considered, they tend to be little more than 'good ideas' borrowed from the literature or international practices rather than genuine assessment models designed and developed to meet the needs of the Saudi higher education system.

In Chap. 7, Nadia Al-Ghreimil and Stephen Colbran report the findings from a 2011 survey of university administrators, academics and students on the use of information technology to support teaching, learning and assessment in higher education in Saudi Arabia. Three fundamental questions are addressed: How can Saudi Arabian universities meet the emerging teaching and learning needs of higher education while maintaining and developing institutional infrastructure? How can Saudi universities best bridge the divide between the needs and expectations of their educational communities and the capabilities of information technology? How can proposed instructional technologies best be evaluated, implemented and supported? The survey found that the key inhibitors for successful adoption of educational technology in Saudi Arabian universities include the following: lack of and failures with infrastructure, blocked websites and software issues, and lack of training and support.

In Chap. 8, Saleh Al-Ghamdi and Malcolm Tight analyse and evaluate the policies employed by Saudi universities for staff selection and for evaluating and improving their performance as leaders of learning. The authors argue that improving the quality of faculty members, both in terms of their teaching skills and their discipline-based knowledge, is arguably the most important element in raising the quality of higher education in the Kingdom. They note that while most Saudi universities are attempting to implement professional development processes, including performance planning and review, in an attempt to improve the quality of teaching and learning, much still needs to be done.

Research and Research Productivity

Enhancing research productivity in higher education is a key pillar of Saudi's National Development Plan for achieving the social and economic aspirations of the Kingdom. As a part of these efforts, the Ministry of Higher Education (MoHE) has allocated resources to support research productivity by establishing scientific research centres, a research park and technology incubators. In Chap. 9, Mohammed Al-Ohali and Jung Cheol Shin explore the research systems used by Saudi universities, with a particular emphasis on the link between university research and knowledge production systems. This chapter analyses the quantity,

quality and impact of consultancies and research publications and explores the extent to which research is driving national industry productivity and competitiveness. The general conclusion drawn is that research activity in Saudi universities, along with the impact of that activity, is still low by international standards. In particular, there still appears to be a strong tendency to rely on external experts for research expertise: There does not appear to be a clearly articulated and well-supported strategy for developing the research expertise and credibility of Saudi academics.

Accreditation and Quality Assurance

All levels of the Saudi higher education system are demonstrating a strong commitment to reach international standards in teaching, learning, research and curriculum development and to provide graduates with learning opportunities that will enable them to compete internationally. At present, almost all Saudi universities have quality centres or units, quality deans or directors, and committees to work on quality at different levels. In Chap. 10, Eqbal Darandari and Phil Cardew address the issues relating to the introduction of accreditation and quality assurance at both the system and individual university levels in Saudi Arabia. They evaluate Saudi practices within the international 'quality landscape' for higher education and in particular review the work of the Saudi National Commission for Academic Accreditation and Assessment (NCAAA), founded in 2004. The authors caution, however, that the management of quality and standards cannot be maintained in an environment which places accountability entirely in the hands of an external agency and that growing concerns about the quality of education in a rapidly growing education market put the focus squarely on the accreditation processes and procedures at both the programme and the institutional levels.

Equity

In Chap. 11, Fatima Jamjoom and Philippa Kelly consider the achievements that have been gained in women's education in Saudi Arabia and in the subsequent contributions Saudi higher education graduates have made to the workforce, and then explore the many impediments that still stand in the way of full and equal access to and participation in higher education for women in the Kingdom. The authors argue that segregated learning reinforces gendered beliefs that women are subordinate, and provide a number of suggestions as to how the concerns regarding gender segregation and gender equity in higher education in Saudi Arabia might be addressed. Resolving the tension between the traditional cultural place of women in Saudi society and the significant contribution that women can and should make to the social and economic future of the Kingdom is one of the major challenges for the higher education system.

Privatisation

Government policy in Saudi Arabia is to encourage the growth of private higher education institutions that meet national quality standards because it is believed that the emerging private-sector economy requires a combination of technical and practical skills that existing public universities are unable to provide, at least at the level required by industry. Nine private universities and 21 private colleges offering bachelor's and master's degrees have been established to date in the Kingdom. To some extent, however, the term 'private' is misleading because the strict regulatory framework within which the private higher education sector operates suggests that 'public-private-sector partnership' might be a more appropriate descriptor. Further, the Saudi government provides very generous scholarships for students to attend private universities. In Chap. 12, Waleed Al-Dali and Ian Newbould describe and evaluate the development and contribution of private higher education institutions in the context of the overall higher education strategy for Saudi Arabia. They conclude that the most significant and difficult challenge for the private higher education sector in Saudi Arabia is the development of human expertise at all levels in the private universities and colleges.

Medical Education

Arguably, the academic discipline most frequently used to benchmark the international reputation of a university is medicine. For this reason, the editors believed it would be instructive to assess the current development of medical education in the Kingdom of Saudi Arabia. In Chap. 13, a range of medical educators – Mohammed Al-Shehri, Mohd Daud, Essam Mattar, Gary Sayed, Saeed Eshy and Steve Campbell – examine the provision of medical education through the 20 medical colleges operating in Saudi Arabia, including an emphasis on the processes being enacted to ensure that the quality of medical training is of world-class standard. The authors conclude that Saudi medical colleges have adopted most of the current global trends in medical education, including the integrated and problem-based learning systems. Much more, however, needs to be done to strike a balance between basic scientific knowledge and professional practice.

International Collaboration and Engagement

Over 120,000 Saudi students are currently sponsored by the Saudi government to undertake higher education outside the Kingdom. Overseas study for Saudi students is considered a national priority to help foster international competence for a nation that thrives and depends on others in political, economic and cultural relations.

In Chap. 14, Fawzy Bukhari and Brian Denman describe and assess the scholarship system operating in Saudi Arabia and in particular critically assess the development of the King Abdullah Scholarship Program – arguably the most comprehensive scholarship programme ever supported by a nation state. The chapter also highlights the significant cultural and academic challenges that Saudi students confront, not only during their studies abroad but also upon their return to the Kingdom.

In Chap. 15, Mohammed Al-Ohali and Steve Burdon explore the issues confronting higher education in Saudi Arabia as it moves towards globalisation of learning and research, and the integration of its universities into national economic and social policy frameworks. A particular emphasis is placed on the processes necessary for university engagement with multinational corporations, both inside and outside the Kingdom. The authors stress, however, that international collaboration carries risks as well as rewards. Determining an appropriate development strategy for the higher education sector that balances those risks and rewards is critical to the Kingdom's future.

Data Issues

Access to available data for this book generally was not a problem for chapter authors: The Saudi universities and government higher education agencies made every effort to provide whatever information was requested. What was a significant problem, however, was the quality of the data available. Information about the higher education system in Saudi Arabia generally has been collected by different agencies at different times in different formats at different levels of detail. Almost all of the data held is quantitative – there is little qualitative data collected at either the system or institutional levels. Further, there is little evidence to suggest that information has been collected in any strategic way in order to provide insights regarding system issues or planning needs or to allow international comparisons. As a consequence, all of the authors experienced considerable difficulty undertaking detailed analyses of system statistics, particularly when trying to make international comparisons about progress and outcomes. In simple terms, they found it very difficult to compare 'apples with apples'. The need for Saudi Arabia to establish high quality data collection and analysis systems is a major priority addressed on several occasions throughout this book.

Priorities

What, then, should be the major priorities for Saudi Arabia's higher education system? In Chap. 16, the editors report the outcomes of an intensive two-day focus group research project involving all chapter authors (Saudi and international) that sought to identify the critical issues, challenges and opportunities confronting the

Saudi higher education system and in particular the major priorities that need to be addressed. Twelve important priorities were identified. It is, however, the opinion of the editors that a more limited number of priorities currently are required for the Saudi Arabian higher education system so that each priority addressed can receive maximum focus and support and thus have maximum opportunity for success. Again, it would seem important to avoid the trap of trying to do too much too soon.

In Chap. 17, Smith and Abouammoh undertake a holistic analysis of the information and findings from the chapters in this book and propose two overriding priorities that they argue would leverage significant and sustainable improvement in the Saudi higher education system in its quest for 'world-class' standards. These priorities are:

1. The development of a single, achievable, well-articulated, detailed and integrated strategic plan for the Saudi higher education system that is collaboratively developed by all major stakeholders, including the government, individual universities, industry and community representatives. The strategic plan should include:
   - A clear and widely communicated vision of how the system and the universities within the system will be positioned at various critical times in the future (ideally 10 and 20 years hence)
   - A set of well-defined objectives that must be achieved in order to attain the vision
   - A set of processes and tactics for achieving each of the objectives
   - A detailed plan for adequately resourcing the implementation plan, not only in terms of finances but also in terms of appropriately qualified and experienced staff as well as appropriate equipment and infrastructure
   - Rigorous mechanisms for providing regular and constructive feedback regarding progress towards goals

   The strategic plan should include integrated strategies for developing and sustaining appropriate governance, leadership, teaching and learning, curriculum development, information technology infrastructure and quality assurance mechanisms for the Kingdom's universities, both individually and collectively.
2. The development and maintenance of rigorous, comprehensive and compatible systems for the collection, analysis and reporting of performance and progress at both the institutional and system levels. Currently, the approach in Saudi Arabia appears to be to collect as much information as possible on as many aspects of the system as possible rather than to strategically focus on the critical information needs of the system. As a result, information collected over time is not always specified in the same way and is not always collected and analysed according to similar parameters. This means that major decisions are frequently made on the basis of information that is of suspect validity. Further, existing information does not appear to be easily accessible by all stakeholders and stakeholder groups, not because of any deliberate attempt to obstruct 'open access' but rather because of data storage and retrieval issues. As a result, system improvement, which

depends so heavily on the ability to benchmark and measure progress, is greatly inhibited. It is for this reason that addressing the quality and usability of the higher education data systems is identified as a key priority if the Saudi university sector is to achieve its goals for the future.

The implementation of these two priorities would provide the Saudi Arabian higher education sector with a clear, realistic and detailed plan – 'owned' by all major stakeholders – for moving forward towards its vision of 'world class', along with a rigorous mechanism for assessing progress (from individual teaching strategies through to system initiatives) towards the achievement of strategic objectives. The current situation whereby a nebulous vision of 'world class' is supported by a plethora of individually worthwhile but strategically uncoordinated projects and 'good ideas' would be replaced by a rigorous and disciplined process in which projects and stakeholders would all be working together to progress the system towards a common and mutually understood goal.

The higher education system in Saudi Arabia has enormous potential, and it is driven by enormous enthusiasm at all levels, from government to individual academics. However, enthusiasm that is not harnessed by strong and relevant strategy, supported by rigorous and timely feedback mechanisms, rarely achieves success. Therein lies a major concern for Saudi Arabia.

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Chapter 2
Dreams and Realities: The World-Class Idea and Saudi Arabian Higher Education

Abdulhalem Mazi and Philip G. Altbach

All countries want a world-class university, but no one knows what it is, and no one knows how to get one (Altbach 2004). Saudi Arabia has joined the search for world class. This is an important quest, since an effective and successful higher education system is central for any country in the knowledge economy of the twenty-first century. Saudi thinking goes beyond building a single world-class institution. It focuses on creating a world-class system of higher education – one that can serve a variety of societal needs simultaneously (Altbach and Balán 2007).

What Is a World-Class University and System?

This key question has both a simple and a complex answer. The simple answer, as defined by the several global rankings of universities, is that a world-class university is a research university. The rankings measure research almost exclusively and largely ignore the other key functions – teaching, service, social engagement, and others (Altbach 2011). Research is the only aspect of a university's work that can be easily measured cross-nationally. Counting numbers of articles published and to some extent measuring their impact is an accepted part of bibliometrics and is done by companies such as Thomson Reuters. Other metrics used by the rankers include research funds obtained by universities, qualifications of the faculty, and student selectivity. All of the rankings use reputational measures – asking academics and administrators what they think about specific universities worldwide – perhaps the

A. Mazi (✉)
Centre for Higher Education Research and Studies (CHERS), Ministry of Higher Education, Riyadh, Saudi Arabia
e-mail: abdulhalem.mazi@gmail.com

P.G. Altbach
Center for International Higher Education, Chestnut Hill, MA, USA

Boston College, Chestnut Hill, MA, USA

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most widely criticised of all the criteria. All of these are 'input measures': none measures what students learn, or the success of the university in teaching, or the other central functions of higher education (Hazelkorn 2011).

The established metrics for world-class focus in large part on research universities – those key institutions at the top of any academic system (Salmi 2009). In this chapter, we focus mainly on research universities as an essential and influential part of the Saudi higher education system, but these universities are only a small part of a large and complex academic system. This is the case in every country, as research universities must be integrated with other institutions that serve a range of purposes and goals (Altbach and Salmi 2011). The need for differentiated systems of higher education which reflect high quality at all levels is recognised in the *2011 Riyadh Statement* issued at the *2nd International Exhibition and Conference on Higher Education* as well as in such influential documents as *Higher Education in Developing Countries: Peril and Promise* (Task Force on Higher Education and Society 2000).

A differentiated world-class higher education system includes a range of institutions serving a variety of purposes, such as research universities; universities devoted mainly to teaching; undergraduate colleges offering only baccalaureate degrees, as sometimes occur in the United States; and vocationally oriented institutions such as community colleges in the United States or the German *fachhochschulen,* which may offer certificates or lower degrees. Other kinds of specialised postsecondary schools devoted to music, management studies, or other specialties also constitute parts of the system. These institutions may be public or private, depending on national policies and traditions.

Public higher education systems are often organised to include a range of institutions and may provide the possibilities for student mobility among them. This is the pattern in the California public higher education system that has been influential in the United States and elsewhere (Douglass 2010). Two of the distinctive characteristics about the California Master Plan are student mobility among the different tiers of institutions and strong state control over the missions and purposes of the colleges and universities in the system. Many countries seek to create clearly differentiated public systems in order to meet growing demand from increasingly diverse populations.

Private institutions are increasingly part of the global higher education landscape. Indeed, private higher education is the fastest growing sector in higher education worldwide. Private higher education is expanding rapidly in Saudi Arabia as well, with 21 colleges and 7 private universities serving more than 35,000 students. The private sector presents many challenges for a world-class system. Few countries have been able to guide or limit the expansion of the private sector, and quality assurance has been a problem as well. Saudi private institutions are of mixed quality. Some have achieved good quality, while some are for-profit institutions with little commitment to the public good.

The necessary constituent parts of a differentiated academic system must work in harmony to serve a range of purposes. A world-class system is both hierarchical and cooperative, with research universities as 'flagship' institutions and other kinds

of institutions arrayed to serve different needs. The research universities – because of their prestige, centrality in the global rankings, and comprehensiveness – stand at the top of the hierarchy and typically receive the largest budgets. The entire system stands in a set of symbiotic relationships. Each depends on the other for key functions, and each serves important societal roles (Liu et al. 2011). Community colleges and other nonuniversity institutions provide basic vocational training and in some cases prepare those students who have both interest and ability for transfer to universities. Teaching-focused universities educate large numbers of students from a range of ability groups. A variety of specialised institutions also play an important role. In Saudi Arabia, higher education for women takes place in separate branches of the same university or in dedicated women's universities that are integral parts of the higher education system.

The management of a differentiated higher education system is not an easy task. It requires a clearly articulated set of goals for each part of the system, specific missions for each institution, and a mechanism for ensuring that these missions are implemented. The natural tendency among academic institutions – to seek to maximise their prestige and to emulate research universities – does not serve the academic system well. Management arrangements, usually at the governmental level, are necessary to prevent this 'mission creep' so that the system as a whole can function effectively. This tendency, called 'institutional isomorphism', is the tendency of institutions to copy the most prestigious one. Several European countries have instituted 'steering' mechanisms to manage diverse academic institutions and systems and to ensure that the goals of the system as a whole are served.

This discussion shows that a world-class system cannot be measured by the existing rankings, nor does such a system lend itself to easy definition or assessment. Our own definition of world class in this context emphasises each institution in the system doing the best possible job in the context of the established mission. Those that excel within their categories are world class. There is no maximum number of institutions that may achieve world-class status, and no ranking is necessary. Indeed, in most of the institutional categories, rankings are not possible since few agreed-on metrics exist, nor is it possible to measure many of the important elements of achievement.

Research Universities, World-Class Status, and Rankings in the Saudi Context

Saudi Arabia's rapidly expanding higher education system seems somewhat obsessed with rankings and defining world class in a Saudi context. The following discussion is an effort to place Saudi universities in the context of current global debates about world-class universities. The focus is entirely on research universities, as these institutions are the focus of the influential global rankings, and they have been of great concern to Saudi Arabia in recent years.

The following analysis focuses on the rankings, how Saudi universities have been evaluated in the past two decades, and on the policies put into place to improve the kingdom's research universities, and thus their place in the rankings.

The Inevitability of Rankings

If rankings did not exist, someone would invent them (Altbach 2011). They are an inevitable result of mass higher education and of competition and commercialisation in postsecondary education worldwide. Potential customers (students and their families) want to learn which of many higher education options to choose – the most relevant and most advantageous. Rankings provide some answers to these questions. Mass higher education produces a diversified and complex academic environment, with many new academic institutions and options. It is not surprising that rankings became prominent first in the United States, the country that experienced massification earliest as a way of choosing among the growing numbers of institutional choices. Colleges and universities themselves wanted a way to benchmark against peer institutions. Rankings provided an easy, if highly imperfect, way of doing this. The most influential, and widely criticised, general ranking is the *US News & World Report: America's Best College Ranking*, now in its 17th year. Numerous other rankings exist as well, focusing on a range of variables, from the 'best buys' to the 'best party' schools, and institutions that are most 'wired'. Most of these rankings have little validity but are nonetheless taken with some seriousness by at least some of the public.

As postsecondary education has become more internationalised, the rankings have, not surprisingly, become global as well. Almost three million students study outside their own countries; many seek the best universities available abroad and find rankings quite useful. Academe itself has become globalised, and institutions seek to benchmark themselves against their peers worldwide, often to compete for students and staff. Academic decision-makers and government officials sometimes use the global rankings to make resource choices and other decisions.

For all their problems, the rankings have become a high-stakes enterprise that have implications for academe worldwide. For this reason alone, they must be taken seriously and understood. An indication of the extent of the enterprise is the *IREG Observatory on Academic Ranking and Excellence*, which recently concluded its fifth conference, which attracted 160 participants from 50 countries, in Berlin.

Rankings Presume a Non-existent Zero-Sum Game

There can only be 100 among the top 100 universities, by definition. Yet, because the National University of Singapore improves does not mean, for example, that the Ohio State University is in decline. There should be room at the top for whatever

number of world-class universities meet the criteria. Indeed, as countries accept the need to build and sustain research universities and to invest in higher education generally, it is inevitable that the number of distinguished research universities will grow. The investments made in higher education by China, South Korea, Taiwan, Hong Kong, and Singapore in the past several decades have resulted in the dramatic improvement of those countries' top universities. Japan showed similar improvements a decade or two earlier. The rise of Asian universities, however, is only partly reflected in the rankings since it is not easy to knock the traditional leaders off their perches. The rankings undervalue the advances in Asia and perhaps other regions. As fewer American and British universities will inevitably appear in the top 100 in the future, this does not mean that their universities are in decline. Instead, improvement is taking place elsewhere. This is a cause for celebration and not criticism.

Perhaps a better idea than rankings is an international categorisation similar to the *Carnegie Classification of Institutions of Higher Education* in the United States. Between 1970 and 2005, the Carnegie Foundation provided a carefully defined set of categories of colleges and universities and then assigned placements of institutions in these categories according to clear criteria. The schools were not ranked but rather delineated according to their missions. This would avoid the zero-sum problem. Many argue that the specific ranking number of a university makes little difference. What may have validity is the range of institutions in which a university finds itself. Moreover, what may be useful is whether an institution is in a range of 15–25 or 150–170 – not whether it is 17 or 154. Delineating by category might capture reality better.

Where Is Teaching in the International Rankings?

In a word – *nowhere*. One of the main functions of any university is largely ignored in all of the rankings. Why? Because the quality and impact of teaching is virtually impossible to measure and quantify. Further, measuring and comparing the quality and impact of teaching across countries and academic systems are even more difficult factors. Thus, the rankings have largely ignored teaching. The new *Times Higher Education* (*THE*) rankings have recognised the importance of teaching and have assigned several proxies to measure teaching. These topics include reputational questions about teaching, teacher-student ratios, numbers of PhDs awarded per staff member, and several others. The problem is that these criteria do not actually measure teaching, and none even come close to assessing quality of impact. Further, it seems unlikely that asking a cross section of academics and administrators about teaching quality will yield much useful information. At least, *THE* has recognised the importance of the issue.

What, Then, Do the Rankings Measure?

Simply stated, rankings largely measure research productivity in various ways (Hazelkorn 2011). This is the easiest thing to assess – indeed, perhaps the only things that can be reliably measured. Each ranking approaches the topic differently. Some, especially the Quacquarelli Symonds (QS) system, emphasise reputational surveys: what do academics around the world think of a particular university? As a result, QS mainly assesses what a somewhat self-selected group of academics think of various universities along with some other non-reputational factors. *Times Higher Education* looks at a number of variables, including the opinions of academics, but along with its data partner Thomson Reuters has selected a variety of other variables, including the impact of articles published as measured by citation analysis, funding for research, and income from research. The Shanghai-based Academic Ranking of World Universities measures only research and is probably the most precise in measuring its particular set of variables.

Research, in its various permutations, earns the most emphasis, not only because it is relatively easily measured but also because it tends to have the highest prestige. Universities worldwide want to be research intensive, and the most respected and top ranking universities are research focused. These two factors have been a powerful force for reinforcing the supremacy of research both in the rankings and in the global hierarchy.

Saudi Arabia in the Rankings

As will be analysed in the following sections, Saudi Arabia has, over time, not done particularly well in the rankings. Nor have the Arab countries generally. This is not surprising, for the following reasons:

- Postgraduate (graduate) education, especially at the doctoral level, is new and limited in scope. Top research universities excel in their postgraduate programmes. Research-oriented professors prefer to teach in such programmes, and students also contribute original work as well as publications, further contributing to high rankings.
- Most high-ranking universities have a long history of research excellence, and the universities in the Kingdom and the region are relatively new: few, if any, have a significant tradition of research. There are some examples of new research-intensive universities, but these are difficult to establish and sustain (Altbach and Salmi 2011). It is possible that the new King Abdullah University of Science and Technology (KAUST) will emerge as a research powerhouse in the coming years.
- Most of the highly ranked universities are in a few Western countries, and most notably the United States and United Kingdom. Relatively few are in countries outside the major traditional centres.
- English is the main language of science and scholarship, and the rankings emphasise publication in the major English-language journals. Saudi Arabia and

the Arab region generally use English for a part of academic work, but facility in English needs improvement.
- Saudi Arabia is developing a research-oriented academic culture, but this takes time, and a continuing emphasis.
- It is likely that the kingdom is currently emphasising the development of more research universities than can be sustained due to the population base and the availability of skilled academics. Concentration on a few top research universities would yield better results in the rankings.
- Top ranking universities typically emphasise graduate programmes at the masters and especially the doctoral levels, and Saudi Arabia is in the early stages of building capacity in doctoral programmes.

An Analysis of the Rankings in the Saudi Arabian Context

The rankings are, rightly or wrongly, perceived in terms of quality and prestige, and universities are judged by them. Government and the public at large often take the rankings seriously in terms of funding allocations or choices of where to study. The rankings are now of considerable importance everywhere. In the developed countries, universities are very much concerned by their competitive positions. Universities in many developing countries are increasingly conscious of the rankings, even though they are at a significant disadvantage in the 'race'.

The announcement of the Webometrics ranking result in 2006, with the low rankings of Saudi universities, raised significant concerns about the status and the 'quality' of Saudi universities, not only by government officials but also by parents, students, and Saudi society in general. The bright side of the ranking 'fever' for Saudi universities is that as a result, the government initiated an inquiry to look into the quality of teaching and learning processes, information technology (IT) and infrastructure facilities, research and graduate studies, and the quality of faculty members and other teaching and support staff.

By the end of 2010, there were 24 public universities in Saudi Arabia, which can be grouped into five categories: comprehensive with a research focus, specialised with a research focus, comprehensive, specialised, and teaching universities.

King Saud University (KSU), established in 1957, is the oldest university in the Kingdom of Saudi Arabia and the Arabian Peninsula as a whole. It is the largest in terms of faculty members (more than 8300), students (more than 70,000), academic programmes (more than 150), and budget (almost $US 2.1 billion in 2010/2011). Table 2.1 shows the universities within the different categories.

King Abdullah University for Science and Technology (KAUST) is a highly specialised science and technology university. It is not officially counted among public universities because it is a unique, highly specialised university, with different goals and missions from any other public university in Saudi Arabia.

There are quite different missions among the different categories of universities in Saudi Arabia. Most of the universities established in the last decade focus

Table 2.1 List of public universities and their categories

University	Category
King Saud University	Comprehensive universities with a research focus
King Abdulaziz University	
Umm al-Qura University	
King Faisal University	
King Fahd University of Petroleum and Minerals	Specialised universities with research focus
King Khalid University	Comprehensive universities
Qassim University	
Taibah University	
Taif University	
Imam Muhammad bin Saud University	Specialised universities
Islamic University	
King Saud Bin Abdulaziz University for Medical Sciences	
Al Jouf University	Teaching universities
Hail University	
Jazan University	
Al Baha University	
Najran University	
Princess Noura Bint Abdul Rahman University	
Tabuk University	
Northern Borders University	
Dammam University	
Kharj University	
Shaqra University	
Majmaah University	

on teaching and are located away from the metropolitan centres. Many are still under construction. They have challenges in finding well-qualified faculty. Special allowances are provided for those who agree to teach at these new institutions. The lack of research infrastructure ensures that teaching is the main focus, although research facilities may be added (Tayeb and Damanhouri 2011).

It is not surprising, then, that the older and more well-established universities do better in the rankings and are more highly respected in the country and internationally.

Saudi Universities in the Rankings

Achieving a respectable position in the rankings has become a challenge and concern among many Saudi Universities, largely for benchmarking purposes. The reflection of quality research, as well as teaching, could be measured indirectly by examining the rank scores. Saudi universities see the rankings as a way to

improve internal and external quality. The ranking issue has been seriously debated since 2007, both within and outside the university community. Some argue that the rankings have no relevance and thus should be ignored, while others suggest that they deserve close attention.

Saudi Universities in Webometrics

The July 2006 announcements of the Webometrics rankings caused an embarrassment to Saudi universities because King Fahd University of Petroleum and Minerals (the only Saudi University in the list) ranked 2,998 out of 3,000 worldwide. This caused major concerns among government officials and Saudi society in general about the quality and status of Saudi higher education and resulted in an analysis by Saudi universities of how the Webometrics indices were calculated. Much more attention was paid to university websites and related communications, with faculty members in particular being encouraged to get their publications posted on the university website. Further, students, departments, and research groups all were encouraged and motivated to have their work cited and recognised. In this way, the Webometrics rankings had a positive effect in at least some universities. The way Saudi universities reacted to the Webometrics ranking, and developed strategies to be visible on the Web, clearly shows the importance of letting other people 'see' and feel what research capabilities the universities has.

Table 2.2 shows the progress that has occurred after the July 2006 announcements of Webometrics rankings. King Saud University ranked 164 in the July 2010 list, and all other major 'research capable' universities had achieved a much better rank than in 2006. Three Saudi universities ranked within the top 300.

Table 2.3 shows that Saudi universities occupied the first four positions among Arab countries' universities rankings in 2011. Apart from the real impact of the

Table 2.2 Rank of some Saudi universities in Webometrics

University name	July 2007	July 2008	Jan 2009	July 2009	Jan 2010	July 2010	Jan 2011
King Saud University	3,062	380	292	197	199	164	212
KFUPM	638	420	302	303	404	178	544
King Abdulaziz University	2,789	2,106	1,203	1,072	496	291	1,006
Imam Muhammad ibn Saud Islamic University	5,715	2,957	1,788	636	835	–	998
King Faisal University	4,218	2,646	1,712	993	1,527	2,210	1,433
Umm al-Qura University	–	–	–	1,968	1,050	681	1,030

Source: Webometrics website 2007–2011

Table 2.3 Rank of Saudi universities among Arab countries' universities in Webometrics

University name	July 2007	July 2008	Jan 2009	July 2009	Jan 2010	July 2010	Jan 2011
King Saud University	26	1	1	1	1	1	1
KFUPM	1	2	2	2	2	2	2
King Abdulaziz University	23	6	3	5	3	3	4
Umm al-Qura University	–	–	–	–	5	4	6
King Faisal University	36	11	7	4	6	15	10
Imam Muhammad ibn Saud University	69	16	9	3	4	–	3

Source: Webometrics website 2007–2011

Webometrics rankings on the quality of research in Saudi universities, the exercise has pointed out what Saudi universities need to do in order to be properly 'visible'.

Saudi Universities in the Times Higher Education Rankings

The *Times Higher Education-QS* ranking had been conducted by a British firm since 2004 providing, among other things, a comparison among world universities in the areas of engineering and technology, arts and humanities, social sciences and management, natural sciences, and life sciences and medicine. Its ranking relied on six indicators: academic peer review, employer review, citations per faculty member, descriptions of students and faculty, international faculty, and international students. On 30 October 2009, *Times Higher Education* broke with QS and signed an agreement with Thomson Reuters to provide the data for its annual World Rankings. *THE* builds its ranks based on a range of indicators that touch on many aspects of the quality of research, as well as on several aspects of academic conduct. In 2010, King Saud University was ranked 221 on the *THE-QS*, while King Fahd University of Petroleum and Minerals was ranked 255, and King Abdulaziz University was ranked 401–450. No Saudi university was reported among the top 200 world-class universities in the new *THE* list of 2010–2011.

Saudi Universities in the Academic Ranking of World Universities

The Shanghai Jiao Tong International Ranking, known officially as the Academic Ranking of World Universities (ARWU 2010), was first conducted in 2003 by the Institute of Higher Education in Shanghai Jiao Tong University. The purpose was

to see how China's universities were performing in science and technology as a benchmark for Shanghai Jiao Tong University in its effort to improve. Over time, the ARWU ranking became more sophisticated, although its methodology has remained quite consistent over time. The AWRU only measures research output. It has no measure for teaching, service, or other university activities. King Saud University and King Fahd University of Petroleum and Minerals are both ranked within the top 500 international universities by ARWU.

The Impact of Ranking on Saudi Universities

The Webometrics list, announced in 2006, has had a significant impact on Saudi society: people have discussed and raised questions about the quality of higher education in the country. As a result of this debate, all universities have begun to evaluate and assess the quality of their teaching and research. In addition, government officials and the Ministry of Higher Education have started to focus on university quality and productivity.

As mentioned earlier, there are now 24 public universities in the kingdom, several of which are less than 10 years old. The country now has a differentiated academic system, and the new universities have little focus on research, if any: their missions are to provide quality teaching. The research-intensive universities are few. Other universities are comprehensive, splitting attention between teaching and research, but with the main focus on teaching. Differentiated missions are a defining phenomenon of Saudi Universities.

What Is a World-Class System?

What are the features of a world-class university system? This is a big question. If we look to the needs of Saudi Arabia, it is clear that higher education institutions with diverse missions are required. Key concerns of a differentiated system include the following:

1. The ability to respond to the growing student demand to enrol in higher education institutions and especially in the most popular programmes of study
2. An acceptable level of skills and competencies of university graduates (quality in teaching and learning)
3. Internationalisation aspects of higher education, including efforts of Saudi universities to be more involved in all aspects of global higher education, including students as well as faculty mobility, and recognition of certificates and qualifications from other countries
4. Response to local needs as well as an international research agenda

5. Conducting specialised research in areas that will contribute to the country's competitive edge and national needs (industrial, social, and religious)
6. Supporting the need of faculty members to conduct specialised or basic research

So, it is natural for universities in the Kingdom of Saudi Arabia to have universities with different missions. But what is more important is to have the system of universities within the country responding as a well-organised system to the larger idea of a 'world-class university system'. The key successful element is to build a culture of quality in teaching, learning, research, and student as well faculty conduct.

Ministry of Higher Education Strategies

The Ministry of Higher Education in Saudi Arabia has supported and funded several projects and initiatives to enhance the quality and to improve the efficiency of public as well as private universities. All these efforts have contributed in recent times to improving the quality of teaching, learning, and research, and they have indirectly contributed to improving the overall status of several Saudi universities in some of the rankings.

In early June 2009, the Ministry of Higher Education announced a national programme to promote excellence in university education in order to achieve world-class status – essentially this is a like an Accelerated Program for Excellence (APEX). Some of the objectives of the programme are the following:

- Aligning university efforts towards achieving world-class excellence in teaching and research and community services
- Encouraging partnerships with local and international research and industrial organisations
- Informing the academic community of what it takes to achieve world-class standard
- Promoting excellence in research
- Graduating students who have the skills to be employable and who are competitive with graduates from other countries
- Using the ranking indices and benchmarks in the rankings as guidelines to achieve excellence
- Promoting competition within the universities locally

The aim of the programme is for at least 5 universities to rank in the *Times Higher Education* ranking by 2013 (with at least 3 in the top 150) and at least 3 universities in the Shanghai ranking by 2015. By achieving these targeted rankings, the universities will need to develop significant strengths in the various categories measured by the rankings.

Enhanced quality within university activities in research, publications in internationally recognised scientific journals, accreditation of some programmes by international accreditors, improved faculty quality in teaching and research,

and also establishing research and laboratory facilities with high-quality standards and reliable infrastructure are also necessary parts of building effective research universities. In addition, strategic planning, the involvement of Saudi universities in international scientific events, winning local as well as international academic prizes, and diversifying funding are additional necessities for effective and globally recognised research universities for Saudi Arabia.

Conclusion

This chapter has analysed the concept of the world-class university in the context of Saudi Arabia, and has examined the international rankings, and Saudi Arabia's place in the rankings. It has been argued that the idea of world class must be broadened to include the entire Saudi system of higher education, and the kingdom's goal should be to provide excellence at all levels of the system. The pinnacle of the system, the research universities, which are the subject of the rankings and which receive the greatest attention in the kingdom as well as globally, is, of course, of great importance. They provide advanced education and produce most of the research. The research universities are Saudi Arabia's link to the global knowledge economy.

It is the view of the authors that the rankings, which are discussed in this chapter, have received too much emphasis, although they are useful metrics by which to measure the kingdom's academic achievements, as well as its weaknesses. The challenge is to take what is useful in the rankings and use those ideas to improve higher education in Saudi Arabia.

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Chapter 3
Governance in Saudi Higher Education

Einas S. Al-Eisa and Larry Smith

Introduction

Governance is the 'process of decision-making within an institution that enables an institution to set its policies, to attain its mission, and to monitor its progress' (Oxford University Gazette 2006:1). Differences in funding, resources, government policies and organisational cultures lead to different governance arrangements for higher education institutions across different nations (Coble 2001; Kezar 2004).

This chapter describes the traditional academic governance pattern that has been the normal practice for decades across Saudi universities. The chapter also reviews the recent changes in governance that have taken place in response to higher education reforms in Saudi Arabia with the introduction of the 'knowledge society' ideology and the quest for international accreditation and world recognition. Further, the chapter highlights current capitalist and managerialist regimes in the Saudi private higher education sector, with examples of recent evolution towards stakeholder boards and corporate management. Finally, the chapter suggests strategies and tactics that might be adopted locally to create more academic integrity with fewer political ramifications in the Saudi higher education system. Existing strengths, opportunities and weaknesses are highlighted, with emphasis on the potential transformation towards autonomy. Also, pragmatic difficulties associated with bringing about governance transformation are discussed.

E.S. Al-Eisa (✉)
College of Applied Medical Sciences, King Saud University, Riyadh, Saudi Arabia
e-mail: ealeisa@ksu.edu.sa

L. Smith
Centre for Higher Education Management and Policy, University of New England, Armidale, NSW, Australia
e-mail: lsmith35@une.edu.au

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Governance Arrangements

The adoption of sound principles of governance helps policymakers to identify and manage institutional risk and to set up sound systems of control. It is believed that a well-designed structure of governance will serve stakeholders and members of an institution by holding the institution accountable to the public (Shattock 2002). To attain effective university governance, there are three primary guiding principles: institutional autonomy should be respected, academic freedom within the law should be protected and governance arrangements should be open and responsive (Hines 2000).

Governance control for universities can be either 'external' or 'internal', or both (Bleiklie and Kogan 2007). External governance control refers to the nature and extent of control by players outside of the institution. It includes issues like how top administrators are appointed, how the institution is accredited and evaluated and how the university finances its various activities. Internal governance issues relate to the allocation of power among the President, Deans and faculty members within the institution (Kezar 2004).

In higher education, there are three commonly described models of governance (Dobbins et al. 2011). The first and most widely adopted is the academic governance model, which is an internal self-governance system (Birnbaum 1991). The other two models are based on external control from either the state government (the 'state-centred' model) or the market (the 'market-oriented' model) (Currie 2005). In universities, board-level governance can include academic faculties, an Academic Senate, a corporate board, trustees or stakeholders, or any combination of these (Trakman 2008). Governance reform is inevitable in higher education to meet the constant evolution in the function and priorities of universities.

Historical Overview

Higher education in Saudi Arabia is a relatively modern phenomenon, with the first university only established in 1957. The system has shown very rapid growth over the last decade in particular, with the number of universities in the Kingdom rising from 8 in 2001 to 32 in 2011. Over this time, the Saudi government has maintained heavy and direct regulation over virtually all aspects of higher education, including the number of students to be enrolled, student admission procedures and personnel policies for faculty members (e.g., salaries, promotion, reappointment and retirement age) (Alkhazim 2003).

Historically, the Saudi higher education sector has had to rely on the government for most of its funding and infrastructure. In recent years, however, the private business sector in Saudi Arabia has contributed significant amounts of money and resources to support the growth of research capacity in public universities, including

full funding for major endowment projects and the appointment of Research Chairs in a variety of disciplines and universities. Endowments and various other philanthropic contributions are a new phenomenon in Saudi higher education, but they are an integral part of Saudi religious practice and therefore, to some extent at least, represent a natural progression in the evolution of public higher education.

As many Saudi universities are now generating much of their own research funding, public universities are increasingly mounting pressure on the Saudi government for the right to make their own decisions about the allocation of such funding. To achieve this outcome, governance reform is needed (Christensen 2011).

As early as 1967, King Abdulaziz University (KAU) was established as Saudi Arabia's first privately owned higher education institution (although shortly after in 1974, a resolution from the Minister's Council converted it to a government institution). The establishment of Prince Sultan University in 1999 marked the real beginning of private higher education in Saudi Arabia. Over the next decade, eight private universities and eighteen private colleges were launched (CHERS 2010). The introduction of private universities has been a driving force for governance reform, because it necessitates corporate or at least shared governance (Lapworth 2004; Mingle 2000).

Role of the Government in Higher Education

The level of government involvement in the operation of higher education systems and institutions varies across countries, often proportional to its funding role. In Saudi Arabia, public universities are fully operated and funded by the government, and students pay no tuition fees. Higher education is regarded by Saudi society as a right. Such a culture of entitlement was created, in part at least, because of the government's lucrative funding of higher education as a key pillar of the *National 10-Year Development Plan*. In turn, because of its strong financial support, the Saudi government has exercised strong control over the governance of universities.

Evidence suggests that as the demand for higher education increases, the government may allow an even larger private sector contribution (Altbach et al. 2009). Private universities in Saudi Arabia are currently heavily regulated by the government, with the Ministry of Higher Education (MoHE) overseeing a set of policy guidelines regarding the establishment, operation and licensing of private higher education institutions (GDPHE 2011). The stated rationale for this level of government control is to ensure quality outcomes and diversified programmes that fulfil the needs of the job market and match the scientific and technical advancement objectives of the Kingdom. The alternate argument proffered is that increased competition and the operation of an 'educational market' in which the role of government is minimised is more likely to achieve quality outcomes for the Saudi higher education system (Christensen 2011; Jacobs and van der Ploeg 2006; Steier 2003).

Hierarchical Structure of Saudi Higher Education

Public higher education institutions in Saudi Arabia are government controlled through a hierarchical structure of decision-making authority. The highest authority in Saudi higher education is the Council of Higher Education, which regulates and supervises the higher education system. The Council is chaired by the King of Saudi Arabia, reflecting the importance of higher education to the Saudi government. Council members include the Ministers of Higher Education, Education, Finance, Labour, Social Affairs, Economy and Planning, and Civil Service. Presidents of public universities are also members of the Council. The Council dictates national higher education rules and regulations and controls the establishment of new higher education institutions and programmes.

The next level of governance is the Ministry of Higher Education, which ensures the execution of the Council's rules, policies and decisions, and has overall responsibility for the operation and quality of all Saudi universities. Public universities are regulated by the *By-Laws of the Saudi Council of Higher Education and Universities*, which provide a framework for internal governance mechanisms (General Secretariat 2007). The Minister of Higher Education presides over the University Councils of all public universities. The University Council is the entity with overall responsibility for running the university on a day-to-day basis.

The institution-level governance of Saudi universities is effected through a number of Councils, as follows:

1. The University Council, which has overall responsibility for the academic policy and strategic direction of the university. It is officially chaired by the Minister of Higher Education, who often delegates the right to the University President. Members of the University Council include the University President and Vice-Presidents, Deans of academic colleges and Deans of supporting services (such as e-learning, student affairs, admission and registration, and human resources). A representative of the Secretariat of the Higher Education Council serves as an ex officio member of the University Council, along with three selected faculty members from the university. The University Council is responsible for university-level decisions regarding issues such as the appointment of professors, the establishment and expansion of departments or colleges, the outcomes of curriculum reviews, scholarships approvals and university admission criteria.
2. The Scientific Council, which is the highest university academic council and equates to the Academic Board in Western universities. The Scientific Council is mainly concerned with the assessment of faculty achievements for promotion and special awards. It is chaired by the Vice-President for Graduate Studies and Research Affairs in the university. Members of the Scientific Council include representatives from each of the academic departments or colleges and academic staff with specialised research and scientific knowledge and skill (the number of which are limited).
3. College or Department Councils, which deal with the specialised academic programmes, and with staff and students at the college and department levels.

Decisions made by College or Department Councils are generally in the form of recommendations which must be submitted to the Scientific Council and/or the University Council for approval. The College or Department Council controls the enrolment quota for each department as well as the student selection criteria.

Recent Governance Reform in Saudi Higher Education

There have been two major recent governance reforms in Saudi Arabia higher education: the establishment of an autonomous university that is independent of the Ministry of Higher Education and adjustments to the system of governance at the country's oldest university in order to increase its international ranking.

King Abdullah University for Science and Technology (KAUST)

Driven by the ideology of building a knowledge society and future sustainable economy, the Saudi government allocated substantial funding in 2008 for the establishment of King Abdullah University for Science and Technology (KAUST). KAUST essentially is an autonomous higher education institution – the first in Saudi Arabia. It is an attempt to create a world-class, premier university that will strongly support the development of a knowledge society. KAUST is operated as an independent institution with its own Board of Trustees. The independence of governance from MoHE control provides the opportunity for KAUST to attain its mission with adequate flexibility to achieve its ambitious goals. With an abundance of financial resources and favourable work conditions and employment incentives, KAUST has been able to attract high calibre faculty and provide them with a productive and rewarding research environment. The impact of KAUST on the progress of higher education in the Kingdom is yet to be measured. In particular, the autonomous governance of KAUST may be scrutinised if such autonomy does not serve the university's aspiration to become an educational hub of excellence in the region, attracting talented international students and scholars.

King Saud University (KSU)

In 2008, King Saud University initiated a strategy to benchmark against international university metrics and ranking systems as an efficient mechanism to create reform and to change the status quo in the oldest and largest Saudi university. With international recognition, KSU arguably has become the most highly regarded university in the Kingdom, attracting substantial private donations and building the largest endowment in the history of Saudi higher education.

The new mission of KSU reflects its desire to enrich the future of the nation, by providing research-oriented education. In order to pursue this mission, governance reform was necessary so that KSU could adopt a much more entrepreneurial approach to its management. Entrepreneurial management approaches are not possible in organisations subject to significant external governance control because the hierarchical decision-making structures are a major impediment to customer and environment responsiveness (Bleiklie and Kogan 2007; Parente et al. 2011; Mok 2011).

As part of the governance reform process, KSU has adopted a new system for the appointment of College Deans and Department Chairs in which the opinion and consent of faculty members is required. Further, the President of KSU has delegated his right to appoint Deans to an independent Selection Committee comprised of senior faculty. This unprecedented form of appointment in Saudi higher education is designed to ensure accountability and transparency in management and to ensure that team work is fostered among staff at all levels.

Early in 2011, KSU adopted, in principle, a stakeholder model of governance so that staff, students, alumni and members of the business and general communities are involved on a range of boards and committees involved in the governance of the university. This was the first time that such a distribution of decision-making authority has been introduced into the governance model for higher education in Saudi Arabia.

Current Governance Issues in Saudi Higher Education

Recent governance reforms in Saudi higher education resemble US practices, particularly with respect to privatisation and the focus on quality and accountability (Rhoades and Sporn 2002). With lucrative funding, the Saudi government has maintained its control over higher education institutions. In the USA, public institutions are governed predominantly by external boards appointed by the governor and/or the legislature. In some States, each university has its own governing board, while in others, public universities come under the responsibility of a State-wide Board of Regents (Schmidt 2002). Similarly, Presidents of Saudi universities are nominated by the Minister of Higher Education and appointed by the King of Saudi Arabia. The authority of a University President is limited to operational and logistic matters, while academic issues and strategic directions require collegial decisions through the various councils of the university. This model of dominant faculty control limits the involvement of the university's beneficiaries and hinders community and broader societal participation in the advancement of the university. It is for this reason that the involvement of major stakeholders in university governance is critical to the future of Saudi higher education.

Governance reform often aims to eliminate the problems of inflexibility, inefficiency, overregulation and bureaucratisation inherent in traditional organisations such as universities. It is arguable that the government's strict regulations

potentially create some resentment, while leaving little room for individual educational initiatives among institutions. Recognising the problems associated with heavy regulation, the Saudi government declared autonomy of KAUST, allowing it to attract, recruit and retain world-renowned researchers without government intervention or endorsement. Other Saudi universities are striving to taper the regulations related to conditions of employment, curriculum reform and commercial functions in order to meet the intense regional competition for talents and expertise. On the other hand, complete deregulation of the governance of higher education institutions would bring its own associated problems, particularly with issues related to quality of teaching.

The recent emergence of private Saudi higher education institutions reveals a shift from institution-based academic governance to externally dominated councils, similar to those in Europe (Jacob and Hellström 2003; Shattock 2002). Unlike the situation in most countries, the Saudi government funds a large portion of the private higher education sector. Such heavy reliance on government funding naturally places private institutions under a significant level of government control, which is viewed by government as an opportunity to produce tangible social benefits, such as meeting the demands of the job market.

With endowments, public universities will need to embrace more managerialist and corporate governance practices in order to manage their income efficiently and effectively and to seek out further commercial opportunities (Dearlove 2002). The KSU Riyadh Techno-Valley (RTV) Endowment Company exemplifies shared governance that, until very recently, was unprecedented in Saudi higher education. With a heterogeneous administrative board, RTV positions itself well in Saudi society generally through the inclusion of major stakeholders. The major risk associated with such governance arrangements lies in the difficulty of deciding which stakeholders ought to be presented and what should be the extent of their authority.

Critical Analysis of Saudi University Governance

Evaluating the governance arrangements of Saudi universities is not an easy task, particularly given the complexity of identifying and defining appropriate governance processes to serve the diverse and often conflicting higher education needs of the Kingdom. The bureaucratic nature of academic authority is evident in higher education around the world (Jacobs and van der Ploeg 2006; Mok 2002), and Saudi Arabia is no exception. The Saudi HE system needs a paradigm shift, from centralisation to autonomy and from strict regulation to genuine competition among universities. With liberalised regulations, government funding can become discriminatory, based on the performance of individual universities.

The Ministry of Higher Education is gradually adopting a deregulation policy to promote excellence and innovation. The policy includes attempts to initiate mission differentiation among universities, which in turn should bring much greater levels of autonomy to the system. An example of the Ministry's efforts is the establishment

of independent higher education quality assurance agencies such as the National Commission for Academic Accreditation and Assessment (NCAAA).

In an increasingly competitive educational market, the Saudi government may need to devise a mechanism in which public universities can increase fiscal capability. One possibility is to permit the institutions to engage in 'for-profit' activities as long as the profits earned are directed to the primary mission of the institution and the higher education system (Vidovich and Currie 2011). Another possibility is to develop an environment that stimulates donations to higher education from business and industry, as well as private individuals (Mouwen 2000).

The current governance model in Saudi universities, in which the Ministry of Higher Education has significant direct control over all aspects of university education and administration, may no longer be appropriate in meeting the range of important challenges now facing universities and the Kingdom. Universities need much greater autonomy over their operation and direction if they are to adequately and appropriately serve the diverse emerging needs of all their stakeholders and to properly service the needs of the Saudi economy and job market into the future. In particular, universities need much greater autonomy over the way they allocate resources and promote quality teaching and learning.

New governance models should be implemented within the values of the existing system, but bypassing the traditional academic and cultural obstacles that are often blamed for the inability to introduce and sustain change. The much needed 'context-specific changes' can only be made by leaders who are innovative, creative and courageous change agents – factors that should be mandatory in the selection criteria for nomination to university leadership positions. To move forward, Saudi higher education needs champions who are committed to and capable of adopting the governance model that is best aligned with the future purposes of their institutions.

As discussed in the chapter on leadership by Al-Suwailem and Elliott, Saudi universities should also be guided away from the mistakes made over the decades in Western universities – time and again it has been found that Deans and University Administrators are appointed on the basis of their research record or teaching success, which does not mean that they are always the best or most clear-sighted leaders.

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Chapter 4
The Learning Experiences of Saudi Arabian Higher Education Leadership: Characteristics for Global Success

Omar Al-Swailem and Geoffrey Elliott

Introduction

The role of leadership in academic institutions requires a politically skilled and experienced understanding of global trends, challenges and philosophies in higher education. It is also crucial for driving forward collective institutional and governmental visions. The alignment of various cultures within the university to an institutional vision is an essential trait of the role of the academic leader. Therefore, leadership development and training has assumed great significance in higher education.

It is important to note that the concepts and terms 'leadership' and 'management' should not be confused or used interchangeably. Leadership is a facet of management and one aspect of the make-up of a manager in higher education. However, leadership is a significant and important facet of higher education management. Higher education management, like any other type of management, is concerned with the planning, organisation and direction of resources and the meeting of performance targets. However, what makes higher education management different from general management is the higher cultural emphasis on leadership, derived from academic and scholarly profile and standing in the academic community.

In many respects, academic leadership development highlights the continuing argument on whether world-class scholars, not non-academic administrators, make the best leaders of universities (Goodall 2009). University leadership through high academic profile is held as an important trait in a number of countries, but is often viewed slightly differently in others, where academic and research arguments still exist as to whether a university top leader really does require scholarly profile

O. Al-Swailem (✉)
Dean of Admissions, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia
e-mail: Swailem@kfupm.edu.sa

G. Elliott
Information Systems Education, London South Bank University, London, UK

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and experience. This potentially conflicting view of the requirements for university leadership impacts on our elemental understanding of the meaning and role of a university in the modern world.

In the Kingdom of Saudi Arabia, the establishment of the Academic Leadership Center (ALC) in 2009, by the Ministry of Higher Education (MoHE), has played a significant role in the success, effectiveness and quality of higher education leadership with institutions at both senior and middle university management levels. It has given focus and direction to the development and training of academic leaders in Saudi universities.

In this chapter, the role of leadership in higher education, the relationship between leadership and culture and the experience of academic leadership worldwide are first presented. This is followed by an introduction of the ALC in Saudi Arabia and a view of its current and future role.

The Role of Leadership in Higher Education

The definition and meaning of a university to a society is critical in providing a framework of understanding of the role of leadership in higher education. The purpose, role and perception of higher education will often flavour ideas and views of university leadership. What is clear is that the role of vice chancellor, or rector, can be said to possess a 'Janus-like disposition' (i.e. the ability to look both ways at entrances, gates and bridges) with regard to looking inwards at the culture of the institution and outwards towards government policy and expectations. How vice chancellors and rectors cope with these inward-looking and outward-looking agendas is critical to university leadership. University culture and leadership often appear as a combination of values and attitudes that has implications for every aspect of a university's management, governance and external relationships. Therefore, the role of leadership development and training in helping to provide the skills, competencies and traits to manage this complexity in higher education is very important to a university's reputation and position.

The idea of a university and its meaning has been debated for the past two centuries in the United Kingdom and the Anglophone world generally. What is evident from the literature is that university management cultures mutate and evolve and are influenced by trends and policies that shape and define higher education management culture and institutional leadership (Graham 2002; Barnett 2003; Elliott 2008). There is also currently in some countries another type of debate concerning the cultural leadership requirements of government-funded universities versus the leadership qualities necessary to lead and manage privately funded universities. Regardless of the nature of leadership in the different sectors of higher education, it is clear that the role of leadership in higher education management is valuable and critical to achieving the aims and objectives of national government policies on higher education. The national aims and objectives will flavour the nature, meaning and role of leadership development and training.

The strength and position of leadership in an institution will depend upon the level of respect for the individual leading the higher education institution and the institution's cultural affinity with the ideals of academe. Institutions with a high research and academic standing will have a greater affinity and willingness to follow a leader of high academic standing and reputation, whereas institutions with a different identity, perhaps with an emphasis on teaching and professional practice, may prefer to be led by a university leader with similar ideologies and profile to the culture of the institution. What is clear is that staff will follow an institutional leader largely through their own choice and affinity with the ideals of that leader, whereas managers, in non-academic environments, often exist to merely be obeyed within the remit of planning, organising and directing resources, whether they are technical or human.

It is clear that academic leadership in higher education is a central driver in striving towards academic excellence and in turn high institutional position (Knight and Trowler 2001). Research in higher education leadership focuses on different methods for evaluating the meaning and significance of leadership. Leadership can be seen as an amalgam of academic standing, personality characteristics and traits; position and authority within the institution; cultural and symbolic language used; and the overarching ability to use all these aspects of leadership in situations and ideological positions that are often complex and fluid (Middlehurst 1993; McCaffery 2004; Koen and Bitzer 2010). The role of leadership in universities is, therefore, critical in the make-up of a vice chancellor or rector. In many respects, leadership, whether transformational or transactional, can be viewed as the glue that holds a university together, and this glue can direct, accommodate and inspire the entire university community (Koen and Bitzer 2010).

The characteristics of leadership have been variously described and codified. The common characteristics of successful leadership in higher education can encompass vision (and belief in vision), excellent interpersonal skills (with a collateral understanding of self and human behaviour), the ability to negotiate cultural positions, excellent transformational managerial skill (in dynamic and fluid policy environments), excellent communication ability and confidence in self and staff within the organisation (Middlehurst 1993; Coates and Anderson 2007; Koen and Bitzer 2010). Transformational leadership is an approach where the leader of an organisation is inspirational and often charismatic and inspires staff to achieve outcomes through buy-in of a collective mission and vision. Transformational leaders have a tendency to be good communicators and possess a good understanding of how to reconcile the different academic positions in a university around a common vision (Middlehurst et al. 2009). Such leadership often requires confident delegation of authority to others in the institution to achieve the vision. This type of delegated authority is often a consequence of transformational leadership.

However, it should be noted that higher education institutions are often pressured to change their curricula, academic and research structures and governance due to the influence of government and globalisation (Deem 2004). Clearly the most significant globalised forces in play in the second decade of the twenty-first century are: (a) the expansion of higher education in terms of student enrolments and

the number of institutions in many countries; (b) the encouragement by many governments to offer degree-awarding powers to private higher education providers in competition with publicly funded institutions; (c) the development and funding of institutions to better compete globally and (d) the competitive imperative of maintaining quality with the highest standards. These major factors facing higher education, currently and in the future, require dedicated and well-devoted academic leaders who are capable of manoeuvring through the difficult challenges.

Academic Leadership and Culture

There still appears to be distinct national cultural influences on leadership, with only partial global convergence (Dorfman and House 2004). Leadership in higher education institutions and general leadership characteristics appear influenced, to varying extents, by cultural heritage. Globalisation can be seen as the increasing interdependence and convergence of economic, social, technical and political forces between nations. Globalisation, in academic leadership terms, is influenced by national objectives and cultural imperatives defined by national government policies on higher education. Since university leaders do not operate in national isolation, and compete globally, the need for global cultural awareness becomes an important characteristic of university leadership. In many ways, the strategic leaders of universities who compete and build partnerships across national boundaries need five cross-cultural competencies (Adler and Bartholomew 1992): (1) understand business, political and cultural environments worldwide; (2) learn the perspectives, tastes, trends and technologies of many other cultures; (3) be able to work simultaneously and collegiately with people from many other cultures; (4) be able to adapt to living and communicating in other cultures; and (5) be able to relate and be empathetic to people from other cultures and recognise different cultural positions.

Culture is the embodiment of shared ideas and qualities that make up a national identity. Culture and leadership has been much studied, and a number of comparative research projects have analysed culture, leadership and organisations within the context of globalisation. One particularly useful study, known as the ‘Globe study’, looked at the impact of culture on leadership effectiveness within, and across, cultural boundaries (House et al. 2004). The study’s findings can be applied to leadership in the business sector, as well as the public and private sectors of higher education. The study developed its own classification of cultural dimensions which have been interpreted and reflected upon by many researchers in leadership (Northouse 2010). These cultural dimensions were described as: (1) uncertainty avoidance, the extent to which a society, organisation or group relies on established social norms, rituals and procedures to avoid uncertainty; (2) power distance, the degree to which members of a group expect and agree that power should be shared unequally; (3) institutional collectivism, the degree to which an organisation or society encourages institutional or societal collective action; (4) in-group group collectivism, the degree to which people or employees express

pride, loyalty and cohesiveness in their organisations; (5) gender egalitarianism, the degree to which organisations minimise gender role differences; (6) assertiveness, the degree to which people in a culture or organisation are determined, assertive, confrontational and aggressive in their societal relationships; (7) future orientation, the extent to which people engage in future-oriented behaviours, such as planning investment in the future and delaying gratification; (8) performance orientation, the extent to which an organisation or society encourages and rewards group members for improved performance and excellence; and (9) humane orientation, the extent to which a culture encourages and rewards people for being fair, altruistic, generous, caring and kind to others in the group or organisation.

These nine cultural dimensions were used to analyse attributes in 62 countries. These 62 countries were clustered by geographical area and cultural relationship (e.g. Germanic Europe, Latin Europe, Southern Asia, Confucius Asia, Anglo, Eastern Europe, Latin America and Middle East). It should be noted that the Middle East only covered Turkey, Kuwait, Egypt, Morocco and Qatar. The overall findings are extensive, but for the purposes of this chapter, a few findings are particularly interesting. The Anglo countries were predominantly characterised by high-performance orientation, but they were low scoring in in-group collectivism. However, the Middle East countries in the survey were high scoring in in-group collectivism as well as future orientation and uncertainty avoidance. People, organisations and employees in the Middle East were characterised by great pride in family, society and organisation. There were also high scores for loyalty to group members and others within the member society or the organisation. Leadership was often expressed in organisations, both public and private, within these terms and boundaries.

In terms of leadership profile, the Anglo(phone) countries appeared to want leaders that were exceedingly motivated and visionary, but not necessarily autocratic, and team oriented. The Middle East profile of leadership was reported to be based on status and the value of family and society within the group or organisation. The role and power of leadership appeared to be more independent, stronger and possibly less based on independent charisma and assertiveness, which came more from status and position.

The Globe study has many strengths and weaknesses. It is based on preconceived and often narrow cultural dimensions and characteristics that often lead to defined and expected outcomes. If other broader dimensions were adopted, then the survey may have come out with further or different outcomes. Nevertheless, as a comparative analysis of culture, the survey does help to point to aspects of culture that define leadership in different national contexts. It also clearly establishes the fact that leadership is influenced, and to some extent defined, by cultural identity. Although the survey was aimed at leadership in general, this fact needs to be recognised in the arena of global higher education leadership. Within the context of university leadership, the elements of collegiality and loyalty to group are more highly defined than in the business sector.

Considering these nine cultural dimensions within the Saudi higher education context, it appears that Saudi academic leaders should be equipped with cultural

consciousness skills. The fact that the faculty and staff in Saudi universities are mostly multinational and coming from different parts of the world with many cultural differences requires that cultural consciousness should be a key leadership attribute. Fortunately, most of the academic leaders in higher education in Saudi Arabia are expected to have cultural consciousness to some extent due to the fact that they have graduated from international schools and lived the culture issue themselves. However, assuring that the nine cultural dimensions are well considered in the Saudi institutions is a great challenge to academic leaders.

Leadership Development Experiences Worldwide

Academic leaders' development has been a major concern in many higher education systems worldwide. Although the quest for personal development is a key attribute of the individual leader, some institutions consider availing development programmes as part of their responsibilities. It is not necessary that the institution itself conducts such programmes, but it usually facilitates participation in them. There exist several venues for conducting developmental programmes for academic leaders (Khathlan 2010). There are academic development centres which are established on the national level serving the country/state in which they exist or even beyond. Another type of leadership centres are the ones affiliated with an academic institution or a consortium of institutions. A third type is private consultancy firms which provide consultation services to higher education institutions on a wide range of issues that include leadership development.

The list of these entities is long; however, some of the more prominent ones include: the American Council on Education (USA); the National Academy for Academic Leadership (USA); the Leadership Foundation for Higher Education (UK); the Australian Learning and Teaching Council; the L.H. Martin Institute (Australia); the South African Council on Higher Education; the Center for Creative Leadership (USA); the Wharton Center for Leadership and Change Management at the University of Pennsylvania (USA); the Academic Leadership Program and Center for Organizational Development and Leadership, both at Rutgers University (USA); the Center for International Higher Education at Boston College (USA); the Leadership Development Program and Centre For Higher Education Research and Development, both at the University of Manitoba (Canada); the Centre for Higher Education Research and Development at the University of Debrecen (Hungary); the Institute for Management and Leadership in Education at Harvard University (USA); the Collaborative on Academic Careers in Higher Education at Harvard Graduate School for Education (USA); the Academy for Education Leadership (UK); the Stanford Educational Leadership Institute at Stanford University (USA); the Institute for Academic Leadership at Florida State University (USA); and the Centre for Academic Leadership at the University of Ottawa (Canada).

There is a spectrum of functions and activities that characterise those entities. The range includes conferences, training workshops, discussion forums, executive

education, mentoring, consultation, research and studies, scholarly journals and online resources and publications, in addition to other higher education-related issues and programmes. It is worth mentioning that most of these entities provide services on both the national and international levels.

An example of one of these entities is the Leadership Foundation for Higher Education (LFHE) in the United Kingdom. It provides a dedicated service of support and advice on leadership, governance and management for the United Kingdom's universities and higher education colleges. The business case for LFHE was proposed in 2003 and informed by earlier research by the Higher Education Staff Development Association (HESDA) and Professor Robin Middlehurst of the University of Surrey. The original business case for the Leadership Foundation for Higher Education is a good insight into purpose and direction of leadership training and development in UK Higher Education.

LFHE states that it is committed to developing and improving the management and leadership skills of existing and future leaders of higher education. Also, it has an international leadership development programme that recognises the global nature of higher education. The international development programme provides a forum for university leaders from the United Kingdom to meet other higher education leaders from around the globe. The emphasis of the development programme is on international dialogue and educational understanding. The programme provides an opportunity for higher education leaders to develop international strategies that integrate education, research and knowledge transfer, based on a greater understanding of international higher education. It also offers the opportunity to build new partnerships or extend existing relationships with higher education institutions in different regions of the world. The programme clearly emphasises knowledge through practical contact with higher education leaders around the world. In many ways, the programme demonstrates the United Kingdom's attitude to higher education within an international, rather than national, context and importance. Leaders within the global higher education sector are expected to be leaders within both a national and international context.

The Academic Leadership Center Initiative in Saudi Arabia

The experience of academic leadership development in Saudi Arabia stemmed from a strategic perspective. In 2006, the Ministry of Higher Education launched a project for developing a future plan for higher education in the Saudi Arabia. The project, named 'AAFAQ', incorporates a comprehensive view of the Saudi higher education system aimed at developing a long-term plan for the next 25 years. Management and administration of Saudi higher education, both at the system and institutional levels, was a major component, and academic leadership in the institutions was a key issue in this component.

An important assumption of the AAFQ project was that senior academic leaders of Saudi higher education institutions who are well prepared for academic careers

in research and teaching may lack required skills for leading in their institutions. Accordingly, one of the major initiatives that emanated from the AAFAQ project was the establishment of a leadership centre as a vehicle for driving forward academic leadership development. The main focus for the proposed leadership centre was to develop the skills and competences necessary for the academic leaders and key administrators of a world-class university system in Saudi Arabia. Subsequently, the Academic Leadership Center (ALC) was established in 2009 by the Saudi Ministry of Higher Education (MoHE).

The ALC vision is 'to be a leading centre in the region for the advancement of leadership in higher education institutions', and its mission states that 'the Centre provides developmental programmes and assistance in leadership for higher education institutions, administrators, and leaders, enabling them to be more successful and effective'. The ALC has five main goals:

1. To contribute to the development and spread of leadership culture that fosters innovation, success and excellence
2. To advance effective leadership behaviours and practices through services and programmes on matters of higher education leadership and management
3. To assist in decision-making through information and diagnostic assessments of the state of leadership and management
4. To facilitate leadership development and succession planning in higher education institutions
5. To be responsive to the evolving and changing leadership challenges and needs of the stakeholders

The Saudi Minister of Higher Education, Dr. Khalid Al-Ankari, stated in the first newsletter of the Academic Leadership Center:

> Experience has proven that leadership plays a significant role in the success, effectiveness, and quality of higher education institutions. As higher education, locally and globally, is faced by many challenges in different fields, Saudi universities are expected to adopt extensive paradigmatic development strategies to confront these challenges. Of course, this requires visionary leaders capable of maneuvering through a difficult future terrain.

The ALC provides a wide range of services in different regions in Saudi Arabia for both government and private higher education institutions. It conducts workshops, training programmes and long and short courses, for both current and prospective leaders. The centre also offers training and consultation to potential leadership mentors and resources institutions to establish effective leadership mentorship programmes.

The ALC provides professional consultation services to help Saudi universities and their leaders in addressing their particular issues. In addition, the ALC conducts research studies related to leadership in higher education, organises conferences and symposia in order to share experiences and discuss trends in leadership and provides relevant resources in a variety of formats to disseminate leadership knowledge and information. Further, the centre is establishing a network of international experts, trainers and partner institutions in its quest to provide quality professional services and to learn from the best practices and successful experiences, worldwide. Some

workshops have been conducted outside Saudi Arabia in order to better service future faculty members who are studying overseas on academic scholarships.

Conclusion

It is clear that the characteristics and make-up of vice chancellors and rectors that will promote successful leadership in Saudi universities will alter and change over time, due to national and global pressures and influences affecting the higher education institutions. However, the underlying challenge remains one of leading within environments of uncertainty, which involves the courage to take action when the longer term way ahead is unclear and nebulous (Barnett 2004; Drew 2010). The ability to engage staff through a common vision when higher education agendas change is also important. This will involve leaders, particularly in research-intensive universities, possessing the ability to engage and resonate agendas with academic identities within the institutions (Delanty 2008; Elliott 2008; Goodall 2009). The need for sound strategic leadership is also important and, in particular, change leadership that fosters innovation and creativity, collaboration and the ability to influence others (Drew 2010).

It has been stated in this chapter that university leadership is influenced by both exogenous influences from the outside world (i.e. government policy on higher education and the prevailing societal attitudes to higher education) and other endogenous factors driven by the predominant agendas within universities and the standing of each university in global and national university positioning. Therefore, a significant aspect of the role of vice chancellor, or rector, is to understand and manage the different cultural positions that exist within the university and the outside world.

A core function of leadership in higher education management is to mediate the tensions and challenges that exist within the university world and between university and government agendas. The role of vice chancellor, or rector, necessitates interpretation skills that enable dual positions and cultural identities to be understood and new positions negotiated for the collective good (Elliott 2008). A particularly important function of the vice chancellor, or rector, is negotiating and mediating the conflicts and tensions that arise between academic perspectives and government policy positions if the government position is in conflict with the academic position.

The leadership role of vice chancellors and deans in Saudi universities is likely to become much more complex in the future as the roles move away from internal leadership of an institution towards external leadership of an academic identity or national higher education position. External leadership demonstrated with governments and other higher education providers at home or abroad is increasingly more important. In many ways, leadership is mutating into an ambassadorial position for the vice chancellor and rector. In this context, balancing conflicting priorities and government higher education agendas, within resource-constrained university

environments, becomes a critically important leadership competency for the vice chancellor or rector.

In summary, the development of academic leaders should prepare them to meet demanding challenges, both globally and nationally, and to build on the effective leadership, management and governance of higher education. Projecting this view on the Saudi Arabian model of academic leadership development, and taking into consideration the progress achieved thus far, it is reasonable to be optimistic about the impact that the ALC will have in shaping Saudi higher education.

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Chapter 5
Delivering High-Quality Teaching and Learning for University Students in Saudi Arabia

Saleh A. Alnassar and Kwong Lee Dow

In all countries there is wide agreement that learning and teaching in universities can and should be greatly improved. Most people see that this improvement needs to come, first and foremost, from university teaching staff using more effective means of instruction, being clearer about course objectives, using small group teaching methods to promote genuine interactions with students, effectively using the modern technologies now available and relating the assessment of students directly to course objectives. They also see that students need to be led to be active participants in their own learning and that they need to be explicitly taught learning skills – finding information, learning through doing and practising skills and techniques and connecting their learning and setting it in context. They see, then, that individual teachers need to become more effective in their classrooms and that students need to develop greater confidence in mastery of learning, both in class and in their individual study time outside of formal classes. To say these things affirms the core of the teacher-student relationship in higher education.

But how are these desirable attributes brought about? This is what concerns those participating as learners and teachers, those who are leaders of programmes and courses, those who lead institutions (rectors and senior supporting personnel) and those governments who fund the universities and monitor development at a national level. These are concerns also for the parents of students and prospective students and for business, community and professional leaders in societies, who need well-prepared graduates for employment.

S.A. Alnassar (✉)
College of Education, King Saud University, Riyadh, Saudi Arabia
e-mail: alnassar.s@gmail.com

K.L. Dow
University of Melbourne in Australia, Melbourne, VIC, Australia

University of Ballarat, Ballarat, VIC, Australia

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There is a lot which can be said in answer to this question, and it is to this, in the context of modern Saudi Arabia, to which this chapter is devoted.

Context: A National System

It is important to see the contextual issues clearly, rather than embarking on general statements and principles and advice as if learning and teaching issues are the same everywhere and at all times. Such generalisations disregard the culture of the society, the extent of advancement of educational development and the nature and priorities of the economy, its wealth, its drivers and its aspirations.

Perhaps the first thing to strike an observer of modern Saudi Arabia is the influence of those university leaders who have convinced the government to move systematically and at considerable speed to transform the Kingdom towards a knowledge economy, by using its considerable resources to better educate, train and develop the skills of its people – in today's language, to build human capital. This is clear from the scale of growth in the number of universities (from 7 in 1995 to 32 in 2009), in the number of colleges within them (from 116 in 1995 to 487 in 2009) and in the growing number of departments which make up the colleges (from 515 in 1995 to 1211 in 2009). It is shown also by the increase in the number of students, especially the number of newly enrolled students (freshmen) which has increased by more than threefold from under 40,000 in 1995 to nearly 130,000 in 2009. This growth, rapid and substantial, is being accompanied by a commitment to improving the quality of teaching and learning as a high priority, primarily for the need for high-quality graduates in business, industry and in the professions, but also to make the best possible use of teaching staff (who cannot easily be expanded at the same rate of growth as that of student places) and to avoid the prospect of failure and wastage rates that would not only be dispiriting to the students concerned but would be unacceptably wasteful of the nation's resources.

The key message from the current context is that while in earlier times of growth the focus could be on individual universities and their responsibility for the students they accepted, today the growth is planned and masterminded at a national level, focusing on national needs and priorities, and so in turn, the responsibility for improving teaching and learning in the individual classrooms of each department and college is a shared partnership between individual teachers, department heads, college and institutional leaders and the national government itself, through its Ministry of Higher Education. In this shared responsibility, there is a need for clarification of the role of each party for mutual support and facilitation in this joint endeavour. The point being made is that, in what is now a large national system, responsibility for teaching improvement should not be left to the individual staff members and their immediate department – the institution as a whole should feel involved – and in an appropriate way, the institutions themselves should be able to

look to the Ministry for help and encouragement. This chapter seeks to show how such help and encouragement at these levels might be operationalised.

Context: Entry Levels and Fields of Study

Substantial expansion of the opportunities and places available for university level study inevitably invites questions about the adequacy of student preparation in the secondary schools. This happens in all countries undertaking expansion. It is easy for those receiving students at a particular level to 'blame' the teaching at the previous level for poor and insufficient preparation, saying that students have not been taught subject content needed or expected, that their preparation in the language of the medium of instruction is inadequate and that their understanding of how to learn is poor because they have simply been drilled to answer predictable exam questions about content rather than having been taught for understanding. While there is truth in these claims, and there may well be a need to redirect the emphases of teaching in the secondary schools, it is necessary first to understand why things are as they are, to seek improvements in assessments made at school and to increase support for students and their families, especially those coming from backgrounds where entering a university is quite a new and unknown possibility. The real focus and effort needs to be directed to accepting the students as they are and doing what now is needed to take them from this point to the next stage. This will require explicit teaching of basic knowledge, explicit teaching of how to learn and the teaching of study techniques and skills, in addition to, and preferably alongside, the normal classroom activities. It requires also a huge effort to develop English language skills where English is the language (or medium) of instruction. In Saudi Arabia, the initial development in leading universities of a preparatory year has been a major contributor to this.

It is also important to take note of the particular fields of study which are expanding, because the nature of learning needs is significantly related to field. There is a limit to the usefulness of simple general approaches to teaching and learning which do not recognise differences of approach in the major areas of study. In Saudi Arabia at present, enrolments are particularly high in education (39 % of enrolled students) and are low in health sciences and in engineering (6.3 and 4.3 % of enrolled students, respectively). Some aspects of learning and teaching needing particular concentration in engineering and the physical sciences are less significant in other areas, and in turn the learning needs of students undertaking literary-based subjects – in humanities, in social sciences and in education – have much in common. It is worth noting in passing that developing good learning approaches for students studying education with the intention of becoming school teachers will have a huge pay-off, as this new generation of teachers in schools will in turn set different emphases and a renewed culture of learning for their students.

Context: Teaching and Research, Complementary or Competitive?

An ongoing issue concerning the effort given to teaching in universities (in contrast to teaching in schools and in non-university colleges and vocational training institutions) is the tension of how much time and energy to commit to teaching responsibilities in comparison with research. The issue is well known and well understood. Some claim that their limited research output is due to heavy teaching commitments leaving insufficient time and energy. Some claim (often in response to poor outcomes from student surveys) that their teaching would be more effective if they were not expected to keep up a high research publication rate. There is an obvious need in these circumstances for clear policies within departments, colleges and, indeed, in each university institution, as to what is expected of particular individuals at particular times. This formulation is used to suggest that, within a particular department (or group of staff working loosely together in the same discipline field), optimal arrangements may enable some staff to devote more time to research and others to teaching, rather than expecting all to have similar commitments, expectations and anticipated outcomes, and as well, that the expectations and requirements might change over time, so that a person in a research productive phase could have a lower teaching commitment for a year or more, and another person carrying heavy responsibility for curriculum renewal or the organisation and management of teaching might have reduced expectations for publication and research activity. As staff careers take shape over time, it often becomes clear whether an individual is obtaining grants and keeping up a strong publication record. With the huge increase in student numbers in Saudi Arabian universities in the last decade and the smaller increase in staff, it is inevitable that some departments in some institutions will need to concentrate on teaching, especially where staff have not shown the propensity to become research active. And viewed as a national system, some universities (often but not only those longer established and strong in fields which attract substantial research income) will build research reputations internationally, while others will not. That is almost universally the case, and it requires strong institutional leadership and supporting and understanding national leadership (from the Ministry) to reward institutions, and indeed colleges and departments for what they do best, and to encourage a sense of pride and self-worth in all individuals and groups that are striving to achieve quality outcomes in their areas of strength. Differentiation, both between institutions and also within institutions, will become of increasing importance in the future. Recognition of quality in learning and teaching will be a big part of this and vitally important in the production of quality graduates in sufficient numbers and in the fields needed in the economy and the society.

Basic Issues and the Way They Interact

Some of the improvements which will make a vast difference to the success rates of students, and to their sense of satisfaction with their courses, their learning and their university, are simple and not controversial to enumerate. They may appear hardly worth saying because they are obvious. Yet they are often not achieved, and student cycles continue over years and sometimes over decades with only minimal change. As has already been said and implied above, real change needs a lot of commitment at many levels, ensuring staff and students alike realise there is a strong unequivocal priority being given to advancing the effectiveness of learning and teaching, and that where genuine need for help and assistance and support is identified, and formulated in a manageable way, a reasonable request will be answered.

Let's start with lectures, what is called 'large group teaching', the traditional centre of university teaching. With all the criticism of lectures as a teaching method – one-way communication, focused on imparting information, sometimes dull, boring and repetitive – how is it that this mode of teaching has stood the test of time? The points to make briefly here are that good lectures can be inspirational, that some lecturers are highly effective and enjoyed by their students from generation to generation and that lectures can be broken up, varying the pace, introducing activities, film clips, the Internet and ending with valuable condensed summaries which give students an overview and perspective they don't get elsewhere. It is making each teaching method effective by maximising the potential of that method which counts.

Small group teaching methods are a necessary contrast – two-way communication, listening to what students say, asking probing questions, enabling and ensuring that students also ask questions and meeting in settings which are appropriate for these purposes. In some fields, such as education, students themselves need to learn and over time to master these teaching techniques. They need to practise them, and so they need many opportunities to become confident in a teacher role including, of course, in real school settings. This is not easily achieved, but it is vital. Similarly in other fields as well, professional practice must be accorded the highest of priorities, with opportunities planned with care and in detail to ensure that major benefits derive from what time and circumstance is made available.

In the sciences, including the health sciences and in engineering, small classes provide the sites in which careful checking of student understanding of concepts, and progress in the gradual building of bodies of knowledge and their applications, can be tested. Only in this way can teachers be sure that, as they move on to more advanced topics in cumulative learning, the students are actually following and gaining from progressive teaching. As failure rates are acknowledged to be a significant concern in some subject areas, frequent and well-designed testing for understanding is essential if this is not to recur.

This leads to the point that active and progressive assessment of students during sequential learning within a subject is a key element in effective teaching and academic staff must become increasingly expert in using testing and assessing as a diagnostic teaching device, rather than seeing assessment as something which is summative at the end of a full course or programme. Good assessment practices form an essential part of good teaching and learning practice. As this becomes more widely recognised and the implications understood, so we shall see improvements in success rates of students in their individual units and subjects. The later chapter on assessment will canvass the variety and role of different assessment methods and the advantages and limitations each has. It is vital, however, to begin with the acknowledgement that regular, progressive assessment, and good and timely feedback to students, plays a major role in the success or otherwise of departmental teaching.

There are interconnections between large group and small group teaching, between both of these and individual self-study and between all of this and the way that student progress is assessed. All of this now blends with the use of modern technologies in making materials readily available, encouraging and responding to student queries using email and using distance education and open learning methods for students to reinforce their learning in their own time and place. In some subjects, often those with large numbers of students, these arrangements might be sequenced quite purposefully in an organised and structured way. In some other cases, perhaps advanced courses with smaller enrolments, less formal approaches have the advantage of being tailored to the needs of particular groups of students and to their own individual circumstances. Either way, effective teaching calls for planning and for resources, including teaching support staff who can undertake some of the time-consuming (but necessary) preparations and organisation.

So how do staff in departments acquire the skills and capabilities to undertake the kinds of teaching roles just described? A certain amount will happen naturally and progressively over time. Leaders emerge. Some newly appointed people come with enthusiasm and ideas and experience gained elsewhere and are keen to try new things. The department may encourage the formation of teaching teams and more discussion about better ways of doing things. But informally ‘hoping for things to happen’ is never sufficient, desirable though it is to encourage grass-roots initiatives. Within an environment that ought to be encouraging and mutually supportive, there will be a need for deliberate planning, the appointment of people with specific responsibilities and accountabilities, and from this the emergence, initially at a department and soon at a college level, of clear though simple teaching and learning plans. To call for such plans, especially if dignified by the formal title of teaching and learning plan, might create the impression of much additional ‘busy work’, of complicated diagrams and lots of columns to be filled in on a grid, but, at least to get started, a quite simple plan that shows key responsibilities of individuals in major courses and programmes, how staff will be supported, what is expected and how all of this relates to institutional goals, mission and priorities should not present an

onerous burden. This should be seen as unexceptional, and basic good practice to help make things clearer for everyone, and to show up gaps and aspects that need more attention and consideration.

A Particular Issue: Learning in English When the Home Language Is Arabic

In many countries, teachers in both secondary schools and in universities face a serious difficulty in deciding, at particular levels and in particular subjects, what should be the language of instruction. This is quite different from the simpler issue of teaching English as a second language, or as a foreign language in Arabic-speaking educational institutions. If university textbooks are in English, and the presentation of subjects and the specialist terms in sciences, say, are in English, the decision is usually made to teach that subject in English. This can be reinforced when the business sector is critical that universities are not producing graduates with the needed language competence, particularly for a global economy.

This chapter is not the place to canvass all the complex issues involved, but it needs to be acknowledged that we ask a lot of teachers if we expect them to switch easily back and forth between English and Arabic in their classrooms. That is sometimes assumed, but it is unrealistic in most cases, and there is much controversy among linguists as to the desirability of 'mixed-code' teaching. Hard though it is, the long-term goal may well be to teach in English entirely in some (perhaps many) subject fields.

A huge step has been taken in those institutions in Saudi Arabia that focus the preparatory year with a large time allocation to the explicit teaching of English. That is such a positive step. It does need to be reinforced by continual attention to building further confidence in English in subsequent course years and that probably will require further effort from academic teachers generally. And over time, the situation will be improved if teaching of English in the secondary schools is strengthened. In other words, the commitment needs to be ongoing, rather than entirely focused on the preparatory year.

Providing Support for Saudi Staff

Experience over time and in universities in many countries clearly demonstrates that it is simply not enough to identify the desirable directions of change to improve university teaching. Far more effort is needed. Unless those who show a willingness to change are encouraged and continually supported, and those in lead positions such as department heads and college deans are strong and genuine advocates for the necessary ongoing commitment to maintain the momentum of change, little

will happen. There may be spasmodic experiments for the better, but without support there is likely to be little systematic and continuing improvement of any substantial kind.

Either in departments, if large, or in colleges, it will help if leaders can be found who might credibly be given a role and title such as associate head or associate dean (teaching and learning). They would not be chosen for their seniority but for their track record in effective teaching, assisting students to learn and being acceptable in helping other staff give reality to, and to implement, their own suggestions for improvement. Identifying such people may be straightforward in some cases, but it may take time, and there may be a need to encourage possible individuals to think of themselves as potential leaders in teaching. Meeting with like people, perhaps in arranged seminars or workshops, should help. The groups so formed could be from different colleges in one university, or they might cluster around people in the same or related disciplines in other Saudi universities. It is all about mutual support and building capacity through teams.

(By way of example, King Saud University has established a Deanship which is fully devoted to building the teaching skills of faculty members and so improving the quality of teaching and learning within the whole academic community. Titled 'Deanship of Skills Development', and separate from activities to build the study skills of students, the objectives of this Deanship are to adopt concepts and practices of continuous self-development of the professional capabilities of faculty members, lecturers, teaching assistants, academic and administrative leaders and their professional staff.)

Such individuals will need to be assured that they enjoy the support of their immediate leaders, as well as the support of their institutional leadership. Again, this might be shown through the formation of a university-wide committee designed to build leadership in learning and teaching, perhaps chaired initially by the rector or another senior person from the institutional leadership. It might be possible to make an appointment, full time or part time, of a staff member who has gained outside experience with a specialist group in the field of advancing teaching and learning. These groups, called Centres for the Advancement of Learning and Teaching, or some similar title, exist in many countries, and in places with long-established university systems, these organisations may have existed for some decades. Selected staff from Saudi universities could spend short periods working in and gaining familiarity with such a centre to see how they interact within their institutions to assist the teaching and learning functions. Within a reasonable time, one or more such centres could be established within appropriate Saudi universities. They could then invite international leaders in the field to visit and so build ongoing connections to those active in the field, to their publications and to their current research and related projects.

After two or three repositories of expertise in university teaching and learning are formed within Saudi universities and they have begun to share this expertise more widely with other institutions in the Kingdom, the time will come when it might be seen appropriate for a national body to be created whose role is to stimulate and recognise key Saudi leaders in the field and to expand the capacities

of all universities to improve their teaching and learning performance. A body of this kind could lead developments in curriculum in particular priority fields; run short courses, workshops and conferences on topics of relevance to all or many universities (and have the capacity to bring invited speakers and contributors from other countries); stimulate activities through offering and managing project funding in key areas; and arrange ways to recognise achievements and excellence of high order, through national awards and citations. These kinds of activities should strengthen national capacities and build the expertise of contributing individuals in much the same way as a national university research organisation enhances the research capabilities of a country.

Consideration should be given to the constitutional framework of such a body. There might be reason to establish such an entity under the management control of the collective of the universities themselves, rather than as part of the government Ministry, even if the funding of the body is sought from government. There could be an advantage in seeing this body as a facilitating and supporting organisation for the universities, rather than, as with national accreditation, a body designed to evaluate and test and monitor the adequacy of universities' performance. It will gain the confidence and cooperation of staff within the universities more readily if so conceptualised.

All of these things taken together set a climate where teaching is taken seriously and is seen to be valued, and so improvement and advancement becomes an accepted part of the collective university culture. This takes time and resources, but the evidence is that without such a positive culture being created, continuously improved teaching may not readily occur.

Providing Support for Students

In parallel with staff support for teaching, goes student support for learning. In many places this is particularly shown in what are called 'student support services', which, within a university, offer a range of organised services from staff that are separate from, and additional to, the academic teaching staff. The extent and depth of these services varies from country to country and within a country varies between institutions. Students can be provided with advice on how to manage their finances, where to obtain suitable places to live, how to keep healthy, potential sources of employment (both short term and longer term), along with counselling on a range of matters related to student life and well-being, and advice on study techniques and help with how to approach writing essays. This chapter considers only these last areas which relate directly to learning and teaching.

Studies conducted in Saudi Arabia (Al Dawood 2007) attribute lack of success of some students to the students' adoption of traditional learning methods, based on memorising information to be retrieved only to pass examinations. With this goes a lack of research skills, experimentation, inference and independent learning and an absence of finding new sources of information. If teaching staff do not adopt modern

teaching techniques which provide students with hands-on experience, events and activities that help them to acquire and analyse knowledge, then the students will fail to develop self-learning skills and deeper professional and cultural abilities.

Some female academic staff taking part in the Fourth Cultural Forum of Education Colleges in Jeddah in 2011 were reported in the *Al Hayat Newspaper* as saying that the outputs of higher education in Saudi Arabia are not up to the required level because the teaching methods generally adopted depend on filling the minds of students with theoretical information, while the curriculum itself lacks a sufficient emphasis on teaching critical and creative thinking. The article asserted that such students do not possess the knowledge and skills implied by the degree they have been awarded.

These factors, which are related to teaching and learning using traditional methods, have resulted in high rates of failure among university students, reportedly between 25 and 30 % of the total number of commencing students (Aljuda 1990). The most important academic factors leading to student failure appear to be inability of some members of the faculty to deliver scientific material, lack of academic guidance in solving students' social and psychological problems, lack of sufficient care for students with learning difficulties and inadequate or inappropriate methods used in teaching the curricula.

The Preparatory Year

The preparatory year that has been introduced in some Saudi universities plays an important role in preparing male and female students for university study and in overcoming the difficulties they face. During this year, specialised centres provide counselling, guidance and educational and training programmes on study skills that help students achieve success and excellence in the university. The study skills include how to use the library and learning resources, research skills, reading and listening skills, note-taking skills and personal skills such as time management and effective communication. In addition, the preparatory year is intended to achieve other objectives related to raising the quality of university education, foremost among which are:

1. Rationalising admission to the university by guiding each student to the college and discipline that best suits his/her abilities and skills
2. Evaluating students' aptitudes and prior knowledge before they enter university
3. Familiarising students with the nature of university study before they commence their programme
4. Providing students with the necessary discipline-related language and practical skills for undertaking each university subject or course
5. Enhancing new students' English language skills
6. Developing students' learning, research and communication skills
7. Improving and rationalising the use of university resources, equipment and holdings

Adequate Study Skills Remain a Major Issue

In spite of the great attention paid in the literature of higher education to study skills teaching as a modern trend for developing students for success, most public universities are yet to take this contemporary trend seriously. The position of private colleges and universities seems better in teaching these skills, perhaps as the outstanding ones are new and have agreements and alliances with some developed universities and centres in America and Europe. Some private colleges and universities, however, have not yet begun effective teaching of these skills.

It seems the teaching of study skills in some colleges and universities has not yet matured in the clarity of thought and practice. The idea derives theoretically and scientifically from 'strategic teaching', where the emphasis should be on teaching 'strategies, methods and modes' associated with the skills of reading, writing, thinking, communications and research as functional concepts, not just teaching 'content'. Some materials which claim to promote study skills actually focus on content, not strategies, and so minimise the benefits from studying such subjects in the preparatory year.

Conclusion

The development of a substantial modern higher education system in Saudi Arabia is well under way. The expansion of opportunity has been on a mass scale, and it has occurred very rapidly. The next challenge of improving the quality of learning and teaching within the universities has been acknowledged, and the early steps have been taken in the leading established institutions. A major demonstration of good practice has happened with the implementing of successful initiatives in a new preparatory year.

A priority now will be to build the teaching effectiveness of academic staff generally. The directions of good practice are known, and mechanisms will now be needed to ensure change happens. That will require clear leadership and unambiguous commitment at a number of levels: within colleges and departments, at the institutional level; from rectors and their immediate deputies; and from the government and the Higher Education Ministry. The focus should be on support and encouragement, and gradually building expertise through encouraging natural leaders in departments, providing professional development opportunities of many kinds, including drawing expertise and guidance and support from people in countries where advances in university teaching have already occurred.

A parallel priority will be to develop confidence and good learning skills in students. Again, the direction of development is well understood by professional leaders, and a start has been made. By focusing on such aspects as authentic assessment and frequent informal testing for the purpose of learning, long-term improvement will occur, particularly if supported by cooperative learning in

groups and teams, improving language skills, and generally developing a sense of independent learning where students are encouraged to take initiatives and risks. Further, a new generation of school teachers, from today's education students in Saudi universities, should ensure their students come better ready for this style of university learning and teaching.

It will be from the integration of many separate initiatives from many people across the education spectrum that this change for the better will take hold. While a number of particular activities and projects and ideas will be of high priority and deserve strong commitment, no one element alone will suffice. The effort will need to be Kingdom wide.

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Chapter 6
Assessment of Student Learning

Eqbal Darandari and Anne Murphy

Introduction

Assessment methods and strategies can have a great impact on student learning and activities, as can learning and teaching strategies. Assessment can also direct the approach students take to their learning (what, when, and how much they study), and can affect what they actually learn. Assessment in higher education plays a vital

Authors' Note

It has been difficult to undertake any rigorous and comprehensive analysis of the assessment of student learning for this chapter. With few exceptions, student assessment in Saudi universities supports a norm-referenced and summative model and has always done so. Essentially, assessment is seen as a way of rank ordering students based on what knowledge and skills they have attained by the end of their subject or programme of study. Formal testing remains the dominant way of collecting summative information in Saudi universities.

The purpose of assessing learning should, of course, not just be about ranking students in order of achievement: it can and should provide extremely valuable information about the success and appropriateness of teaching and learning approaches, both for teachers and students, and about the quality of curriculum development and delivery. Assessment models, therefore, should be developed in tandem with pedagogical practice and curriculum design and development, as part of an integrated strategy designed to improve the quality of teaching and learning. Unfortunately, we found almost no evidence of this occurring in Saudi Arabia, whether it be at the system, university, or individual classroom level.

E. Darandari (✉)
National Commission for Academic Assessment and Accreditation (NCAAA),
Riyadh, Saudi Arabia
e-mail: e_darandari@yahoo.com

A. Murphy
Academic Affairs, Dublin Institute of Technology, Dublin, Republic of Ireland

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role, both in immediate and long-term learning, and it needs to be adjusted to prepare students for the learning they will engage in throughout their lives (Boud and Falchikov 2008).

Though assessment has been given considerable attention in the past decade, there have been few systematic examinations of the ways in which institutions support and use student assessment. It is widely recognised internationally that student assessment in higher education is an area of practice that needs improvement, particularly regarding alignment with learning domains and with the findings of quality agencies around the world. A report conducted by the Quality Assurance Agency for Higher Education in the United Kingdom (QAA/UK 2003) provides a good example. The report analysed the quality assessment reports prepared by QAA panels after their visits over 9 years to universities in England and Northern Ireland, and identified assessment as the practice most in need of improvement. The main deficiencies identified in university courses were not related to teaching and learning, but to assessment practices, and, in particular, the use of a very narrow range of assessment methods and an over-reliance on traditional examinations.

It is only during the last 5 years that higher education institutions in Saudi Arabia have started to challenge their traditional reliance on teacher-centred methods for student assessment (primarily examinations). Recent changes to assessment in some disciplines in some universities reflect a more student-centred approach based on the outcomes of, rather than the inputs to, learning.

The Nature of Traditional Assessment

In the traditional model of assessment, the focus is on comparing students to one another through the use of norm-referenced assessment methods that are primarily designed to discriminate among students. Traditional assessment methods are linked to the behaviourist theories of learning that dominated the twentieth century and to psychometric approaches to the measurement of ability and achievement. Grades are allocated according to the statistical 'normal curve', irrespective of what each

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What we did find was a number of enthusiastic Saudi academics who had read about, or were looking at, how they might use alternative assessment approaches. Unfortunately, very few of these academics were looking at customising assessment models compatible with the teaching and learning culture of their classroom or university. Rather, they were simply looking at borrowing 'good ideas' from the literature or international practice and 'trying them out', rather than seeking to use the ideas to develop genuine assessment models designed to meet the needs of the Saudi higher education system.

As a consequence, much of this chapter focuses on the nature of alternative assessment practices and models that have the potential to be customised as part of a strategic approach to improving the quality of teaching and learning in the Kingdom. The reader needs to be aware, therefore, that this chapter essentially conveys what Saudi academics are currently thinking about doing in student assessment, not what they are actually currently doing.

student actually knows and can do. The assessment in general is out of context, and the grade is an average of a number of assessments that are usually different in nature.

Until very recently, the regulations of the Ministry of Higher Education in Saudi Arabia stated that 60 % of the final course grade should be allocated to the final examination and 40 % for midterm examinations and for all other assignments and activities. Most assessments in Saudi Arabia were based on content examinations which focused on recall and memorisation skill. Assessment instruments were almost exclusively essay, short-answer, multiple-choice, and true-false questions. Some disciplines, particularly in the sciences, also had practical examinations. Furthermore, the curriculum was not mapped by learning outcomes, and student assessments were not integrated as a learning experience for the students. This led to ignoring of many important cognitive, behavioural, and communication skills. As a rule, students did not get enough feedback from assessment, particularly after the final examination.

Concerns About the Nature of Assessment

An analysis of 23 quality audits of Arab universities, conducted for the Regional Bureau for Arab States by the United Nations Development Program in 2006, concluded that

> Assessment continues to be a weakness, particularly in three respects: First, too much emphasis is placed on the memory recall of descriptive knowledge. Second, not enough is done to test higher-level cognitive skills. Third, there is virtually no moderation either internal or external to ensure the fairness and transparency of marking . . . There are (also) weaknesses in both the delivery and the assessment of higher-level skills. In general, the arrangements for the assessment of students' attainments are a major obstacle to the further improvement of academic standards. Assessment regimes are heavily over-reliant on testing the regurgitation of subject knowledge, frequently via multiple-choice questionnaires and setting small, often trivial assignment tasks. Multiple-choice examination is to some extent forced upon institutions because of unrealistic Ministry requirements to publish the exanimation results of large cohorts of students in a very short space of time. (UNDP/RBAS 2006: 6)

The report also highlighted other major issues related to consistency of assessment practices and criteria, marking systems, and verifying student's achievement standards, stating that

> Effective mechanisms are rarely in place to ensure that methods, practices and criteria for student assessment are clear and consistent across programs. Internal and external moderation of marks is virtually non-existent outside the Master's degrees and even there, is provided only for dissertations and theses. The use of external moderators or examiners would make a significant contribution to the fairness and transparency of assessment procedures across the provision. The final achievement of students varies from excellent to mediocre and in some programs the level of student achievement does not reflect the high quality of intake. In programs other than the Master's degrees and a few of the

> postgraduate diplomas, students fail to demonstrate the achievement of higher-level skills. Some programs do not produce students who are ready to enter the teaching profession with confidence. Data collection in respect of student achievement and feedback from employers is poor, hindering effective corrective action. (UNDP/RBAS 2006: 7)

The concentration on grading by traditional approaches to assessment forces students to focus on their marks and grades, rather than on the actual process of learning. It defines the curriculum around the assessment rather than the learning processes. Furthermore, traditional assessment methods may cause surface learning and can result in increased anxiety for students (Heywood 2000).

Boud and Falchikov (2007) defined the purposes of assessment as certifying achievement (summative assessment), aiding learning (formative assessment), and fostering lifelong learning (sustainable assessment). Allowing students to actively participate in the assessment process from the beginning transfers the focus from unilateral teacher-centred assessment, which is a summative assessment of learning outcome, to a collaborative student-driven assessment process, which is a formative assessment of learning outcome. Deep approaches to learning are developed through a process of reflection on learning. Assessment, when used as a learning event, helps the learner to access other students' work, and thus gives him/her chances to read and discuss each others' work and make judgments about their own work in relation to others in the peer group. Through this process, deep learning can be achieved. In contrast, traditional modes of assessment do not address self and peer assessment, both of which are important in autonomous learning.

The problems of traditional assessment still prevail in most of the Arab countries, including Saudi Arabia. Despite the fact that recent educational reforms encouraged postsecondary educators to use student-centred learning approaches, many faculty members in Saudi Arabia are still using assessment methods designed for traditional teaching modes. Hargreaves (2006) observed a similar issue in the UK, and noted that 'whilst most institutions, including higher education institutions, have striven to provide a rich and varied approach to assessment, there is still a widely held belief that summative assessment (and in particular exams) provides the mainstay of all assessment' (p. 12).

Educational Reforms and New Directions in Student Assessment

The range of assessment methods used has expanded considerably in recent years: from decontextualised to authentic contextualised assessment practices, from using one single measure to using multiple measures to build a student's learning profile, from assessing low level of competence and understanding to assessing high-level thinking and problem-solving skills, from assessing a few to assessing many dimensions of intelligence, from isolated assessment to integrating assessment within the learning and teaching practices, and from teacher-directed assessment to

increasing student responsibility in the assessment process. This change implies a transfer from standardised tests to contextual assessment that is based on the context of teaching and learning. It also stresses personalising assessment and directing it to discover and match student learning styles, encouraging the student to choose their assessment and to conduct self-assessment. Besides, it shifts the focus from inputs to outcome standards which identify quality levels that need to be achieved.

New Learning and Assessment Paradigms

Educational reform has encouraged alternative methods of learning and assessment that are based on social constructivist theories including the integration of assessment into teaching and learning, and involving students as active and informed participants in the learning process. Constructivist theories focus on the learner and link learning to the learning environment, where students see their teacher as a source and guide in the learning process rather than as an evaluator. This theory considers mistakes as part of the learning process and focuses on the feedback based on proficiency rather than on norm-referenced assessment.

Shifting from the principles of behavioural theory to the constructivist theories of learning and cognitive developmental processes requires moving towards higher-order thinking processes. This necessitates clarity of outcomes for the teacher and the learner, so learners can assess themselves and compare their work to the required standards of performance. They rely on sustainable assessment, which is defined as assessment that meets the needs of the present without compromising the ability of students to meet their own future learning needs (Boud 2000).

In practice, changes in assessment theories have taken many forms, such as the following: transferring from testing what has been taught to assessing specified learning outcomes, from examinations to diverse approaches to meet diverse outcomes, from unilateral assessment to the active involvement of students, from assessment as a separate domain to assessment aligned with learning, from fragmented assessment tasks to alignment with graduate attributes, and from norm-referenced to standards-referenced assessment (Boud 2000; Boud and Falchikov 2007). More emphasis is now put on methods like self-, peer, and co-assessment, portfolio assessment, performance assessment, simulations, and formative assessment in general (Segers et al. 2003).

One of the main reasons for this reforming approach is the increased focus internationally on the quality of learning and a renewed emphasis on academic accreditation. Quality approaches have focused on learning outcomes and their assessment. In this context, traditional models of assessment have been found to be wanting because they fail to adequately align assessment criteria with learning outcomes.

Standards-based assessment is a trend towards modern and holistic assessment which requires focusing on the assessment of learning outcomes, characterisation of assessment tasks, and the student's level of achievement of learning outcomes,

rather than focusing on direct performance-related assessment tasks. It determines whether students have achieved the stated standard, using assessment to demonstrate whether the student knows the required information and can perform the required task. This requires that the results are given to guide students towards what should be done, where the score alone is not enough.

Assessment can lead to improvement when it is part of a larger set of conditions that promote change and when it reflects an understanding of learning as multidimensional, integrated, and revealed over time. Research suggests that in order for assessment to support student learning, results should be shown to students along with explanations of how to improve their future performance because the full power of accurate assessment is not realised until students become fully involved in the assessment process (Nicol and Macfarlane-Dick 2006; Stiggins 2008). Until recently, assessment of student learning in higher education in Saudi Arabia lacked clarity of vision, in part because it has not been well attached to contemporary theories and practices.

The Emphasis of NCAAA on Assessment of Learning Outcomes

With the establishment of the National Commission for Academic Accreditation and Assessment in Saudi Arabia in 2005, a strong emphasis was put on teaching and learning, and a standard was allocated for it (Standard 4). The new Saudi quality assurance and accreditation system promoted a learning outcomes paradigm for higher education and placed an emphasis on the design and planning of assessment as a major part of the curriculum. As a result, attitudes have begun to change, and new plans have been developed in order to provide wider and more flexible assessment methods that match the wider range of learning domains required by both the NCAAA and employers (Almusallam 2007).

Darandari (2010) summarised the important studies related to assessment of learning outcomes in the Arabic world. She concluded that in practice, the vision for assessment is neither clear nor holistic and that theories for student assessment and learning are not integrated and not well connected at all institutional levels. She made several recommendations aimed at improving assessment practices, including the establishment of balanced, integrated, and aligned assessment systems and techniques in Saudi Arabia at classroom, programme, and institutional levels.

Although numerous workshops have been provided by the NCAAA to help with university assessment processes and practices, implementation of new assessment theories is still posing a great challenge for higher education in Saudi Arabia. The NCAAA approach has involved three stages: (1) a focus on the development of a quality culture with respect to teaching, learning, and assessment; (2) programme mapping and course planning, with a particular focus on assessment strategies; and (3) formal implementation of institutional assessment strategies.

Research by Darandari and Hoke (2007) and Darandari et al. (2009) suggests that some progress has been made in the quality of assessment practices across higher education institutions in Saudi Arabia, but that there is still much more training needed at both the institutional and individual levels.

Changes in Student Assessment Methods and Purposes

With the shift from teacher-centred approaches of instruction to student-centred learning, there have been concerns that traditional student assessment methods and grading may be inappropriate for the new learning environment. Student-centred approaches are grounded in a constructivist perspective, and they encourage student ownership of their goals and activities. Students make decisions about actions they should take to meet their goals, encouraging increased depth of understanding and motivation (Pedersen and Williams 2004).

Current assessment theories fall into three categories: (a) assessment *of* learning, (b) assessment *for* learning, and (c) assessment *as* learning. Traditional assessment modes generally fall under assessment *of* learning, because they involve making judgments about students' summative achievement for purposes of selection and certification. Formative and diagnostic assessment methods can be categorised under assessment *for* learning, because they provide information about student achievement allowing learning activities to be changed in response to the needs of the learner. On the other hand, in assessment *as* learning, students do much of their learning by becoming directly involved in the assessment process, using feedback and participation in peer assessment, and self-monitoring of progress (Black and Wiliam 1998).

Learning Domains as a Guide to Student Assessment

Taxonomies or frameworks for learning can be used to assist instructional design and assessment (Moseley et al. 2005). The new National Qualifications Framework (NQF) in Saudi Arabia groups the kinds of learning outcomes expected of students into five domains: (1) *knowledge,* which involves the ability to recall, understand, and present information, including knowledge of specific facts, concepts, principles theories, and procedures; (2) *cognitive skills*, which include the ability to apply conceptual understanding of concepts, principles, and theories and apply procedures involved in critical thinking and creative problem solving; (3) *interpersonal skills and responsibility*, including the ability to take responsibility for their own learning and continuing personal and professional development, to work effectively in groups and to exercise leadership when appropriate, to act responsibly in personal and professional relationships, and to act ethically and consistently with high

moral standards in personal and public forums; (4) *communication, information technology, and numerical skills*, which involve the ability to communicate effectively in oral and written form, the use of information and communications technology, and the use of basic mathematical and statistical techniques; and (5) *psychomotor skills*, including manual dexterity, which is related to some specialisations, such as surgery and performing arts (NCAAA/NQF 2009).

The NCAAA quality assurance and accreditation system identifies what is required of Saudi universities in the assessment of student learning, based in large part on contemporary theories and international practice. In particular, universities must demonstrate that student learning outcomes are consistent with the National Qualifications Framework and with generally accepted standards for the field of study concerned and that student assessment mechanisms are appropriate for the different forms of learning required by different disciplines and students.

Strategies required to be used by Saudi higher education institutions to validate the quality of learning outcomes achieved by students include the following: moderation of student scripts and assignments by an independent marker from the same or another institution, benchmarking of standards of projects and assignments against assessments at other institutions, and comparisons across institutions of assessment strategies and criteria. These strategies can be complemented by external reviews of departments and programmes, assessments of programmes by students and graduates, and reports on the skills of graduates by employers.

Institutional approaches to student assessment in Saudi Arabia are just starting – previously, assessment practices have varied across disciplines and departments in the same university. The requirements for external accreditation have forced much greater consistency of assessment practices and approaches, both with and across institutions – an outcome that is consistent with the situation in other parts of the world (Peterson and Perorazio 2001).

Despite the progress achieved, there is still a lot of work to be done in the design and alignment of teaching and learning strategies with assessment strategies at programme and course levels. As a 2006 report by the United Nations on higher education in the Arab States stated,

> The development of an outcome-based approach to quality assurance, and in particular the use of Intended Learning Outcomes (ILOs), is still a matter of contention in some universities. There is plenty of evidence of significant efforts to develop ILOs for programs already being delivered. However, their use as a key element in coherent curriculum design to appropriate alignment between programs, courses/modules and their assessment is still by no means fully embedded. (UNDP/RBAS 2006: 7)

Learning from International Best Practices

Saudi Arabia has sought to benefit from assessment best practices and experiences internationally through consultations, workshops, visitations, and partnerships. Several universities have negotiated professional affiliations with international

universities, and the Saudi Ministry of Higher Education (MoHE) has funded a range of assessment-related professional development activities both inside and outside the Kingdom. The MoHE has also funded a number of projects that focus on student-centred approaches to learning and assessment. Further, the NCAAA has organised and/or funded a series of training programmes for Quality Directors from various Saudi universities that address the assessment of learning outcomes and assessment strategies at classroom and institutional levels (NCAAA 2010).

In this era of technology and an increasing emphasis on e-learning, Saudi higher education institutions are under increasing pressure to support the use of flexible and alternative assessment modes. There is also an increasing emphasis on creating information technology policies to support and enhance student assessment, and more attention is being paid to establishing systems for recording and reporting student assessment information. This is consistent with other international higher education departments and quality agencies.

Policies, Practices, and Organisational Support for Student Assessment

Most universities in Saudi Arabia still do not generally have policies or practices that specifically relate to the professional development of faculty for the purpose of student assessment. In most cases, support is provided through general faculty development funding for conferences and workshops. There is, however, increasing pressure for student assessment to be linked to academic management and improvement processes, including strategic planning, academic quality, programme review, and budget allocation. A major current shortcoming of Saudi Arabian universities is their failure to make full usage of student assessment information when making educational decisions and to use the information to improve the quality of teaching and learning.

It is also important to involve student assessment information when making management decisions. For example, Australia is moving towards establishing a system for assessing employability skills, due to increasing demands from industry and league tables. The reform process has gone beyond pedagogy to management processes, curriculum renewal, governance arrangements, professional development, and industrial relations.

Assessment of Prior Learning

Over the last decade, there has been much emphasis on recognising prior and experiential learning for the purposes of university entrance and advanced standing. This assessment is of particular interest to adult educators because it encompasses

formal and informal learning and lifelong, incidental, and workplace learning and is based on a methodology of critical reflection. Through this recognition of prior learning (RPL), students may earn credit for college-level learning achieved through work, outside activities, and life experiences.

There is little evidence to suggest that Saudi Arabian universities have as yet sought to utilise the RPL process, or to embrace the legitimacy of knowledge and skills attained outside of the formal education systems.

Conclusion and Suggestions

Saudi higher education institutions are still largely dominated by a norm-referenced assessment culture. In order to challenge this culture, a more proactive approach to staff training and development is needed. Assessment methods need to be linked to intended learning outcomes, particularly those concerned with the acquisition of higher-level thinking and behaviour skills. In this respect, more flexibility in centrally imposed assessment and examination rules needs to be negotiated at both the university and Ministry levels, and more effective methods of internal and external moderation are required.

There is a need for institutional strategies, plans, and policies to include overt reference to student assessment processes and outcomes. The establishment of assessment units that are responsible for designing, collecting, analysing, and reporting academic results may also be effective in supporting educational quality and improvement in Saudi universities. Student assessment information needs to directly inform each institution's academic management processes and decision-making structures, as well as the teaching and learning processes themselves.

There are also strong arguments for student assessment information to be included in the academic planning and review process at department and institutional levels, as well as for individual faculty members. There are also significant potential benefits in universities involving students in the review and evaluation of academic assessment systems and processes.

Saudi universities need to ensure that their IT systems are sufficient and appropriate to facilitate the collection, analysis, and reporting of student assessment information. All efforts should be made to ensure open access to student assessment information (at the collated, not individual, level) for all relevant members of the university community.

Assessment of student learning in Saudi universities needs to be designed as an ongoing process that is underpinned by a clear vision and plan for change, and it needs to keep up with recent international trends and issues.

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Chapter 7
The Role of Information Technology in Supporting Quality Teaching and Learning

Stephen Colbran and Nadia Al-Ghreimil

Introduction

This chapter investigates the use of information technology in supporting quality teaching and learning in university education in the Kingdom of Saudi Arabia. It is based on a comprehensive survey of academics that was undertaken in 2010 in seven Saudi universities. To the best of our knowledge, this represents the only rigorous and comprehensive survey of this area yet undertaken in the Kingdom.

Two fundamental questions are addressed: (1) How to engage Saudi Arabian academic communities in evaluating, implementing, and supporting proposed instructional technologies? and (2) How can Saudi Arabian universities meet the emerging teaching and learning needs of higher education (such as with mixed-mode delivery, business intelligence systems that report teaching and learning indicators as part of a quality assurance system, learning management systems, student evaluation of teaching and learning, plagiarism detection, and academic demands for teaching technology)?

Methodology

The research reported in this chapter was based on a voluntary survey instrument administered online to a sample of Saudi academics. Ethics approval was granted through the author's university and appropriate protocols put in place to ensure

S. Colbran (✉)
Department of Law, Central Queensland University, Queensland, QLD, Australia
e-mail: stephen.colbran@gmail.com

N. Al-Ghreimil
College of Computer and Information Sciences, King Saud University, Riyadh, Saudi Arabia

External Joint Supervision Program (EJSP), King Saud University, Riyadh, Saudi Arabia

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confidentiality for respondents. Surveys were conducted with academics across varying disciplines, concentrating on issues surrounding the use and adoption of educational technology in Saudi Arabia. Both qualitative and quantitative data were collected, enabling both statistical and thematic analyses to be undertaken. It was anticipated that this triangulation approach would provide a useful snapshot of the current use of educational technology in the seven Saudi Arabian universities that were the focus for the study, which would in turn provide valuable messages for the future use of educational technology in the higher education sector generally in Saudi Arabia.

Survey data was collected from staff at seven universities across Saudi Arabia: King Saud, King Khalid, King Fahd University of Petroleum and Minerals, Princess Nora, King Abdulaziz, Imam Mohammed bin Saud Islamic, and Effat. Surveys were also completed by staff at MKCL Arabia Ltd (an e-learning company servicing the university sector) and JCCS (an IT solutions company also servicing the university sector). The survey was completed by 338 academics – 193 (58 %) male and 138 (42 %) female. Saudi respondents represented 74 % (211) with 26 % (73) being non-Saudi. Community colleges or community service colleges represented 73 % of the sample. The gender of students taught was 58 % male and 42 % female. Respondents were drawn from nine major discipline areas: computing; sciences; medical and health sciences; arts, humanities, and social sciences; engineering; business, economics, and law; foreign languages and translation; Islamic studies; and Arabic language. The median age of the sample was 35, and all of the respondents had undertaken English language training, 62 % at an advanced level. All of the respondents had achieved at least basic computer proficiency, with 65 % having completed advanced level training in this area. Almost half the sample (45 %) were lecturers, 35 % assistant professors, 11 % associate professors, and 10 % full professors.

Engaging Saudi Arabian Academic Communities

Academics in Saudi Arabia want to be engaged with technology to support teaching and learning. When asked whether they were interested in being provided with information about available educational technologies, academics were overwhelmingly seeking engagement. Out of 278 respondents, 265 (95 %) were interested, and only 13 (5 %) were not.

Academics, when asked how they became aware of new educational technologies to support teaching and learning, indicated that institutions have various strategies in place to raise awareness: training sessions available through their university, Internet, e-mails from their university management, colleagues, conferences, journal articles, books, advertising from IT companies, overseas study, and participation in international projects. The most effective of these strategies were considered to be e-mails and training sessions, while the Internet, collegial activities, conferences, and word of mouth were also seen to be useful. Journal articles and books were considered to be the least significant ways of gaining awareness about educational

Table 7.1 Academic perspective – avenues for engagement

Question	*n*	1	2	3	4	5	Mean
1. Becoming involved in an educational technology group within your school	276	9 (3.3 %)	7 (2.5 %)	28 (10.1 %)	129 (46.7 %)	103 (37.3 %)	4.12
2. Becoming involved with an educational technology group within your university	276	9 (3.3 %)	12 (4.3 %)	44 (15.9 %)	122 (44.2 %)	89 (32.2 %)	3.98
3. Receiving e-mails on new educational technologies	276	7 (2.5 %)	7 (2.5 %)	23 (8.3 %)	122 (44.2 %)	117 (42.4 %)	4.21
4. Receiving training on new educational technologies.	276	6 (2.2 %)	4 (1.4 %)	12 (4.3 %)	113 (40.9 %)	141 (51.1 %)	4.37
5. Attending a conference on new educational technologies	276	5 (1.8 %)	8 (2.9 %)	32 (11.6 %)	112 (40.6 %)	119 (43.1 %)	4.20
6. Attending an annual event at your university showcasing new educational technologies	274	5 (1.8 %)	4 (1.5 %)	23 (8.4 %)	128 (46.7 %)	114 (41.6 %)	4.24
7. Attending an annual event at your university showcasing exemplars of existing educational technologies	271	4 (1.5 %)	6 (2.2 %)	28 (10.3 %)	122 (45.0 %)	111 (41.0 %)	4.22
8. Having a member of staff within your school whose sole responsibility is to assist academic staff in using existing and new educational technologies	277	5 (1.8 %)	11 (4.0 %)	25 (9.0 %)	73 (26.4 %)	163 (58.8 %)	4.36

technologies. Electronic means of awareness clearly, then, is crucial in Saudi Arabia. This has implications in terms of national Internet access, restrictions, and speed.

To explore possible avenues for further engagement, academics were asked a series of questions based on a 5-point LIKERT scale from 1 = Strongly Disinterested and 3 = Neutral through 5 = Strongly Interested. The results, shown in Table 7.1, not only indicate a high level of interest in the forms of engagement described but they also suggest that Saudi academics would like a trained support person to help them with implementing new technologies, as well as greater opportunities for networking with other lecturers on the use of educational technology. E-mail and relevant 'hands-on' training opportunities are also popularly sought options for increasing engagement. Academics were very interested in receiving instruction, equipment, and support in relation to new educational technology. The overall results indicate a healthy attitude that needs to be matched with appropriate funding. While buildings and campuses are important, what goes on within those buildings and campuses appears to be far more important.

To obtain an indication of current levels of engagement, academics were asked whether they had ever been consulted in relation to the adoption of educational technology to support teaching and learning. A total of 177 (65 %) answered 'No', and 94 (35 %) answered 'Yes'. It is clear that consideration needs to be given to building engagement with staff in these critical areas. Respondents indicated that they have a very high level of interest in receiving instruction on how to adopt further educational technology, being provided with equipment and software to implement educational technology, and receiving ongoing technical support in adopting further educational technology.

When asked whether they had ever been involved in an evaluation of the effectiveness of educational technology to support teaching and learning, 165 (61 %) answered 'No' and 104 (39 %) answered 'Yes'. The lack of consultation and engagement in evaluation of technology creates risks that may undermine both the uptake of the technology and any intended benefits.

When asked, 'Have you ever received support or training in adopting a new educational technology', 188 (70 %) of academics responded 'Yes' and 82 (30 %) responded 'No'. These results may suggest that more effort should be focussed by Saudi universities on staff training.

The survey asked the Saudi academics a series of questions that explored their level of interest in becoming further engaged in actually evaluating the use and the effectiveness of educational technology. The respondents indicated that they are very interested in contributing to the evaluation of new educational technologies and in acting upon the findings of those evaluations. There would, then, appear to be considerable scope for more directly involving academics in the evaluation of the implementation of educational technologies in the Kingdom and potentially considerable benefit in doing so.

Mixed-Mode Delivery

The vast majority of Saudi students are enrolled full-time in face-to-face programmes that are financially supported by the Saudi government. These programmes are supplemented by technologies that support dissemination of knowledge, such as learning management systems. Sixty-two percent of respondents reported face-to-face on-campus instruction as the only delivery mode used for their subjects. There appears to be almost no totally online instruction, but mixed-mode delivery (a combination of face-to-face and online) apparently is becoming more popular (reportedly used in about one third of subjects). The position in Saudi Arabia can be contrasted with the situation in most Western countries where students often pay their own fees (supported by government or private loans) and thus need to work to supplement their incomes. This results in a much greater need, and thus market, for off-campus (distance) and part-time modes of delivery.

While there are numerous technologies that can support face-to-face teaching in a synchronous mode (such as electronic polling devices, Power Point, smart

boards, data projectors, and visualisations to name a few), there are also many types of asynchronous technologies of significant importance (such as podcasting, vodcasting, simulations, LMS, e-mail, blogs, and wiki). Further information on the use and uptake of these technologies is discussed below.

Business Intelligence and Quality Assurance

Good decisions require good information and data sets. As the saying goes, 'you cannot improve what you cannot measure'. Metrics and key performance indicators are as equally relevant to learning and teaching as they are for research. Business intelligence reporting systems can be built around basic data sets including time series data on achievement and attrition, student evaluations of units and teaching practice, and electronic assessment submissions and reporting. Such data can be aggregated and reported on an individual, school, discipline, faculty, university, or system-wide basis.

While Saudi Arabian universities do have some of these data sets, such as student evaluations and attrition, there is no evidence of any business intelligence reporting systems that could lay the basis for sector-wide improvements in teaching and learning.

Use of Learning Management Systems

Learning management systems (LMS) provide an electronic framework around which a learning programme may be woven. LMS represent a considerable ongoing investment in educational technology infrastructure. There are four main LMS: Blackboard, Moodle, Desire2Learn, and Sokai. The survey results suggest that, in Saudi Arabia, Blackboard is the dominant system used. Interestingly, however, only about half of the academics surveyed were aware of the particular version of LMS in use at their institution!

Academics were divided in their use of the LMS. Fifty-eight percent (160) reported using a LMS in their teaching, with 42 % (114) not using a LMS at all. When asked about the overall value of the LMS in supporting quality teaching and learning, those academics who indicated that they use LMS responded very favourably. It is clear, therefore, that academics find value in the use of learning management systems, but that such systems are not yet widely adopted in Saudi Arabian universities. The key question to emerge, then, is: Why is this the case?

Table 7.2 provides some insights into how LMS is deployed and supported in Saudi universities, with responses to questions recorded on a 5-point LIKERT scale where 1 = Strongly Disagree, 3 = Neutral, and 5 = Strongly Agree. The data would suggest a lack of uniformity in how LMS are deployed in university departments and a lack of adequate support for their usage.

Table 7.2 Staff perspectives – LMS

Question	*n*	1	2	3	4	5	Mean
My school has a consistent approach to the layout of courses in the learning management system	150	11 (7.3 %)	13 (8.7 %)	40 (26.7 %)	52 (34.7 %)	34 (22.7 %)	3.57
The learning management system is reliable	150	6 (4.0 %)	9 (6.0 %)	23 (15.3 %)	70 (46.7 %)	42 (28.0 %)	3.89
I monitor and engage with students using the learning management system	150	6 (4.0 %)	12 (8.0 %)	22 (14.7 %)	61 (40.7 %)	49 (32.7 %)	3.90
I am provided with sufficient support in using the learning management system	149	14 (9.4 %)	13 (8.7 %)	24 (16.1 %)	67 (45.0 %)	31 (20.8 %)	3.59

Open-ended questions sought to elicit from academics their views on positive and negative aspects of the LMS. Typical 'positive' responses were:

- 'Improvement of English by students'
- 'It is fully automatic and data are accurate'
- 'Time Saving, ease and comfortable manageability'
- 'Able to reach students anywhere'
- 'Able to communicate online with students and post the latest information'
- 'Robustness and efficiency'
- 'It initiates active learning'
- 'Helps to consolidate training initiatives on a scalable web-based platform'
- 'Portability'
- 'Supports personalised content'
- 'Enables knowledge reuse'
- 'Teaching is made easy with vivid visual images of lectures and diagrams. Teaching and learning is generally enhanced'
- 'It facilitates teaching and student learning anytime and anywhere'
- 'Students can communicate and collaborate with the instructor and other students easily.'

Typical 'negative' comments were:

- 'Sometimes due to technical problems we can lose data'
- 'Too time consuming'
- 'Systems failures on some occasions are very disruptive to teaching'
- 'Risk of Viruses going to our data'
- 'Technical support needs to be faster'
- 'Extra resources are needed'
- 'Some students can get less involved in the learning process'
- 'Not easy for some students – the LMS has no feelings nor emotions'
- 'Need adequate training and user friendliness'
- 'Dependant on Internet, which doesn't always work or is quick enough'

- 'Maintenance is so bad'
- 'There are problems of Internet availability for some students'
- 'Students' computer skills are still relatively poor'

Student Evaluation of Teaching and Learning

Academics were asked a series of questions about the evaluation of the quality of teaching and learning in a course, the quality of the course itself, and the use made of the evaluation data. When asked 'Does your university have a system for student surveys of teaching?' 88 % (237) of the academics surveyed responded 'Yes' and 12 % (31) responded 'No'. A total of 77 % (182) of the respondents indicated that the teaching surveys in their university or department are conducted online. Two thirds (66 %) of the respondents stated that evaluations of the quality of teaching are conducted twice a year in their university, 8 % stated that they are conducted once a year, and 6 % stated they are conducted 'on request' only.

Of considerable interest is the fact that the respondents overwhelmingly reported that they did not place much if any value on the outcomes of the teaching evaluations. Sixty-six percent of 209 respondents stated that their contribution to improving teaching is 'poor', while 8 % stated that they didn't see any value at all in conducting the teaching evaluations. Only 16 % indicated that they considered the evaluations to be of significant 'value add' to their role as a university teacher.

When asked 'Does your university have a system for student surveys of the quality of courses?' 79 % (210) of the academics surveyed responded 'Yes' and 21 % (55) responded 'No'. According to the survey data, course surveys are less common than teaching surveys, and most (79 %) are conducted online.

Academics were asked whether their university had a set of teaching and learning indicators as part of a quality assurance system. Fifty-four percent (141) indicated 'Yes', 4 % (10) 'No', and 42 % (108) said they 'Did not know'. The response is somewhat mixed, revealing a large proportion of academics unaware of any quality assurance teaching and learning indicators. This situation needs to be addressed to provide leadership and clarity for academics as to what is expected of them in relation to teaching and learning.

Academics were asked a series of questions concerning their level of interest in receiving performance data. The responses reveal that academics see considerable value in the following:

- Receiving open-ended responses from students regarding their teaching performance
- Being provided with comparative data about their teaching performance relative to other academics in their college or university
- Being provided with comparative data about their teaching performance relative to academics in other universities
- Receiving information on their teaching as part of a reflective process to improve the quality of their teaching

These are healthy and significant findings as they indicate that academia in Saudi Arabia may be ready to engage in systems for the monitoring and reporting of quality teaching and learning indicators on a national basis.

Plagiarism Detection

Plagiarism detection assisted by data-matching software is common in Western universities. The rationale is to ensure that students appropriately cite the work of others and to encourage originality. To explore the uptake of this technology in Saudi Arabia, academics were asked what data-matching (plagiarism detection) system was used in their university. Seventy-eight percent said they did not know, while 15 % said none. Turnitin was identified by 5 % of respondents as being available at their university and Jplag by 2 %. Seventy percent of respondents stated that they never use plagiarism detection software, either their own or that provided by their university. These results clearly indicate that this technology is not used extensively in Saudi Arabia. However, 72 % of the academics surveyed stated that they were interested in using plagiarism detection software, while only 8 % stated that they had no interest.

Teaching Technologies in Use

Academics were asked to indicate all teaching technologies they used in their courses. The results are tabulated in Table 7.3. It is clear that a healthy variety of technologies are being tried, with the most common being e-mail, Internet, learning management systems, and electronic smart boards. What is unclear, however, is the

Table 7.3 Technologies used in teaching

Source	*n*	%
E-mail	199	79
Internet	186	74
Learning management system	119	47
Electronic smart boards	111	44
Electronic quiz or multi-choice test	63	25
Mobile technologies [mobile phone, iPad, iPod]	51	20
Electronic recording of lectures	47	19
Social networking	36	14
Vodcast	29	11
Electronic book readers	29	11
Podcast	24	9
Others	24	9
Virtual worlds	16	6
Electronic polling devices	8	3
Electronic games	8	3

extent to which any systematic evaluation of the use of educational technology is happening, nor how its use relates to improvements in the quality of teaching and learning or the attainment of key performance indicators.

When asked about the barriers to the increased use of educational technology in their courses, Saudi academics identified the following:

- Inadequate technical systems and infrastructure in their university
- Unreliability of the technology and software causing disruptions in class teaching
- Unavailability of the technology in their university
- Poor management of technology implementation and systems
- Lack of relevant and appropriate training
- Lack of necessary preparation time for using the technology
- Increased workload compared with face-to-face teaching
- Incompatibility of IT systems
- Internet problems, including bandwidth issues for students
- Lack of high-quality technical support staff

Conclusion and Future Research

Information technology plays a central role in a modern university. If Saudi Arabia aspires to have a number of leading universities by world standards, it will need to invest heavily in technology, infrastructure, and skilled human resources. It is essential that senior management ensure that the implementation of new technologies is associated with active engagement and involvement of educational communities of practice. Without this symbiotic relationship and mutual respect, little will be achieved.

The emerging teaching and learning needs of higher education point to the relevance of a series of technologies with short-to-medium implementation time horizons. All these technologies have pros and cons, but what they share in common is a requirement for fast, unfettered broadband access. In the technological revolution, countries with fast efficient networks will have a considerable economic advantage. This is even more so with tertiary education, where international collaboration and global spread of knowledge will require fast broadband access.

Educational communities of practice are an inherent part of academia, with firm roots across local, national, and international boundaries. These communities of practice play a central role in the success or otherwise of educational technology. Engagement and support is essential within these communities. The selection, evaluation, trial, and adoption of new educational technology all require input of educational communities. The key questions will be as follows: How does the technology benefit the pedagogy of teaching and learning in that community of practice? Is there a pedagogical case for the adoption of the technology?

Mixed-mode delivery challenges educational communities to venture beyond traditional face-to-face lectures and master-apprentice models of education. Saudi Arabia has a significant proportion of students mixing face-to-face with online

instruction. Mixed-mode delivery requires improvement in the infrastructure, skill set, and support provided to academics and students. Without these resources, frustration builds within the system, and the quality of educational outcomes declines.

Pure distance education is a small component of the current system in the Kingdom. One question to consider is: What role will Saudi Arabia play in developing distance education in the Arab world and beyond? It is suggested that this role can be extensive, enhancing the importance and influence of the Kingdom in world education. The focus should be both internal and external.

Business intelligence systems and quality assurance go hand in hand. Business intelligence reporting systems can easily provide summarised dashboard reports on teaching and learning quality indicators. These reports can significantly improve teaching and learning outcomes when used as part of a broader reflective outlook on the tertiary system. The reports can be aggregated to provide individual to sector-wide benchmarks.

Learning management systems are an established part of the tertiary landscape. The real question is how educational communities of practice are using these frameworks? Do they have sufficient support and training to get the most from what is often a very significant investment in infrastructure? The data suggests there is considerable scope for improvement in the use of learning management systems in Saudi Arabia, although in fairness this can also be said for many other countries.

Systems for student evaluation of teaching and learning, both in the context of individual teaching and in evaluation of a course, are important elements of a quality assurance system to ensure continual improvement of course offerings. The results suggest that both academics and students may be ready for a comprehensive national system for benchmarking teaching and learning quality indicators. Such a national system, if implemented transparently, will likely assist the improvement of learning and teaching in the tertiary sector.

Data-matching systems to help detect plagiarism are underdeveloped in Saudi Arabia. There is no reason to suggest that the rate of plagiarism in Saudi Arabia is any different from that experienced in other cultures. Putting that research question aside, it is likely that the detection rates are lower in Saudi Arabia due to the lack of infrastructure and knowledge concerning the implementation of data-matching systems.

Educational technologies in use in Saudi Arabia are diverse – a situation not uncommon in tertiary sectors in advanced countries. The wish list of academics is extensive and the needs of early adopters unmet. The most important question is what factors are inhibiting the adoption of technologies and impeding progress. The key inhibitors for successful adoption of educational technology in Saudi Arabia include lack of and failures with infrastructure, blocked websites, and software issues and lack of training and support.

This pilot research project should be extended to collect further data to properly reflect the national voice of academics, administrative staff, students, and broader stakeholders concerning the use of educational technology in Saudi Arabia. The authors believe that the survey should be repeated every 3 years to monitor improvements or otherwise in the system.

Chapter 8
Selecting and Developing High-Quality Academic Staff

Saleh Al-Ghamdi and Malcolm Tight

Introduction

Higher education everywhere faces great challenges and difficulties in regard to financing, improved staff development, skill-based training, the enhancement of quality, the relevance of its programmes, and the employability of its graduates. Enhancing the quality of higher education and finding solutions to its major challenges require strong involvement by all stakeholders. Faculty (academic staff) roles and responsibilities are central to a university's ability to achieve its mission, and the success of any university is heavily dependent on the quality of its faculty members.

It is, therefore, necessary to provide faculty members with the care and attention commensurate with the significant role that they play. A clear faculty development policy is an essential element for the development of all higher education institutions because the quality of their faculty members is directly related to their overall quality. In order to provide appropriate faculty development programmes, it is necessary to assess faculty members' performance and thereby determine their strengths and weaknesses. Faculty development programmes should complement evaluation, as evaluating faculty members' performance should lead to opportunities for them to improve the quality of their teaching and research (Arreola 2007).

S. Al-Ghamdi (✉)
Imam Muhammad ibn Saud Islamic University, Riyadh, Saudi Arabia

National Commission for Academic Assessment and Accreditation (NCAAA), Riyadh, Saudi Arabia
e-mail: saleh106@hotmail.com

M. Tight
Department of Educational Research, University of Lancaster, Lancaster, UK

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This chapter discusses the current practice of selecting faculty members in Saudi Arabian universities, and discusses and analyses their faculty evaluation and development systems.

The Importance of Faculty Evaluation

Universities expect their faculty members to engage in teaching, research, and public service, as these are the functions of most universities. The amount of effort allocated to each of these functions depends on the institution's mission and priorities. The actual activities depend on the nature of the department and individual faculty members' interests and abilities, as well as on the nature of the institution (Tucker 1993).

Faculty members are the core of colleges and universities. The quality of higher education and the ability of colleges and universities to perform their missions are inextricably linked to the quality and commitment of their faculties. Novice and developing faculty members inevitably affect an institutions' quality in a negative way (Koops and Winsor 2006).

One of the most important processes with which to promote improvement is a faculty evaluation programme. Evaluation encourages faculty members' development by improving the quality of their instruction and their approach to fulfilling their responsibilities. Evaluation is the process of interpreting data in order to make judgments about the degree to which the object under evaluation represents a desired quality (Arreola 2007). Faculty evaluations should, therefore, evaluate the faculty members' performance of the duties that the institutions expect of them.

One of evaluation's central purposes has always been to provide faculty members with some measure of how well they are performing their roles in order to help them to improve their performances (Tucker 1993). Its aims include providing the means for them to share their strengths and to correct their weaknesses, thereby facilitating the rewarding of effectiveness and the elimination of incompetence. Many faculty evaluation programmes identify their major purposes as improving faculty performance and providing information for personnel decisions (Learning 1998; Seldin 2006). Faculty evaluation is useful for institutional improvement as well as faculty development, as it helps to raise academic standards at the institutional level as well as at the individual level. It is, therefore, an important factor for strengthening an institutions' overall effectiveness (Ryan 2000).

Providing faculty members with their evaluation results as quickly as possible increases the likelihood that they will be effective in helping to improve their performances, as faculty members are overwhelmingly likely to be motivated to improve when they know how to bring about the improvement (Seldin 2006). Evaluation stimulates growth and improvement in faculty performance and helps to monitor the progress that institutions make towards achieving their missions and goals. It also helps to determine the optimal utilisation of institutional resources (Stephens 1999).

The Purpose of Faculty Evaluation

The cornerstone of any evaluation is its purpose, which shapes the questions it asks, the sources of the data it utilises, the depth of its analysis, the dissemination of its findings, and its programmes for training supervisors about how to conduct effective evaluations (Ryan 2000). The major purposes for which academic institutions globally use faculty evaluation are accountability, promotion, and faculty development (Teddlie et al. 2003). Institutions need assessment information to evaluate their faculty members' performances based on institutional standards and to direct faculty development programmes (Braskamp and Ory 1994).

Evaluation programmes are necessary for institutional management, especially because stakeholders sometimes challenge institutional decisions made in contexts of limited resources and intense competition (Tucker 1993). Faculty evaluation programmes generally identify their major purposes as improving faculty members' performance and providing information for such personnel decisions as retention, tenure, promotion, and compensation. While many lists of faculty evaluation's purposes exist, the principal ones are quality assurance and professional development. These two purposes correspond with the two primary types of evaluation, which are summative evaluation (which institutions use for making administrative decisions) and formative evaluation (which they use to enhance the faculty's professional skills) (Danielson and Mcgreal 2000).

Faculty members may reasonably expect the evaluation process to be formative in nature for their personal use, while administrators are more likely to use the results of evaluation in a summative form to inform decisions related to such personnel matters as wages, the renewal of contracts, and for promotion and tenure decisions (American Association of University Professors 2011; Seldin 2006; Centra 1993). The underlying unspoken purpose of the faculty evaluation process is improving the quality of student education, with the added purpose of ensuring institutional accountability (Koops and Winsor 2006).

Faculty Evaluation and Development in Saudi Arabia

Those involved in higher education throughout Saudi Arabia are currently giving much attention to the evaluation of its quality. Their concern about the quality of higher education institutions stems from four factors: the establishment of the National Commission for Academic Accreditation and Assessment (NCAAA), the prevalence of inefficient pedagogical techniques, the rapid increase in the number of universities, and the increasing competition among universities for students and income.

The NCAAA provides standards for improving the quality of higher education programmes and institutions. Faculty evaluation and development, therefore, provide indicators of whether performance meets the NCAAA quality standards.

Next, many faculty members are still using outdated teaching methods that do not enhance students' skills and abilities. Furthermore, the recent rapid increase in the number of Saudi universities has challenged the new universities to attract appropriately qualified faculty members and has increased competition among colleges and universities, especially from private institutions, thereby making quality improvement essential (Al-Ghamdi et al. 2010; Qureshi 2006). As a result of these factors, all Saudi higher education institutions have had to take initiatives to assure the quality of their performance. Effective faculty evaluation is an instrument of such quality assurance. After the establishment of quality-assurance and academic accreditation systems, it becomes the responsibility of Saudi universities and colleges to establish internal quality-assurance systems, including mechanisms and procedures to evaluate the performance of faculty members, in order to improve the quality of their work (Al-Ghamdi et al. 2010).

Although many Saudi universities have made great efforts to establish internal quality-assurance systems, their overall faculty performance evaluations are still generally considered to be unsatisfactory. The major problems include an inadequate understanding at all levels of universities of the evaluation process, inherent resistance to evaluation, and the ineffective utilisation of evaluation results. Evaluating faculty members is one of the most difficult responsibilities of academics with administrative responsibilities, as many faculty members see it as a negative process and do not understand its purpose. The credibility of faculty evaluation remains one of the most sensitive issues in Saudi higher education (Al-Sharbainy 2004; Al-Ghamdi 2008).

Many faculty members involved in higher education in Saudi Arabia do not value the evaluation of their performance. The reasons for this include that they think that the criteria used to evaluate them are invalid, their evaluations' results have no impact on them because they are neither rewarded nor held accountable by them, they do not accept that there is any valid basis for them to be evaluated further, and they are sceptical of the evaluators' abilities, as they know that many of the evaluators have not been trained to evaluate performances (Andrews 1997).

The tendency for faculty members and administrators to have different perceptions about the evaluation process often leads to administrative apathy and faculty resistance (Arreola 2007; Redmon 1999), increasing the lack of understanding of its importance. Other problems involved in the faculty evaluation process include the conviction that faculty evaluation does not lead to any change or improvement, faculty evaluation processes rarely working as intended, and most faculty members having received little or no training for many of the tasks for which they have been evaluated (Arreola 2007).

The major obstacles to establishing successful evaluation programmes in Saudi Arabia are, therefore, faculty resistance; administrators' apathy; untrained evaluators who lack the knowledge and skills to conduct valid evaluations; the failure to define the evaluation's purpose, performance goals, and standards; a failure to provide information to faculty members to help them understand how to change; and uneven implementation (Ryan 2000).

The major impediments to the development of useful evaluation systems are a lack of agreement on a definition of good teaching, the aspects of professional activities that should be included in the evaluation process, and the extent to which different categories of staff should be involved in the evaluation (Seldin 2006; Arreola 2007).

The Saudi Ministry of Higher Education has established regulations (Higher Education Council 2007) for promoting faculty members to the higher academic positions of assistant professor, associate professor, and full professor. As a result, Saudi Arabian universities and colleges now generally require newly appointed faculty members to have earned a doctoral degree from an accredited institution. Further, promotions from assistant professor to associate professor and from associate professor to full professor are each based on those faculty members engaging in 4 years of additional research and further study since receiving their last degree. Staff members with master's degrees can teach, but the institutions where they teach encourage them to obtain doctorates and to leave teaching and enter administration if they are still without doctorates after 5 years.

The Ministry's regulations place greater value on research than on teaching and service. Many faculty members, therefore, pay more attention to research than to their other responsibilities, which results in their placing a less than desirable emphasis on their teaching role (Qureshi 2006). The current evaluation system focuses solely on research, with its outcomes being mainly promotions. The system, therefore, ignores faculty teaching performance.

The Heads of Departments in Saudi higher education institutions must also complete an annual evaluation form for non-Saudi faculty members, which is used as the basis for decisions about contract renewals. These evaluations are entirely subjective. There are no stated criteria for the evaluations which are based entirely on the impressions of the Head of Department. These evaluations generally do not provide formative information to guide improvement and progress towards goals, either at the individual or institutional levels, and thus, their usefulness must be brought into serious question (Arreola 2007; Seldin 2006).

Many Saudi faculty members question the necessity of evaluation and view it as a negative process or as an irritation that they hope will soon be over. This makes it a sensitive and complicated issue. The system provides no generally agreed standards and performance indicators against which to evaluate faculty performance. The instruments and procedures used are insufficient for obtaining a clear picture of faculty performance. The main source of information is students' evaluations of their teachers. No linkage exists between evaluation programmes and professional development programmes. Such personnel decisions as retention, tenure, promotion, incentives, and sabbatical leaves are not the result of any consideration of the effectiveness of faculty members' performance (Al-Ghamdi et al. 2010). It is, therefore, reasonable to conclude that most Saudi institutions of higher education have no effective evaluation processes in place.

Saudi institutions of higher education do, however, have some opportunities and strengths that could help them to establish and maintain effective evaluation systems. These include the Ministry of Higher Education's encouragement and

support for development programmes for faculty members; an accreditation system that requires evidence and indicators of good performance; the possibility of employing consultants with international expertise and experience; the existence of development deanships (i.e. deans with responsibility for developing faculty skills) in many Saudi universities; a general readiness for development and improvement; the presence of qualified faculty members in the field of evaluation and measurement; the availability of infrastructure and information technology that facilitate evaluation; and the existence of incentives and awards for excellence that can be linked to the results of evaluations (Al-Ghamdi et al. 2010).

Professional Development

The success of reforms in higher education in Saudi Arabia will depend substantially on the quality of the faculty members, which in turn will depend to a great extent on the quality of faculty development. Faculty development involves building and promoting an effective teaching 'personality'. It is the sum of activities, not individual activities, that enhance faculty members' knowledge, skills, and performance. Development programmes improve faculty communication skills, classroom behaviour, teaching methods, and thinking. It helps them to implement innovations and refines their practices (Stephens 1999). Although, as noted earlier, faculty development has recently assumed a heightened importance in Saudi Arabia, no systematic efforts have yet been made to implement it.

Most Saudi academic staff begin their teaching careers without any formal pedagogical preparation, and hence, they often lack effective teaching skills. Although they may be knowledgeable in their discipline area and well prepared to conduct research, faculty members frequently lack the skills necessary to communicate their knowledge effectively to students. Most of them tend to teach in the same way they had been taught and to test in the same way they had been tested (Qureshi 2006). Teaching, therefore, generally involves traditional lecturing approaches in which the lecturer stands at the front of the class and transmits information, while testing is generally based on the capacity of the student to recall that information.

University teaching is one of the only professions in the world that appoints people with no specific training to perform a complex task – the teaching of university students. Saudi universities tend to select teaching assistants mainly on the basis of their excellence in earning bachelor's degrees, due to the assumption that someone who has earned a bachelor's degree with high marks should be able to teach in higher education. The basis for faculty members' appointments tends to be their subject-matter experience or research skills, with little regard to whether they have received training in how to teach, assess students, and develop academic programmes and courses. Some universities have recognised this problem and have established development deanships or centres to improve the quality of teaching. They have designed many of these development programmes, however, without a proper assessment of what are the actual areas of need for faculty.

Faculty evaluation programmes and faculty development programmes should work together (Arreola 2007). Most Saudi universities, however, have little or no alignment between their faculty evaluation, professional development, and compensation systems, which tend to operate in isolation from one another. Faculty members who want to participate in a professional development programme simply have to fill in a form and attend without any expectations from university management, or indeed themselves, that the experience will enhance their performance (Al-Ghamdi et al. 2010). Some Saudi universities, however, are beginning to recognise that professional development, faculty evaluation, and reward systems should be vehicles for developing, assessing, and rewarding high-quality performance and valuable professional contributions.

If some aspect of faculty members' performance is to be evaluated, opportunities should be available for them to enhance the skills they need to perform that task. Faculty members tend to view faculty evaluation systems that are implemented without a direct link to professional development as punitive, and so, professional development programmes that institutions implement without reference to information gathered from evaluations tend to be limited in benefit (Arreola 2007).

It is axiomatic that professional programmes designed without feedback from students and staff will tend to attract only those who are motivated to seek opportunities to improve their skills and that often those who are most in need of professional development will tend to be the last to seek such opportunities. If institutions are to evaluate faculty performance, especially in regard to teaching, they should provide opportunities to develop, support, and enhance that performance among staff.

Faculty Compensation

Properly conducted faculty evaluation provides a rational, objective, and equitable basis for critical administrative decisions in regard to retention, promotion, and compensation for excellent performance. Faculty members in Saudi Arabian universities are among the few remaining employee groups whose salaries are unrelated to their performance. They are paid on a uniform schedule with salary increments based on years of employment, not performance. As a consequence, this payment method provides no recognition for the more skilled members of staff or for their professional efforts and achievements (Al-Ghamdi et al. 2010).

Well-designed promotion systems ensure the consideration of faculty members' academic quality, attract qualified people, and encourage academic excellence. Basing salaries only on years of employment fails to provide incentives for good professional performance and discourages collaboration and other practices that improve the quality of teaching, research, and service to the community and the institution (Fite 2006). Annual salary increases should be a direct reflection of productivity, as this is likely to motivate faculty members to improve their performance.

Towards a Comprehensive Evaluation System

Saudi Arabia's accreditation system emphasises the importance of continuously improving faculty performance. All higher education institutions are subject to the accreditation standards published by the NCAAA (2009: 21–38), including the standards relating to faculty evaluation and professional development. The NCAAA standards include the following:

- Effective systems, including but not limited to student surveys, should be used for the evaluation of courses and of teaching.
- Training programs in teaching skills should be provided within the institution for both new and continuing teaching staff, including those with part-time teaching responsibilities.
- Adequate opportunities should be provided for the additional professional and academic development of teaching staff, with special assistance given to any who are facing difficulties.
- The extent to which teaching staff are involved in professional development to improve their quality of teaching should be monitored.
- Teaching staff should be encouraged to develop strategies for the improvement of their own teaching and to maintain a portfolio of evidence of evaluations and strategies for improvement.
- Criteria and processes for performance evaluation should be clearly specified and made known in advance to teaching and other staff.
- If performance is considered less than satisfactory, clear requirements should be established for improvement.
- All teaching and other staff should be given appropriate and fair opportunities for personal and career development.
- Teaching staff should be expected to participate in activities that ensure that they keep up to date with developments in their field and the extent to which they do so should be monitored.

Although these standards have no explicit links with each other, they do convey the expectation that all higher education institutions in Saudi Arabia should conduct faculty evaluations and use the results for professional development.

Faculty performance is a dynamic, ongoing, and multidimensional activity that cannot be measured accurately by a single annually implemented instrument. It is, therefore, important for Saudi Arabia to have a comprehensive faculty evaluation system that employs multiple data sources and that collect relevant information throughout the evaluation cycle. The major data sources in most faculty evaluation systems are student ratings, self-evaluation, peer evaluation, and supervisor evaluation. The information collected through these sources needs to directly influence the nature of professional development if the overall educational performance of Saudi universities is to improve (Arreola 2007).

The core of a successful faculty evaluation system for Saudi universities should be a process for annual performance planning and review for each academic staff

member. Both the faculty members and their supervisors (normally their Head of Department) should agree upon performance goals for the coming year and how to measure the achievement of those goals. The performance planning and review process should provide meaningful information to guide the professional growth and enhancement of individual faculty members, and information to guide strategic personnel decisions by the university (Arreola 2007).

Although little information is available about effective faculty evaluation systems, good systems are generally considered to:

(a) Have clear purposes
(b) Be developmental in nature in order to facilitate individual growth and promote the institution's mission
(c) Promote professional discussion throughout the process
(d) Ensure the involvement of both faculty members and administrators in designing their processes and procedures
(e) Provide appraiser training
(f) Use multiple sources of information
(g) Reflect the needs and goals of the faculty members as well as their departments and institutions
(h) Be seen by faculty members as a useful tool that can help solve their problems and achieve their goals (Ryan 2000; Koops and Winsor 2006; Seldin 2006; Arreola 2007)

Saudi Arabia's universities should ensure that these criteria are used to guide their faculty performance planning and review systems.

Research by Arreola (2007) found that unless all faculty members fully accept and support a programme, it is likely to fail. Further, he concluded that two conditions must be met to bring harmony into the faculty evaluation process. These are reaching an agreement on exactly what aspects of faculty performance are to be evaluated and a common understanding that the evaluation process can serve as a means for both evaluating performance and providing the basis for improvement. This has major significance for Saudi universities, which must ensure that detailed but clear information about the nature and importance of individual faculty performance and planning and review is disseminated widely and regularly.

Conclusion

Higher education in Saudi Arabia is facing many challenges. It is experiencing rapid changes that require entering into a stage of development and adaptation involving the reformulation of policies and strategies. One important factor in the process of assuring the quality of higher education is by assuring the quality of its faculty members, which can be accomplished with a comprehensive faculty evaluation and development system.

Much attention throughout Saudi Arabia has come to be focused on the evaluation of the quality of higher education institutions. This attention stems from a number of factors involved in the recent changes mentioned at the start of this chapter. As a result of these factors, higher education institutions have become obliged to take measures to ensure the quality of their professional processes and outcomes. Most Saudi universities are attempting to implement professional development processes, including performance planning and review, in an attempt to improve the quality of teaching and learning. Much, however, still needs to be done.

For professional development in Saudi Arabia to contribute in a much more powerful and meaningful way to the overall quality of higher education in the Kingdom, it needs to:

- Reflect the professional needs and emerging roles of faculty, both individually and collectively
- Build around a comprehensive yet flexible system of performance planning and review
- Reflect contemporary best practice models of teaching and learning
- Be supported by an effective evaluation system to ensure that the professional development results in improved performance at both the individual and institutional levels

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Chapter 9
Knowledge-Based Innovation and Research Productivity in Saudi Arabia

Mohammad Al-Ohali and Jung Cheol Shin

Introduction

The Kingdom of Saudi Arabia has been actively initiating strategies to enhance research productivity in higher education since the mid-2000s as a way of enhancing its economic development. Higher education development and research-based innovation are at the core of Saudi's National Development Plan. As a part of these efforts, the Ministry of Higher Education (MoHE) has allocated resources to support research productivity by establishing scientific research centres, a research park and technology incubators.

In this chapter, we focus on the features of the Saudi Arabian research enterprise from a comparative perspective, analysing the current features of knowledge production and outlining implications for the future. First, we discuss knowledge production in Saudi Arabia from the 1970s to 2010 using the Thomson Reuters database. Then, we discuss how the knowledge production is related to industrial development in Saudi Arabia, using recent data published by the US National Science Board (2010).

Institution-Based Research Funding in Saudi Arabia

The Deanship of Scientific Research (DSR) is the position in most Saudi universities responsible for supporting institution-based research. Saudi universities allocate various amounts of funding to support research projects identified by academic staff,

M. Al-Ohali (✉)
Educational Affairs, Ministry of Higher Education, Riyadh, Saudi Arabia
e-mail: alohali@kfupm.edu.sa

J.C. Shin
Education Administration and Policy Studies, Seoul National University, Seoul, South Korea

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and also actively bid for external research consultancies to be conducted by their staff. It is also usual for the DSR to specifically allocate research funds, generally for short-term low-cost projects, to support junior members of faculty to begin their research career.

In an attempt to raise their research output and prestige, many Saudi universities also allocate significant research funding to support industry-based Research Chairs as well as the employment of high-profile international researchers to lead projects that will be staffed by university faculty and postdoctoral students.

In Saudi Arabia, all principle investigators of research projects, in addition to their standard university salary, receive an additional payment of at least US$1,500 per month for the duration of the project.

Government-Based Research Funding in Saudi Arabia

Government funded options for fostering research in the Kingdom include building Centres of Research Excellence, implementing a National Science Technology and Innovation Plan, promoting and facilitating collaboration with international research partners, and building science parks.

Centres of Research Excellence

Centres of Research Excellence have recently been established in a number of the Kingdom's universities. These centres are funded either by the Ministry of Higher Education or by direct grants from the government. Among the major areas targeted for Centres of Research Excellence are corrosion, renewable energy, petroleum and petrochemicals, nanotechnology, and Islamic banking and finance.

The National Science Technology and Innovation Plan

The recently implemented National Science Technology and Innovation Plan (NSTIP) is a similar funding arrangement to the National Science Foundation (NSF) in the USA. The core of the NSTIP is the *King Abdulaziz City for Science and Technology* (KACST), the mission of which is to:

- Propose a national policy for the development of science and technology
- Devise and test the strategy and plans necessary to implement them
- Coordinate with government agencies, scientific institutions and research centres in the Kingdom for enhancing research, exchanging information and expertise, and avoiding duplication of effort

The long-term aim of NSTIP is to provide the internationally competitive science and technology infrastructure necessary to develop the Kingdom as an advanced knowledge-based economy.

The identified technology priorities of the NSTIP include research and technology development in the areas of water, oil and gas, petrochemicals, nanotechnology, biotechnology, information technology, electronics and communications, space and aeronautics, energy, environment and advanced materials. University faculty and other researchers working in Centres of Excellence can apply for funding directly from the NSTIP; for example, the Centre for Nanotechnology at King Fahd University of Petroleum and Minerals has already secured funding for eight projects through the NSTIP.

International Collaboration

Several Saudi universities – particularly King Saud University (KSU), King Fahd University of Petroleum and Minerals (KFUPM), and King Abdulaziz University (KAU) – are collaborating on research projects with universities outside the Kingdom. An example is a 7-year research project being jointly conducted by KFUPM and MIT in the United States to investigate aspects of solar energy, the desalination of seawater and other technologies related to the production of fresh water and low-carbon energy in Saudi Arabia. Other examples include collaboration between KFUPM, KACST and the Saudi oil company Aramco with Stanford University in the areas of nanotechnology, petroleum engineering and geosciences, and between KFUPM and Cambridge University on oil and gas research. There has also been a significant increase in joint authorship of academic papers by Saudi and international authors in these areas of collaboration.

Science Parks

Science parks have recently been established on university campuses in Riyadh, Dhahran and Jeddah. Industries are given real estate positions in return for collaboration with university faculty and students on a range of research projects. Multinational industrial partners accommodated on these science parks (or 'techno valleys') include Saudi Aramco, Schlumberger, Baker Hughes, General Electric, Halliburton, Yokogawa, Siemens and Honeywell, to name a few. Collaboration through these science parks has resulted in a significant increase in the number of industrial projects, publications and patents filed that involve Saudi universities.

Research Productivity: Publications by Saudi Academics

This section uses the Thomson Reuters database to analyse publication outcomes for Saudi academics. The Thomson Reuters database collates information from the Science Citation Index, Social Science Citation Index, and the Arts and Humanities Citation Index. Unless otherwise cited, figures quoted in this section come from that source.

There is a high correlation between the amount of money a country invests in research and development (R&D) and the international publication output of its academics (Shin 2009; Chang et al. 2009). It is not surprising, then, that the publication output of Saudi academics has increased rapidly in recent years as the government has invested more heavily in research and development (R&D) (which now comprises 1.1 % of GDP). In 1975, only 25 articles by Saudi academics reached international publications: in 2010, this number had risen to 3,063. Nevertheless, investment in R&D by Saudi Arabia is still much less than in many other countries – such as Israel (4.75 %), Korea (4.47 %), Japan (4.45 %), the United States (2.67 %) and Singapore (2.61 %) (World Bank 2011) – and so too is its publication output. Further, the annual publication output of Saudi Arabia significantly trails that of many other Middle East countries, such as Turkey (22,000), Iran (16,000) and Egypt (5,000), although it is higher than Morocco, Jordan and Algeria. Figure 9.1 compares Saudi Arabia with other Middle East countries with respect to the number of publications on the Science Citation Index (SCI).

The university sector accounts for approximately 75 % of all academic publications in Saudi Arabia, with the bulk of the university publications (2,239 in 2010) coming from just six universities: King Saud, King Abdel-Aziz, King Fahd University of Petroleum and Minerals, King Faisal, King Khalid and Umm Al-Qura. Three universities – King Saud, King Fahd University of Petroleum and Minerals and King Abdel-Aziz – have shown rapid increases in the number of international

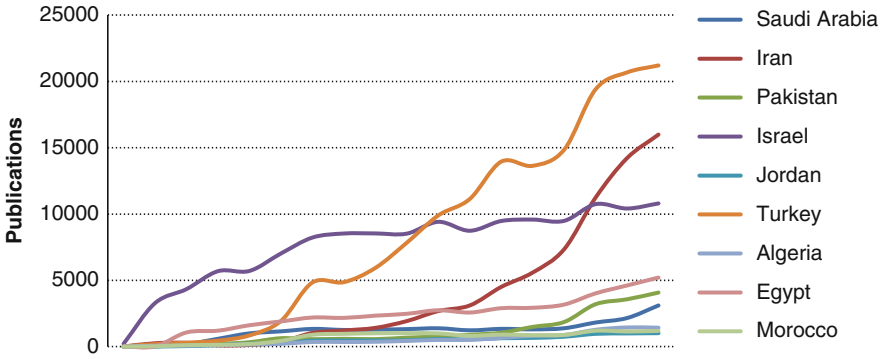

Fig. 9.1 SCI publications in selected Middle East countries 1970–2010 (Data source: Web of Science)

publications over the last 5 years, and each of these universities now exceeds 400 international publications annually. Over half the international publication output of Saudi universities is in the form of joint publications with international authors, both from international universities and from industries in other countries.

An analysis of Saudi output by field of study reveals that the largest number of international publications is in the medical sciences, followed by engineering, chemistry, biological sciences, physics and mathematics. Social science publications represented less than 1 % of all Saudi international publications in 2010.

In the final chapter of this book, Smith and Abouammoh assert that the major reasons for the relatively low publication rate by Saudi academics include the following: a lack of knowledge and understanding about what is required to report research output in an international publication; difficulties in expressing ideas in English, the major language for international publications; the relatively new emergence in Saudi Arabia of many disciplines in the social sciences as areas of academic strength (internationally, this area accounts for a massive number of publications); inadequate mentoring of Saudi academics by established international academic authors, particularly in the social sciences, including education; and a lack of confidence to expose their academic arguments and findings to international critique.

Research Productivity: Industrial Development

It would appear axiomatic that knowledge production is the basis of industrial development in the knowledge-based global economy. However, this is a very difficult assumption to test or to quantify because the impact of research productivity on industrial development is frequently indirect. University-based research, for example, undoubtedly will support industrial development, but much of that impact will be through student activity and subsequent employment, so that the level of impact from university research cannot itself be defined with any certainty. Similarly, formal collaboration between a university and an industry partner, or between individual researchers in university and industry, undoubtedly affects industry productivity, yet the actual contribution of the university research or researcher is again very difficult to quantify.

Currently, Saudi Arabia relies heavily on overseas experts and the outputs from overseas research to drive its industry-based R&D. This would tend to suggest that the actual Saudi contribution to research that affects industry development is still quite low. However, the Thomson Reuters database (2011) indicates that research-based collaboration between Saudi universities and industry has more than doubled in the last 4 years, so it is reasonable to assume that this situation may improve in the future.

Another frequently used indicator of the impact of research on industry development is the number of international patents registered. The *Science and*

Engineering Indicators: *2010* database provides the latest information relating to the number of patents registered in the areas of information and communication technology (ICT), computing, communications and semiconductors, aerospace and pharmaceuticals. The latest figures are for 2008 and indicate that worldwide there were 157,772 patents registered in these five areas, with the USA having the most (77,501) followed by Japan (33,682), Korea (7,549) and Taiwan (6,339). The entire Middle East, excluding Israel, had only 65 patents registered, with Saudi Arabia contributing almost half of those (30). This suggests that while research in Saudi Arabia may be having a bigger impact on industry development than other Arab countries in the region, its contribution by international standards is still very low indeed.

The Centre for Higher Education Research and Studies (CHERS)

The Centre for Higher Education Research and Studies (CHERS) is a dedicated research unit within the Ministry of Higher Education. The purposes of the unit are:

1. To evaluate the impact or potential impact of major policies and initiatives on the higher education sector in Saudi Arabia
2. To critically review national and international models, trends and research in higher education
3. To organise and conduct relevant high-level focus groups and 'think tanks' to exchange information and views and to engage in productive debate on important higher education issues, challenges and opportunities
4. To identify, document and promote good practice in Saudi higher education
5. To use the outcomes of its activities to develop strategic policy advice for the consideration of the Minister
6. To disseminate and communicate key findings and messages from its evaluation and research to relevant stakeholders in a timely and effective manner

An independent evaluation of the operation and effectiveness of CHERS (Smith 2011) expressed concern that CHERS was too focused on individual projects, rather than contributing strategically to the research effort of the higher education system in Saudi Arabia. The evaluation endorsed the important role that CHERS can play in leveraging research effort and productivity across all universities, but recommended that it must put a greater focus on evaluating the impact of research on universities, industry and the economy, and on fostering the research skills of university academics. Interestingly, Smith's recommendations included the need for CHERS to address the research and evaluation skills and experience of its own staff if it is to achieve its important goals for the higher education sector.

Concluding Remarks

This chapter has addressed the issues of knowledge-based innovation and research productivity in the Kingdom of Saudi Arabia. The general conclusion drawn is that research activity in Saudi universities, along with the impact of that activity, is still low by international standards and will need to increase significantly if the higher education sector is to be an effective pillar for the economic and social aspirations of the country. Increasing research productivity and outcomes in Saudi universities, however, need both carefully implemented strategy and international collaboration and assistance. In this respect, the Kingdom has effected several major initiatives over the past few years, including the establishment of collaborative arrangements between Saudi universities and multinational companies and industries, and between Saudi universities and leading scholars and departments in international universities. Further, the level of government funding has been raised markedly (even though, by international standards, it needs to increase further) and has supported the establishment of Centres of Research Excellence along with science parks (techno valleys) in Riyadh, Dhahran and Jeddah. Potentially the most important of the recent government initiatives, however, has been the development and implementation of a National Science Technology and Innovation Plan which provides policy, strategy and coordination for the Kingdom's research efforts.

At present, it is quite difficult to judge whether, and by how much, knowledge production is contributing to industrial development in Saudi Arabia because most of the Saudi economy depends on oil. The recent policy initiative by the Kingdom to diversify its industrial structure based on knowledge-based innovation may lead a more diversified industrial structure in the long run. The critical factor is how to produce industry-relevant knowledge and link knowledge to industry and manpower training (Shin 2009).

One further innovation that the Saudi government might consider is the establishment of a national research funding agency, as exists in many countries, to coordinate the strategic and efficient distribution of research funding according to government priority areas and to review the impact (value-for-money) of the research funding.

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Chapter 10
Accreditation and Quality Assurance

Eqbal Darandari and Phil Cardew

Introduction

In 1997, the Report of the National Committee of Inquiry into Higher Education in the United Kingdom (commonly referred to as 'The Dearing Report' after the Committee's Chairman) reflected that

> We believe the best progress will be made by .... recognising that each institution is responsible for its own standards, but at the same time engaging the whole academic community in sharing a collective responsibility for standards and quality of provision. (Dearing 1997, para 10.3)

This balance, between collectively understood perceptions of standards and quality and institutional autonomy and responsibility, is one which pervades the history of quality assurance in higher education and which is at the heart of current trends and debates across the sector and within many countries (particularly those who deliver higher education courses from a number of different national providers).

Much of the perceived 'tension' between the maintenance of academic standards and quality and the autonomy of higher education institutions derives from the increasing participation within the sector and from the increasing opportunities for students and scholars to move from one country to another. Higher education is becoming both more eager than ever to embrace students from different cultures and different educational backgrounds and more truly 'transnational' – a student starting their higher education in one country but more and more frequently finishing in another.

E. Darandari (✉)
Department of Psychology, King Saud University, Riyadh, Saudi Arabia

National Commission for Academic Assessment and Accreditation (NCAAA), Riyadh, Saudi Arabia
e-mail: e_darandari@yahoo.com

P. Cardew
London South Bank University, London, UK

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Alongside the increasing participation within higher education, the UK has seen a related focus on the widening of institutional degree-awarding powers to individual institutions. With the approval of the *Further and Higher Education Act* in 1992, and the closure of the Council for National Academic Awards (CNAA), the UK saw a widening of the authority to award degrees (and a concomitant focus on the responsibility of individual institutions to ensure the standards of their own awards). In the 2010s, the move is to full degree-awarding status for privately funded institutions and to a widening of authority and responsibility to smaller, and potentially less-stable, higher education colleges.

This tendency can be seen most clearly within national contexts wherein higher education has operated for the longest periods. In the UK (where in the 1960s participation was limited to perhaps 5 % of the eligible population and is now approaching 40 %), the popular press have embraced the theme of related 'threats to standards' with vigour. Where, once, degree-level education was seen as an 'elite' endeavour, there is now the perception of a 'mass market' and 'mickey-mouse' degrees. Higher education institutions are called upon more and more frequently to defend their standards and to answer the (unanswerable) question – 'how can you demonstrate that a degree from institution 'X' is equivalent to one from institution 'Y'?'. This very question was asked in 2009 of two vice chancellors by a UK Parliamentary Select Committee enquiry into quality and standards in higher education and was perceived not to have been answered satisfactorily. Indeed, the response has elicited a view from the current UK minister with responsibility for higher education, the Rt. Hon. David Willetts, MP, that the UK should look towards a re-creation of the University of London 'external programme' (a means by which the number of higher education institutions was increased in the early decades of the twentieth century), with a single, prestigious, 'authority' awarding degrees within a number of local (and, perhaps, less-expensive) centres, a return, perhaps, to a national degree-awarding authority.

The tension between participation, autonomy and the management of quality and standards is not, however, limited to the UK. In Australia, similar debates are taking place over the desirability of a move back to a national awarding body, with a clear sense that the move is in this direction. Within many Gulf Cooperation Council (GCC) countries (with a balance of private and state-funded institutions), we are seeing the development of national standards, reflecting the experience, not only of national degree-awarding authorities but also of the range of international institutions delivering higher education within those countries.

The increasing emphasis on accountability and student learning, and the growing concern about the quality of education in a rapidly growing education market, puts the focus squarely on the accreditation processes and procedures at both the programme and the institutional levels. Furthermore, the professional workforce is becoming internationally mobile, and Saudi higher education institutions (HEIs) are expected to participate and compete in the global economy. HEI qualifications must be recognised worldwide in order for their young graduates to compete. The international reputation of the Saudi graduates, therefore, depends mainly on the overall standards of Saudi institutions.

Recently, different kinds of institutions offering postsecondary education have increased rapidly. As the system expands, more private institutions are being established and new forms of delivery are being developed. As diversity and growth increases, it is essential that standards be maintained and quality is verified by a truly independent body. The National Commission for Academic Accreditation and Assessment (NCAAA) has been given that role in Saudi Arabia (NCAAA 2008).

NCAAA was established in 2004 as the official government agency for accreditation and quality assurance of postsecondary governmental and private institutions and programmes in the Kingdom of Saudi Arabia, with the exception of military education (www.ncaaa.org.sa). The Commission became a full member of the International Network for Quality Assurance Agencies in Higher Education in 2005.

History and Scope of Higher Education Quality Assurance in the Arab Countries

Arab countries in the last decade (since 1998) have undergone tremendous development in higher education: for example, the number of students, and the number of higher education institutions, has more than doubled, and the share of females in higher education has increased significantly.

Factors that have contributed to this development include:

- Population growth and a rise in the social demands for higher education
- Reforms introduced by government in the area of admissions
- Increased geographic diversification of the higher education system in an attempt to more equitably service the population
- An increase in the number of partnerships with international universities
- The introduction of national quality assurance processes and agencies

In UNESCO's Arab Regional Conference on Higher Education, held in 1998, the Arab ministers supported a resolution calling for the establishment of a regional mechanism for quality assurance and accreditation under the auspices of the Association of Arab Universities (UNESCO 2003). Similar efforts were made at other Arab Summits (the 8th conference for the Ministers of Higher Education held in Egypt in 2001, the 9th conference held in Syria in 2003, and the 10th conference held in Yemen in 2005). As a result, some Arab countries have established national quality assurance and accreditation councils. At the regional level, 'the Arab Network for Quality Assurance in Higher Education' (ANQAHE) was established in 2007 in association with the International Network for Quality Assurance Agencies in Higher Education (INQAAHE). ANQAHE works in connection with the Association of Arab Universities and serves as a platform to exchange information, to disseminate knowledge and to improve the professional expertise of the national quality assurance agencies in order to enhance the collaboration between similar

quality assurance organisations in the Arab countries. It also develops cooperation with other regional and international quality assurance networks.

The Supreme Gulf Cooperation Council (GCC) has played a constructive role in promoting quality assurance in the region. All these states have established various forms of quality assurance and accreditation councils. The 14th meeting of the GCC higher education ministers in the UAE, 30 March 2009, was geared towards promoting educational cooperation in the Gulf region and establishing a GCC Network for Quality Assurance in Higher Education to share expertise. The GCC ministers proposed establishing a common set of regional standards for all professional programmes in the GCC countries (UNESCO 2010; Smith 2010). Some called for a Bologna-type process for the Arab world (Zand and Karrar 2010).

In Saudi Arabia before the establishment of the NCAAA, accreditation and quality assurance initiatives were the responsibility of individual universities. In particular, accreditation and recognition were related to programmes offered by colleges in certain professional fields such as engineering and business (Abulfaraj et al. 2006; Al-Eisa and Sahab 2006; Zahed et al. 2008). Some professional bodies, such as the Saudi Commission for Health Specialties, have been active in certification of practitioners.

NCAAA: Mission, Aims and Responsibilities

The mission of the NCAAA is to encourage, support and evaluate the quality of postsecondary institutions and the programmes they offer to ensure that the quality of student learning outcomes, the management and support services provided within institutions, the contributions to research and the communities served by postsecondary institutions are equal to high international standards (NCAAA 2007a).

The Commission aims to support educational institutions in meeting and, if possible, exceeding international standards. It aims to help Saudi HEIs to reach the level of world-class universities and to provide graduates with learning opportunities that will enable them to compete internationally.

The responsibilities of the Commission are to establish standards, criteria and procedures for academic assessment and accreditation in different postsecondary educational institutions; provide training for faculty and staff involved with the development of quality assurance systems in universities and to support them as they introduce quality systems there; assess proposals and grant provisional approval and accreditation of programmes in new universities, colleges and institutes; and arrange for external reviews of programmes and institutions after self-studies have been undertaken and grant approval and accreditation after considering reports on those reviews (Al-Musallam 2007; NCAAA 2007a).

The Saudi Quality Assurance and Accreditation System

Quality Concepts

NCAAA defines quality as 'the value, worth, or standard of an institution or program in relation to generally accepted standards for an institution or program of its type' (NCAAA 2010a: 48). Accreditation refers to the mechanisms that are used for achieving this purpose. Accreditation gives public recognition that standards are being achieved and that people can have confidence in what is provided.

Assessments of quality are based on performance in relation to defined standards with a particular focus on 'fitness for purpose' regarding how well an institution's programmes and practices match its mission. Judgments focus on two main elements: the extent to which goals and objectives are achieved and compatibility of programmes and practices with generally accepted standards of performance in higher education.

Quality assurance refers to the processes that are followed to ensure that high quality is achieved and improved and that students, parents, employers and others can be assured that this is the case. It serves two distinct purposes: to ensure that desired levels of quality are maintained and improved and to assure stakeholders that quality is being maintained at levels comparable to good practice in highly regarded institutions elsewhere in the world.

NCAAA Documents

To assist institutions with their quality assurance arrangements, the NCAAA has developed a range of supporting documentation, including:

- Three handbooks describing policies and procedures and setting out institutional requirements:

  Handbook 1: The System for Quality Assurance and Accreditation provides a general introduction including principles underlying the system, the stages of accreditation and approval, the standards to be applied and a description of concepts and terminology used.
  Handbook 2: Internal Quality Assurance Processes sets out processes to be followed within institutions in planning and reporting on programmes and in conducting self-studies. The document includes templates for use in carrying out quality tasks.
  Handbook 3: External Quality Assurance Arrangements explains what needs to be done in preparation for external reviews and what is done during those reviews by the external review teams.

- Two documents detailing the standards required for accreditation of institutions and programmes: 'Standards for Quality Assurance and Accreditation in Higher Education Institutions' and 'Standards for Quality Assurance and Accreditation of Higher Education Programs'. Self-evaluation 'checklists' are provided with these documents so that universities can make preliminary evaluations of their performance relative to the standards.
- A National Qualifications Framework (NQF) which sets out the criteria required to be met for academic or technical awards. Standards of learning have been described at each higher education qualification level in five domains: knowledge, cognitive skills, interpersonal skills and responsibility; communication, information technology and numerical skills; and psychomotor skills.
- Key performance indicators (KPIs) which identify the key information relating to quality that NCAAA will collect from each institution. NCAAA publishes aggregate data so that institutions can be benchmarked against national standards (NCAAA 2010a).
- Other relevant supporting materials such as *Student Evaluation Surveys* (Course Evaluation Survey, Program Evaluation Survey and Mid-program Experience Evaluation Survey).

How Does the Quality Assurance System Work?

The primary objective of the quality assurance system is continuous improvement, with accreditation serving as a device to achieve this (NCAAA 2007a). Institutions are required to establish internal quality assurance systems that ensure high levels of quality in all of the 11 areas of the standards. Within institutions, quality centres are expected to be established, reporting to senior management, and assisted by a quality committee drawn from all sections of the institution. They provide leadership and advice, and work with colleges, departments and other administrative units to develop quality systems appropriate for their institutions.

Institutions, units, programmes and teachers are expected to achieve their own professional objectives while simultaneously meeting the quality standards and benchmarks set by the NCAAA. Students are expected to achieve learning outcomes that are consistent with the NQF and international standards. The mechanism for achieving these outcomes is the NCAAA institutional and programme quality planning and review cycle, which involves annual reviews along with a major review every 5 years.

For each higher education institution, the quality improvement process involves reviewing the current performance and educational environment, identifying strategies for improvement, setting goals, developing a quality improvement plan, implementing the plan, monitoring and reviewing its success and then making modifications as required.

For each programme and course of study, the NCAAA requires that institutional plans should be made specifying what is to be learned, how it will be taught and how learning will be assessed. Indicators of quality need to be identified and used as evidence that the desired quality has been achieved. At the end of each year, the university is required to prepare and submit a report describing both achievements and plans for improvements. Similar processes are also required for nonteaching functions of the university.

The Accreditation Process

There are several steps and requirements for accreditation at institutional as well as programme levels for both private and public HEIs in Saudi Arabia. A schedule of reviews is developed by the Commission in consultation with the institutions, so that reasonable time is available for the introduction and implementation of quality assurance systems and the completion of associated quality self-studies (NCAAA 2010a).

Each institution is expected to go through a comprehensive self-study at least every 5 years in which it reviews the quality of all aspects of its operations, including its programmes, services and administrative arrangements. Self-evaluation scales (SES), provided as templates by the NCAAA, are used as the basis for the self-studies. A self-study report (SSR) is then submitted to the NCAAA, along with documentary evidence of all claims made. Independent external peer reviews follow for the purpose of verifying the conclusions of the SSR, particularly in relation to objectives and international standards. The Commission then considers all of the reports, including those from independent external reviews, in making its decisions on accreditation.

Figure 10.1 summarises the steps involved in the NCAAA accreditation process.

Specialised and Professional Standards and Accreditation

NCAAA supports the notion of having professional bodies, whenever possible, taking significant responsibility for accrediting professional programmes. In this regard, some universities have sought, or are seeking, accreditation for their programmes from international accreditation agencies or professional associations as a way of ensuring that the learning outcomes of their programmes meet international benchmarks. The NCAAA assists this process by providing a list of recognised accrediting agencies for major professional areas to all universities.

Many programme areas in Saudi higher education are either preparing for accreditation from internationally recognised professional accreditation agencies or

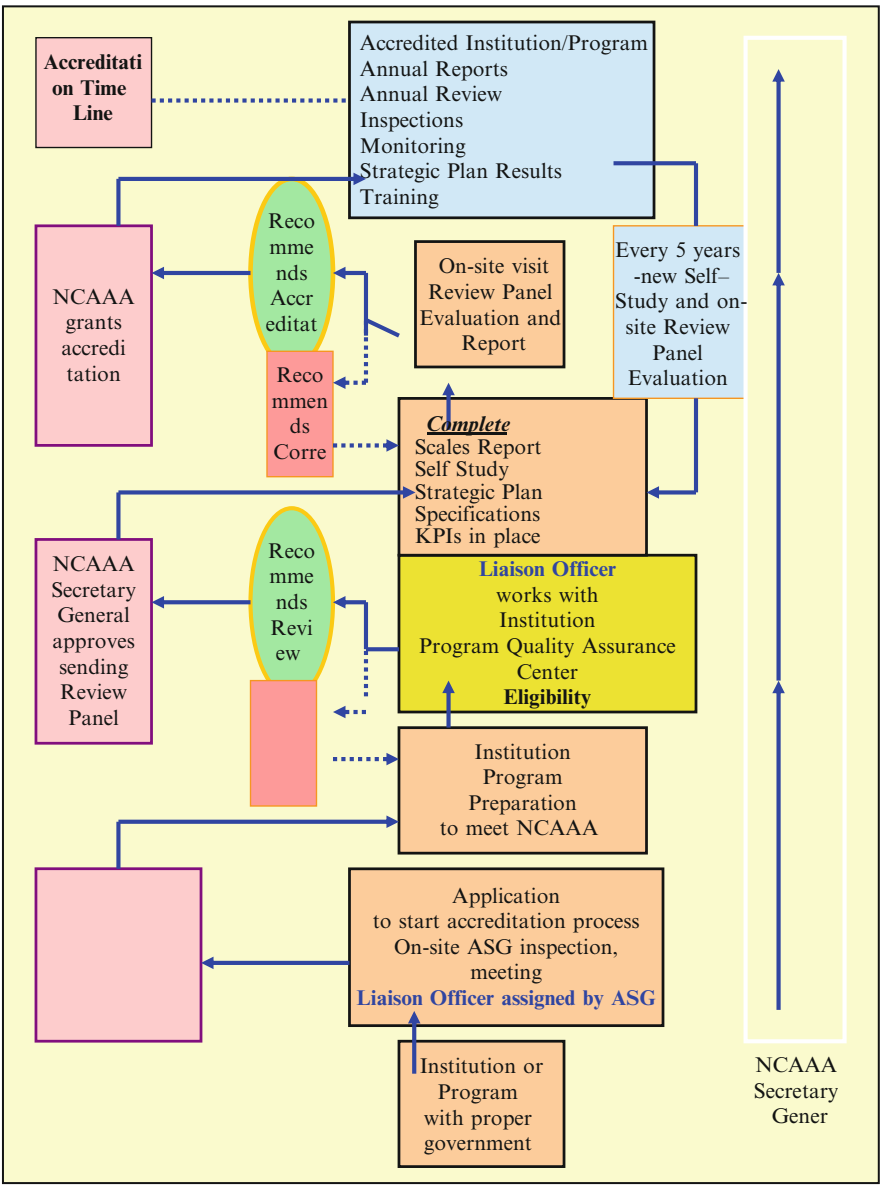

Fig. 10.1 NCAAA accreditation flow chart (Source: NCAAA public brochure 2011)

professional associations or have already obtained the accreditation. For instance, several engineering programmes have been accredited by the Accreditation Board for Engineering and Technology (ABET); some business management programmes have been accredited by the Association to Advance Collegiate Schools of

Business (AACSB) or the Association of MBAs (AMBA) or the European Quality Improvement System (EQUIS); some Dentistry programmes have been accredited by the Association for Dental Education in Europe (ADEE); and some Diploma of Education programmes have been accredited by the British Quality Foundation.

Learning from Best Practices

The Saudi quality assurance and accreditation system seeks to benefit from what it can learn from international systems and expertise in order to reach world-class university standards. At the same time, it wants to ensure that the Saudi higher education system fits Saudi culture and needs. Saudi accreditation standards and assessment criteria are, therefore, based on international 'best practice' examples that have been adapted to local requirements. The documentation of the Saudi accreditation system is regularly reviewed by international experts from countries with established quality assurance systems (such as the UK, USA, Canada and Australia). Amendments are made to the documents in response to this feedback.

Harvey and Newton (2004) noted that quality assurance systems are highly divergent in their approaches, objectives and rationale. Kells (1995, 1999) suggested that various evaluation systems range on a spectrum from 'self-evaluation' through 'external peer review' to 'indicators and ratings published'. He noted two trends in national evaluation schemes: schemes that move towards internal concerns, emphasising self-evaluation, self-regulatory and the institutional infrastructure for it, and schemes that are less related to government influence and more related to improvement, management and strategy and feedback from clients. Kells claimed that when universities are treated as 'trusted adults', they act more maturely and seize responsibility for evaluation and self-regulation.

Currently, the Saudi system relies heavily on a combination of self-regulation and self-evaluation, supplemented by peer reviews.

Capacity Building for Saudi Higher Education Institutions

A study conducted by Darandari and Hoke (2007) found that institutions had many challenges in introducing the Saudi quality assurance system at the beginning and that there is a need to give more individual support to HEIs. The NCAAA has supported implementation by conducting workshops that address main elements of the system of quality assurance, individually tailored training programmes and support for institutions needing or requesting assistance and enrichment training programmes that focus on specific issues.

Furthermore, the NCAAA organises annual visits for rectors, vice rectors for quality and quality directors in Saudi universities to countries with strong quality

systems. In addition, the Commission conducts biannual international conferences and symposiums aimed at promoting discussion of issues and developments in quality assurance systems that have relevance to Saudi Arabia.

Implementing the System

The Saudi QA system has been introduced progressively over a 7-year period from 2005. Implementation involved three stages, with the system of formal external reviews for accreditation beginning at the end of 2009.

The first stage of implementation involved a pilot project in a small number of institutions with the aim of testing various approaches for developing QA capacity in Saudi universities. The NCAAA arranged for external reviews to be conducted by teams of international quality reviewers with extensive experience in both programme and institutional quality assurance.

In stage 2, which occurred during 2007, the NCAAA worked with all higher education institutions in order to establish quality centres. The purpose of these centres was to lead and coordinate quality assurance initiatives in their institutions, establish quality self-evaluation processes and systems and develop longer-term quality strategic plans. Essentially, this prepared institutions and their programmes for evaluations for accreditation (NCAAA 2007b; Darandari et al. 2009).

Stage 3, conducted in 2008–2009, involved developmental reviews in selected institutions that simulated the self-study and external review processes. These were not accreditation assessments. Their aim was to provide institutions with the experience in processes for self-study and accreditation and to provide them with valuable feedback prior to formal accreditation.

To date, more than 4,000 faculty members have participated in the NCAAA's training programmes, over 90 % of universities have established their own quality units or centres and over 70 % of universities have conducted their initial quality assurance self-evaluations and sent their reports to NCAAA for review (NCAAA 2010b). The NCAAA has prepared feedback for all institutions that have submitted reports, and the evidence indicates these institutions are making modifications to their quality assurance systems based on the feedback.

By the end of 2010, six institutions and thirty-two programmes had been formally reviewed for accreditation (NCAAA 2010b). Further, research by Al Ohali and Al Aqili (2010) found several other indicators of the successful implementation of quality assurance in Saudi universities: many universities have reviewed their strategic plans and curricula in the light of recent world trends and labour market needs; quality and development deanships have been established in many universities to lead quality assurance implementation; most universities have established quality assurance units and/or committees; centres that cater for both male and female students have been established to promote a range of personal and study skills, including communication, research and self-study skills; and twinning relationships have been established with international programmes and universities in order to share experiences and ideas and to benchmark practices.

Conclusion and Implications

Saudi Arabia has developed, established, tested and implemented a new quality assurance system for higher education institutions in a short time, benefiting from the assistance of international experts while at the same time keeping a focus on its unique characteristics. The system has been reasonably accepted among the higher education sector in Saudi Arabia. The continuous training, support and capacity-building activities provided by the NCAAA have helped in creating a positive relationship between it and the universities and in facilitating the implementation of a Saudi quality assurance system. At present, almost all Saudi universities have quality centres or units, quality deans or directors and committees to work on quality at different levels.

University self-study and accreditation reports and independent surveys both show that Saudi higher education institutions have become more focused on quality assurance. They have their own visions, missions, objectives and strategic plans. There has been a major shift in designing and implementing learning outcomes at the programme level, and more attention is being given to best practice in teaching and learning.

Institutions realised that they need to build organisational capacity through increasing the skills of staff and changing their attitudes and behaviour towards quality systems. The best quality assurance systems are based on trust, self-reflection and continuous improvement. Compliance with NCAAA standards and getting formal accreditation is something, but being a learning organisation and building an institutional quality culture that adapts quality as a regular behaviour and part of daily activities is the real goal.

In order to improve the student learning experience, which is the major outcome for any educational institution, Saudi HEIs need to have a very well-planned and systemic institutional approach to developing programmes and faculty. Further, there needs to be a master plan to help in developing, monitoring and improving the quality of their teaching and learning.

Building an effective QA system takes great effort and time on the part of all members of the university. Quality is not a one-person show. It needs to involve different stakeholders in the planning and implementation stages. As the external driver of university quality, the NCAAA needs to ensure that there are open and effective communication channels with other ministries and bodies (such as the Ministry of Education and the National Centre for Assessment in Higher Education, which is involved in setting standards for educators), as well as with industry, community agencies, professional associations and parents. There is also a need for the NCAAA to engage international experts to ensure international benchmarking of quality standards, both with respect to the institutions in general as well as specific discipline areas (such as engineering, business and health).

The Kingdom of Saudi Arabia has reached an important stage in its development of higher education, a stage which recognises national standards within an international context, while being alive to the challenges faced in enabling higher

education institutions to develop as autonomous and self-confident organisations and simultaneously focusing on equivalence of standards of the degrees and diplomas they award. The complexity of this challenge should not be underestimated, particularly within an international employment environment for many graduates.

The work of the NCAAA is of fundamental importance in establishing a sophisticated understanding of standards and quality, while ensuring that individual institutions are aware that they are both accountable and responsible for their delivery. However, the management of quality and standards cannot be maintained in an environment which places accountability entirely in the hands of an external agency, as it then becomes something done 'to' an institution, rather than 'by' them. The Kingdom of Saudi Arabia has, rightly in our view, focused on the development of responsibility and self-confident delivery within a context of continuous improvement and self-evaluation.

Acknowledgement This chapter draws on wide-ranging discussions and interactions with quality directors, institution faculty and NCAAA staff as well as work done by universities and NCAAA over recent years. The authors therefore represent their experience and opinion and do not claim to be the originator of all the ideas. Many thanks go to all who contributed to the information provided, particularly to Ian Allen, NCAAA international expert from Australia; to Professor Abdullah Al-Musallam, general secretary for NCAAA for the information; and to Dr. Saad AlZahrani, general secretary assistant for Quality Assurance and Accreditation.

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Chapter 11
Higher Education for Women in the Kingdom of Saudi Arabia

Fatima B. Jamjoom and Philippa Kelly

Introduction

The place of women in Saudi Arabian society is frequently and widely addressed by the media outside the Kingdom, especially by the western mass media that shivers at the sight of women, in 2011, dressed in abayas with their faces covered. Many people outside the Kingdom believe that Saudi women are completely isolated from society and that their role is restricted to bringing up children and fulfilling their husbands' needs. Both of these familial duties do indeed fall largely into the laps of women, but two factors are important to note. The first is that in cities and towns all over Saudi Arabia, women are doing double duty, caring for their families as well as flocking to universities to take advantage of King Abdullah Bin Abdul Aziz's push

Note on Sources

There is currently very little documentation concerning women's Higher Education in Saudi Arabia. Because much of the material that has surfaced has not been collected and reported in a rigorous manner, a great deal of the material in this chapter is inevitably based on the perceptions of the authors and of the large number of Saudi female academics with whom we have discussed the issues we address. Additionally, the Ministry of Higher Education has recently initiated important research projects to provide rigorous information that will contribute to many of the issues raised in the chapter. Wherever possible, our data references information collected since 2009 and supplied to the authors by the Ministry.

F.B. Jamjoom (✉)
Department of Mathematics, King Saud University, Riyadh, Saudi Arabia
e-mail: fjamjoom@ksu.edu.sa

P. Kelly
University of California (Berkeley), Berkeley, CA, USA

School of English, Media and Performing Arts, University of New South Wales, Kensington, Sydney, NSW, Australia

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for equal acknowledgement of the status of women in education. The second is that in order for full female participation in the education sector to be achieved, familial imbalances of labour must to some extent shift. This will not happen quickly, nor need it happen in disregard of the cultural practices that are part of Saudi society. But change is coming, and it will continue. Women are already finding informal ways to juggle familial caretaking with professional advancement. Our goal in this chapter is to point to individual, institutional and governmental strategies that can formalise, and thereby facilitate, this integrative process.

Women's Education in Saudi Society: A Brief Overview

In traditional Arab society, the social and economic situation in the Arabian Peninsula played a significant role in women's subordination, as, prior to the discovery of oil, the hard desert life and primitive production methods had rendered Saudi Arabia a relatively traditional survivalist economy. In this economy, women were transparently inferior citizens. Women would help their male relatives on their farms and were occasionally compelled by circumstance to practise limited auxiliary business activities. This was something supplementary to their work in the home and was considered as a service done by particular women to increase the income of their families.

The rise of Saudi women as a social power is considered across Arab society to be the most vital among the social changes currently taking place. About 30 years ago, it was possible to describe Saudi Arabia as 'the society of men' because men monopolised professional work, as well as all kinds of political, economic and social authority. But now this image has started to change, and women are carrying out important roles across all of these spheres. There are female doctors, female university teachers and professors and female businesswomen. Today's Saudi women work in scientific laboratories, in the press and other media and in factories.

As far back as 1926, the Saudi state had established the Education Directorate to supervise the education of boys. This directorate was transformed into the Ministry of Education in 1953, directed by King Fahad, who led the first ministry. It was not until 30 years after the establishment of the Education Directorate for boys that anyone thought of educating girls. The customs and traditions that predominated at that time played an important role in delaying girls' education in Saudi Arabia, as there were different points of view about the subject: supporting opinions, objecting opinions and opinions from those who called for educating girls within specific narrow limits and curricula and from others who supported the idea of opening the doors wide for girls. Given this dissent, the state adopted the approach of gradual development so that the Saudi people at large could understand and accept the idea of women's education.

Before 1959, the only available education for girls in the Kingdom had to be organised in private homes (Katatib) or in private institutions in which girls could

retain all aspects of their Muslim identity. But in 1959, the state announced the launch of girls' education by opening public state schools for girls, which would work in tandem with the scattered private systems in the Katatib. In 1960, the state established the General Presidency for Girls' Education, which would supervise all aspects of girls' education.

The inception of girls' general education began with the opening of 15 primary schools and 1 institute for teacher training in 1960. Kingdom-wide, there were 5,810 female students in that year. By the time that some of the elementary-school girls began to graduate in 1963, intermediate schools (years 7–9) were built, as well as a single secondary school. Five intermediate schools were annexed to primary schools, accommodating 325 students. Since then, the number of schools for girls and the number of female school students have increased rapidly. By 2009, there were 6,855 private schools for girls educating 1,206,958 students, including 2,391 secondary schools catering for 483,146 female students.

The enormous expansion of girls' education primarily can be attributed to the following factors:

- Population growth, which led to an increase in younger age groups: the extent of this increase can be appreciated when we see that in 2010, no less than 45.76 % of the Saudi population was under 20 years of age, compared to 25 % of the American population.
- Concern paid by the state towards providing financial bonuses for the spread of education in all cities, villages and nomadic areas inside the Kingdom.
- Putting the principle of equal opportunity into practice and enabling a full intake of female students at all educational stages.
- Increasing social awareness about the importance of education.

Teacher Training for Female Schools

Generally, female student teachers undergo a 3-year teacher-training programme, during which they learn science and educational subjects that will qualify them to work as primary school teachers. Teacher-training institutes have been opened in many remote areas throughout the Kingdom because the rural Saudi culture makes it extremely difficult for female graduates living in towns to travel back and forth to these areas for work.

Admission of Females to Universities and the Role of the Ministry

Girls started to join Saudi universities in 1961/1962 by studying as irregular 'part-time' students at the Colleges of Arts and Administrative Sciences of King Saud

University, which had been established in 1957. These students were not expected to obtain professional employment, and their number constituted a mere 5 % of overall enrolment. In 1967, King Abdul Aziz University in Jeddah admitted 30 part-time female students (as against 68 males). In 1968, Imam Mohammad Bin Saud Islamic University opened its doors to women on a part-time (irregular) basis, and the number of students was a grand total of 2!

In the first development plan (1969–1975), it was clear that the major administrative objective was to expand opportunities for female education at all levels from primary school to university, while taking more care to improve the quality of institutes of education and to upgrade the efficiency of their educational programmes. By 1975, the percentage of females joining universities had increased to 14 % of the total number of Saudi students. With the increase of graduates from secondary schools, the percentage of Saudi female students in universities reached more than 60 % of the total number of students.

As the educational needs for both men and women spread, the need emerged for coordinated efforts between the two bodies supervising boys' and girls' education, so a Royal Decree was issued for merging the General Presidency for Girls' Education with the Ministry of Education on 25 March 2002.

By far the most ambitious move to date has been the creation of Riyadh Women's University, later renamed Princess Noura Bent Abdul Rahman. As the result of a Royal Decree in 2006, 23 girls' colleges in Riyadh were amalgamated to form this university. In 2007, a further Royal Decree approved the establishment of the Faculty of Science, Faculty of Computer and Information Sciences and Faculty of Business and Management, as well as the College of Pharmacy, the Faculty of Nursing, the Faculty of Physical Therapy and the College of Kindergartens in each of the Riyadh and Dwadmi locations and the Faculty of Language and Interpretation in the city of Riyadh. Princess Johara Bent Fahad Al Saud was appointed as the Director of Princess Noura Bent Abdul Rahman University on 13 April 2007. She is the first Saudi woman to hold such a high-level position in the Kingdom. Princess Noura University, operating under the umbrella of the Ministry of Higher Education, was honoured by the Custodian of the Two Holy Mosques, King Abdullah Bin Abdul Aziz, who laid the university's foundation stone.

The increasing number of colleges (34 in total) affiliated to Princess Noura Bent Abdul Rahman University has led to the creation of satellites all over the provinces of the capital, Riyadh. As a result of this expansion, the Custodian of the Two Holy Mosques agreed, in 2008, to transfer the supervision of 21 colleges from Princess Noura Bent Abdul Rahman University to King Saud University. These colleges were located in the provinces outside the city of Riyadh and in a subsidiary of the Riyadh region.

The question we have is whether the enormous amount of money devoted to Princess Noura University advantages women or further entrenches their subordination. Broadly speaking, the advantage is clearly that women can express themselves and voice their educational questions and opinions freely within a setting devoted only to women: in a shared situation, many women would be inculturated to remain

silent. The disadvantage of gender-segregated education is that women emerging from such a setting are not equipped to conduct themselves in employment settings populated by both men and women. Also, as a cultural symbol, the establishment of an all-women's university further entrenches the notion that women should be cloistered from men. Our role is not to judge this cloistering as a social practice – every culture in the world has its own practices which are part of the religious and social beliefs that underpin society – but simply to document some of the effects of segregation and to suggest ways of achieving professional excellence across the genders. Specific issues will be addressed below.

Male/Female Numbers in the HE Sector: Teachers and Students

From 1990 to 2004, female enrolments in Saudi Arabian universities saw an astonishing 512 % growth rate – one of the highest worldwide – compared to a male enrolment growth rate of 339.2 %. At the graduate studies level, the female enrolment rate in Saudi higher education is among the highest in the world at 48 %, compared to 50 % for the USA and the Western European group. In disciplines such as health sciences (48 %) and Humanities and Arts (55 %), female enrolments are just below the global mean, a huge development given the fact that this escalation has occurred entirely within the last 20 years.

Between 1990 and 2009, money has been poured into the higher education sector, enabling a remarkable rise of more than 175 % in the number of faculty members in universities in Saudi Arabia. The rate of increase for female faculty over this time was 242 %, significantly higher than the increase for male faculty members (152 %).

There is most evidently, therefore, an increasing chance for Saudi women to participate in university teaching, despite the fact that, notwithstanding the acceleration in female hiring, the number of male faculty members is currently almost twice the number of their female counterparts (in 2009, there were 27,488 male academics compared with 14,401 female academics). Given that women now represent more than 60 % of the total number of Saudi university students, there is evidently a significant imbalance in the staff/student ratio in the women's sections of universities compared to the men's. This imbalance needs to be redressed in one of two ways in order to secure, and maintain, quality of teaching: (1) if plans for the higher education sector include maintenance of a high level of male/female segregation, more female teaching appointments need to be made, and (2) if there are plans across the sector to integrate male/female education, teaching appointments need not be strategically gender-specific; however, in this instance, they still need to be weighted towards females in order to have the number of female teachers in the higher education sector approach the male representation.

The Question of Gender Segregation: Challenges and Suggestions

While the inclusion of both male and female education under the Ministry's umbrella in 2002 was an important step in the educational system, the continued segregation of the genders gives rise to challenges that continually need to be addressed. On one hand, some international studies have suggested that gender-segregated education produces enhanced motivation for both boys and girls. In general, however, for boys in the Kingdom, segregated learning reinforces gendered beliefs that women are subordinate, holding back a general understanding of the value of education for their female counterparts. Further, girls are impeded by their parents' continued tendency to prepare them for the primary expectation of an appropriate marriage (in many cases – particularly in rural areas – this is still considered to be more important than the capacity for a girl to earn her own living). This parental expectation, combined with the government provision of a stipend for university study (a provision that goes back to the 1970s), encourages many girls to accept the course books sent over from the men's side of segregated universities and to motivate themselves only to achieve pass level en route to making a good marriage.

We suggest a number of initiatives to help address these issues:

1. In gender-segregated universities as well as in gender-integrated universities, women must have an input into curriculum planning and implementation. There must be a direct line of communication across the whole institution for both male and female deans and heads of department.
2. Gender-segregated universities must provide a process for course/programme moderation: in this process, course curricula, as well as results, would be moderated across both sides of the institution as well as between male/female departments and between institutions.
3. Gender-segregated universities should provide equal library and on-line research access for women and men. At present, library and on-line research facilities available to female students and staff are generally demonstrably inferior to those available to males.
4. Strategic planning must allow for direct discussion across a university between men and women, relating to their parallel course content, curricula and programme offerings. (If not face-to-face, this discussion can be permitted via video- or teleconferencing. In this context, it would also be useful in the beginning at least to have two international consultants, one female and one male, to assist with the moderation process – preferably colleagues who have an ease of intercultural communication and, above all, who know and respect the Saudi system.)
5. Students from gender-segregated universities should be provided with specific education with respect to the conditions and requirements of study overseas, so that their expectations are appropriate to the new and more liberal conditions under which they will avail themselves of government funding opportunities.

6. There needs to be expanded opportunities for women in medical and scientific centres in the rural areas, where, because of the physical separation of women from men, medical doctor trainees, for instance, have some limitations on the amount of practical training they can get in hospitals. The goal is to have women emerge from their training with as much professional experience as possible, while still respecting the cultural and religious sensitivities of the region.
7. It would be ideal to have an annual review that catalogues developments in women's education and assesses challenges that arise within specific university contexts. Such a review might be conducted within the auspices of the Centre for Higher Education Research and Studies (CHERS), preferably including an international consultant to ensure credibility and transparency of the findings and analyses. The review would not only report progress but would make constructive suggestions for solving issues and concerns as well as suggested a strategy for future activity.

Overseas Scholarships

According to the current education policy for the Kingdom of Saudi Arabia, the state is responsible for funding education, and education is free for all citizens and residents in all of its stages. The state budget for general education has more than trebled in the last 30 years. In addition, the present King, Abdullah Bin Aziz, has championed the availability of state-funded overseas scholarships. More than 20 % of those students benefiting from overseas scholarship programmes are women, who often accompany their husbands on overseas study programmes and end up enrolling in degrees themselves as a way of occupying their time and seeking out company in a foreign culture. Such enrolments can, and do, turn into useful degrees, equipping women to compete in the professional sector upon their return to the Kingdom. There are also (a smaller number of) women who take the initiative to avail themselves of overseas appointments and whose husbands accompany them to foreign universities.

We are yet to get comparative figures on the rate of female and male attrition in overseas study situations, as the initiative is so new: but anecdotal evidence does suggest that a woman who enrols because she is accompanying her husband overseas does better than a man in the same situation. From this anecdotal evidence, we infer that cultural norms have a part to play: traditionally a woman has facilitated her husband's advancement rather than the reverse, so it is often emotionally challenging for a husband to uproot himself for the sake of his wife's education, and his own overseas postgraduate study in many cases reflects his sense of dislocation and identity challenge. We suggest that there be programmes established to prepare all potential overseas students not only for study situations but also for the social environment in which they will be living and studying. As part of this process, we suggest that all potential students, before securing funding from the Ministry, should outline in detail their proposed programme of study as well

as the requirements for successful completion. Further, because much is to be learned through the process of reflection, research degree proposals should include a proposed conference or meeting, in the foreign location or within the Kingdom within 6 months of return, at which research findings will be presented. Coursework masters students should outline plans for the professional application of their degree upon returning home.

Diploma Degrees

There remains one further issue to explore, which spreads across both women's and men's education and requires a rethinking of current strategy. This concerns the status of diploma degrees in the Kingdom, in which enrolment has increased moderately (since 2000, diploma enrolment across the board has less than doubled for women and a little more than doubled for men). The diploma degree in Saudi Arabia provides equivalent (indeed, almost the same) subjects to those taught at university level. These subjects are not as deeply or comprehensively covered as at university level, and the diploma courses are typically completed within 4–5 semesters. There is a wide choice in diploma studies, *but not for girls* – girls can enrol in medical science, natural science, economics, social sciences, information technology and media studies at the diploma level, but *not* in engineering, education, agricultural science, Islamic studies or law. Naturally, then, the rate at which diploma enrolment for women can increase is limited by the narrow range of fields in which they are permitted to enrol.

The limitations imposed on female enrolment in diploma degrees have had the effect of counterbalancing the enrolment at university level: since in several fields there is no choice but to enrol in the university sector, girls are of course enrolling in universities. Additionally, the provision of a government stipend for university enrolment (and not for diploma enrolment) gives extra encouragement for girls to enrol in the university sector. The government's wish to increase access to and participation in higher education is laudable – but we suggest that the Ministry consider how they want the Kingdom overall to be staffed and serviced. The limitation of diploma studies for girls, and the financial privileging of university students over diploma students, will inevitably lead to a further increase in the number of workers brought in from outside the Kingdom to fill positions emergent from the more practically focused diploma degrees. This has an impact on the cultural cohesiveness of the Kingdom. The impact can be positive – new perspectives, new visions for relationships between work and family – as well as negative, fewer people sharing cherished cultural and religious values, but will definitely make for change. The Ministry should give careful consideration to the financial privileging of university over diploma study, perhaps expanding the provision of diploma studies for girls and broadening the stipend system beyond the university sector.

Conclusion

Over the last 20 years in particular, Saudi Arabia has witnessed a rapid and impressive journey towards women's participation in all levels of the education sector. But this journey is only partially completed: there is quite some way to go. The progressive facts and data cited in our chapter illustrate the part of the journey that is quantifiable and, to a large extent, successful. There are many aspects of this journey, however, that are no less important for being less accessible via facts and figures. There are also parts of the journey yet to be embarked upon, and still other parts that need still to be successfully mapped within the complex religious and ideological terrain of Saudi Arabian culture.

Chapter 12
Private Higher Education in the Kingdom of Saudi Arabia: Reality, Challenges and Aspirations

Waleed Al-Dali, Mohammed Fnais, and Ian Newbould

Introduction

The development of private higher education institutions in the Kingdom of Saudi Arabia (KSA) emerged from societal and educational forces that were similar in many ways to universal developments in other countries and educational jurisdictions. This chapter will examine:

- Why the private higher education system was deemed to be desirable and necessary in Saudi Arabia
- The establishment of the private higher education system (PHE) system in the Kingdom of Saudi Arabia
- Relevant findings from the emergence of PHE in several other nations, both in the region and in the wider world
- Governmental regulation of PHE in the Kingdom of Saudi Arabia
- The challenges facing the future of PHE in Saudi Arabia

Reasons for Private Higher Education in Saudi Arabia

Population growth, societal change and behavioural norms and the development of a vibrant private economic sector with its attendant educational and workplace requirements have all played a part in the development of a culture of private

W. Al-Dali (✉)
Private Higher Education, Ministry of Higher Education, Riyadh, Saudi Arabia
e-mail: waleedksu1@yahoo.com

M. Fnais
College of Science, King Saud University, Riyadh, Saudi Arabia

I. Newbould
Richmond American University, London, UK

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education in the Kingdom. Although the population growth rate in the Kingdom has declined to a stable level of approximately 2 % annually, the rate of growth during the 1980s was as high as 6 % and as much as 3 % as recently as 2003 (World Bank 2011). As a consequence, the population of the Kingdom has grown by almost eight million in the past decade. At the same time, the educational aspirations and needs of the Saudi population have changed. There is a clear desire in both the government and the population at large to widen the participation rates in higher education, particularly among general secondary school graduates. It is widely understood that the new knowledge economy that has accompanied globalisation has increased the need for a highly educated Saudi workforce.

Not surprisingly, the estimated number of students in the higher education system has also grown considerably, reaching almost 800,000 in 2011. Accommodating this increased number of students is expensive and is expected to reach approximately $US 42,405,000,000 by 2015 (Bahrmos 2001). The rapid escalation of expenditures, together with the instability of oil prices, is the major factor that have prompted the Saudi government to consider alternative sources of financing higher education. In particular, the impact of fluctuating revenues on the national budget in general and the education budget in particular have rendered long-range planning precarious. In this context, it became very attractive to the Saudi government to promote the private higher education sector.

A number of non-cost-related factors also played a significant role in encouraging the development of a private higher education sector in Saudi Arabia. Most importantly, growth in the private economic sector generated a new set of educational needs and the development of a more practically trained workforce. The government and the leaders of the private economic sector both were of the view that the traditional publicly financed universities were unable to handle the increased and differing demands for higher education places. It was not simply a question of overcrowding, scarce resources and a fear of reduced educational quality. The projected number of graduates was more than required for filling available government jobs, so it was clear that many graduates would be obliged to join the emerging private sector, which hoped to rely on an indigenous work force rather than on foreign nationals. The educational requirements of the private sector were in many respects more technical and vocational than what the public universities were able to provide; that is, a gap developed between what the universities provided and what the private sector needed. The emerging private-sector economy required a combination of technical and practical skills that would help it to compete in a global economic world. Moreover, the need to respond rapidly to changes in the labour market mitigated against the traditional universities, which were more theoretical and research-oriented and less focused on the nongovernment labour market needs. The belief developed that traditional university graduates were not sufficiently attuned to the practical skills required for Saudi's future economy and that the private higher education sector was better placed to deliver this outcome, particularly in fields of study such as nursing, radiotherapy and audiology. Many of these emerging areas for university study in Saudi Arabia are particularly relevant

to the career aspirations of Saudi females, which support the government- and private-sector agendas for actively expanding the areas in which women might be trained and be provided with work opportunities. Previously, many women had to seek universities outside the country if they wanted to undertake high-level training in professions of interest to them.

For several reasons, then, the Saudi government encouraged the development of a private higher education sector that can serve regional labour market and social needs and provide a nongovernment employment future for many thousands of general secondary school leavers (Bahrmos 2001).

The Establishment of a Private Higher Education System in Saudi Arabia

In 1991, the Ministry of Higher Education, which had been established in 1975 to execute government educational policy, began to study the potential of private higher education. At that time, there were seven public universities providing higher education in Saudi Arabia. In June 1997, the Council of Ministers issued a decree stipulating the authorisation of the Minister of Higher Education to prepare a new vision for the establishment of private institutions that would enable the private sector to develop non-profit educational universities and colleges in order to support the government's goals. Through a series of governmental and ministerial decisions, the framework of a private system was established:

- In September 1998, the Council of Ministers determined that the Ministry of Higher Education was the body to establish charitable institutions.
- In April 1999, the Minister of Higher Education issued a decree setting out the executive rules for establishing, licensing and accrediting private institutions under the aegis of the state.
- In November 2000, the Council of Ministers issued a decree setting out regulations allowing the private sector and charity foundations to establish private non-profit institutions.
- In June 2001, a significant decision was taken by the Cabinet to establish a system of renting government lands to private institutions at rates far below market value, in accordance with the policies of the Ministry of Finance, the Ministry of Higher Education, the Ministry of Local Affairs and the governmental authority concerned with land. Moreover, the Ministry of Finance was instructed to coordinate with the Ministry of Higher Education regarding the issuance of 'soft' low-cost loans to private institutions as it had done with private hospitals.
- In September 2006, a Royal Decree was issued establishing Ministerial grants to pay for the fees of approximately one-third of the students at each private higher education institution (Table 12.1).

Table 12.1 Saudi private universities

Name	Website	Foundation	City	Province
Al Yamamah University	www.alyamamah.edu.sa	2004	Riyadh	Riyadh
Arab Open University	www.arabou.org.sa	2002	Riyadh	
Prince Sultan University	www.psu.edu.sa	2003	Riyadh	
Dar Al Uloom University	www.dau.edu.sa	2005	Riyadh	
Alfaisal University	www.alfaisal.edu	2007	Riyadh	
Prince Mohammad University	www.pmu.edu.sa	2006	Khobar	Eastern
Prince Fahd bin Sultan	–	2007	Tabouk	Tabouk
Sulaiman Al Rajhi University	http://www.sr.edu.sa/en/	2009	Bakireya	Qassim

The government's decision to subsidise land rental, loans and tuition fees indicated the extent to which it was prepared to support private universities and colleges with incentives in order for the sector to succeed in furthering the Kingdom's educational and training goals. In doing so, it became clear that Saudi private non-profit institutions would nevertheless operate in a mixed public-private economic environment. This mixture was similar to what has developed in most other countries that have allowed private universities to flourish. Before further describing the development of the private system in the Kingdom, it would be instructive to compare this development with similar educational jurisdictions in the Middle East and further abroad.

Private Higher Education: Global Practices

Jordan

The higher education system of Jordan has been confronted by two challenges. First, the population growth rate has been consistently high, at an annual rate of approximately 2 %. Second, Jordan has developed a very strong education system at the primary and secondary level, with some 85 % of secondary graduates pursuing further education (World Bank 2009). With a growing economy and population, Jordan has established a secondary education system of international standards.

Like many countries dealing with population growth and an increased demand for higher education, the Jordanian government allowed for the establishment of private universities. The year 1990 is regarded as a turning point in the development of higher education in Jordan, when the licence for establishing the first private university, Amman Private University, was granted. By 1994, 12 private universities and colleges had been established in Jordan. Since that time, there has been a significant increase in student numbers in Jordanian private universities, with more than 55,000 students now enrolled.

Although private universities have been established in Jordan under the auspices of the Ministry of Higher Education and Scientific Research, there has been no systematic policy directive from the Jordanian government regarding the educational goals of the private institutions (Alsoltan et al. 2001). This has led to many problems that highlight the importance of careful planning of both strategy and processes. Despite a growing economy and a growing population, government spending on education in Jordan remains below the OECD average and transfers to universities declined from JD$60.4 million in 2004 to JD$45 million in 2008 (World Bank 2009). In contrast with Saudi Arabia, private higher education institutions in Jordan receive no government support. Private universities, therefore, are generally established by private investment companies whose motives are primarily profit based. Geographically, private universities are heavily concentrated in the capital of Amman, where land values are high enough to attract investors. It is not surprising, then, that legal issues between the Ministry of Industry and the Ministry of Higher Education are a common occurrence.

The Jordanian government allowed a number of private universities to commence operating before any proper academic accreditation was achieved. Moreover, most of the programmes offered by the private institutions are similar to those offered by the public institutions, which focus on theoretical studies. There has been very little thought given to the needs of a modern knowledge-based economy, and low graduate employment rates are the result. A further problem has been the need to lower the fees charged in order to attract students, many with less ability, and the consequent overcrowding of some of the private institutions beyond what the government quotas supposedly allow.

The United Arab Emirates

The rapid growth in the educational needs of the UAE population, spurred on by an influx of foreign students, has resulted in an extremely rapid growth in the higher education sector. The increase has been in both public and private institutions (Alsoltan et al. 2001). Since 1977, when the first institution, the University of the United Arab Emirates in Alain City, was established, government authorities have been assiduous in setting out stringent regulations for proper accreditation and standards for both the public and private sector.

Due to the inability of the public sector to accept all of the secondary school graduates and the foreign students who wished to study in the UAE, a number of private institutions emerged in the late 1980s and early 1990s. At that time, there were few regulations or external supervision, and it became clear to the government that regulation was needed. Accordingly, the Ministry of Higher Education was established in 1992. The following year, the government issued an order cancelling the licences of the private colleges and required all such institutions to apply for

new licences. The Commission for Academic Accreditation (CAA) that emerged provides institutional licensure and degree accreditation for all private universities and their academic programmes in the UAE. Without institutional accreditation, students may not be admitted. There are several types of private institutions in the UAE, including not-for-profit foreign institutions and for-profit institutions developed by private investors. The important feature is the requirement for full accreditation and monitoring through the Ministry and the CAA. To date, 70 institutions are licensed. The private institutions have, in some cases, received financial support from government.

The United States

The United States would appear to be the only educational jurisdiction that had a private system of higher education before a public system (Alsoltan 2002). The first private universities began in the seventeenth century, Harvard being the first to be established, in 1636. It was not until the Federal government's land-grant system was established 200 years later, in the mid-nineteenth century, that publicly financed universities were established under state authorities. Harvard University, established by the Massachusetts Legislature, was a private, not-for-profit university. Self-governing, Harvard is licensed by the State of Massachusetts. Its programmes are accredited by one of the six regional accreditation agencies. This model has been followed by all non-profit private universities and colleges in the USA. Strictly speaking, accreditation through a federally recognised regional accreditation agency is not required to operate a university. The state educational authority is sufficient. However, because most private universities, and their students, are recipients of federally provided loans, scholarships and research grants, they must submit to the regional accreditation body recognised by the Federal Department of Education.

Non-profit private universities and colleges are dependent on student fees, private endowments and gifts for their basic operating revenues. They are also dependent on government grants and scholarships. In that sense, they are very much part of a private-public partnership. In reality, the newly emerging for-profit universities and colleges are not very different. The for-profit institutions such as the University of Phoenix are wholly owned by private investors and corporations. They are designed to provide profits for shareholders. Several such corporations are traded on the stock exchange. Nevertheless, they are regulated and accredited by the same accreditation agencies as the non-profit private universities. They could not exist without government support in the form of loans and grants provided for their students. Many of the most successful of these universities and colleges receive up to 90 % of their revenues from federally funded student financial aid. They have aggressively recruited students who can bring these revenues with them, as well as military veterans who receive additional federally funded military retirement benefits. The sector is meeting the same market-driven educational needs as seen in the other countries examined in this chapter, needs that are not always

accommodated by the public and non-profit sectors. With its income so largely dependent on student fees supported by government, the public-private partnership is actually stronger for the for-profit sector than for the non-profit sector.

Other Jurisdictions

For purposes of comparing the emergence of a private university in the Kingdom of Saudi Arabia with that of other jurisdictions, the examples described above provide the main points of similarities and differences. In many other countries, a private university sector has emerged. In some countries, such as the United Kingdom, Australia, Canada and several European nations, there are relatively few private institutions. In others, such as Japan and Thailand, there are very many. But whether established as for-profit or non-profit, success has been achieved where there is a clear understanding of societal and economic needs and a full system of regulation and accreditation by Ministerial educational authorities. It is this understanding that characterises the Saudi development of a private sector. How the Saudi government has gone about establishing a regulatory regime, we shall now explore.

A Regulatory Authority in Saudi Arabia

In order to properly regulate the establishment of private colleges and universities, the Minister of Higher Education issued a decree in April 2001 setting out a series of executive rules, administrative procedures and technical regulations. It was clear from the outset that the new private non-profit institutions would be developed through close supervision by both the Ministry and public university experts in a manner that would ensure both academic quality and fiscal strength. In order to oversee the development of the private sector, the Ministry of Higher Education established a General Committee for Licensing and Approvals of Colleges presided over by a president of one of the universities.

Investors wishing to establish a private non-profit institution are required to undertake a feasibility study that examines the academic/training specialties proposed, the extent to which those specialties are understood and agreed with by other experts to be necessary and the potential for developing a particular academic market. Should the study be accepted by the Ministry, the prospective owners are granted a preliminary licence to proceed further. There follows general approval of the physical structures proposed for academic and student life, including special approvals for equipment for laboratories, workshops and libraries, and the qualification of academic and administrative staff, including the extent to which they comply with the college's organisational chart. Programmes of study are evaluated by specialised committees from accredited universities. The General Committee also approves a Council of Trustees for each institution. Once all of these approvals

are accepted, the owners are licensed by the Ministry. Collectively, these processes ensure that prospective owners must support the government's educational, social and economic goals.

The Council of Trustees for an institution consists of:

- Five members of the owners of the private institution or those nominated by them
- An academic representative nominated by the Ministry of Higher Education
- Two specialist teaching staff from Saudi universities, nominated by the Minister of Higher Education

The purpose of forming the Council of Trustees is to establish productive teamwork between investors and academic experts, involving the institution's educational levels and qualifications, strategic directions and the extent to which the founding principles of the particular university or college are followed.

Ministerial approval through the General Committee for Licensing and Approvals does not end Ministerial oversight of the new institution. In order to guarantee the academic reputation of the institution and of the Kingdom, the Ministry and the institution bear joint responsibility for the success and continuation of that institution and for the success of its graduates in the employment market. The institution must submit to the Ministry, on an ongoing basis, a number of predefined academic, financial and administrative reports and audits. The Ministry, for its part, oversees field supervision through specialised committees that pay periodical follow-up visits, meeting the teaching staff, the students and the administrators, reviewing the academic files of the subjects taught and, after the students' graduation, evaluating their performance in the workplace.

As stated earlier, the private sector operates very much in a public-private partnership. We have seen how the ministry supports the financial objectives of the emerging institutions through low-cost land rentals, loans and scholarship support. More recently, the Council of Ministers increased that level of subsidy. Whereas in 2006, support was provided for the fees of one-third of the students at a private institution, the Council of Ministers decreed in January 2010 that half of all students not accepted into government universities would have their fees at private institutions paid by the Ministry. In addition, the Ministry would offer annual postgraduate scholarships for students entering into a private graduate programme that is approved by the Ministry.

The development of a system of private higher education in Saudi Arabia is well established. Nine private universities and 21 private colleges offering bachelors and masters degrees have been established to date. Two of the first institutions were developed for Saudi women, Effat University and Dar-al-Hekma College, both in Jeddah, in 1999. Effat, which specialises in computer systems and early childhood education, has established international links with many prestigious universities, including the Sorbonne in France and Swarthmore, Duke and Mount Holyoke in the United States. Dar-al-Hekma specialises in computer and management systems, nursing, law and special education. The other private institutions have followed similar academic models, providing more practical education in the applied health sciences like medicine, dentistry, pharmacy, nursing, radiology and laboratory

techniques, as well as in computer science, management, marketing and finance, teacher training, tourism and hospitality – fields all important to local and national economies.

Challenges

There has been a very rapid growth in the number of private universities and colleges in the Kingdom, in the number of applied academic disciplines established in accordance with national needs, in the geographical distribution of these institutions and disciplines and in the number of students attending them. In the space of a decade, the growth in these key performance indicators has been impressive. However, as the new system enters its second decade, a number of challenges have become evident.

Providing a more practically oriented system of study requires developing a faculty cadre, ideally Saudi, which is able to facilitate a new academic environment attuned to an educational philosophy and ethos entirely different from what exists in the more-established national public universities. We have seen that the traditional universities were much more theoretical in their approach to learning and research. The faculty members in the new private universities emerged from that system. Changing their thinking and approach does not happen immediately. As Omar Hammod (2011) has noted, science in the established universities was considered as a course to be memorised, not as an approach for research, analysis and deduction. A resultant challenge is the need to re-evaluate the efficiency of higher education programmes by determining the nature of the learning experience and the obstacles to be overcome in making that learning more useful and practical.

It is understood that the research carried out in the new private universities and colleges must serve the needs of society and provide applied scientific solutions to specific needs. Examples would be research into localised genetic diseases so as to improve the quality of public health, local water and agricultural problems and needs, mental health issues and the eradication of illiteracy and the strengthening of literacy in its various types. This will take time, and it will require significantly different academic strengths from those currently held by many of the academics in Saudi private higher education institutions. Hammod (2011) recognised this challenge when he spoke of the need for 'rehabilitation' of the teaching staff members in various fields so as to re-orient their thinking, their research and their teaching.

If national development requires a new, more practical approach to science and discovery, so too does the new cadre of students at the private universities and colleges. Many, if not most, of the students at the private institutions are not eligible to attend the national public universities – they have not met the entrance requirements. They are, however, ideally suited to the more practical orientation that the private universities and colleges offer. Nevertheless, a large number of students in private higher education institutions fail their courses and drop out of

university study. These failing students represent economic and financial, as well as psychological, losses to both the nation and the families affected. Some of the failure may be attributed to a gap between the general education courses that the students took at the secondary level and the new university courses, the absence of an academic or professional orientation of the families sending these students to university, differing teaching styles at the universities and changes in culture. That said, most nations that have sought to increase the participation rate of students in universities by expanding the private sector have had to surmount these issues. A major challenge is to develop a faculty culture at the new private universities and colleges that understands the nature of the new, practical curricula; the diverse cognitive abilities of their students; and the need to develop a learning culture in accordance with the requirements of the workplace.

The more significant and difficult challenge is the development of human expertise at all levels in the private universities and colleges. If the new private institutions are to successfully surmount the criticism that the higher education system as a whole has been unable to meet the needs of Saudi society and industry, the development of more practical programmes and approaches and, above all, the knowledge, skills and understanding of the faculty and students is now the challenge – not bricks and mortar.

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Chapter 13
Development of Medical Education in Saudi Arabia

Mohammad Yahya Al-Shehri, Steve Campbell, Mohd Zahedi Daud, Essam Hussain Mattar, M. Gary Sayed, and Saeed Ali Abu-Eshy

Introduction

Medical education in Saudi Arabia is relatively new. The first medical college was established at the King Saud University, Riyadh, in 1967. It introduced to the local healthcare workforce a cadre of highly trained Saudi physicians who complemented the predominantly expatriate workforce, which included few Saudi doctors who were trained in Egypt, the United Kingdom, Germany, France, the Indian subcontinent, the United States and elsewhere. In general, the Saudi health sector faced many challenges in its quest to build up its healthcare-related human resources, which has become a major concern of the government in recent years. The nation's healthcare delivery is based on a two-tiered system, where both governmental and private healthcare providers operate side by side. Both the public and private systems complement each other with the aim of providing the best healthcare to the community. A key limitation of these two systems is that specialist medical care generally is only available in the big cities.

M.Y. Al-Shehri (✉)
Department of Surgery, King Saud University, Riyadh, Saudi Arabia
e-mail: myshehri@ksu.edu.sa

S. Campbell
School of Nursing and Midwifery, University of Tasmania, Hobart, TAS, Australia

M.Z. Daud
Parasitology and Public Health, King Saud University, Riyadh, Saudi Arabia

E.H. Mattar
Department of Radiological Sciences, King Saud University, Riyadh, Saudi Arabia

M.G. Sayed
Department of Radiology, Alfaisal University College of Medicine, Riyadh, Saudi Arabia

S.A. Abu-Eshy
Department of Surgery, Najran University, Najran, Saudi Arabia

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By the mid-1990s, 15 % of the medical workforce was local nationals. Within a decade, the Saudi medical establishment managed to increase the ratio to 20 %. To sustain the current ratios of Saudi doctors to their expatriate counterparts and to gradually increase the number of Saudi physicians, the government adopted a policy of increasing its physician-training capacity. As a result, 24 new public and private medical colleges have been established over the past decade. The establishment of these new medical colleges was not 'smooth sailing'. The rapid expansion led to an acute shortage of trained medical and health educators, which, in turn, posed a new set of challenges. These challenges became more complex and beyond the mere need of establishing new medical colleges and recruiting competent faculty to cope with an increasing demand by community health services. In addition to recruiting and retaining qualified faculty, medical educators faced additional challenges dealing with curriculum design, teaching and learning, assessment, instructional material development and educational strategies, all at an alarming pace, particularly so when the number of colleges is expected to further increase to a quadruple of current numbers within the next decade.

This chapter surveys the development of Saudi medical education and medical colleges. It chronicles the challenges they faced. It also discusses how the Saudi medical education community resolved some of the challenges in order to progress towards the implementation of strategic measures to achieve excellence in both training and healthcare delivery.

Saudi Medical Colleges

The first medical college in Saudi Arabia was established at the King Saud University in affiliation with the University of London in 1967; however, by 1979, the affiliation was terminated. Dr. Hussain Al-Jazairy, who completed his undergraduate medical education in Egypt and his fellowship in the United Kingdom, was the founding dean of the medical college. The first cohort of 35 medical students matriculated in 1969. By its eighth anniversary, the KSU medical college had facilitated the founding of two new colleges – one at the King Abdulaziz University (KAU) in Jeddah and the other at the King Faisal University (KFU) in Dammam. The founding deans of these two new medical colleges were Dr. Abdallah Basalamah and Dr. Mohammad Al-Torki, respectively. Both deans were previously members of the faculty at the KSU College of Medicine. In 1980, a fourth medical college was established in Abha. Its founding dean was Dr. Zuhair Al-Sebai, who was succeeded by Dr. Ghazi Jamjoom. Both of these deans were also members of faculty at KSU. Fifteen years later, a fifth medical college was founded at Umm Al-Qura University in Mecca. Its founding dean was Dr. Abdulwahab Telmessani.

These original five medical colleges trained 450 Saudi medical doctors annually. These newly minted physicians complemented the nation's largely expatriate health sector workforce, and by the mid-1990s, the ratio of Saudi-to-expatriate physicians had reached 15 %. However, with an annual population growth rate of 3.6 % and

to maintain the status quo, notwithstanding any additional increases in the number of Saudi doctors, the original five medical colleges would have had to train at least 1,000 doctors annually to meet the local demand. This number was well beyond their capacity. Given the pressing national need coupled with the local healthcare industry's need for more locally trained doctors, the existing five medical colleges came under pressure to enlarge their matriculating classes by admitting more students. Such demands gained legitimacy as there was no shortage of applicants among high school graduates. The national mass media further highlighted and significantly 'hyped up' the issue. The five medical colleges and national medical educators found themselves on the forefront of a national discourse. They tackled these issues with finesse as they were first and foremost committed to providing the best in teaching and training so that their medical students would achieve the requisite clinical competencies expected by their benefactors. The ongoing shortage of medical faculty further exacerbated these challenges and adversely affected success in terms of lowering the faculty-to-student ratio, for example. Increasing enrolment would have further complicated this case considering the availability of limited clinical training facilities. In summary, the five original medical colleges were faced with three major challenges: shortage of academic teaching staff, limited number of available teaching hospitals and scarcity of clinical instructors.

To address these formidable challenges, the five medical colleges coordinated their efforts in pursuing viable solutions. They made use of several national and Gulf Cooperation Council (GCC)-wide meetings, seminars and workshops to discuss the challenges and to explore solutions. A noteworthy outcome was the formation of the GCC Medical Colleges Deans' Committee and the Saudi Medical Colleges Deans' Committee. By 2002, the Saudi Society for Medical Education was also established. The general consensus was that in order to meet the shortage in healthcare human resource, more medical colleges were needed in different parts of the country. Among these meetings' outcomes was a recommendation that the country establish an additional 12 new medical colleges as a starting initiative. The actual outcome, however, far exceeded the recommended numbers, as by 2011, 29 new medical colleges were founded nationwide. Six of these new medical colleges are private (both for- and not-for-profit) institutions. Private medical colleges are a new phenomenon in the country. Ibn Sina Medical College in Jeddah was the first private medical school. It was founded in 2005. Private medical colleges are expected to play an important role in the future development of medical education in Saudi Arabia.

The Required Number of Saudi Physicians

Initiatives by the Saudi medical establishment had successfully increased the number of medical doctors in the country. Presently, 20 % of all physicians in the country are Saudi nationals, which are a significant improvement from a decade-old ratio that stood at only 15 %. The journey towards a self-sufficient workforce and acceptable population-to-physician ratio has been a long and arduous one.

The Saudi government has set a target for 2030 of a physician-to-population ratio of 1:500, with 60 % of all doctors in the Kingdom being Saudi nationals. This target compares with the World Health Organization (WHO) recommendation of 1:600. To meet this target, it was estimated that Saudi Arabia needed to graduate 1,750 new medical doctors in 2011; 2,400 in 2020; and 3,070 in 2030. These projected estimates were based on Saudi Arabia's current population of 22 million and its annual growth rate of 2.5 % as at 2005.

Desired Characteristics of Saudi Medical Graduates

This section describes the founding of needed infrastructure and implementation strategies for medical education in Saudi Arabia. Statistics have been offered on the number of students that have graduated and from which colleges. It has been established that the Saudi medical curricula have been specifically tailor-made to suit the local needs. However, it is not clear what its focus, if any, will be in 2011 and beyond. In comparison, countries such as Australia have identified areas of under-recruitment for doctors as well as other health professionals. In Australia, the need is in the rural and regional areas. Like Saudi Arabia, government policies and financial incentives have been put in place to encourage doctors to take up these positions. As a result, many non-Australian doctors, particularly from the Indian subcontinent, have taken up the positions. While these individuals usually have excellent clinical skills, there is a cultural mismatch which can result in difficulties. Like the 'Saudization' agenda, there is an Australian agenda to produce more Australian doctors who are more likely to want to practise in rural areas. The expression 'train in the bush and stay in the bush' is often used. This has led to a number of rural and regional universities in Australia, such as the University of New England, being funded to start their own medical programmes. The Australian Council of Deans of Medicine has started a project which is now in its fifth year, to plot where their graduates end up working and in what specialty. As a result, it will be possible to work out whether strategies such as the regional rural initiative are working.

Saudi Arabia needs a workforce strategy to work out what kind of medical graduates it needs to produce, particularly in light of the stated shortages of specialists outside the major urban areas. This strategy needs to work out how many and what proportion of generalists and specialists are needed. It needs to address whether medical education is to focus upon the support of the international accreditation agenda or on a local mechanism with a more public health and community approach which would be more likely to be about the production of quality general practitioners. Of course, with the large number of medical colleges now in existence, this strategy does not need to be about all colleges doing the same thing, but might be one where different colleges have different agendas.

Academic and Research Credibility of Saudi Medical Faculty

International standards for medical education are built on academic rigour, clinical teaching and research. This tripartite scheme can be used to describe and measure the level of professionalism at Saudi medical colleges. The Kingdom of Saudi Arabia has worked hard to achieve world-class performance in each of these three areas. Research, in particular, is a difficult challenge. International universities compete among themselves in a quest for attracting and retaining world-class scholars. To this end, many innovative strategies have been put forwards. One of such strategies for the Saudis is to home-grow their own scholars, where top performers are sent for additional training overseas. The aim for these scholars is to come back to their homeland, help expand its research capacity and lead their own research programmes. The initiative is not just about training good researchers but also about forming the right scholarship-oriented culture at Saudi medical colleges. Top students are more likely to be attracted to medical colleges with 'top-notch' researchers. While it is possible to have 'top-notch' medical colleges without active researchers, the challenge remains about having good teaching coupled with a research-rich environment. Evidence-based medicine is becoming the norm in current clinical practice. Being open to new information and ideas that research can bring is important, including their critical appraisal. Working with 'top-notch' researchers also provides a real appreciation for good research design, which is an important consideration for many clinicians.

Curriculum and Educational Process

The last 30 years witnessed significant interest in medical education worldwide. This phenomenon has been reflected commensurately in Saudi Arabia as well, where medical educators working together have managed to promote the adoption of many current international trends. Two key committees played important facilitative roles in this endeavour.

The first was the GCC Medical Colleges Dean's Committee, which was established in 1995. This committee met biannually to start several initiatives aimed at improving medical education in the region. A notable outcome was the organisation of an international medical education conference that has been held biennially. The first of these conferences was held in Kuwait in 1997.

The second committee was the Saudi Medical Colleges Dean's Committee, which was established in 1996. Both committees worked synergistically on important roles in promoting the development of medical education in the GCC countries. Other similar institutions were also established in Saudi Arabia with the aim of promoting quality medical education, including the Saudi Commission for Health Specialties (SCHS), the National Commission for Assessment and Academic

Accreditation (NCAAA), the National Centre for Assessment in Higher Education and the Saudi Society for Medical Education. Below is a brief discussion on each one of these four institutions' roles and contributions.

The Saudi Commission for Health Specialties

The Saudi Commission for Health Specialties (SCHS) is a scientific corporate entity. Headquartered in Riyadh, the SCHS was established by a Royal Decree in 1993. So far, it has 11 branches in different regions of Saudi Arabia. The SCHS plays critical roles in certifying residency programmes and licensing healthcare practitioners. These practices had a positive impact on the output of medical colleges. The national entrance examination for residency programmes, administered by the SCHS, is an important milestone for Saudi medical colleges.

Objectives and functions of the Commission include:

- Designing, accrediting and supervising training programmes
- Establishing scientific boards to implement training programmes
- Assessing and accrediting health establishments (for example, hospitals, medical centres and clinics) for training and specialisation purposes
- Supervising examinations in various specialties and approving results
- Granting professional certificates, diplomas, fellowships and memberships
- Coordinating its tasks with other councils, societies and health colleges inside and outside the Kingdom
- Evaluating practitioner performance
- Promoting research and the publication of scientific papers
- Participating in healthcare planning
- Holding medical symposia and conferences
- Establishing guidelines and standards for health practice, including professional ethics
- Approving the establishment of scientific societies in health specialties

The National Commission for Academic Accreditation and Assessment

The National Commission for Academic Accreditation and Assessment (NCAAA) was established in 2003 based on a resolution approved by the Higher Education Council. The NCAAA is responsible for academic accreditation of higher education institutions. Military institutions are exempted. The NCAAA aims at improving the quality of private and government higher education to ensure clarity in mission and transparency in operation and to provide codified standards for academic performance.

With respect to medical education, the main role of the commission so far has been in relation to the private higher education institutions in the country. Its role in governmental institutions is starting to gain some momentum. Certainly, its role will be instrumental in the future in assuring quality in medical education.

The Saudi Society for Medical Education (SSME)

The SSME is a national, not-for-profit professional organisation founded in 2002. It promotes medical education through educational meetings, networking events, publications and the use of its Website. Its mission is to promote and develop quality in all aspects of medical education in Saudi Arabia. SSME's objectives are to:

- Foster the professional development and career satisfaction of its members
- Provide support, guidance and resources to its members
- Develop a 'professionalism charisma' in medical and health education
- Facilitate exchange of publications and ideas in medical and health education between relevant bodies and institutions within and outside the Kingdom
- Collaborate with other medical education organisations to pursue common interests

The Curriculum

Traditionally, medical curriculum planning in Saudi Arabia was mostly built on a content-based model, with decisions regarding which content to include being based on the subjective belief of the lecturers rather than on a carefully formulated set of course objectives. Al-Gendan et al. (2000) analysed the finding of ten major research projects into healthcare training in Saudi Arabia and identified that significant problems existed within the medical curriculum, including overcrowding of the curriculum, over-representation of some subjects, the balance between theory and practice was not well articulated, training in the important areas of communication and attitude were lacking and there was dissociation of the basic sciences from the clinical sciences. In addition, Al-Gendan reported that the nature and distribution of clinical courses was not based on the identified needs of the community.

These critical reports stimulated significant developments in medical education in the country. As a result, several medical colleges started adopting the international trend towards professionalism in education. Medical education departments were established at several local colleges, while others developed medical education centres. Certification in medical education became a widely valued credential, which was accorded consideration in appointment policies. Collaborative programmes with foreign institutions were developed. The Centres for Medical Education at Dundee, McMaster and Maastricht universities and the Medical Education

Department of the University of Chicago at Illinois are among the institutions that collaborate with Saudi medical colleges. Academics and students sent on scholarships are allowed and encouraged to seek parallel training and certification in education in addition to their primary areas of specialisation. Currently, most medical colleges have certified medical educators among their faculty. Some universities have started induction courses for new appointees that included issues related to medical education. Many universities have changed their promotion criteria to recognise medical education as an academic achievement.

Harden et al. (1984) identified six educational strategies related to the curriculum at a medical school. They provide a useful instrument that can be used in curriculum analysis, review and development. Significant progress has been made in recent years to update the old traditional curricula. The following is an analysis of these strategies as applied to the Saudi medical colleges:

1. *Student-centred education*: Curricula at Saudi medical colleges are based on the traditional system that is heavily teacher-centred. In a traditional system, the teacher decides the content of the course, delivers the lecture and decides for students what they are supposed to learn. Many of the recently established medical colleges adopted a more student-centred approach. Similarly, one of the constant changes in revision of the curricula at older Saudi universities is the shift towards an emphasis on learning rather than teaching. Students are more involved in decision-making and in curricular revisions.
2. *Problem-based versus information gathering*: The traditional system focuses on information gathering. The student learns the different basic and clinical sciences, with the aim of understanding the fundamentals. It allows for the development of a logical progression of concepts. In comparison, in a problem-based learning setting, students learn through predefined problems based on clinical, practical healthcare or medical science topics. The purpose is to integrate the body of knowledge and to develop problem-solving skills. The newer medical colleges tend to adopt problem-based curricula. Qaseem University was the first in Saudi Arabia. Other universities adopted hybrid problem-based and information gathering approaches.
3. *Integrated versus discipline-based teaching*: In the traditional system, teaching is anchored in disciplines such as anatomy, physiology and biochemistry and allotted separate blocks of time. Students are required to synthesise and integrate these separate bodies of knowledge on their own. With the adoption of innovative instructional methods, integration was incorporated into the curricula. For example, problem-based curricula involve integration around designed problems. Some legacy colleges at King Saud University and King Abdulaziz University recently changed their curricula into a system-based instruction. Thus integration around systems was adopted.
4. *Community-based versus hospital-based education*: In community-based education, students are exposed to healthcare issues at community settings that could be primary healthcare centres, rural hospitals or general practice clinics. In Saudi Arabia, most medical instruction is still hospital based, with some components of

the curricula delivered based on primary health centres and, to a lesser extent, in the community. Recent revisions have incorporated a fair amount of community orientation in the Saudi medical curricula.

5. *Electives versus standard programme*: Elective programmes in a curriculum provide students some flexibility in choosing subjects and exploring their chosen areas of specialisation prior to commencing their residency training. An advantage of electives is that they provide a way of coping with an overcrowded curriculum. Electives allow students to assume more responsibility for their learning. It can also facilitate career choices and can meet some students' aspirations. The majority of the Saudi medical colleges are yet to offer enough electives to allow these outcomes to be achieved. This is one of the areas where some development is likely to occur in the future. Some of the obstacles in the past were related to the pressure on colleges regarding 'proper and safe' staff-to-student ratios and university regulations. Both of these are starting to improve, which will likely yield a better environment for adopting more electives as part of the medical curricula.
6. *A systematic versus apprenticeship programme*: In the traditional medical training model, students are attached to units or departments for certain periods of time, where they observe what goes on in the hope that by the end of their rotations they would have seen most of what is important and would have learned most of the required skills. In the systematic approach, programmes are designed such that all essential components of the courses are clearly determined, all the required skills are listed, all patients are diagnosed and all students' observations are documented. The apprenticeship approach is still widely practised at most medical colleges. Portfolios and log books are increasingly used to help with the limitation of this approach while benefiting from its advantages.

Content, Knowledge Acquisition and the 'How Much Application' Debate

Most medical educators agree on the need for developing medical and supporting science outcomes that are comparable with or higher than the intrinsic and supporting disciplines. The logic is based on the premise that graduates would have high levels of knowledge that allow them to practise. However, this did not turn out to be the case for some present graduates who struggled to learn how to apply knowledge to practice. Indeed, there was a significant number of students who left clinical specialties preferring to work in laboratory-based environments. Some of the newer Saudi medical colleges adopted problem-based learning (PBL) in line with international trends and as a reaction to the over-emphasis upon knowledge and the realisation that facilitating the learner to understand about its application had become the latest challenge. Hailed as a major innovation 10–20 years ago, PBL's limitations are now becoming recognised. One such problem is its instructional support-intensive nature that becomes problematic at medical and health academic

institutions that emphasise research performance. In such settings, high-performing researchers see such commitments as counterproductive to their career ambitions. Another problem is that weaker students tend not to do the required preparation, and without the needed knowledge, PBL does not work, and the teacher needs to remind the learners of the knowledge they are applying.

So the debate comes to what and how much knowledge and how much application should Saudi medical colleges adopt. The Saudi medical education system is facing up to this debate alongside its international peers.

Admission Policy into Medical Colleges

In Saudi Arabia, high school students graduate after successfully completing the 12th grade. High school instruction is divided into different 'tracks'. Only graduates of the science track are admitted to medical colleges. Admission criteria are based on both the overall high school score and specific scores in subjects such as physics, biology, chemistry and mathematics. A student's overall score in English is also taken into consideration. Different colleges use varying combinations of these subjects. The post-high school aptitude test and the achievement test administered by the National Centre for Assessment in Higher Education are also used. Medical colleges in different universities assign different weightings to each of these criteria. Some colleges also conduct admission interviews as an additional screening tool.

Over the last 3 years, some universities introduced the concept of a preparatory year, which provides – among other things – academic enrichment instruction in specific subject areas. All matriculating students are enrolled in the preparatory year, which is then used as an additional screening tool for admission to medical courses. Students are admitted into medical college based on the average grade obtained during the preparatory year.

Attitude and Behaviour of Medical Students and Graduates

The question of identifying students best suited for studying medicine is a common challenge worldwide. In part it relates to the previous section in which the question was raised as to what kind and how many Saudi medical graduates are needed. This discussion was about the strategic needs of the population and relates to public and population health demands. However, the kind of person who becomes a medical student can have a direct relationship to whether public and population health issues will be adequately addressed. For instance, in the 1970s in the UK, the academic performance required to gain entry to a medical school was very high. While there was a parallel interview process, it did not really address whether these very intelligent young people would be able to function as doctors in the future. There were attempts to assess whether students had thought of the practicalities of working in a medical setting, but none on whether they would be able to function as

doctors. As a result, the colleges produced many doctors who graduated with high academic performance, but who did not understand teamwork, or other forms of working that required down-to-earth thinking. Surgery was seen as a highly valued and prestigious specialty, but ultimately to many, it is a technical process, with a focus on technicalities and skills. Creative high-performing academically inclined doctors, therefore, become bored by such technical activity. Counter intuitively for the 1970s medical students, other specialties that were once regarded of low prestige (e.g. generalists, such as geriatricians and general medicine practitioners) are now perceived as the most challenging. These were more satisfying to the academically gifted graduating medical students of the late 1970s and early 1980s and who are now entering their 50s, and they are among the leaders of their profession.

In the UK, in the 1990s with the expansion of medical training, there was an accompanying softening of entry requirements to medicine and of attitudes to part-time clinical postings. The emphasis upon academic performance has now softened and there is a greater consideration of the students' profile, such as their life experience, and of coming from another profession, including the health professions. It has been argued that this has led to a medical workforce that is better at teamwork, but not as obsessed with career aspirations and promotions. However, this might not be so much about their entry behaviour as being about the nature of their generation, as these descriptions also generally fit generation 'X' and 'Y' of the population.

The Saudi tradition for entry into medical school is performance in high school and subsequently the preparatory year, particularly in the sciences. High performance in science makes it much more likely that the student will be offered a place at a medical college. Keeping the UK experience in mind, questions need to be raised as to whether this emphasis on academic performance remains the right way to go. Other countries are using other modes to assess their aspirant medical students. Psychometrics, which was criticised in the 1970s, has been adapted and adopted by some universities to try to work out a match between the person and the profession, particularly with respect to cognitive aspects of functioning, including emotional intelligence. Some of the reasoning behind this comes from patient safety initiatives aimed at reducing medical errors. The Johns Hopkins Medical Center in the United States looks for such qualities in its medical staff and sees this as integral to their medical and clinical leadership development programme. It is still open to debate, however, whether psychometrics and other psychological assessments might be more about reducing the chances of unsuitable students being enrolled than enhancing the right qualities in medical practitioners graduating from that college.

Conclusion and Summary

From the 1960s through the 1980s, the health delivery system in Saudi Arabia was staffed mainly by expatriates. The government initiated several programmes towards 'Saudization' of its health services. Key among them was the founding of the first

medical college at the King Saud University in 1967. Currently there are 29 medical colleges in the Kingdom. By the 1990s, the Saudi physician workforce was 20 % of the total. The targeted doctor-to-population ratio has been set at 1:500 assuming 60 % 'Saudization' by 2030. To meet this target, the Kingdom needs to graduate 2,500–3,000 doctors annually. Hence, several special programmes were initiated.

The last 45 years witnessed significant changes in medical education in the Kingdom. Medical curriculum, teaching and learning are benchmarked against the best in the world. Faculty members and students are carefully selected based on their academic performance. It is noted that the Dean's Committee of Saudi Medical Colleges and the Saudi Society for Medical Education play pivotal roles in the development of medical education in Saudi Arabia. The development is further enhanced by the establishment of the Saudi Commission for Health Specialties, the National Centre for Assessment in Higher Education and the National Centre for Academic Accreditation and Assessment. Saudi medical education shares much in common with international medical colleges.

There has been a steady increase in the number of local medical doctors and health professionals since 1980s. They are the product of Saudi medical curricula, which are tailored to meet local needs. The agenda is to have a select workforce of specialists supported by a larger number of generalists. Thus, while the system focuses on public and community healthcare, specialised care is not neglected. The Kingdom's experience is somewhat similar to the experiences of the Australian healthcare delivery system. The Australian agenda is to train doctors who are more likely to want to practise in rural areas.

The medical curriculum is a much debated and reviewed document. It is generally agreed that the curriculum is overloaded and needs to be revamped to make it student-friendly. The Saudi medical colleges have adopted most of the current global trends in medical education, including the integrated and problem-based learning systems. Much more, however, needs to be done to strike a balance between the basic sciences and professional knowledge. Also, students' selection procedures, including the relevance of their behaviour and attitudes, need further research.

Looking back at the above, Saudi medical education shares many common experiences with other countries. The health delivery system keeps pace with global development while upholding the values and norms of the local community. The priority of the Saudi health system is health communication and serving its population. It is important to find the balance between generic qualities of local medical graduates and the need for specialisation. The balance of knowledge and its application in the curricula remain an ongoing challenge. The Dean's Committee of Saudi Medical Colleges, the Saudi Society for Medical Education and the Saudi Commission for Health Specialties are equal partners in grappling with these issues nationally and internationally and are well set to lead in the coming years.

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Chapter 14
Student Scholarships in Saudi Arabia: Implications and Opportunities for Overseas Engagement

Fawzy Bukhari and Brian Denman

Introduction

The census report published by the Ministry of Higher Education in Saudi Arabia indicates that there are over 120,000 students from Saudi Arabia studying in educational institutions outside of their home country (Ministry of Higher Education 2011). Of those students participating in study abroad, including both overseas exchanges and full-time degree programmes, the majority are sponsored by the King Abdullah Scholarship Program (KASP), which is considered to be the largest fully endowed government scholarship programme ever supported by a nation-state. Demand to incorporate study abroad as part of an overseas experience has never been greater for Saudi students. Overseas study is considered a national priority that seeks to foster international workforce competence for a nation that is in need for skilled Saudi nationals.

The King Abdullah Scholarship Program was established in 2005. The rationale for the programme was that skills formation for the country lacked quality and focus and that workforce planning and development would be significantly enhanced by learner mobility that extended beyond its borders to major international universities. Historically, the offering of overseas scholarships by the Saudi government focused on the capacity for the recipient to subsequently contribute to the 'public good' of the country. In recent times, however, the focus has shifted from meeting the identified needs of the Kingdom to meeting the specific professional and personal needs of individual students.

F. Bukhari (✉)
Scholarships Program, Ministry of Education, Riyadh, Saudi Arabia
e-mail: fawzy_bukhari@hotmail.com

B. Denman
University of Hiroshima, Hiroshima, Japan

Higher Education Policy and Management, University of New England, Armidale, NSW, Australia

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This chapter provides an historical background of the student scholarship programmes in Saudi Arabia and in particular, critically assesses the development of the King Abdullah Scholarship Program. It describes the nature and context of policy reform, including the geopolitical constraints, and analyses the challenges that Saudi students confront when studying outside the country. Particular emphasis is placed on the need for a greater level of cooperation between the Saudi Ministry of Higher Education and the countries and international institutions where Saudi scholarship-sponsored students study.

Historical Background

The Foundation Period (1927–1953)

The Foundation Period, the initial stage in Saudi Arabia's scholarship development, is the period when sponsored Saudi students first journeyed overseas to pursue undergraduate work. The departure took place on 25 December 1927, 50 years before the first university in Saudi Arabia, at which time several Saudi students were sent to study in neighbouring Egypt in a quest to gain university qualifications, in part at least because the country offered a familiar language and religion. When these students returned, and more particularly when the government was convinced that the programme had been a success, a second group of students was sponsored to study in England for a period of 2 years. These students participated in a specialty-training programme at Marconi's Wireless Telegraph Company in an effort to learn more about managing wireless communications. A third group of ten students were sent to study aviation in Italy and to bring their knowledge back to the homeland to help establish Saudi Arabia's air transportation. The period concludes with a group of students who were sent to Switzerland and Turkey to study law, political science, and engineering. Clearly, the initial success of Saudi students studying abroad facilitated broader outreach, that is, in seeking countries that offered specific training that was otherwise not offered or available in Saudi Arabia at that time.

In 1936 a Scholarship Preparation School was established by the then Directorate of General Knowledge (now Ministry of Education). It was designed to help better prepare students who were sponsored by the government to study overseas. Emphasis was placed upon improving basic knowledge in science, general studies, and languages and articulating high school and university studies.

The Growing Period (1954–2004)

The Growing Period helped to expand overseas scholarships to include postgraduate students. The first Saudi university (King Saud) was not established until 1957, so until that time, the major focus for scholarships had been on undergraduate degrees

at international universities. However, progressively from 1957, Saudi students have been well supported by the Saudi government to do their undergraduate degree 'in country', so that the emphasis has increasingly moved to postgraduate awards for international scholarships.

The number of government (public) universities in Saudi Arabia has grown from 1 in 1957 to 3 in 1970 to 24 in 2011. This growth can be partially attributed to the formation of branch campuses from well-established Saudi universities that in recent years eventually became independent universities. Of the eight private universities currently in Saudi Arabia, all have been founded in the last decade. This rapid growth in the number of higher education institutions over the last decade reflects the high level of support given by the current Saudi government to education in general and higher education in particular.

The Expansion Period (2005–Present Day)

The Expansion Period marks the beginning of the King Abdullah Scholarship Program (KASP), which was initiated in May 2005. Its establishment was a reaction to the government-recognised imperative to equip Saudi nationals with the knowledge and skills needed to build business and community leadership capacity within the Kingdom. KASP provided a mechanism for rapidly expanding the qualification base of the Saudi workforce and was supported by a government policy of increasingly requiring tertiary study for employment in many jobs within the Kingdom.

KASP is directed, managed, and organised under the supervision of the Ministry of Higher Education (MoHE). Initially, MoHE developed a plan to implement the scholarship programme worldwide in 50 countries. Nominated students ('candidates') must meet the levels of academic achievement ('standards') that are set by the Ministry. Upon acceptance into the programme, the candidates can freely choose from a number of approved countries. On occasions when student demand is considerably high, the ministry may opt to exclude that country to minimise the 'ghetto' effect when there are higher concentrations of Saudi students in a given locality.

KASP particularly encourages specialisations from the following fields of study:

- Medicine, dentistry, and medical sciences including physiotherapy, laboratory sciences, radiology sciences, and biomedical technology
- Pharmacy
- Nursing
- Mathematics, physics, chemistry, and biology
- Engineering including civil engineering, architectural engineering, survey engineering, electrical engineering, mechanical engineering, industrial engineering, chemical engineering, environmental engineering, communication engineering, and automotive engineering

- Computer engineering, computer science, networking, and e-commerce
- Accounting
- Finance
- Insurance
- Marketing

In part to support the expanded scholarship programme, the MoHE increased the number of overseas cultural missions to 32 and supported these offices with highly qualified academic and administrative staff. Electronic systems were introduced to help better serve students and to help coordinate more effective communication between Saudi Arabia, the host country, and hosting institutions.

Since 2005, a significant number of Saudis have studied, or are currently studying, overseas for the purpose of achieving a higher standard of education for themselves and their country. Part of the reason for the high numbers of students studying abroad is the fact that stipends (levels of financial support for accommodation and general living expenses) are very attractive, and the prospect of studying overseas also has a growing 'social' appeal among Saudi youth, particularly in terms of becoming a 'global citizen'. KASP scholarship recipients enjoy a monthly stipend for living expenses, payment of all tuition costs and fees associated with their programme of study, expenses incurred for study-related travel (including conferences), a round-trip airfare to the host country each year, and even bonuses for outstanding academic performance. All education-related expenses are also tax-free, as there is no income tax in Saudi Arabia. Even spouses of recipients are considered scholarship holders (i.e. they are funded to travel and live with their wife/husband), but it is the KASP scholarship recipient who is formally awarded the scholarship on the basis of academic merit and potential.

The presence of one's immediate family is deemed important for personal safety and general well-being as well as for cultural and religious reasons, and stipends vary depending upon the number of dependents living overseas. If the scholarship holder is female and not married, an accompanying father, uncle, or brother may be classified a scholarship recipient, even if they are not formally enrolled in an overseas institution. The Ministry of Higher Education monitors stipends, particularly monthly allowances, and adjusts stipend distributions to counter any fluctuations in foreign exchange rates.

The MoHE adheres to a centralised 'wheel/spoke' administrative structure. MoHE is the 'hub' of the wheel. It determines educational policy concerning mobility, eligibility, and enrolments and performs all record-keeping associated with administration. Saudi Cultural Missions, which are principally located in Saudi embassies worldwide but not necessarily housed in the same location, represent the 'spokes' of the wheel and they all report directly to the MoHE. Currently, that there are 34 Saudi Cultural Missions located worldwide: 20 in the Asia/Pacific region, 6 in Europe, 6 in Africa, and 2 in the Americas. Their responsibility is to report on the academic progress and movement of individual students, advise on student well-being (academic and social), and distribute monthly stipends based on a particular student's scholarship award.

While all efforts are made to continuously improve the level and quality of communication between Saudi Cultural Missions and the MoHE, including the recent introduction of online websites and individualised email accounts, the biggest challenge is ensuring that effective and timely communication occurs between the Saudi Cultural Missions and the hosting institutions. This may be due to differing motives or agendas. On the one hand, Saudi Missions attempt to ensure that their students adhere to the rules stipulated by the MoHE and the KASP scholarship, particularly given the fact that stipends are subsidised by the Saudi government and quality control mechanisms are in place in order to ensure that KASP scholarship monies are put to good use. However, what concerns the MoHE and Saudi Mission may not, of course, be considered vital to hosting institutions. As related by staff at Saudi Cultural Missions, there is a general deficit in frequent communication as, generally speaking, the hosts have 'enough on their plate' and their concern encompasses the well-being of all their students, not just those sponsored by the Saudi government.

The MoHE has been tasked to expand educational opportunities to educate young Saudis with marketable skills and to build upon their capacity to innovate and become more entrepreneurial (The Chronicle of Higher Education 2011). This shifts the Saudi traditional way of learning to a more robust educational paradigm, one that promotes critical thinking and analysis, and increases global engagement. However, there is some difference of opinion as to whether Saudi students are driving the agenda for overseas educational opportunity, as it is they who apply to KASP in the first instance. The MoHE contends that KASP is an attempt to expand Saudi tertiary education and to help diversify employment within the country and to lift its dependence upon the oil industry. It also is an attempt to expand university placements, to promote overseas education for those who qualify, and to offer new opportunities in vocational education and training.

Choosing a Study Abroad Programme

Most believe that the majority of university students in Saudi Arabia choose to study abroad as KASP recipients and on a preferred KASP-sponsored country programme. However, many students also choose to study overseas for personal reasons with country and institutional choices as the main reasons for participating in an overseas programme as a self-funded student. Recently, many Saudi students have expressed concern about published world rankings of their host university, as there is a heightened awareness and concern about what constitutes a quality education, even in a sponsored overseas programme. A majority of KASP students have noted their main reason for choosing to study abroad (as opposed to studying in Saudi Arabia) is to enhance their opportunity to find jobs or to further pursue graduate studies. While it is still unknown whether there is interest in pursuing careers outside of Saudi Arabia, most students seem contented with the idea of returning to their home country upon graduation.

Many host universities are also limiting the number of Saudi students able to meet the entry requirements for their institution because they do not always recognise academic work completed in Saudi Arabia. In response, the MoHE intends to improve relationships with key host institutions, provide a list of preferred programmes in order to ensure quality control in specific disciplines, and offer stronger pastoral care to Saudi students who are attempting to acclimatise to their respective host environments.

The study options that students choose usually depend on the availability of programmes in their country of choice, on their preference for course structure and delivery approaches, and on the considerations noted in previous paragraphs. In comparing options, students consider the advantages or disadvantages of each to determine which may best serve their needs and goals.

Making Application to a Programme

When students choose a study abroad programme that best suits their needs, they first will make contact with the home institution for an application and information materials. Students then consult with friends and professors and refer to the MoHE home page concerning the calibre of each institution, its location, and its eligibility requirements.

Since enrolment deadlines vary greatly from country to country and among universities in the same country, Saudi students must apply well in advance. Enrolments beginning in the 'autumn term' in the northern hemisphere may have application deadlines anywhere from the preceding January to late June. Southern hemisphere enrolments usually have deadlines between early October and mid-December. Required documents vary from programme to programme, but they normally include an official university transcript, sometimes a high school transcript, letters of recommendation from academic staff, and an essay or statement of purpose. Whether applying to KASP or directly to a foreign university as a self-funded student, the process is not nearly as complex or as time consuming as many students believe. However, applicants should avoid the last minute shuffle and the possibility of losing out on a programme because of a missed deadline. Moreover, as study abroad is likely to become more student demand driven in the foreseeable future, particularly the KASP programme, increasing attention will need to be paid to enrolments at more reputable institutions overseas. Since 2005, some of the more popular universities are beginning to fill up more quickly, especially those with international repute, so it is important that students apply well within programme deadlines and submit strong applications.

Figure 14.1 illustrates the number of full-time Saudi students studying abroad during the period 2006–2010, according to country. The higher numbers of students studying in North Africa and in the Middle East can be attributed, in part at least, to the relatively short distance to travel to universities in those countries and to cultural and religious familiarity with their customs. Current research being undertaken by

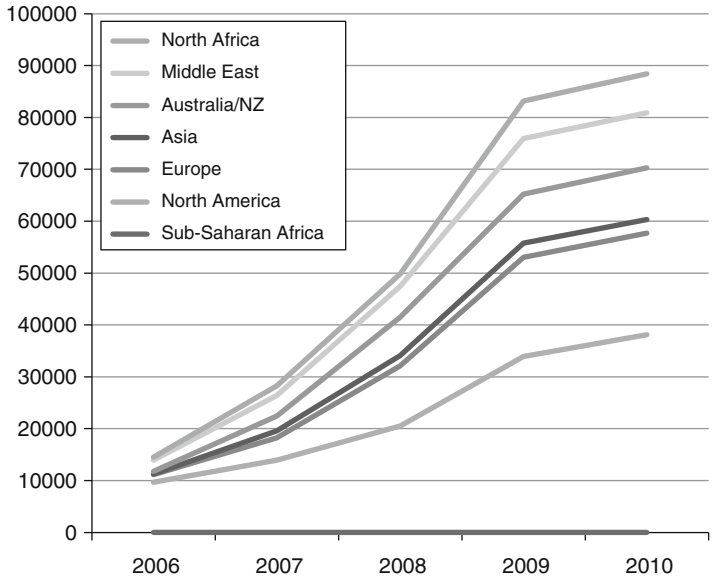

Fig. 14.1 Cumulative number of full-time Saudi students studying abroad according to country (2006–2010) (Source: Modified data collected from Denman and Hilal 2011)

Hilal (2011) reveals that many Saudi families are anxious about their sons and daughters studying too far away from the Saudi homeland and that familiarity with religion and customs is critically important to parents and spouses in particular.

While the great majority of Saudi students studying abroad are KASP recipients, other avenues do exist for supporting international study, including a range of other government-sponsored options and self-funding for those students or families that can afford it.

The number of Saudi females receiving government scholarships to study abroad has grown rapidly over the last few years. Current estimates from the Saudi Ministry of Higher Education (2011) suggest that almost 25,000 Saudi females are currently financially supported by the government to study abroad, which represents around 20 % of all Saudi higher education scholarship recipients. By far the greatest number of females undertakes their study in the United States, with the United Kingdom, Canada, Australia, and Kuwait also being popular destinations.

Conclusion

The transference of higher-order knowledge and skills across geographical borders is widely held to be an effective mechanism for rapidly improving the productivity and creativity of a country's workforce. The Saudi government is strongly committed to the creation of communities of productive and innovative learners and

scholars throughout the Kingdom, and so it follows that there is strong government support for international higher education scholarships for its people. This policy is strongly supported by Saudi businesses and by the community generally, who are demanding a Saudi workforce that is at the cutting edge of knowledge and skills. The King Abdullah Scholarship Program (KASP) is seen to be a critical mechanism for achieving this goal. Through the program, around 120,000 Saudi higher education students are now studying abroad. In today's terms, it is understood that it will continue to influence and be influenced by societal expectations, both internally and externally.

Religious, political, and social pressures have been instrumental in shaping the nature of the scholarship programme, and thus, it is not unexpected that many academics outside the Kingdom believe a major purpose of the programme is to promote the word of Islam internationally. The main or at least the stated aim of KASP is essentially economic: to develop an effective and internationally competitive workforce. Nevertheless, research currently being conducted by Hilal (2011) suggests that a major outcome of the programme is to broaden the world-view of Saudi students and to provide them with opportunities for engagement with other cultures. On the one hand, Saudi students studying abroad are helping people in Western countries better understand Saudi customs and traditions, and to appreciate the generally warm and hospitable nature of Saudi students, and their thirst for knowledge.

Current evidence across a range of indicators suggests that the King Abdullah Scholarship Program has been successful in both achieving its stated aims and in improving the capacity of the students involved to engage internationally. On the other hand, increases in Saudi student mobility are beginning to hint at disparities in quality instruction and increased competition for the better jobs in Saudi Arabia. It remains to be seen whether returning Saudi scholarship recipients will win favour over the home educated.

Although a significant portion of this chapter has been devoted to understanding the implications and opportunities of KASP, it is hoped that further research will be generated to explore the benefits of such a significant scholarship programme, particularly in how it can further develop Saudi Arabia as a nation-state but also in how it can transform individuals and skills formation.

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Chapter 15
International Collaboration

Mohammad Al-Ohali and Steve Burdon

Introduction

The decision to move down a path of international higher education collaboration is not one that should be taken lightly by Saudi universities. Significant resources and investment in time and money are required for success. This chapter will explore the issues confronting higher education in Saudi Arabia as it moves towards globalisation of learning and research and the integration of its universities into national economic and social policy frameworks.

Internationalisation and Globalisation

The terms internationalisation and globalisation are often used interchangeably. In this chapter, internationalisation will be used when referring to aspects of curriculum and research programmes, student bodies and so on, while globalisation will be used more generically, such as education by working in different geographies. Interestingly, transnationalism is also a term increasingly encountered in higher education (HE) and perhaps best describes the situation where a university has multiple geographic locations and a presence across more than one country.

M. Al-Ohali (✉)
Ministry of Higher Education, Riyadh, Saudi Arabia
e-mail: alholi@kfupm.edu.sa

S. Burdon
University of London Business School, London, UK

School of Business, University of Technology, Sydney, NSW, Australia

Academic Advisory Committee, Australian Institute of Management (AIM), North Sydney, NSW, Australia

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Internationalisation of Higher Education: Global Trends

Internationalisation of higher education and its impact on universities continue to be of great interest to global institutions and stakeholders. The recent *3rd global survey* by the International Association of Universities (IAU) (2010) reported that internationalisation is central to future planning and is of growing importance. The IAU survey listed the top five reasons for a university to go global as:

- Improving student preparedness
- Enhancing the institution's international profile
- Strengthening research and knowledge production
- Internationalising the curriculum
- Diversifying faculty and staff

The survey also reported significant differences between regions: for example, North America and Latin America gave much more importance to international preparedness of students than Europe, while the African nations gave maximum priority to strengthening their research and knowledge production. Alternatively, the Middle East countries all gave equal importance to student international preparedness and strengthening research. One surprise survey finding was that the geographic region to which the majority of the 115 countries turned to for international collaboration in the first instance was Europe, followed by the Asia Pacific and thirdly, North America.

Higher education in most countries is seen as a national symbol and for some, a political tool (rather like national airlines were a few decades ago). Although the potential benefits of entering international partnerships are considerable, high risks also exist. Such partnerships could result in commodification of critical programmes, reduced education standards and inappropriate alliances could be costly and time consuming. In the corporate world, successful collaboration through partnership (particularly of core functions) is proving difficult to achieve for high-value services (Burdon et al. 2009). A recent Deloittes research paper on the top ten issues facing higher education in 2011 (Aguilar 2011) identified global partnerships as one of these but highlighted the difficulties of achieving success:

> Universities and colleges are under considerable pressure to enter global partnerships. Yet this is not a decision to undertake lightly. Organisations need to make sure that they pick the right partner, identify the best fit, structure an appropriate programme and define the benefits and risks well in advance. (p. 1)

Current Strategy and the Role of International Collaboration

International collaboration has been used to meet at least some of the objectives of the current Ministry of Education 10-year plan for Saudi Arabia. For example:

1. A major goal of the Ministry is to devise syllabi for the development of the Islamic personality so that students will have pride in their faith and loyalty to their country. A major impediment to this strategy has been the inadequacy of distance education infrastructure, including appropriate learning resources, to serve students in the Kingdom 'who cannot avail themselves of regular education facilities for reasons such as geographical distance, job circumstances and age differences' (Sawahel 2011: 2). A cooperative arrangement was created among a number of Middle East countries to deal with the infrastructure issues and, in particular, the lack of appropriate Arabic learning materials. An action plan was initiated in 2010 which involved Bahrain's first Asian e-University, the United Arab Emirates-based Hamdan Bin Mohammed e-University and the Kuwait-based Arab Open University. It also involved the Open University of Malaysia and the Asian e-University (AeU) in Singapore.
2. In recent years, considerable emphasis has been placed on government vocational and technical training. The Ministry of Education has enhanced the benefits of programmes and projects by establishing a number of collaborations with foreign governments; for example, an agreement has been signed with the Japanese government for advanced technology training of Saudi students in vehicle maintenance and technology. As well as international government collaboration, partnerships have been developed with overseas multinational corporations. These include arrangements with the Accor Group (France) which helped to set up and fund three training institutes in cooking and hospitality and with General Motors (USA) where programmes were created to provide vehicle maintenance and sales skills. Arrangements were also made with large Saudi corporations, such as the Bin Laden Group, for joint funding and operation of three institutes involving training for architecture, construction and building maintenance.
3. In 2007, King Abdullah bin Abdulaziz Al Saud made an initial endowment of US$10 billion to set up the King Abdullah University of Science and Technology (KAUST). Its aim was to be in the top 20 science and technology universities in the world within 10 years. Considering that Berkeley took 40 years and Stanford 60 years to achieve this outcome, this is indeed a very bold and ambitious initiative. To assist in achieving this outcome, the Saudi government has negotiated partnership agreements worth over US$500 million with a number of major international universities, including Stanford University, University of California at Berkeley, University of Texas and Cambridge University.
4. The Saudi government is developing the King Abdullah Economic City (KAEC), which is designed to be a key commercial hub for the Kingdom as well as a business district, industrial zone and seaport. It will also have an educational zone which is planned to consist of multiple university campuses flanked by two research and development parks. The campuses will accommodate 18,000 students and up to 7,500 faculty and staff members. In September 2010, Saudi Arabia's General Investment Authority (GIA) signed a letter of intent with Georgia Institute of Technology in the USA to build a centre for applied research degrees. The Georgia Institute of Technology Saudi campus will be the first

to offer foreign-accredited research degrees inside the Kingdom, while Saudi students will be able to choose from courses at Georgia Tech's campuses in the USA, Europe and Asia.

Future Strategy and the Role of International Collaboration

Future Vision

Saudi Arabia is embarking on a 10-year plan for expanding and improving the quality of its higher education system. The plan involves:

- Rapidly growing student enrolments to produce a pool of labour to power a growing economy.
- Establishing nodes of excellence in academic teaching and research. These nodes of excellence will also proactively facilitate linkages with outside agencies, businesses and multinational corporations (MNCs) to commercialise their intellectual knowledge for the achievement of wider economic and social targets. Such an approach will require the creation of a number of new partnerships and collaborations.
- Investigating the possibility of allowing a number of overseas universities to set up centres for learning and research within Saudi Arabia and perhaps even Saudi itself setting up programmes and centres overseas.
- Building a knowledge-based economy.

Regional Hubs of Excellence and Global Aspirations

Currently, just under 50 % of tertiary graduate students in Saudi Arabia are enrolled in the humanities, arts and education streams. The government's policy of supporting the historic Islamic and Saudi culture suggests that collaboration in these discipline areas is likely, at least in the first instance, to be with Middle East countries and other Islamic countries such as Malaysia and Indonesia. In comparison, the science and technology streams make up 24.6 % of the graduate profile, and a policy decision has been taken that the research and learning should be on an international scale with leading universities in these fields.

In the last 5 years, Saudi Arabia has increased its focus and determination to improve its education sector: indeed, its education spending has risen from 6.8 to 8.3 % as a proportion of GDP. However, some critical issues need to be reviewed for the success of future strategy and international collaboration.

First, the notion of attracting overseas students to Saudi universities needs investigation. If Saudi Arabia aspires to be a regional hub of excellence, then it should seek strong partnerships with the governments of other Middle East countries

to facilitate the entry of their students into the Kingdom. This will require a strategy for drawing the very brightest students through targeted scholarships. It could also include Saudi universities making arrangements with other preferred universities in the Middle East for reciprocal short-term student exchange programmes and dealing with the complexities of equivalent educational standards.

Second, alternate models for Saudi students studying overseas should be pursued. By the end of 2011, there will be 130,000 Saudi students enrolled overseas and a significant number of these are financially supported by the Saudi government. Compared with other nations, the level of financial support is generous with allowances for accommodation and family support often included. By all accounts, this has been a very successful initiative which has enabled many of the most talented Saudi citizens to gain wider global experience with their tertiary education. Nevertheless, consideration might be given to the model being enacted in several countries (such as Sweden and Australia) for undergraduate studies whereby the overseas education experience is limited to 1 or 2 years, rather than for the full degree course, by entering into joint degree arrangements with international universities. Such a model would not only reduce the cost to the Saudi government (thus freeing up money for other educational initiatives), but it would also ensure that students contextualised their international learning in the cultural, economic, social and religious environment of Saudi Arabia, thus improving their employment prospects in the Kingdom on completion of their degree.

Collaboration with Multinational Corporations (MNCs)

Saudi Arabia's plans to build a knowledge-based economy will require proactive collaboration with international MNCs at a government level. Saudi Arabia's ability to attract these partners and to be viewed as an attractive regional hub can be enhanced by government investment and grants and by the development of its information and communication technology (ICT) systems to world standard.

The Saudi *Communications and Information Technology Commission Annual Report* for 2009 placed a particular focus on the need to significantly improve the nature and availability of ICT services and infrastructure in the Kingdom as well as the need to implement strategies to markedly increase ICT usage and awareness. It argued that these initiatives were critical to any strategies for enhancing national economic efficiency and productivity. The report noted that since competition policy in the IT industry was introduced in Saudi Arabia in 2005, impressive increases in the use of mobile technology had occurred, with mobile penetration achieving 75 %. Broadband tele-density and internet penetration, however, were both still at only 10 %. A number of nations have set 5-year digital economy-integrated plans in order to address their need to rapidly expand their information technology base and activity. This concept was initiated first in Asia, with Korea being the best known, but other nations such as Malaysia have followed this approach. If such a plan was initiated in Saudi Arabia, then the higher education system

would have a critical role to play in building skills and playing a major role in technology research as a base requirement for a successful digital economy. Setting up a research centre of excellence between universities and industry that involves 'cutting-edge' international partners would be a useful initiative. It is probable that multinational corporations would be particularly keen to engage in collaborative funded research and development in ICT and would be very willing to enter into collaborative arrangements to establish relevant research and development centres in the Kingdom.

The annual growth in research and development (R&D) in the fields of science and technology in Saudi Arabia has historically not been strong. Nevertheless, Saudi Arabia is in a very powerful position in the oil and gas industry to persuade large global oil companies to establish a strong collaborative R&D presence in the Kingdom, in terms of both research and regional headquarter presence and their support for skills developments.

Another area of potential collaboration with global MNCs is to institute a system of interchange between high-potential science and technology academics and young high-potential executives. Sweden has been very successful in implementing such a system whereby academic candidates for professorial appointments spend a year with a sponsoring international organisation and one of the organisation's executives spends a year contributing to academia. For this to work, the Saudi government would need to provide a top-up sum for the executive working in academia, so that their take-home pay would not be affected during this procedure. Another initiative that has been used successfully in Australia and other countries is to approach the MNCs to get them to provide internships for undergraduate engineering students as part of their course requirements for an undergraduate degree. This approach has been very successful, with an extremely high employment take-up rate for students who have completed this course of study.

Entrepreneurship

The Saudi government has a strong policy to encourage entrepreneurship and the setting up of new businesses, particularly those associated with the knowledge economy. In the current digital age, the world's most successful entrepreneurs are often technology graduates who came up with their 'ground-breaking' idea while at university and then progressed to building some of the largest global MNCs and becoming among the world's richest individuals. Many of them studied at Harvard or the Massachusetts Institute of Technology (MIT) in the USA. One can think of Mark Zuckerman (Facebook), Bill Gates (Microsoft) and Jack Ma (Alibaba). Government policy can play a major role by establishing in the community a climate whereby it is easy to do business.

Table 15.1 is an extract from the World Bank's *Ease of Doing Business Index*, published in 2011 (World Bank 2011). Saudi Arabia is positioned at a very credible overall ranking of 11, which is significantly better than all other Middle East

Table 15.1 Ease of doing business index: comparison of middle east and selected other countries

Overall ranking	Country	Starting a business	Getting credit	Protecting investors	Enforcing contracts
1	Singapore	4	6	2	13
2	Hong Kong	6	2	3	2
11	Saudi Arabia	13	46	16	140
21	Malaysia	113	1	4	59
40	UAE	46	72	120	134
50	Qatar	111	138	93	95
94	Egypt	18	72	74	143
127	Brazil	128	89	74	98

countries, and only lags behind countries such as Singapore and Hong Kong, both of which have already established major higher education centres of excellence. If Saudi Arabia could deal with the two issues of getting credit and enforcing contracts, their good comparative position would improve even further.

Innovation

Entrepreneurship is closely allied to the concept of innovation, which is a subject that in the last decade has received an enormous amount of focus. As the world becomes more competitive, the balance of global economic power is shifting. The fast-growing, evolving economies of countries such as China, India and Brazil have intensified competitive pressures, and many developed countries have placed a strong focus on their nation becoming more creative and innovative. Saudi Arabia is ideally placed to form strong collaborative arrangements with some of these emerging economic powerhouses, and collaboration among the higher education sectors would be central to any such move. However, innovation and entrepreneurship within a global context are not natural components of traditional Saudi society, and so if Saudi Arabia is to achieve its economic objectives, a strategy for overcoming the cultural barriers needs to be put in place. Such a strategy will not be easy to develop and implement, because the need to retain Saudi culture and the need to collaborate on a global scale on entrepreneurial and innovative endeavours are both important, but somewhat antithetical, objectives.

Concluding Comments

The role of globalisation and international collaboration for the Saudi higher education sector is a complex issue. This chapter has attempted to explore the trend of globalisation and its advantages in terms of leveraging access for Saudis to the

increasing globalisation of knowledge, particularly in ICT and business. This trend will have an impact on recruitment of highly qualified and experienced university academics to meet the learning and research needs of the community. However, moving in this direction needs to be balanced against the social identity and culture of the Kingdom of Saudi Arabia and its own specific social and economic needs.

Saudi Arabia must find effective ways of addressing and capitalising on three separate spheres of influence for international collaboration: firstly, the Middle East, where social and cultural values are more similar to Saudi Arabia; secondly, a wider Muslim country collaboration with other non-regional countries such as Malaysia and Indonesia; and thirdly, and perhaps the most challenging, global collaboration. In this context, the recent decision to establish the King Abdullah University of Science and Technology (KAUST) is an interesting initiative as it creates a separate culture and operating conditions along with a new governance structure, all of which are focused on international collaboration and global positioning. However, if the objective of building a leading knowledge-based economy is to be achieved, other models and initiatives for maximising the benefits of international collaboration are required.

Globalisation and international collaboration will need to find its place among Saudi Arabia's vision and goals for the future and its strategies and plans for improvement. Internationalisation is a choice, not a necessity. It carries risks as well as rewards. Determining an appropriate development strategy that balances those risks and rewards is critical to the Kingdom's future. So too is a world-class university sector that is enriched through relevant and effective international collaboration.

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Chapter 16
Challenges and Opportunities for Higher Education in Saudi Arabia: An Exploratory Focus Group

Larry Smith and Abdulrahman Abouammoh

The issues impacting on higher education in Saudi Arabia are frequently atypical in nature and are also highly interrelated and individually complex. Further, the information bases from which to draw realistic and useful conclusions with respect to the present and future of higher education in Saudi Arabia are generally extremely limited in both scope and depth, and lack the consistency necessary for valid analysis. As a consequence, the editors of this text presented the Director of the Centre for Higher Education Research and Studies (CHERS) in Riyadh, Dr. Abdulhalem Mazi, with a proposal for an intensive 2-day focus group research project involving all chapter authors (Saudi and international) so that critical issues, challenges and opportunities could be shared and debated and conclusions collaboratively drawn and validated.

Staging such a focus group obviously was going to be an expensive undertaking, particularly as it was generally agreed that a range of cultural and communication issues made face-to-face interaction among the authors imperative. Nevertheless, Dr. Mazi came to the view that a focus group of this nature was worth supporting because it would provide a significant amount of 'rich' information and, in particular, a set of strategies for consideration for improvement of the Saudi higher education system. The editors are extremely grateful for this support from CHERS, the Ministry of Higher Education and the Minister of Higher Education in Saudi Arabia.

L. Smith (✉)
Centre for Higher Education Management and Policy, University of New England, Armidale, NSW, Australia
e-mail: lsmith35@une.edu.au

A. Abouammoh
Centre for Higher Education Research and Studies (CHERS), Saudi Ministry of Higher Education, Riyadh, Saudi Arabia

Department of Statistics, King Saud University, Riyadh, Saudi Arabia
e-mail: abouammoh@yahoo.com

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It is important to note that no member of the Saudi Ministry of Higher Education had, or sought to have, influence over the structure or conduct of the workshop – these were totally at the discretion of the international facilitator.

Focus Group Methodology

Focus groups are among the most widely used research approach in the social sciences (Stewart et al. 2007, p. 1). The focus group is a semi-structured qualitative research technique in which a group setting is used to interview people and to engage them in focused conversation. Focus groups allow researchers to understand the complex and often counter-intuitive ways in which people position themselves in relation to particular issues and topics. The information generated through a focus group session generally will be transdisciplinary in nature: that is, the information will span a range of contexts and contents in a fully integrated and relevant way.

Neuman (2006, p. 412) suggests that the major advantage of focus groups is that they provide 'natural settings' which allow participants to express their ideas and opinions freely and openly in a way that helps them to feel empowered. In particular, he suggests that the capacity focus groups afford for participants to provide explanations and to query the views of others is a major strength. Alternatively, Neuman suggests that the major limitation of focus groups is that they can produce a 'polarisation effect' in which differences in opinion can become more entrenched as a result of the heat of the debate. In this respect, Fern (2001, p. 73) argues that much depends on the sensitivity, analytical skill, knowledge, personality, empathy and 'warmth' of the session facilitator.

Focus groups generally are categorised as exploratory, clinical or experiential according to their purpose (Fern 2001). Clinical focus groups primarily are used for motivational research studies in which the purpose is to explain beliefs, feelings and behaviours and to reveal reasons for preferences. Experiential focus groups primarily are used to triangulate information already collected from surveys and interviews or to confirm models, hypotheses or theories developed by the researcher during previous research activity. Exploratory focus groups differ from both clinical and experiential tasks in that their purpose is about 'creating, collecting, identifying, discovering, explaining, and generating thoughts' (Fern 2001, p. 5). A major strength of exploratory focus group research is that it 'uncovers all the different thoughts that people have, not just those that they have in common … Therefore, much of the information generated in exploratory [focus group] research is unique' (Fern 2001, p. 5).

The discussion process in an exploratory focus group involves six phases (Fern 2001, p. 100):

1. *Globality* in which participants are provided with an overview of the topic under investigation and develop an understanding of the outcomes sought from the project

2. *Differentiation* during which participants come to understand the different perspective they each bring to the focus group and the importance of their perspective to the overall outcomes of the project
3. *Social integration* during which the group of participants, each with different perspectives, backgrounds and experiences, learn to interact as an effective and productive group
4. *Mirror reaction* which involves the participants, as discussions continue, coming to understand essential commonalities
5. *Condensing* which is the point at which the group develops a 'collective consciousness' and acknowledges the parameters for agreeing on compromise of opinions
6. *Information exchange* which is the point at which free and open exchange of views and information can occur

The outcome of an exploratory focus group has three elements (McGrath and Hollingshead 1994):

1. *Task performance effectiveness*, which is the extent to which the focus group has achieved the information goals set for it by the researcher
2. *User reaction*, which is the level of satisfaction of the participants with the process and its outputs
3. *Group member relations*, which is a measure of the extent to which the participants exit the project as a compatible and cohesive group

Structure of the Workshop

The workshop, attended by all but three of the chapter authors (Saudi and international), was held over 2 days at the Hotel Intercontinental in Riyadh in mid-2011. It was facilitated by Professor Larry Smith from the Centre for Higher Education Management and Policy (CHEMP) at the University of New England in Australia. Special approval was obtained and arrangements implemented to allow both male and female authors to directly participate in the workshop at the one venue (it is the usual arrangement in Saudi Arabia for male and female participants to be located in separate venues and to interact only by audio and video technology).

The first day of the workshop focused on the question: 'What are the challenges and opportunities facing higher education in Saudi Arabia for the next 10 years?' Participants were asked to articulate the issues, problems and concerns that must be addressed and/or overcome by the Saudi higher education system if it is to grow and establish itself as a world-class system, as well as structures and available opportunities to help it achieve that outcome. Issues were synthesised in the form of questions because leaving participants with unanswered questions rather than summary statements is more likely to stimulate further thinking and ideas, and this format provides a context for further action because it strongly implies the need to find solutions (Lunn and Smith 2009).

The focus of the second day was on the identification of an integrated strategy or strategies that would allow Saudi Arabia to meet the challenges and grasp the opportunities that had been identified during the first day of the workshop. This component of the workshop was built around the question: 'What must the Saudi higher education system do – what strategies must it employ – in order to meet the challenges and grasp the opportunities that lie ahead?'

Both days of the workshop were recorded in both video and audio formats so that all information could be reviewed and analysed in detail. Mobile microphones were used so that all participants could be heard, with the facilitator moderating the nature of discussion and the order of speakers.

Major Issues and Challenges

The major issues and challenges identified through the workshop, in no particular order of priority, include:

1. *How to find an effective balance between high-quality university teaching and high-quality university research*? As discussed elsewhere in this book, a pillar of Saudi higher education strategy over the last decade has been the need to significantly increase access to and participation in university education for both male and female Saudi citizens. A direct consequence of the resulting rapid increase in enrolments in university courses, particularly at bachelor's level, has been significantly increased teaching loads for all Saudi academics. In turn, increased teaching loads for Saudi academics has meant less time available for them to engage in research. If the Saudi higher education system is to achieve its stated goal of having its leading universities recognised internationally as 'world-class', then it must give urgent priority to its research effort, because global university ranking systems are heavily based on the quality and quantity of an institution's research activity and outcomes. Alternatively, if Saudi Arabia is to achieve its social and economic objectives for the next decade, then the number of students undertaking university coursework programmes must continue to increase. The issue is exacerbated by the fact that the best-quality teachers in Saudi universities are also often the best-quality researchers.
2. *How to develop international standard research capacity and outputs for staff and higher degree students*? Until recently, the focus of university education within the Kingdom has been on the acquisition of knowledge and skills, with Saudi students and academic staff generally travelling to overseas universities to undertake higher degree research. Further, and in part because of language barriers, Saudi academics have not published widely in international journals or participated extensively in international research projects. As a consequence, Saudi Arabia does not have a strong research tradition in its university sector. Nevertheless, there is now a strong and pervasive recognition among university administrators, staff and students of the importance of high-quality research

capacity and outputs. There is also a clear recognition that the development of research capacity and the demonstration of quality research outputs need to be 'fast tracked' if the Saudi higher education system is to maximise its contribution to the future of the Kingdom, nationally and internationally.

The issue of low publication rates is of particular concern to Saudi academics and university administrators, because it is through international publications that academics and their universities gain professional credibility and standing. The major reasons for the relatively low publication rate by Saudi academics would seem to include a lack of knowledge and understanding about what is required to report research output in an international publication; difficulties in expressing ideas in English, the major language for international publications; the relatively recent emergence in Saudi Arabia of many disciplines in the social sciences as areas of academic strength (internationally, this area accounts for a massive number of publications); inadequate mentoring of Saudi academics by established international academic authors, particularly in the social sciences, including education; and a lack of confidence to expose their academic arguments and findings to international critique.

3. *How to attain world-class standards for Saudi universities while at the same time maintaining a focus on the specific needs of the Kingdom, its industries and its students*? As described earlier in this book, Saudi Arabia has a strong commitment to its traditional culture and religious beliefs and practices. There is considerable concern at all levels of Saudi society that too much exposure to other cultures and ways of thinking may begin to erode those tightly held traditions. At the same time, almost all Saudis seem acutely aware of the need to engage closely and productively with the international community if the Kingdom is to prosper in an increasingly global economy. Resolving the tension between these two imperatives is a major challenge for Saudi Arabia. A key element of this challenge is the need for Saudi Arabia to learn from the university sectors in other countries, but not to copy them.
4. *How to develop opportunities for increasing access to and participation in higher education for women, both as students and as academics*? As Jamjoom and Kelly note in their chapter on higher education for women, Saudi Arabia has witnessed a rapid and impressive journey towards women's participation in all levels of the education sector. But this journey is only partially completed. There are still many discipline and subdiscipline areas where female numbers are disproportionately low, and the issue of gender segregation in higher education is still fraught with a range of equity issues such as access to the best teachers and resources. The appropriate resolution of this issue is of immense importance to Saudi women and indeed to the perception of Saudi society held by countries outside the Kingdom.
5. *How to develop a strong and credible professoriate to lead the quality of research and teaching in universities*? It is axiomatic that the quality of any university and university system is directly related to the quality and international credibility of its leading academics – the professoriate. Saudi Arabia is no different, and in order to achieve this outcome, the Saudi government, as

well as individual universities in the Kingdom, has been implementing a wide range of initiatives, such as conferring endowed chairs and organising visiting professors to act as mentors. Of major concern in this context, however, is the significant drift of the nation's best academics to high-paying industry positions because of inadequate and/or inappropriate incentive and reward systems within the Saudi university sector.

6. *How to establish strong professional networks across universities in Saudi Arabia and between Saudi universities and those in other countries*? Saudi university administrators and academic staff understand and acknowledge the importance of establishing and maintaining strong professional networks as a means of ensuring high-quality research and teaching across the system. Saudi universities, however, have traditionally operated in isolation from each other – they do not have a strong tradition of collaboration. Establishing professional networks across Saudi universities presents, therefore, a particular challenge for the system and one which will only be exacerbated by moves to increase competition among universities for research and infrastructure funds.

   Establishing professional networks with international universities and staff also poses a major challenge for the Saudi higher education system, because until very recently, it has, in general, actively sought to isolate itself from outside influences. Developing a strong professional network is an incremental process – it gathers pace over time as the 'new' partner (in this case Saudi Arabia) establishes its international credibility and confirms its capacity to add significant value to the network partners. Attempts to fast-track this process are likely to meet with limited success only and with 'cosmetic solutions' to perceived needs and problems.
7. *How to achieve the appropriate balance between the need to develop strong 'general' academic skills in students and the need to serve the specific practical needs of employers and industry*? This is an issue facing the education systems of most countries. As Saudi Arabia seeks to develop its economic base beyond the oil industry, to make itself less reliant on overseas labour for its industries and to significantly decrease the high unemployment rate among the nation's youth, the need for the education system to deliver the knowledge and skills required by employers becomes critical. At the same time, however, Saudi culture and religious teaching place major emphasis on the development of the 'whole person' through the education process. Considerable thought and planning will need to go into the development of relevant curriculum and learning processes to ensure that these dual outcomes can be met.
8. *How to ensure that teaching and learning approaches, processes and technologies reflect international 'best practice'*? As discussed in the chapter by Alnassar and Dow, university teaching in Saudi Arabia still largely reflects the didactic 'lecture' model in which the academic stands at the front of a (generally large) class and transmits information. Such an approach is not geared to deliver the type of innovative, critical thinking graduate that the Saudi government and people are seeking. Changing the existing model, however, will be difficult,

because it is so entrenched in the traditional 'culture' of higher education teaching in the country.

9. *How to develop better ways of collecting, analysing and using information relating to the quality of teaching, learning and research*? As the surveys administered and analysed by Al-Ghreimil and Colbran identified, data collection, analysis and reporting systems in and for Saudi universities are inadequate for supporting the outcomes the system is attempting to achieve. The Saudi higher education system, as well as individual universities, needs to invest heavily and judiciously in technology, infrastructure and skilled human resources so that information is able to drive significant improvements in the quality of learning and teaching and of university graduates. Achieving a better balance between outputs (quantifiable achievements) and outcomes (the actual impact of what the university and its staff do) was seen by workshop participants to be a critical component of this investment.
10. *How to improve the quality of strategic planning in individual universities*? A consistent view among workshop participants was that Saudi universities generally do not have strong strategic plans that provide clear and exciting frameworks for improving quality and outcomes and that are compatible with the overall strategy for the higher education system. Further, workshop participants did not feel that the strategic planning process was sufficiently inclusive of all major stakeholders and viewpoints. This is a critical issue, because a strong, well-communicated strategic plan gives both staff and students their sense of purpose and direction and provides exciting possibilities that motivate staff, students and community stakeholders.
11. *How to ensure strong and appropriate leadership of Saudi universities*? The leadership team of any university has a critical role to play in the success of the institution. Members of an effective leadership team must have high-level thinking, planning, communication, interpersonal, decision-making and problem-solving skills. Leaders must be innovative and open to new ideas and perspectives, and they must have the ability to motivate and enthuse staff, students and members of the community and government. As discussed in the chapter by Al-Suwailem and Elliott, there are many excellent leaders in Saudi universities, but there are also many who lack the necessary leadership skills and capacity to take the Saudi higher education system to the high-quality and productive future envisaged by government. The Academic Leadership Centre, established in 2009, is a decisive initiative for addressing this issue, but much more needs to be done.
12. *How to ensure that students moving from secondary education to university education have the necessary knowledge and skills for success*? As discussed in the chapter by Alnassar and Dow, the outcomes of the secondary education system in Saudi Arabia do not emphasise preparation for university study. This is the situation in many, if not most, countries, but it has major implications for Saudi Arabia as it tries to increase student participation and success in a university system which itself is undergoing extensive change in processes and

direction. Secondary education must service a number of different outcomes for students, of which university entrance and preparation is just one. However, the reported lack of basic skills and attitudes for success in university study among many students exiting secondary education is very counterproductive to the outcomes sought by higher education. The issue is not an easy one to resolve, but is nevertheless one that must be addressed as a high priority.

13. *How to improve the public perception of the technical education system, so that students pursue the most appropriate education pathway for their capacities and future employment needs and do not enter universities without the capacity for success*? As is the case in many countries, Saudi students and their parents aspire to university education, irrespective of the discipline area, in preference to education in a technical college. For many students, however, technical education is a much better match with their skills and career aspirations than a university degree. The challenge, then, is how to provide effective career counselling and how to change entrenched attitudes regarding educational 'status', so that Saudi youth pursue the most appropriate career paths for their talents and interests
14. *How to ensure consistency of academic standards across universities in Saudi Arabia and with international universities against which Saudi Arabia wishes to benchmark its higher education system*? This issue is about the tension between generally held notions of academic quality and institutional autonomy. As Darandari and Cardew discuss in their chapter, the introduction of standards for accreditation by the NCAAA provides a strong foundation on which to build consistent academic standards across the Kingdom's universities, but ultimately, the objective is to build an institutional quality culture in and for each university that pursues and adapts quality as a regular behaviour.
15. *How to ensure that maximum benefit for both students and the country is achieved through the scholarship programme*? The chapter on student scholarships by Bukhari and Denman highlights the features and general success of the ambitious government-funded King Abdullah Scholarship Program. The chapter also highlights, however, a number of emerging concerns and potential problems that will need to be addressed at both the levels of policy and practice. In particular, the programme currently seems to be driven by inputs – the desire to engage as many Saudi students as possible in study at major international universities. What is less obvious is the outcome of the programme for the Kingdom and for individual students after they have completed their international study. There are also a number of equity concerns highlighted by Bukhari and Denman that need to be addressed if the international scholarship programme is truly to achieve its stated objectives.
16. *How to ensure that private universities deliver high-quality university education and support the overall strategy for higher education in Saudi Arabia*? In their chapter on private universities in Saudi Arabia, Al-Dalee, Fnais and Newbould describe the massive growth over the last decade in the number of private universities and colleges in the Kingdom. They also highlight, however, a number of fundamental concerns that may impact on the quality of education

provided by at least some of the private higher education institutions. These include many of the students at private higher education institutions have not met the entrance requirements for public universities, student failure rates are much higher than in public universities, and many academic staff members in a number of these institutions do not meet the general standards expected in public universities. The private higher education system in Saudi Arabia is an important adjunct to the work of the public system, but quality issues need to be addressed as a matter of priority to ensure that elements of the private system do not prove to be dysfunctional to the ambitious higher education goals of the Kingdom.

Proposed Strategic Initiatives

The workshop identified a number of strategic initiatives that, individually or collectively, have the potential to effect significant improvements in the quality and outcomes of the Saudi higher education system. In no particular order of importance or priority for implementation, these strategic initiatives include:

1. *The development and implementation of 'smart' information collection and analysis systems that are continuously updated and that can be accessed at both the system and institutional levels*. The need to provide accurate, comprehensive and accessible information to assist planning and quality teaching and learning was considered to be a major priority for the Kingdom. It was considered important for such systems to include institutional performance feedback programmes (students and staff providing feedback to university and system administrators); linked assessment programmes that allow student standards to be moderated both within a university and across universities; and clear reporting mechanisms. An implication of this recommendation is the need for Saudi Arabia to significantly upgrade its information technology infrastructure at both the institutional and system levels.
2. *The development and implementation of a comprehensive strategy for encouraging and supporting internationally recognised academics to work closely with Saudi universities*. Saudi Arabia recognises the advantages of having high-quality academics from outside the Kingdom working in mentoring arrangements with Saudi universities and academics. Such arrangements would not only leverage improvements in the quality of research and teaching but also foster joint authorship of international papers, develop strong international networks and facilitate international benchmarking. Establishing such a programme, however, will require considerable planning to identify the 'right' international academics to target, and it must be underpinned by appropriate and attractive incentive packages.
3. *The development of an effective process for identifying the current and future workforce needs of the Kingdom, and for adjusting the nature of the curriculum*

and the career guidance given to students in order for universities to support those employment needs. Current processes for workforce planning in Saudi Arabia are not generally considered to be accurate and robust, and there is widespread agreement that this is an area in urgent need of review and development. The university curriculum, however, generally is not constructed to reflect future workforce needs, and career guidance is based more on student wishes than on realistic options for future employment. These three elements need to be interlinked: curriculum development should strongly reflect the future employment needs of the Kingdom, career guidance should seek to direct students into study programmes that will lead to genuine employment outcomes, and the data on which all of this is based should be as accurate and comprehensive as possible. Effecting this outcome will require open communication and cooperation across several departments of the Saudi government.

4. *The establishment of a separate Ministry or Department of Technical Education, in order to improve the public perception of the status of technical education*. As discussed earlier in this chapter, there appears to be an urgent need to significantly improve the status and attractiveness of the technical education system in the eyes of potential students and the Saudi community in general. Such a move would also help clarify the nature and purpose of university education, allowing universities to focus much more directly and productively on their 'core mission and business'. It was the general view of workshop participants that the critical catalyst for pursuing this outcome would be to formally separate technical education from university education in the structure of government, in the same way that school education is separated.
5. *The development of a process for ensuring open and timely communication and collaboration among the primary, secondary, technical and higher education sectors, particularly with respect to curriculum development*. A plethora of anecdotal evidence was presented at the workshop to illustrate the dysfunctions associated with poor communication and/or a lack of genuine collaboration across the four education sectors. It was the unanimous view of participants that education outcomes for the Kingdom can only be maximised if all four sectors work together, seeing each other as part of a team rather than as functionally isolated elements of government. Developing this process, however, will not be easy, because existing 'territorial' issues will be prevalent, and it is likely that ministerial direction will be required.
6. *The development and implementation of processes for ensuring strong and effective leadership for the Saudi higher education system and for all levels of Saudi universities*. The provision of professional preparation and support courses and/or centres focussed on educational leadership was strongly supported at the workshop, but it was emphasised that assistance from specialists in educational leadership from outside the Kingdom would be required in order to achieve quality outcomes. The leadership and management of change – particularly the leadership and management of staff during change – was seen to be a very important element of this initiative, as was a strong understanding of business processes and entrepreneurialism. The recent establishment of

the Academic Leadership Centre in Saudi Arabia was unanimously endorsed by workshop participants as a strong step in the right direction, but this endorsement was accompanied by the firm assertion that the centre, on its own, would not be sufficient to develop and maintain the educational leadership capacity sought and needed by the Kingdom.

7. *The establishment of specialist centres for improving the teaching and research capacity and skills of academic staff in universities, both at the institutional and system levels*. Virtually all major universities around the world have some sort of specialist teaching and learning centre that is staffed by pedagogical experts who maintain contact with the latest developments in teaching and learning and who work in a variety of ways with academic staff to ensure the highest quality learning experience for students. These teaching and learning centres also generally provide expert support to academic staff to help develop their research and research supervision skills. If the Saudi Arabian higher education system is to achieve world-class standards, then as Alnassar and Dow asserted in their chapter, specialist teaching and learning centres staffed by high-credibility university teachers should be established in all universities and at the system level as a whole.
8. *The implementation of strong faculty performance planning and review (PPR) processes*. As Darandari and Cardew identified, rigorous processes for setting performance targets and standards, and for reviewing the extent to which performance targets have been met, have not been strong features of the Saudi higher education system. Nevertheless, there is strong support among Saudi academics generally for a rigorous system of performance planning and review. Well-tested systems exist in many countries which could be easily modified to the Saudi context, and the NCAAA certainly is promoting PPR as an important element of quality assurance. There was a strong view among workshop participants, however, that PPR systems would need to be supported by clearly laid out steps for improvement as well as clearly articulated consequences for continuing poor performance. There must also be a system of incentives and rewards for continuing excellent performance.
9. *An expansion of university-industry and university-professional body/ association research and development centres*. Workshop participants believed that this strategy would increase industry-based financial support for research, ensure that research was focused much more on practical outcomes of benefit to the Kingdom and provide opportunities for international 'showcasing' of Saudi university research. The strategy is also very much in line with the arguments put forward by Al-ohali and Shin in their chapter on promoting university research quality and quantity.
10. *The development of processes and strategies for the greater involvement of female academics in academic planning and affairs, both at the individual institution and system levels*. As Jamjoom and Kelly reported in their chapter, much progress has been made in recent times, but there is still much to be done if the rhetoric is to be transformed into effective reality. In particular, workshop participants argued that there would be considerable benefit in establishing a

schedule of focus group meetings for women academics in order to provide them with an ongoing forum in which to raise issues of concern and to suggest strategies for improvement. There are already some focus groups for women academics, but these need to be expanded and systematised, and the outcomes from the forum need to be clearly communicated to academic policymakers.

11. *A review of the existing scholarship system, particularly the King Abdullah Scholarship Program*. The general consensus at the workshop was that while a very significant percentage of the nation's education budget is directed towards fully funded student scholarships, there is no clear evidence that students entering the programme are pursuing areas of study that are of benefit to the Kingdom and that are likely to lead to employment when they return. There was a strong suggestion that – as in any country – such a review needs to be conducted by education experts who are independent of the programme and government, because of the potential for vested interests to distort the review process.
12. *The development of a strong National Qualifications Framework (NQF) for Saudi Arabia that would support consistency of standards and student mobility across institutions and academic programmes of study*. This would bring Saudi Arabia in line with international 'best practice' by incorporating the qualifications from all of the education and training sectors into a single comprehensive framework for accreditation, credit transfer, recognition of prior learning and consistency of standards. The NCAAA currently has a qualifications framework for Saudi Arabia, but this was considered by workshop participants to be too specific to the purpose of accreditation.

Conclusion

The issues, challenges, opportunities and strategy options identified through the exploratory focus group of Saudi and international authors described in this chapter reflect a higher education system that is under significant pressure for change. Much of that change is self-imposed through an overwhelming desire by Saudi universities and academics to establish themselves as 'world-class standard'. Much of the pressure for change is being imposed externally as the international education and economic communities place quality demands on the Kingdom if it wants to become a major participant in the global knowledge economy. Confounding the situation is the strong cultural and religious factors operating to constrain change because of its potential to undermine the long-held and deeply valued traditions of Saudi society.

A report of the workshop outcomes has been presented to the Ministry of Higher Education, and it is the understanding of the authors that the information and recommendations contained in that report are currently under close consideration by relevant institutional and system administrators in the Kingdom. Resolving the

competing tensions within the higher education system will not, however, be an easy or a short-term task, but finding the appropriate direction for the future is absolutely vital, not only to Saudi universities, but to the Kingdom as a whole.

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Chapter 17
Higher Education in Saudi Arabia: Conclusions

Larry Smith and Abdulrahman Abouammoh

Introduction

For more than a decade, the Saudi government has enacted a series of major policy and funding initiatives designed to position its universities – individually and collectively – on the world academic stage. Many opportunities have been grasped, and just as many barriers have been encountered. Much still needs to be done.

In this final chapter, the editors identify five overriding issues that emerged from an holistic analysis they undertook of the information, findings, trends and recommendations provided in the previous 16 chapters: the tension between academic vision and cultural norms; the lack of an appropriate governance model for Saudi universities; developing and sustaining international credibility; maximising opportunities and achievements for women in higher education; and the tension between traditional Saudi approaches to teaching, learning and student assessment and the needs of a global knowledge economy. The chapter concludes by arguing the case for two key priorities capable of leveraging significant and sustainable improvement in the Saudi higher education system in its quest for 'world-class' standards.

L. Smith (✉)
Centre for Higher Education Management and Policy, University of New England, Armidale, NSW, Australia
e-mail: lsmith35@une.edu.au

A. Abouammoh
Centre for Higher Education Research and Studies (CHERS), Saudi Ministry of Higher Education, Riyadh, Saudi Arabia

Department of Statistics, King Saud University, Riyadh, Saudi Arabia
e-mail: abouammoh@yahoo.com

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Issue 1: The Tension Between Academic Vision and Cultural Norms

All of the chapters in this book allude to the significant tension that exists in Saudi higher education between the cognitive, behavioural and organisational requirements necessary to meet the expressed academic vision of 'world class' and the cognitive, behavioural and organisational constraints imposed by cultural and religious norms and traditions. If the Saudi higher education system is to attain and sustain a 'world-class' reputation, then it needs to support significant levels of institutional and professional autonomy for universities and their staff; research that challenges what is and explores new and innovative ideas; innovative approaches to teaching, learning and curriculum development; responsiveness to constructive feedback from students, staff, industry and community; and high levels of collaboration and an open exchange of information, with the global network of universities and academics. Traditional Saudi culture and religious teachings, however, are based on adherence to standards and norms, centralised systems of governance, structured lifestyles and work environments, rote learning of key information and a reluctance to engage strongly in open collaboration and exchange of ideas with the 'outside world'.

This is not, however, an 'either/or' situation. What the Saudis need to determine is the optimal balance between culture and academic vision so that they have the best possible university system while still maintaining the important pillars of their religious-based culture. Until this tension is resolved, it will not be possible to develop a clear, realistic and well-articulated vision for the Saudi higher education system so that it can successfully follow the path it wants for continuously improving the quality and international credibility of its university teaching, learning and research.

Figure 17.1 illustrates this issue by mapping the tension between academic vision and cultural inclination in Saudi Arabia against two continua: learning focus (Islamic/traditional – discipline based) and engagement focus (isolationist – open/global).

Issue 2: The Lack of an Appropriate Governance Model for Saudi Universities

The higher education reform agenda for Saudi Arabia ('AAFAQ') identifies the need to increase autonomy and flexibility of decision-making at the level of individual universities so that they can be more responsive to the needs of their students and communities and genuinely operate in a more entrepreneurial manner, both nationally and internationally. Traditional Saudi culture, however, is heavily focused on compliance and central control, and the Saudi higher education system has been structured around influential central agencies that determine and oversee most

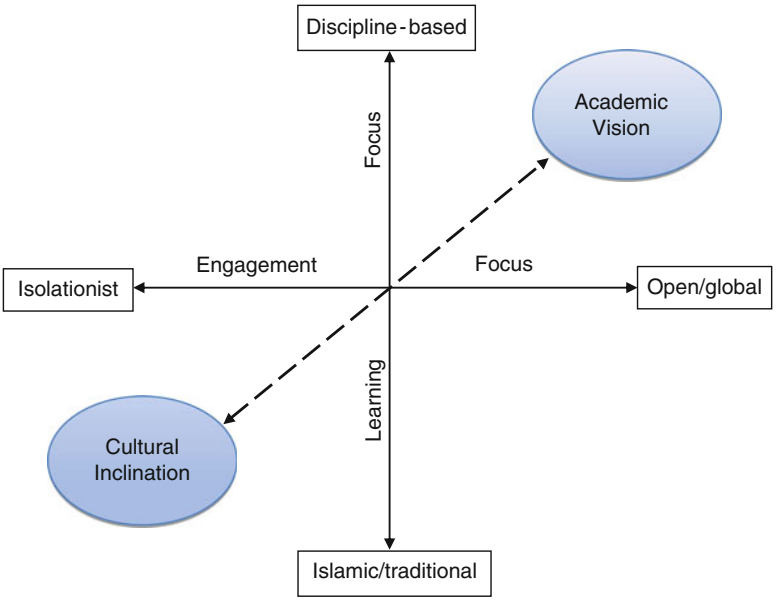

Fig. 17.1 The tension between academic vision and cultural norms

aspects of educational and operational policy for the individual universities. As a result, neither the government nor the higher education community has much experience with the level of institutional autonomy needed by Saudi universities and supported by 'AAFAQ'. In particular, as Einas and Smith identified in Chap. 3, appropriate infrastructure for institutional self-governance is lagging in most universities, so that while decision-making powers are increasingly being delegated to institutions, concerns about the capacity of universities to properly exercise those powers has seen a tendency for central monitoring of processes and outcomes to be increased.

The development of an appropriate and sustainable governance model for Saudi universities is critical if the Saudi higher education system is to reach its goal of 'world-class standard'. Individual universities need the autonomy to make their own decisions about strategically important educational and entrepreneurial initiatives. Alternatively, if the Saudi higher education system is to achieve national objectives and international credibility, then all universities need to adhere to broad government policy agendas and to nationally endorsed standards of teaching, learning and research. The challenge is identifying the optimal balance between institutional and systemic decision-making control in what is still a very young and inexperienced university system.

Figure 17.2 illustrates this issue by mapping the tension between institutional autonomy and central control in Saudi Arabia against two continua: locus of governance (central – institutional) and focus of governance (compliance/standardisation – flexibility/entrepreneurial).

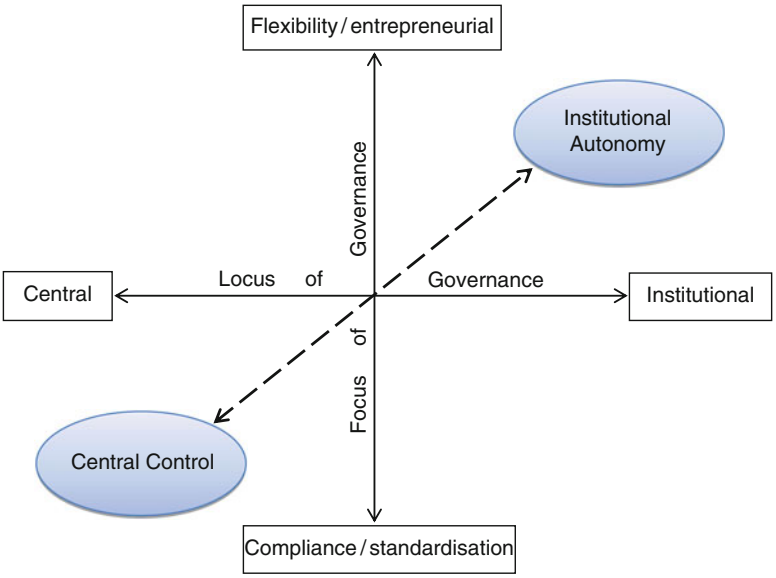

Fig. 17.2 The tension between central control and institutional autonomy

Issue 3: Developing and Sustaining International Credibility

In Chap. 2, Mazi and Altbach argue that the international reputation of a university, and in turn of a higher education system, primarily is measured on the basis of its research because research is the only aspect of a university's work that can easily be measured cross-nationally. In Chap. 9, however, Al-ohali and Shin provide evidence that research activity in Saudi universities, along with the impact of the activity, is low by international standards. Further, Al-ohali and Shin report low academic publication rates for Saudi Arabia, with output even significantly trailing that of many other Middle Eastern countries such as Turkey, Iran and Egypt. It is reasonable to argue, therefore, that if Saudi Arabia wishes to achieve its vision of a 'world-class' university system – one that has a strong international reputation – then it must significantly improve the quality, output and impact of its academic research.

There would appear to be four major reasons for the currently poor research performance of Saudi universities and academics: (1) the lack of any formal and rigorous research training infrastructure, either at the system or institutional level, for Saudi academics; (2) a general lack of engagement in formal mentoring arrangements between Saudi academics and established international researchers; (3) an inability of most Saudi academics to have their work published in high-profile international journals; and (4) the system is still comparatively young, and establishing an international reputation takes considerable time.

Currently, research training for Saudi academics primarily consists of a number of ad hoc professional development workshops or the occasional conference. These

have value, but a much more coordinated and strategic approach to research training is required in order to develop the research skills of all Saudi academics, provide strong support for outstanding Saudi researchers and develop strong professional networks with leading international researchers. The agency that should take the lead in developing and implementing a strategic approach to research training would appear to be the Centre for Higher Education Research and Studies (CHERS) (see Chap. 9). Indeed, in his 2011 evaluation of CHERS, Smith expressed concern that CHERS was too focused on individual projects, rather than contributing strategically to the research effort of the higher education system in Saudi Arabia. He highlighted the important role that CHERS can and should play in leveraging research effort and productivity across all Saudi universities and in fostering the research skills of university academics.

The relatively low publication rate by Saudi academics will be very difficult to address in the short term, because of the complex range of factors involved. Reasons for the relatively low publication rate include: a lack of knowledge and understanding about what is required to report research output in an international publication; difficulties in expressing ideas in English, the major language for international publications; the relatively new emergence in Saudi Arabia of many disciplines in the social sciences as areas of academic strength (internationally, this area accounts for a massive number of publications); inadequate mentoring of Saudi academics by established international academic authors, particularly in the social sciences, including education; and a lack of confidence by Saudi academics to expose their academic arguments and findings to international critique.

Establishing an international reputation for the Saudi higher education system will take sustained high-level research performance over a considerable period of time. This is something that the Saudis need to understand. Currently, they are full of optimism and enthusiasm and expect that things will happen quickly. This is simply not the case. They need a strategic plan for establishing a strong international research reputation that is sustained over time. Trying to rush that process may, in fact, prove to be counterproductive.

Issue 4: Maximising Opportunities and Achievements for Women in Higher Education

Female university graduates represent a major intellectual resource to help drive the future economic and social development of Saudi Arabia. Much has been done to improve access and participation for women in higher education, but as Jamjoom and Kelly identify in Chap. 11, much still needs to be done.

The Saudi cultural principle of gender segregation will make it difficult, but not impossible, to achieve equality of opportunity for women in higher education. Among the important steps that Jamjoom and Kelly recommend could be implemented quickly, while still supporting the traditional role of women in Saudi society, are:

- Universities should ensure that there is equal access to library materials and on-line research facilities for both women and men. At present, the library and on-line research facilities available to female students and staff are generally inferior to those available to males.
- Female academics should be equally involved as men in curriculum planning and implementation in gender-segregated universities.
- Women should have access to the same direct lines of communication as men with their deans and heads of department.
- Female students should have access to quality lecturers with similar levels of qualifications and professional experience as those available to male students.
- There should be regular moderation of course outcomes for both male and female students to ensure that the delivered curriculum for both males and females is comparable.

Issue 5: The Tension Between Traditional Saudi Approaches to Teaching, Learning and Student Assessment and the Needs of a Global Knowledge Economy

Islamic religious and cultural tradition is strongly supportive of rote learning and the acquisition of factual knowledge. Both the school and university sectors in Saudi Arabia reflect this tradition, with a focus on rote learning, didactic teaching approaches and summative norm-referenced assessment. Indeed, anecdotal evidence collected by many of the authors of this book suggests that the great majority of Saudi academics firmly believe that traditional teaching and learning approaches are the best way for students to learn. This might be explained in large part by the fact that for most Saudi academics, this is the only pedagogical paradigm to which they have ever really been exposed.

If, however, Saudi Arabia wants to be an active and effective participant in the global knowledge economy, then it will need large numbers of university graduates who are flexible and creative thinkers, who can recognise and take advantage of opportunities and who are highly effective communicators across a wide range of issues and forums. It is highly unlikely that traditional approaches to teaching, learning and assessment – at least on their own – are capable of delivering that outcome. As Alnassar and Dow note in Chap. 5, what is needed is the use of a range of teaching, learning and assessment approaches that are customised to meet the needs of each student and each element of the curriculum.

Expanding the range of teaching, learning and assessment approaches used by Saudi academics will not be easy and certainly cannot happen quickly. The key issue is that effective pedagogical change can only occur if the academics themselves believe in that change and want it to happen. Much groundwork must, therefore, be done in changing current entrenched beliefs and in demonstrating the success of alternative methodologies. Alnasar and Dow suggest three ways of supporting this effort:

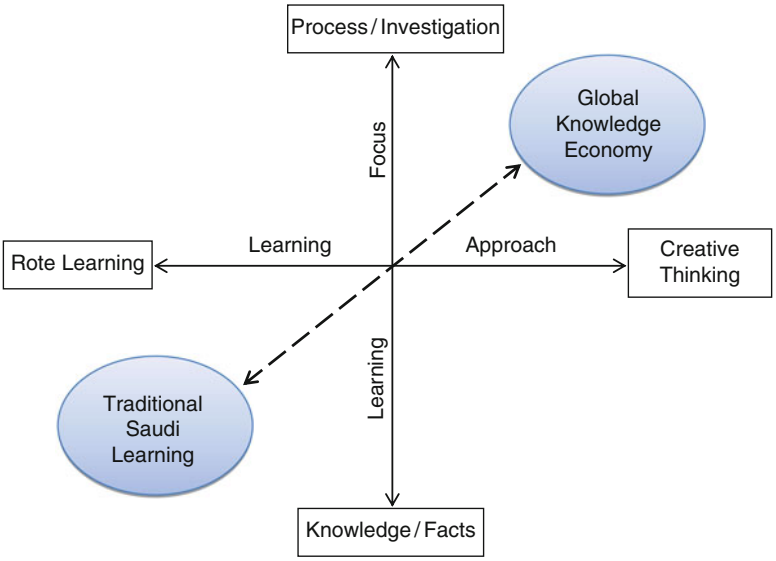

Fig. 17.3 The tension between traditional Saudi learning approaches and the needs of a global knowledge economy

1. The establishment in all universities of a deanship (or similar high-status position) in teaching and learning, as has occurred in King Saud University. This will give teaching and learning the visible priority and importance in the university structure that it needs if attitudes are to change.
2. The establishment in all universities of a teaching and learning centre, the purpose of which is not only to support student learning but also to provide strong professional development support and encouragement for staff. Alnassar and Dow argue that the selection of staff for these centres is critical: they should have a track record of highly effective teaching, of effectively assisting students to learn and of effectively helping other academics to try alternative teaching and assessment approaches. They should also be well-read in the latest developments from around the world in teaching, learning and assessment.
3. The establishment of a National Teaching and Learning Centre to coordinate and support the work of university-based centres. Alnassar and Dow suggest that a national centre should be sponsored and 'owned' by the universities themselves, rather than by the government, because this would reinforce the collegial and professional nature of its work and remove any suggestion of 'direction' that could be counterproductive in changing attitudes.

Figure 17.3 illustrates the tension between traditional Saudi teaching and learning approaches and the needs of the global knowledge economy by mapping these referents against two continua: learning focus (knowledge/facts – process/investigation) and learning approach (rote learning – creative thinking).

Priorities

The authors of this book have identified a wide range of priorities for the Saudi higher education system, many of which are already being addressed as projects or are receiving some other form of government support. The Saudis enthusiasm to address as many of the system's priorities as possible is laudable and undoubtedly is having an effect on the overall quality of higher education in the Kingdom. There is, however, a significant downside in trying to address so many priorities simultaneously, in that: (1) by spreading expertise and resources across many priorities, it is unlikely that individual priorities – including the really important or critical ones – will receive the level and quality of support they need for maximum success; and (2) the projects underpinning the priorities generally will tend to be managed in isolation from each other, thus undermining the important strategic advantage of project integration and prioritisation. We contend, therefore, that it is important to 'prioritise the priorities', and to identify the two or three with the greatest potential to leverage significant and sustainable improvement in the Saudi higher education system in its quest for 'world-class' standards.

Having analysed the information, findings and recommendations presented in the chapters in this book, the editors are of the opinion that there are two overriding priorities for the Saudi higher education system:

1. *The development of a single, achievable, well-articulated, detailed and integrated strategic plan for the Saudi higher education system that is collaboratively developed by all major stakeholders, including the government, individual universities, industry and community representatives.* The strategic plan should include:

   – A clear and widely communicated vision of how the system and the universities within the system will be positioned at various critical times in the future (ideally 10 and 20 years hence)
   – A set of well-defined objectives that must be achieved in order to attain the vision
   – A set of processes and tactics for achieving each of the objectives
   – A detailed plan for adequately resourcing the implementation plan, not only in terms of finances, but also in terms of appropriately qualified and experienced staff as well as appropriate equipment and infrastructure
   – Rigorous mechanisms for providing regular and constructive feedback regarding progress towards goals

   The strategic plan should include integrated strategies for developing and sustaining appropriate governance, leadership, teaching and learning, curriculum development, information technology infrastructure and quality assurance mechanisms for the Kingdom's universities, both individually and collectively.

Currently, Saudi Arabia would contend that it has a strategic plan for its higher education system. The current plan, however, lacks a clear vision (there is no real attempt, for example, to define what 'achieving world-class standard' should mean in the context of Saudi Arabia), involves a large number of loosely worded and overambitious objectives for the system, provides no detailed plan explaining how the objectives will be implemented or resourced and has no rigorous mechanism for providing timely and constructive feedback on performance. It is our contention, therefore, that the strategic plan and the strategic planning process need to be revisited as the most critical priority for the Saudi higher education system.

2. *The development and maintenance of rigorous, comprehensive and compatible systems for the collection, analysis and reporting of performance and progress at both the institutional and system levels*. Currently, the approach in Saudi Arabia appears to be to collect as much information as possible on as many aspects of the system as possible, rather than to strategically focus on the critical information needs of the system. As a result, information collected over time is not always specified in the same way and is not always collected and analysed according to similar parameters. This means that major decisions are frequently made on the basis of information that is of suspect validity. Further, existing information does not appear to be easily accessible by all stakeholders and stakeholder groups, not because of any deliberate attempt to obstruct 'open access', but rather because of data storage and retrieval issues. As a result, system improvement, which depends so heavily on the ability to benchmark and measure progress, is greatly inhibited. It is for this reason that addressing the quality and usability of the higher education data systems is identified as a key priority if the Saudi university sector is to achieve its goals for the future.

As stated in Chap. 1, the implementation of these two priorities would provide the Saudi Arabian higher education sector with a clear, realistic and detailed plan – 'owned' by all major stakeholders – for moving forward towards its vision of 'world class', along with a rigorous mechanism for assessing progress (from individual teaching strategies through to system initiatives) towards the achievement of strategic objectives. The current situation whereby a nebulous vision of 'world class' is supported by a plethora of individually worthwhile but strategically uncoordinated projects, and 'good ideas' would be replaced by a rigorous and disciplined process in which projects and stakeholders would all be working together to progress the system towards a common and mutually understood goal.

There is, perhaps, a third overriding priority, although this comes more as a collegial word of advice rather than as an action: *hasten slowly.* The Saudis are full of enthusiasm and ambition for their system, and this should not be lost. They do need to realise, however, that making the major changes to their system necessary to move it towards international benchmarks will require disciplined and rigorous processes, and above all, it will take time. Letting enthusiasm overpower reality could easily undermine the very things they are so committed to achieving.

Conclusion

Higher education in Saudi Arabia is at a tipping point, defined by the tension between the desire to be a strong and integrated participant in the global economy and world community, and the desire to retain its strong cultural and religious traditions and beliefs that until now have been protected by essentially isolationist policies. The pressures for change in Saudi higher education are enormous, for as the American leadership consultant Max De Pree states: 'We cannot become what we want to be by remaining what we are'. Saudi Arabia openly acknowledges the need for change in its relatively young higher education system and the importance of having its major universities and academics acknowledged internationally as world class. It has allocated a generous budget to its university system, and it is moving to provide relevant systemic agencies and systems to support the development of individual universities and their staff. Further, it has sought to involve international experts as research partners and academic mentors, put in place a major scholarship programme to support international study by Saudi students, stimulated the growth of private universities, provided incentives for national and international business alliances with Saudi universities and enacted processes for significantly enhancing access and participation of women in Saudi universities.

The most significant challenge for Saudi Arabia – and it is indeed a major one – is how to achieve the goals it has set for the country in general, and the higher education system in particular, without undermining the cultural and religious pillars on which the Kingdom is built.

> The art of progress is to preserve order amid change and to preserve change amid order.
>
> Alfred North Whitehead

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