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PROCEEDING REPORT



منتدى الإمـارات للسياسات العامة UAE Public Policy Forum

Acknowledgements

Special thanks to MBRSG Board of Trustees, the Executive President and the Dean for their support of the forum. We would also like to thank MBRSG staff and faculty for their support and their hard work in organizing the events of the forum and especially Salha Bu-Kattara, Mohammed Al Badi, Danah Mahmoud, Priyanka Barau, Shuaib Kunnoth, Yusra Alagha, Morouen Ghezal and Mohammed Al Khatib. We would also like to thank the participants and panelists for their insights and for sharing their research and valuable knowledge with us.

Foreword

This year, the MBRSG launched its first UAE Public Policy Forum as a part of our strategy to facilitate knowledge sharing across government and our mission to advance good public governance through research production and best practice dissemination.

The UAE's orientation to the future, and pursuit of innovative and novel solutions to current and future challenges, requires a transparent and continuous line of communication between the research community and government. Research provides not only in-depth analysis of current issues and evidence based recommendations for how to address them, but also gives us an idea of what the future may hold, what we need to be prepared for, and how we can think creatively to meet future challenges. The role of the forum is to act as a knowledge sharing platform through which the most pressing issues in public policy can be discussed and insights can be shared.

The forum encouraged conversations and interactions between academics, education providers, students, and policy makers in a friendly and open setting to discuss current and new trends in education in the UAE, as well as the challenges the sector faces and possible solutions. Panels, as well as paper contributions were insightful, discerning and addressed vital topics and themes such as Global Education Reform, teacher training, the skill gap, the future of civic education, and educational standards.

The following proceedings report is a concise summary of the events and discussions of the forum and I hope that it will act as a good resource for researchers and policy makers alike.

Dr. Ali Al Marri Executive President Mohammed bin Rashid School of Government

UAE Public Policy Forum Proceedings Introductory Remarks

Dr. Raquel Warner

Since the beginning of the Digital Age, the world has been challenged to reform education systems in a manner that is relevant to 21st century learners and societal needs. Academics, researchers and policy makers share a common passion to see education as a key enabler for economic competiveness, human capital development and improved governance. Accountability from private and public sector stakeholders in education is at an all-time high and it is imperative to create a forum that encourages open discussion, high quality scholarship and lively debates on the issues that will have specific impact on the MENA region and the wider global context in the future. The Mohammed Bin Rashid School of Government, in its role as a premier research and Post Graduate educational institution for Public Policy, Innovation Management and Public Administration, felt it was necessary to create a scholarly platform for sharing of best practices and promoting models for good governance. By harnessing this shared knowledge, we will support the continued development of the UAE through the current National Agenda Goals 2021 and beyond. With this in mind, the first UAE public Policy Form was launched on March 12, 2017.

The UAE Public Policy Forum brought together major stakeholders from the government and the private sector to chart the future directions of education policy. The forum gave voice to ministry officials, regulators, private investors, practitioners, researchers, academics, policy makers and students from various dimensions of the education sector with inter- disciplinary interests so that pathways to future education policies and practices can evolve. Over two days of candid discussion panels, academic concurrent sessions, focus group round tables, exhibitions and interactive workshops, a number of salient points emerged to provide guidance as we navigate future policy making that will be adaptive to the paradigm shifts that are taking place in the education sector. The recurrent themes in the forum were the developmental needs of teachers, the urgency for a national and contextually relevant benchmarking process as a precursor to international standard, the development of vocational training ethos, special needs education provisions, life-long learning initiatives and the role of the private sector in capacity building within the education sector.

As we seek to optimize the deliverables from this conference, the Mohammed Bin Rashid School of Government is committed to working assiduously with the public and private sector to address any gaps in the implementation of the National Agenda 2021 goals for education. This will be achieved through ongoing research, executive education training and consultation projects with key stakeholders in the education sector. To effectively operationalize the vision of our

leaders the UAE Public Policy Forum has documented salient ideas and best practices from the participants. With the appropriate availability and deployment of resources, the objectives of designing education policy that will chart the course of an optimal future can be fulfilled to the satisfaction of all stakeholders. Through collaboration, innovation and creativity, the required policy development that will facilitate a holistic and positive education sector can be a realized.

This document represents a summary of the events that took place during the first annual UAE Public Policy Forum. Organized along the forum's five pillars, it offers conclusions and recommendations for the way forward.

Education Policy Dialogue: Effectiveness of Education Reforms



Panelists:

HE Jameela Bint Salem Al Muhairi, Minister of State for Public Education

M. Ramesh, UNESCO Chair on Social Policy Design in Asia

Dr. David Johnson, Education Policy specialist Oxford University

Dr. Senthil Nathan, Director Edu Alliance

Dino Varkey, Managing Director GEMS Education

Moderator: Guy Burton, Assistant Professor MBRSG in public policy

Global education reforms have placed new demands on educational systems. The rapid pace of change towards a knowledge economy demands the development of flexible skillset and abilities among learners. The panelists discussed these global reform processes and their national applications, with a particular focus on international assessment tools like TIMSS and PISA. ¹The panelists in this session included Her Excellency Jameela Bint Salem Al Muhairi Minister of State for Public Education, M. Ramesh, UNESCO Chair on Social Policy Design in Asia, Dr. David

1. TIMSS (the Trends in International Mathematics and Science Study) and Programme for International Student Assessment (PISA)

Johnson, Education Policy specialist Oxford University, Dr. Senthil Nathan, Director Edu Alliance, Dino Varkey, Managing Directors GEMS Education and was chaired by Guy Burton, Assistant Professor MBRSG in public policy.

Global assessment standards like TIMSS and PISA have played a large role in global educational reform efforts. These global measures are meant to act as guidelines that draw attention to areas of interest. In this way, international benchmarking of performance can help improve educational quality by providing a roadmap for national reform. However, regulatory systems like PISA are misunderstood to the extent that they drive national agendas; they are designed as comparative frameworks that are meant to assess skills and are not in themselves policy frameworks. They can be used as an informative measurement tools that highlight strengths and weaknesses. The focus of the session then, was on the utility of such measures and how success is found within the conversion of global reform policies and standards into national practices and educational policies by strengthening national standards.

According to Dr. David Johnson the importance of standards like PISA lies less within the rankings and more within the wealth of performance data that can be correlated with socio-economic and demographic realities. Data from these assessments can be collected, analyzed and used to guide the setting of strong national targets that are negotiated at the local level. The targets would be sensitively negotiated and not imposed externally, which would enhance performance by taking into consideration the local context and enabling conditions for success.

HE Jameela Bint Salem Al Muhairi, stressed that the UAE the government has worked to align its national agenda to global benchmarks like the Sustainable Development Goals. While global reform agendas and measures are important for benchmarking success, for the UAE context in particular they may obscure more than they illuminate. Shared global issues can be targeted with global best practices but unique national issues need a holistic and localized approach. According to M. Ramesh the real drivers of high performance should be sustainable national benchmarking practices and reforms.

On this note Dr. Senthil Nathan emphasized that while infrastructure in the UAE is extremely well developed, the educational system is still fairly young and thus comparisons with the OECD countries is not necessarily useful. The country is resource rich but the access and equity issues faced are of a different nature to the OECD countries being used a benchmark. On a local level HE Jameela Bint Salem AI Muhairi explained how the national agenda has been highly focused on TIMSS and PISA and the aim to be within the 15-20 top countries. It is a single target for all schools to help achieve, but she believes it will not be enough to reach the goal. Instead it is important for students to grasp the skills required within these global standards. In reference to this, the UAE has adapted global standards and practices in order to expand quality, access, and equity for all, especially for students who are female, rural or have disabilities. Dr. Senthil Nathan elaborated further by noting that due to the demographic and economic realities the government has focused on providing all necessary resources to ensure that every Emirati citizen has what they need to succeed to the best of their abilities. Upon graduation citizens must compete with a



large expatriate population within the globalized workplace so in order compete the UAE needs to develop specialized programs and educational standards. The government must establish a minimum standard of education for public and private schools to aspire to that ensures access, quality, and equity in the classroom standards.

Recommendations:

Equip ministries of education with the tools and human capital needed to analyze the wealth of data generated by international assessment tools like PISA so they can use it to inform policy making ensures that areas of weakness are adequately covered by national strategies.

- Design appropriate output indicators that can help pinpoint what struggling educational institutions need to succeed. this will form the basis of providing specialized support, ensuring more equitable outcomes.
- While indicator testing and benchmarking is important, it should not be very frequent. The UAE educational system is still young, and the development arc needs to be appreciate and allowed to run its due course.
- The government should produce holistic standards for assessment that are more accurate. While adhering to global assessment, they are too narrow and limited to provide a clear overview.

• Establish a government exchange program that sends the UAE's best teachers to high performing countries in order to learn and share best practices.

Concurrent session: Global Standards of Excellence

Participants:

Mohammed Amir Samimi: Education Language Policy in the UAE Higher Education Institution Soohyun Jeon, Brian Jaewon Chung and Natasha Ridge: New Framework for Education Reform: assessing a school culture in RAK

Hanan Taleb, Solomon David, Serdio Scatollini, Amal Al Qallaf, Huda Shammari and Milton George: An Investigation into Educational Learning Mobility Among the GCC

Clara Morgan and Ali Ibrahim: Impact of International Student Assessment on Education Quality in the UAE

The process of quality management in the education sector has taken on increasing significance as privately funded education options outstrip public education provisions, especially in the GCC region. In the United Arab Emirates, the number of agencies tasked with ensuring quality standards are numerous and they vary from Emirate to Emirate and across the various sectors of education. For example, the Knowledge and Human Development Authority regulates education in Dubai, Abu Dhabi Education Council regulated education inn Abu Dhabi, Ras Al Khaimah Education Zone has jurisdiction over RAK and Sharjah education council regulates provision in Sharjah. Each of these entities use different standards of regulation and institutions under their regulatory governance must meet the unique requirements. As institutions attempt to comply with the standard, questions arise about the relationship between quality improvement, quality assurance, and benchmarking. At the K-12 level, schools adhere to their local regulatory bodies, but must also demonstrate how they are complying with the National Agenda framework that has been set at the Federal level. Standards in the UAE National Agenda 2021 are benchmarked against international standardized test such as PISA, TIMMS and PIRILs.

The success of the UAE in becoming a first rate education system largely depends on the extent to which the nation uses the benchmarking process to arrive at a model of education that suits the local context. In the meantime, stakeholders are also concerned about the current quality of the education provision and the associated K-12 school fees in the UAE. In 2016, an HSBC report revealed that UAE parents spent 140% more than the global average spend on education. The global spend stood at US\$7631, while UAE parents were spending US\$18,360. It comes as no surprise then that parents demand another level of quality compliance and accountability.

This concurrent session took on these issues by discussing the impact of international student assessments on education quality in the UAE. Clara Morgan collected and analyzed data from 56 interviews with government official and schools and data from TIMS results to understand the impact of "test based accountability" on school quality. She found that the complex factors that impact educational quality cannot be diagnosed using the TIMSS and the PISA – factors such as bilingual language abilities; knowledge in math and science; and student motivation and parental involvement. Instead, she suggests, an "intelligent accountability" model should be adopted instead of the "test based accountability model".

Mohammed Samimi takes on the issue of educational language policy and the impact of language policy on Emirati undergraduate students in UAE universities. He found that Emirati students found English Medium Education to be a deterrent to their academic achievement. He also found that students were overly dependent on translation software and relied heavily on writing their notes and annotations in the Arabic language. Additionally, vernacular Arabic rather than standard Arabic was found to be predominant among these students.

Hanan Taleb et al., investigated educational learning mobility in the GCC. The authors used data on the global flow of tertiary-level students and a survey of students in the Gulf region to study the impact of internationalization and foreign universities on educational learning mobility. The results found that the UAE was the favourite destination for those in the rest of the GCC countries. Emirati students and Kuwaiti students showed a majority interest in studying in their own countries.

Finally, Soohyun Jeon and Biran Chung's paper seeks to identify the key determinants of school culture in Ras AI Khaimah and understand the ways in which those determinants manifest in school and how to improve their outcomes. Based on a survey as well as interviews with teachers, parents, administrators and students, Jeon and Chung concluded that current school culture in RAK did not provide fertile ground for fostering learning and achieving assessment targets. Teachers reported being overwhelmed and over-worked, while students were disengaged. There was also a difference in expectations between students and teachers which hindered progress in these schools. The authors suggested that schools clarify responsibilities for aspects of school culture that required collective responsibility, institute a clear system of rules and regulations, increase capacity for individualized attention to students, and create a clear incentive system for teachers among others.

Recommendations:

- 1. Ministry of Education should adopt more holistic assessment and accountability tools in addition to the TIMSS and PISA in order to ensure that all determinants of school quality are being assessed
- 2. Intensive English language education must be instituted in middle and high-school curriculums in order to ensure that poor English language skills do not hinder student achievement at the university level.
- 3. The role of Arabic language in tertiary education needs to be increased in order to accommodate students with poor English language skills ensure that students can maintain their Arabic language skills and therefore their cultural heritage.
- 4. School culture and positive learning environments must become a part of the school assessment criteria and teacher training must train teachers on how to foster environments conducive to creativity and learning.

Education Policy Dialogue: Paradigm Shift in UAE Education

Panelists:

HE Hussain bin Ibrahim Al Hammadi, Minister of Education HE Dr. Ali Rashid Al Noaimi, Director General of Abu Dhabi Education Council HE Dr. Abdulla Al Karam, Chairman of the Board of Directors and Director General of KHDA Professor Mohamed Albaili, Vice Chancellor of United Arab Emirates University

Moderator: Dr. Ali Al Marri, Executive President of MBRSG

In the last decade, the UAE has seen massive overhauls of its education system, the most recent of which are the reforms announced by HH Sheikh Mohammed bin Rashid Al Maktoum and enacted in the Northern Emirates and Dubai. Abu Dhabi too has delivered its fair share of reforms in its K-12 schools across the emirate of Abu Dhabi. On a federal level, the National Agenda has set the benchmarks for the education sector, with specific goals set for K-12 schools in the country.



The unification of the Higher Education and Education ministries in the last year or so, promised to make the education sector as a whole more agile, well coordinated, and efficient. In October 2016, the ministry introduced a new curriculum into UAE public schools.

The UAE, like many other countries is enacting reforms in a competitive world that requires countries to equip their young people with the appropriate skills and competencies to contribute to new economies. At the same time, education has a less utilitarian function, which is to raise conscientious, happy, and intelligent citizens. While the human capital model of education persists, and the education sector is subjected more and more to global neoliberal forces, this panel examines how these forces play out in the UAE, as the education sector tackles an ambitious reform agenda.

In response to these issues, panelists began by discussing the nature and value of Public Private Partnerships (PPPs) in the education sector. Panelists acknowledged that private sector schools were a strategic partner and indeed much needed in a country with a majority expatriate population. As HE Hussaim AI Hammadi pointed out, the future of the knowledge economy in the UAE is dependent on providing quality education for nationals and expatriates alike. Without the private sector, noted H.E. Dr. Abdulla AI Karam, it would be impossible to meet demand for education.

In relation to the challenges associated with private sector education, alignment of curricula, and high school fees were identified as the most salient issues. HE Dr. Ali Al Noaimi stressed that Arabic language and national history and civic education is lacking in the private schools and needs to be prioritized and professor Mohammed Albaili said that there was a need for alignment between private school curricula, whether American, Indian, British, French or otherwise, and national curricula.

HE Abdulla Al Karam, acknowledged that supply and demand mismatches were an issue in the past in Dubai, whereby there were long waitlists for private schools coupled with high fees. Today, there has a push to increase supply in the market in order to stabilize the price of education.

The panel went on to discuss the National Agenda and its ambitious education targets. In response to these targets, the Ministry of Education, which recently merged with the Ministry of Higher Education, launched the "Modern Emirati School" initiative. This initiative overhauls national curricula, as well as introduces new and improved assessment tools, learning tracks, and teacher training initiatives. The ministry will soon be launching a teacher training center and is currently working alongside national universities on reforming and improving teacher training programs. Additionally, the ministry launched a center for big data analytics, which will aid with decisionmaking and future foresight efforts.

HE Dr. Ali Al Noaimi warned that the real challenge to the National Agenda is public resistance to the changes that it entails stating that the public, schools, and teachers should not be so weary

of the massive changes in the education system because the challenges of the information age necessitate an overhauled education system. In order to achieve the national agenda, all stakeholders must work together in a sustained fashion.

Professor Mohammed Albaili added that when students and parents are challenged to meet high standards, they rise to the occasion. Using the new foundation year reforms as an example, he stated that when the ministry limited students' abilities to remain in foundations for more than one year, students, who normally spent two or more years in foundations, were able to complete it in just one.

HE Abdulla AI Karam added that what the National Agenda was able to give the UAE was appropriate and unified assessment tools that are both local and global in nature. This allowed the UAE to assess its current position in relation to other countries around the world and to adjust its reforms accordingly. Whether good or bad, rankings and assessments allow schools and countries to understand where they are, which reforms are working and which are not.

In predicting the future of education in the UAE, the panel predicted an education system on par with excellent education systems all over the world, able to produce competent teachers, and 21st century students, and able to keep up with the demands of the information age and the knowledge economy.

Recommendations:

- 1. Private schools must be incentivized to improve Arabic language education. This can be done through including additional provisions in inspection criteria that reward schools with outstanding Arabic language instruction and penalize those who do not give it adequate resources or attention.
- Subjects like Arabic language and social science education, which have been sidelined in favor of subjects like math and science, can be encouraged through extracurricular activities. The government might consider a nation-wide Arabic language essay and poetry contest to encourage students to engage with the language.
- 3. School fees in the private sector need to be better regulated to ensure stability and adequate access to education for all students. This can be done by encouraging a number of not for profit schools to enter the UAE market, limiting and decreasing the permissible percentage of fee increases, and rewarding schools that offer scholarships and other tuition aids.
- 4. Work needs to be done by schools and the government to raise awareness about the National Agenda goals and the importance of 21st century skills and school reforms for student success. This requires a grass roots effort in which representatives of the MOE or ADEC engage actively with groups of parents on school campuses. This will ensure that the concerns of parents are adequately heard and that parents can be better educated about the purpose of school reforms.



5. Critical thinking and analytical skills must be encouraged through social and cultural initiatives in addition to school reforms. National coding, puzzle and debate contests that are endorsed by government, funded by private sector partners, and offer cash or scholarship prizes will raise the status and prestige of these skills and encourage a more analytical society over time.

Concurrent session: The Role of Civic Education

Participants:

Tracie Scott, Joseph Nallor, Christopher Hopchin: Don't Believe Everything You Read: The Real Requirement of 21st Century Education

David Keane and Tenia Kyriazi: Education in the UAE and the Relevance of International Human Rights Law

Linzi Kemp and Linda McLoughlin: The Influence of Professors and Curriculum on Career Choices: Multicultural "Millennials" in the UAE

The responsibility for education of the youth is shared among parents, schools and society. Increasingly, researchers are reporting that breakdown of the family structure and other social pressures on families globally, have resulted in schools being given added responsibility to inculcate values and proper ethics as part of their educational provisions. Regardless of the ongoing debate about where kids learn how to be good people, teachers now have increasingly pivotal role to play in shaping the moral character of students. Arguably, while schools cannot assume full responsibility for civic education, they should be equipped with resources to provide effective civic education from K through to grade 12. Instruction in civics and government will provide students with a basic understanding of civic life, politics, and government. It can also assist students in understanding political systems of their countries and the wider global context.

Civic Education can provide a framework for students to understand the rights and responsibilities as citizens. In countries like Canada, the instruction in civic education is augmented by learning experiences outside of the classroom that enrich students and allow them to come to a better understanding of citizenship. In this process, education helps students to build their character, not just academically, but socially. Many learning tasks can promote moral and civic character development in students. Through class debates, student government, service learning activities, clubs and sports activities students can learn civility, courage, self-discipline, persistence, concern for the common good, respect for others, and other traits relevant to citizenship.

In the UAE Civic education has been introduced as part of the recent reforms announced by the Minister of Education in 2016. The curriculum that issued in public school will now be more holistic and will include four main pillars: character and ethics, individual and community, civic education and cultural education. The role that parents will play in ensuring continuity at homer is crucial and so it is important for both home and school to be sending the correct message to children on the qualities of moral character.

This concurrent session discussed several aspects of what might be considered civic education. In her paper, Education in the UAE and the Relevance of International Human Rights Law, Tanya Kyriazi discussed the right to education as it is articulated and interpreted in the UN "International Bill of Rights". As a social and cultural right, education is classified as an empowerment right as it equips individuals with the tools and knowledge to access other rights – economic and civil rights for example. The UAE has engaged and continues to engage with a number of UN human rights conventions including Convention on the Rights of the Child (CRC), Convention on the Rights of Persons with Disablities (CRPD), and the Convention on the Elimination of all form or Discrimination Against Women (CEDAW). The reports resulting from reporting cycles related to CEDAW and CRC present some substantive recommendations around education such as increasing the underrepresentation of women in non-traditional fields of study. Increasing access to education for non-nationals and stateless children, and using the education system to encourage and promote positive non-stereotypical portrayals of women. The authors recommend that the UAE enter into a more detailed discussion with UN bodies in relation to the right to education, raise awareness about human rights law instruments and their implementation in the UAE, integrate human rights education into the curriculum, ratify the ICESCR and act as the regional and global leader on the right to education.

In their paper "Don't believe everything you read", Nallor, Hopchin and Scott argue that one of the most important skills for the 21st century is teaching students how to appropriately navigate online information in a critical fashion. They argue that the traditional analytical and critical thinking skills need to be applied to social media and online materials. Teaching students how to interact through social media and how to consume online information responsibly should be a part of school curricula. They argue that this is indeed one of the most important 21st century skills.

Finally, in hre paper The Influence of Professors and Curriculum on Career Choices, Linzi Kemp discusses the power that professors and curricula have over student choices in a private

university in the UAE. Her research shows that due to the nature of expatriate life, most students have little to no exposure to the world of work before they come to university. During their time as undergraduates, few work and most are exposed to employment only in their junior or senior year when they embark on their internships. Therefore, for many students, professors act as an important source of information on industry and their teaching as a proxy for work experience. For that reason, she argues, professors must understand this great influence that they have on students and on student career choices and that career services and professors must work together to better guide students as they decide their future career paths.

Recommendations:

- 1. Governments and schools must integrate human rights language and concepts into civic education curricula. This will encourage students to become more conscientious members of the country and the world and will also equip them with the tools and the terms to defend and access their own rights.
- 2. The UAE should become a world leader on education and educational access by enacting reforms that not only improve educational provision and employ innovative educational methods, but also by increasing educational access in the country to marginalized groups such as stateless children or children of low-income families.
- 3. In addition to internships and on the job training, students in universities and schools must be required to volunteer in their communities and with organizations that fulfill social need. This will encourage empathy, compassion and a sense of civic duty.

Education Policy Dialogue: Capacity Building through Education

Panelists:

H.E. Marwan Ahmad Al Sawaleh, Undersecretary of the Ministry of Education Mr. Frode Mauring, Resident Representative UNDP Prof. Ahmar Mahboob, Associate Professor at University of Sydney Mr. Ashwin Assomull, Managinh Director at Parthenon EY

Moderator: Mr. Francis Mathew, Gulf News Editor at large

Capacity building (CB) is crucial for achieving and sustaining improvement and reforms in educational institutions. It is described by Fullan (2005) as, "developing the collective ability – dispositions, skills, knowledge, motivation, and resources – to act together to bring about positive



change" (p. 4)². With the rapid changes of globalization and global competitiveness, the UAE has realized the need for better educational systems that cater to local and global necessities. This panel discussed CB through education in the light of the rapid changes of the 21st century, an essential process for developing and sustaining successful education.

The panel discussed a number of factors in CB that covered local and global perspectives on education, linguistic planning, employability, and knowledge production. H.E. Al Sawaleh stressed the urgency of achieving serious and successful reforms in education to reach the targets set by the National Agenda 2021. Currently, the UAE is behind reaching those targets. Developing CB necessitates a consideration of local contexts in which the interplay of external (macro) and internal (micro) characteristics shape educational reforms and improvements. On the local level, H.E. Al Sawaleh stressed that the educational system in the UAE must increase community and parental involvement, provide training for teachers, promote strong school leadership, and embrace 21st century skills and technologies. On the other hand, a global perspective on education was provided by Mr. Mauring, who emphasized the importance of the global changes that are affecting all countries around the world, such as climate change and conflicts. According to Mr. Mauring, education should teach students how to make informative and eco-friendly decisions as consumers, commuters, and citizens, and promote values of peace and tolerance among the young generations.

The importance of brain-gain and knowledge production in the UAE was stressed by Mr. Assomull, because it ensures getting the best brains and equips students with the knowledge and skills to make them job-makers rather than job-takers. The responsibility of closing the gap between education and the market is a burden that has to be shared by all stakeholders, including schools, universities, employers, parents, and students. Early intervention should be made by employers who know the occupational needs of the current market and the predictions for future ones.

The cultural and linguistic variety in the UAE poses an additional challenge, as Prof. Mahboob stated. Although Arabic is the official language of the UAE, there is a concern that it might be under risk. Many children who come from Arab backgrounds acquire English as a first language and Arabic as their second. Some of these children even have difficulties speaking in colloquial Arabic. Despite the efforts to support Arabic learning in school curricular, it is impacted by the disconnection between school and post-school language usage, as Prof. Mahboob maintained. If the target is to create a cohesive society through Arabic, then it has to be linked to what students have to do beyond schools, particularly in the transition to the workplace. H.E. Al Swaleh argued that transferring knowledge to students through Arabic will not hinder their advancement in labor market, since the UAE caters for a multicultural and multilinguistic market.

Developing effective bilingual education is not simple. The complexity and uniqueness of the macro and micro factors that govern a given bilingual context is essential for bilingual planning. In the UAE, where Arabic is the official language, English is the status language and the "default

2. Fullan, M. (2005). Leadership and sustainability: System thinkers in action. Thousand Oaks: Corwin Press.

lingua franca for communication among all groups in most public spaces" (Badry, 2015, p. 199)³. Arabic has been introduced by the government in schools as a mandatory requirement, but practically, the majority of schools does not ensure high quality Arabic teaching. STEAM subjects, which are deemed the most important and prestigious subjects, are taught mainly in English. Symbolically, students will perceive English as the language of science and innovation, and ultimately, the language of the future. In addition, parents play an influential role in either promoting or hampering the success of bilingual education programs. Many parents prefer that their children receive English teaching at a very young age, because they believe that it will secure them a better educational future.

As new societal, economic and individual needs emerge, educational systems must be flexible enough to build capacities for embracing and working with rapid changes. The success and failure of policies implementation is based on the interconnectedness of local factor and empowerment of local actors. On the other hand, CB can be damaged by improvement policies with unrealistic expectations, lack of stakeholders' involvement, and hierarchical and traditional leadership in education. The future prospect of CB in the UAE should focus on STEAM education through developing an interdisciplinary STEAM ecosystem-including schools, families, businesses, and community members.

 Badry, F. (2015). United Arab Emirates: Searching for an elusive balance in bilingual education. In P. Mehisto and F. Genesee (Eds.), Building bilingual education systems: forces, mechanisms, and counterweights (pp. 214-197). Cambridge: Cambridge University Press.



Recommendations

- Early involvement of the private sector in students' career education should be promoted. Such involvement can offer various opportunities for students to explore their potential and find a career path that satisfies their aspiration. Moreover, industries can benefit from such initiatives, since they can direct talent to cater to their future occupational needs. The mechanisms for early involvement in career education include: offering internships, giving talks at schools, hosting field trips, and sponsoring competitions and career fairs. Furthermore, educational institutions should raise students' awareness about the various opportunities that are available for career and skills development offered by the private sector.
- The success of policy reform implementation depends largely on ensuring that local actors (such as policy makers, school leaders, teachers and parents) have access to different sources of knowledge and sufficient capacity to meet the reforms' demands. Without mediating between local level actors and upper level government policy makers, policy reforms risk being derailed at the level where positive results matter the most: classrooms. Therefore, it is essential to raise teachers' awareness and acceptance of any proposed reforms, since they can be the actors of change at the classroom level. In capacity building planning, gathering data and feedback for further development is a process that ensures adaptively to constant changes at the local level. This cannot be done properly without helping school leaders to understand what kind of useful data and feedback they should gather from teachers, parents, and students, and how to communicate them to upper level policy makers.
- In accordance with the UAE's Vision 2021 to achieve knowledge-based economy, knowledge becomes the driver of productivity and economic growth, which highlights the role of information, technology and learning in economic performance. Within this vision, promoting innovation and research becomes more key contributor in building capacity in economy and education. Planning for knowledge production in the UAE can benefit from developing new areas and opportunities for post-graduate education programs to attract the best talent. Offering scholarships to international students helps in bringing a diversity of perspectives, experiences and languages that enhance the university experience for all students.

Concurrent session: Celebrating Innovation in Education

Participants:

Krishnadas Nanath: Technology in the Classroom: Is that your style?

Soly Matthew Biju: Approach to Teaching Advanced Programming

Sufian Forawi: Theoretical Framework for Effective STEM Education: The UAE Context

Tarik Ozkul: Patent Ehanced Learning as a Tool for Increasing Innovation and Motivation Among University Students

Students today operate in a globalized, hyper connected world and as such, they require an education and learning environments that are compatible with this reality. In order to provide that,

educators must constantly introduce innovations within the processes, programs, and approaches they use. In recent years the concept of innovation, particularly in education, has been closely linked to technology. Yet, innovation is about more than that; it is about using technology creatively to empower students, to foster new skills, and to transform education.

The concurrent session titled 'Celebrating Innovation' focused on such innovative approaches to education. Mainly, the session focused on two concepts: how to solve pedagogical challenges within the classroom and how to address the challenges in applying learned material to the outside world. This requires bringing technological advancements into the classroom and innovation in the design methodology of courses. These innovations helped prepare students for the application of these concepts on a practical level, fostering the skills and know how required for building a knowledge economy, and the workforce of the future. Innovative approaches to pedagogical problems include introducing technological advancements into education through the use of digital collaboration platforms or tech enabled classrooms. Yet fostering innovation and its enabling environment within the design of educational frameworks is also key; this can be done through interdisciplinary approaches and their practical application within the classroom.

In his talk 'Technology In The Classroom: Is That Your Style?' Krishnadas Nanath discussed the effects of using collaborative technological platforms to address the difficulties with assessing student time management and ensuring equity within group work. He attempted to enhance student engagement, promote participation and equal opportunity for all learners by creating a framework to categorize available digital platforms along a spectrum considering two domains of usage- interaction and privacy. The result was the reduction of complaints about 'free riding', improved time management, and a strong preference for using digital platforms in the classroom. This experience shows that age old dilemmas facing educators and students can be remedied using collaborative digital platforms that provide a win-win for both parties. In this way, the best possible outcomes can be achieved in that students remain engaged with the material, the instructor, and with each other.

Concurently, Soly Matthew Biju discussed the merits of tech enabled interactive learning in teaching programing languages like Java in her talk 'Approach To Teach Advanced Programming'. She assesses the difficulty of learning an applied subject like programming can be overcome by allowing learners to practice within technologically equipped classrooms. As a result of introducing the change in teaching methodology, she found an improvement in understanding of core concepts taught in the course. Better outcomes can be achieved by altering traditional teaching methodology to suit the material being taught. In this way, teaching methods must be adapted to suit the material, and this can be done by using technology to provide enabling environments for students to grasp concepts that have practical applications.

On the other hand, teaching material with a practical application presents challenges that technology cannot solve independantly, particularly when studying and practicing a subject in a real world context is vastly different. Preparing students for such realities requires innovation in the methodology and curriculum of coursework. One such method is incorporation of STEM⁴ education into school curriculums as discussed by Sufian Forawi in the 'Theoretical Frameworks Of Effective STEM Education: The UAE Context'. Innovation and science literacy are needed for developing a knowledge based and globalized economy of the future, he argues that in order for the UAE to meet its advanced strategic national education goals there needs to be greater support for STEM education. What separates STEM from the traditional math and science education is that it focuses on the real world application of subjects taught. This enables the development of problem solving skills, computational and critical thinking, and encourages innovation. Thus, the introduction of new subjects and approaches that are the basis of the developing knowledge economy into all aspects of education helps foster needed skills.

As such, the study of real world applications of taught material can go a long way in providing a more in-depth education. In 'A Seven Year Long Unique Experiment In 'Patent Enhanced Learning' As A Tool For Increasing Innovation And Motivation Among University Students' Tarik Ozkul discussed the introduction of such active learning techniques in higher education. In an attempt to educate students on the most advanced technology available today, and how to replicate it, the study of industrial patent applications was introduced into the curriculum. Students were able to study the real world application of course concepts and the method in which technological breakthroughs become a reality. As a result, students believed it helped enhance their understanding of the concepts, the industry, and it fostered their entrepreneurial spirit.

Recommendations:

- Focusing on advancing interdisciplinary subjects, like STEAM, by pushing for national curriculum reform is key. Students benefit from interdisciplinary learning that brings together different subjects in a practical way, developing skills required to meet the UAE's national strategy goals of transitioning to a knowledge economy.
- Using technology in the classroom is necessary for providing a learning enabling environment by setting national standards for smart education. Students must learn in an agile and techenabled environment that reflects the world they live in and prepares them for entering the labor market.
- Educational reform and advancement requires corresponding reforms in teaching methodologies in order to be effective. This can be achieved by ensuring that teachers become lifelong learners, and providing consistent teach training on new methods and models.
- Encouraging resource sharing among educational institutions ensures maximum investment return. By establishing school consortiums to facilitate this process, equity and access issues in education can be overcome.

^{4.} STEM (Science, technology, engineering and mathematics) is an interdisciplinary study where real-life and practical application of the subjects is encouraged within the classroom.

Education Policy Dialogue: Bridging the Skills Gap

Panelists:

HE Dr. Ahmed bin Abdullah Belhoul AI Falasi, Minister of State for Higher Education HE Ahmad Abdulla bin Byat, Vice Chairman and Managing Director of Dubai Holding Dr. Essa AI Bastaki, President of University of Dubai Dr. Mohamed Yousif Baniyas, Executive Director of ADEC HE Nasser Thani Juma Mohammed AI Hamli, Under-Secretary of the Ministry of Human Resources and Emiratisation for Emiratisation Affairs

Moderator: Professor Raed Awamleh, Dean of MBRSG

The WEF's Human Capital Report (2016) predicts that, in the developing world, 25,000 new workers will enter the labour market until 2020. Meanwhile, over 200 million people globally will



be out of the job. At the same time, there will be a shortage of 50 million high skilled workers in that time⁵. These alarming numbers point to a growing skill gap whereby the enormous number of new workers entering the labour market is not equipped to fill the high skilled roles available.

For nearly a decade, there have been copious reports of skill gaps amongst youth, particularly in the Arab world⁶. However, as technological advancement becomes more rapid, it has become clear to educational leaders all over the world that incremental education reform is not enough and that fundamental shifts in the ways in which we teach and prepare youth for the future have become necessary. According to the WEF, 65% of children entering primary school today will work in jobs that do not yet exist. This indicates not just a need for knowledge acquisition during the traditional schooling years, but also for lifelong learning skills. The world of information overload, big data and data analytics requires young people to have superb critical thinking and analytical skills and education systems to be easily adaptable, efficient and able to cope with rapid change. Moreover, as the world becomes ever more globalized and interconnected, young people are required to have interpersonal and communication skills that will enable them to function in this new world of work.

What compounds these issues further is that labour markets in much of the Arab world, and indeed in the UAE, are not always able to provide opportunities for highly skilled workers and for students with technical backgrounds and expertise. While the skill gap problem may appear to be a problem of labour supply, it is also a problem of labour demand. The UAE, like many of its Arab counterparts, must work hard to provide for its youth not just a high quality education, but high quality employment opportunities as well. This requires the continued push to diversify the UAE economy and to support entrepreneurial ventures.

It is from this starting point that our panelists began discussing the nature of the skills gap in the UAE.

HE Dr. Ahmad bin Abdullah Al Falasi stressed that in order to better understand and tackle the skill gap, the Ministry of Education engages directly with the private sector through a new department dubbed the "department for graduate affairs and labour market skills". Through this department, the MOE is able to engage with the private sector to understand their needs and concerns and to receive feedback on the quality of the labour market in the UAE. Because many of these international companies hire abroad, they are able to provide a comparison between the skills available elsewhere and those available in the UAE. Also through this department, the MOE is able to track where Emirati graduates are employed and if they have been employed in their area of specialization.

All of the panelists agreed that there was a dearth of data related to the labour market, and that while a skill gap exists, it is difficult to pinpoint the sectors that suffer the most. However, there was a consensus that the skill gap is different based on the sector in question. The UAE, for example,

^{5.} World Economic Forum. The Human Capital Report 2016. http://reports.weforum.org/human-capital-report2016-/ (accessed March 2017)

^{6.} Examples of such reports include the Arab Knowledge Report, the PwC CEO Survey, the ILO Global Employment Trends for Youth report and many others.

might graduate an excess of students studying business administration, and suffer a shortage of students in micro-biology. Therefore, the skill gap cannot be discussed as a single issue across the board. Despite this nuance, the skill gap in the UAE was discussed as being quite severe.

As HE Ahmad Abdulla bin Byat pointed out, the education market and the labour market appear to be completely disconnected. There needs to be, he said, better alignment between labour market requirements and educational outputs. Indeed, he said, Emirati youth make up a small minority of the population, therefore, if we are to truly achieve a knowledge economy, this scarce resource (youth) must be invested appropriately.

Dr. Essa AI Bastaki pointed out that skill gap is not a one way street, in fact, while there is an important and noticeable skill gap among graduates and youth in the UAE, the market also has a shortage of high skilled employment opportunities. For example, he said, if the UAE, today, were to graduate a number of drone operators and engineers, there would not be anywhere for them to work. The lack of Research and Development, as well as technical and high tech opportunities in the UAE labour market means that, even if universities were to graduate these high skilled students, they would be unable to find adequate employment.

HE Ahmad Abdulla bin Byat added that young Emiratis should not be satisfied with being life-long employees and that the "economic fingerprint" of Emiratis must be bigger than that. They should be industry leaders, innovators, and entrepreneurs and not just employees.

HE Nasser Thani Al Hamli said that we need to stay focused on the present and not only on the future. He said that the best way to understand labour market needs today is to understand what sorts of graduates are being employed currently. This will allow the government to understand which specializations are in demand an which are no longer needed. He added that the private sector needs to be held accountable for some share of the responsibility of upskilling. Private sector organizations cannot expect to get students who need no training whatsoever. Instead, these entities need to invest in some initial training for recent graduates.

Dr. Mohamed Yousif Baniyas stressed that technology will be taking many jobs in the future and that unemployment worldwide is on the rise. While the education system in the UAE has progressed rapidly, there is still a need for more concentration on analytical and critical thinking skills. Furthermore, he said, there is a need for investment in research and development and for the provision of an enabling environment that will encourage these activities. The lack of an appropriate regulatory framework for intellectual property continues to be a barrier for the UAE.

In relation to what reforms are needed to close the skill gap, HE Dr. Ahmed bin Abdullah Al Falasi stated that technical skills are the responsibility of higher education, while soft skills are the responsibility of the employer. He stated that given how young the UAE is and how far it has come in one or two generations, a skill gap should be expected. However, the responsibility for closing this gap should be shared. Higher education institutions and private sector need to work together. Regulatory bodies on their part need to be strict about which institutions are allowed to operate in the UAE an which are not, and to ensure that all institutions are offering a quality education.

Individuals are also responsible for closing the skill gap, he said. Students must become partners in their own education. Today, he warned, a BA is no longer enough for more jobs. Instead, students need to invest in life-long development, on-going training, and certifications. This he said, is the responsibility of the individual.

Dr. Essa Al Bastaki agreed and added that it is the responsibility of families, universities, and schools to inculcate in children and students 1. A love to learn, 2. An ability to experiment in order to learn (which includes trial and error), and 3. A desire to work to learn. It is these values that will enable students to become lifelong learners. He said that we do not yet know what jobs will be available in the future and so we cannot prepare students for them. Instead, we can prepare students with the desire and the ability to learn in any situation.

Recommendations:

- 1. While partnerships between higher education institutions and the private sector already exist, these need to be increased and improved. Private sector entities must readily provide internships to graduates and students of local universities as a part of their training. All private sector entities must provide internships in their various functions. These should be made available on a public database so that students can easily locate and apply for these opportunities. This platform can be hosted by the MOE.
- 2. In order to ensure the "economic fingerprint" of local graduates and students, especially Emiratis, universities, in collaboration with the private sector and the government, must develop incubators that encourage and nurture risky and innovative entrepreneurial ventures. This will encourage the growth of tech and knowledge sectors and in turn diversify the economy.



- 3. The regulatory system in the UAE needs to be improved in order to encourage research and development activities and to encourage the growth of the knowledge sector. This includes providing incentives for investment in R&D, and a framework that protects intellectual property.
- 4. Further investments need to be made by universities and employers to keep track of graduates and employees and to measure their success in the workplace. This will add to the dearth of statistics already available on the labour market in the UAE.
- 5. Technology, including gaming and other simulation software can be used to bridge some of the gap of training that is currently available in the market. These tools can be integrated into curricula at the university and school level to teach students some of the soft and technical skills that they lack.

Concurrent session: Development of Public Private Partnerships Participants:

Dr. Racquel Warner & Dr. Guy Burton – A Fertile Oasis: The Current State of Education in the UAE Dr. Racquel Warner and Dr. Immanuel Moonesar – Sustainable Impact of KHDA on Education Landscape in Dubai (Case Study)

Dr. Mona Elsholkamy and Dr. Yasser Al-Saleh – Paying for Education in Dubai: Is It Really Worth It? (Case Study)

Dr. Sofia Belghiti-Mahut and Dr. Anne Ewijk: The Moderating Role of Gender in Entrepreneurship Education (Case Study)

The theme of this concurrent session focused on the development of public-private partnership, with an aim at finding channels of collaboration where public and private sectors can join efforts to promote high quality education and provide opportunities for better knowledge economy. Starting by mapping the current state of education in the UAE, the paper of Dr. Warner & Dr. Burton examined the purpose and practice of education and reform trends in the UAE. The reform trends in the UAE can be categorized mainly in four pillars: improving students' experience and attainment, promoting professionalism and training among teachers, adopting higher standards on international scales, and bringing greater accountability among leaders in educational institutions. Part of the past reforms aimed at education was the establishment of the KHDA in 2006 which served as a gatekeeper of quality education.

The impact of the KHDA on the education in Dubai was explored by Dr. Warner and Dr. Moonesar. They summarized the role of the KHDA since its establishment in 2007 in three main areas: converter of inter-school collaboration, collaborator for International Quality Assurance Standards, and communicator of findings. The KHDA has led change in the educational sector in Dubai by providing regulations to ensure that minimum requirements are met across all schools in Dubai, facilitating co-learning opportunities (i.e. best practice initiatives), and giving schools the leverage to selfevaluation. They concluded with a strategic future prospects for KHDA which include fostering a holistic learning experience for all students, providing digital platforms for knowledge creation and dissemination, equipping students with the necessary skills to face changes in the labor market, and making the transition from graduating students who are recipients to producers of knowledge. Within the private education market in Dubai, high tuition fees are a problem facing many parents. According to the fees framework set by the authorities, an increase of up to 6.5% is allowed, if KHDA annual inspection shows "outstanding" quality of education. In their paper, Dr. Elsholkamy and Dr. Al-Saleh questioned the justification behind such tuition hikes through applying a costbenefits analysis, and conducting in-depth interviews with parents. They concluded that increased tuition is not evidence-based on improved school performance, since the PISA results for 2015 show marginal decline in both mathematics and science. Furthermore, these results bring into question the veracity of KHDA's inspection and ranking methods which have lulled parents into believing that paying high tuitions is an exchange for high quality education.

In accordance with the UAE National Agenda goals, instilling the culture of entrepreneurship and innovation is an essential pillar. Dr. Belghiti-Mahut and Dr. Ewijk explored how entrepreneurship education (EE) impacts entrepreneurial intentions (EI), self-awareness (SA), and course-related inspiration (CI) of a sample of both female and male undergraduate students. The sample was compared to a control group of undergraduate students who did not take any (EE). The results showed that Emirati women have less (EI) compared to Emirati men; however, students who took (EE) courses reported higher (EI) than those who did not. Also after the (EE) course, there was no significant difference between female and male students' (EI).

Recommendations

- Future fee increases should be disengaged from measures of school performance in the current school fee policy by KHDA. While high income families can afford paying high tuition fees, unfortunately, low income families do not have this privilege. This division risks limiting the accessibility to high quality education solely on a socioeconomic basis, and consequently, widening the rift between children who come upper socioeconomic backgrounds and those who come from less privileged backgrounds. In order to reduce such inequalities, schools that are ranked as "outstanding" should share the responsibility of providing access to high quality education. These schools should, for example, offer quota of scholarships to children from low-income backgrounds each academic year.
- According to the goals of the National Agenda 2021, instilling an entrepreneurship culture is schools and universities is a priority that promotes skills of leadership, creativity, responsibility and ambition. Entrepreneurship education aims at providing students with the knowledge, skills, and motivation to encourage students to discover their potential for entrepreneurial success in a variety of contexts. Such entrepreneurial culture should involve parents, and be integrated in different educational stages (pre-school, school, and higher education). One of the goals of entrepreneurship education is to raise awareness of entrepreneurship as a possible career option. In the UAE, EI-Sokari et al. (2013)⁷ found that Emirati women are less likely to have intentions to pursue entrepreneurial career, compared with Emirati men. Thus it is crucial to encourage female students, starting from a young age, to explore their entrepreneurial potentials. Systematic partnerships with the private sector should be facilitated to increase knowledge transfer and experiential learning.

^{7.} El-Sokari, H., Van Horne, C., Zeng-Yu, H., and Al Awad, M. (2013). Entrepreneurship: An Emirati perspective. UAE: The Institute for Social and Economic Research (ISER) – Zayed University.

Concluding Remarks

The first UAE Public Policy Forum was held this year focusing on the future of education. This is a fitting theme not only because of its obvious relevance to our mission and strategy at the MBR School of Government, but also due to the fact that education is at the heart of the "government of the future" in the UAE. In 2016, the UAE embarked on large structural changes in its federal government and formed a new cabinet appropriately named "the government of the future" in an effort to jump start a future vision that will refuel advancement and progress at all levels and in all sectors.

Education is seen as so central in this change process that three education ministers were tasked with revamping the sector as a whole. One cabinet minister, and two ministers of state. Reform plans included curriculum revamp, teacher training, more public private partnerships, establishing an independent agency to manage public schools, and offering "smart" education. The focus of the three ministers is on policy, strategy, and regulation. This major shift in government, particularly in education, from management to policy inspired not only public policy forum but also the theme of its first meeting.

The MBR school of government is a unique Arab institution focused on public policy and public management through research, academic programs, and training. We see our role as a facilitator of public policy debate and public management best practice. The UAE Public Policy Forums is one of the many vehicles that we utilize to execute our mandate. The event was remarkable in its content and the caliber of people it attracted from senior government officials, school principals, teachers, academics and researchers. Discussions were open and constructive. These proceedings summarize the two day event and will be, I believe, a good reference for decision and policy makers as well as researchers and students.

I thank our Board of Trustees chair, and members, as well as our Executive President for their great support of this event. Thanks also go to all colleagues who worked diligently over many months to make this unique event a success.

I hope that you will find these proceedings helpful, and we look forward to your participation in the next UAE Public Policy Forum.

Professor Raed Awamleh Dean Mohammed bin Rashid School of Government

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