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The Effects of School Gardens on Children

A Case Study of Oman's Fish
Exports to the EU

Language Learning Through
Extracurricular Activities

Why Open Source is Good for
Your Economy





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Sultan Qaboos University

دائرة العلاقات العامة والإعلام
PUBLIC RELATIONS & INFORMATION DEPARTMENT

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The Evolving Role of Student Affairs

The prime role of student affairs offices in a higher educational institution is to support the academic and personal development of students. Being student-centered and focused on meeting the expectations of students is of critical importance to the success of a college or university. Today's context for higher education presents student affairs with many challenges.

Talking at the student affairs conference organized by SQU recently, Dr. Abdullah Ali Al-Shibli, Director General of the Colleges of Applied Sciences at the Ministry of Higher Education delivered a talk on the concept and objectives of student affairs. Changes in the psychological and social characteristics of today's students and the high number of students enrolled in contrast to the absorptive capacity of facilities and services offered by the higher educational institutions pose challenges in Oman. The inability of students to balance academic requirements is a major issue that student affairs offices should tackle. The lack of awareness on the part of the institutions on the importance of the role and objectives of student affairs is also a concern, according to Dr. Shibli.

New technologies, changing student demographics and demands for greater accountability are certain issues that student affairs offices should pay attention to. Focusing on learning rather than instruction is a fundamental shift in perspective in education. Creating learning environments and learning experiences for students has always been at the heart of student affairs work. Learning occurs best in communities that value diversity, promote social responsibility, encourage discussion and debate, recognize accomplishments, and foster a sense of belonging among their members. Good student affairs practice leads to supportive environments by encouraging connections between students, faculty, and student affairs practitioners.

Societies have become increasingly knowledge-based so that higher learning and research are essential to the cultural, socio-economic and environmentally sustainable development of individuals, communities and nations. Higher education has a responsibility to develop citizens capable of contributing to the betterment of society and help students reach their full potential. Institutional authorities and policy makers should realize the fact that student affairs is an investment rather than a cost.



Disaster Risk Reduction on the Agenda

Since times immemorial, natural and environmental disasters have caused great loss of life, human suffering and immeasurable economic damage. In addition to their toll in lives and material, disasters amplify various forms of vulnerability. Over the last two decades of the previous century (1980-2000), victims of disasters reached a toll of 1.5 million people who perished because of an earthquake, a volcanic eruption, a cyclone, floods or some other natural disaster. The impact of natural disasters and such phenomena accrues in severity growing with time in tandem with the expansion of human activities. Disasters themselves are increasing in number and frequency, a direct result of the global changes experienced by the world in the form of climate change, and of the worsening vulnerability, that affects a large swathe of the earth's population.

Aware of the importance of this concern in the Islamic world, the Islamic Organization for Education, Science and Culture (ISESCO), is continuing its efforts in this field for the implementation of its "Strategy on Management of Disaster Risks and Climate Change Implications in the Islamic World". ISESCO, founded by the Organization of Islamic Cooperation (OIC) in May 1979, is one of the largest international Islamic organizations and specializes in the fields of education, science and culture. ISESCO has its headquarters in Rabat, Morocco and it has 54 member states. In 2017, within the framework of the 7th Islamic Con-

ference of Environment Ministers, ISESCO presented the first phase of a pilot program related to the implementation of the Natural Disaster Risk Reduction Strategy and its management in the Islamic world for the years 2018-2019. The International Workshop on Natural Hazards and Early Warning Systems held at SQU from 26 to 28 February is a part of this program.

According to the World Bank, the number of people affected by natural disasters has recorded a steady annual increase of 6% during the last three decades of the previous century. Natural, environmental and technological disasters have left 3 million dead and 1 billion homeless, of whom 89% live in developing countries. The Developing countries are more prone to and more severely affected by the repercussions of natural and environmental catastrophes. Poverty exacerbates the impact of these phenomena and the precariousness of the economic environment where these societies evolve. Along with the escalation of these risks, awareness has also increased worldwide about the need to mitigate the damage caused by these phenomena, improve good governance in their management and integrate them in development schemes. The training workshop held at SQU was a platform to increase awareness on natural hazards and disaster risk reduction for stakeholders with knowledge on disaster management.



The Effects of School Gardens on Children

School gardens are a great way to get children to learn about nutrition. Countries promote school gardens with educational goals to help students, school staff and families make the connection between growing food and good diets, develop life skills and increase environmental awareness. Researchers from Sultan Qaboos University has conducted school gardening project in Oman, which was intended to improve educational outcomes across the curriculum and dietary outcomes in the longer run.

Like many other countries where the standard of living is rising, the Sultanate of Oman is facing a potentially serious increase in what are now termed 'lifestyle' diseases. These include diabetes, heart disease, hypertension and various forms of cancer. The lifestyle factors that contribute to these diseases are poor diet and limited exercise. Considering this issue, a pair of researchers from Sultan Qaboos University, in cooperation with an Australian counterpart, conducted school gardening project in Oman, which was intended to improve educational outcomes across the curriculum

and dietary outcomes in the longer run. The project was funded by the Research Council.

The quantitative findings of this study indicate that employing school gardens as an educational resource might improve learning outcomes in the area of science skill development. The qualitative findings suggested that the project had a positive impact on the affective domain of students and in some cases encouraged them to pursue healthier eating habits.

Prof. Abdullah Ambusadi from the College of Education at

SQU, who led this research, said that their project served as a preliminary study for using school gardens as a teaching and learning resource in Oman. The pilot study focused on introducing school gardens to Oman at the Grade 7 and Grade 2 levels. "Schools in three geographical regions are being were in the study, these regions include including Muscat, Al-Batinah, South and Al-Dakhalyia. Schools were chosen based on their willingness to participate in the project and presence of a teacher willing to oversee the management of the garden, preferably someone

with some expertise in gardening. Along with Prof. Abdullah Ambusadi, Dr. Rashid Al Yahyai from the College of Agricultural & Marine Sciences and Dr. Neil Taylor from the University of New England, Australia associated in this project.

The researchers worked with each of the six selected schools to establish the gardens. One of the subsequent phases of the project involved linking gardening to the curriculum in which the researchers worked with teachers to develop a set of garden activities that link to the curriculum at the primary and secondary levels. The team conducted an in-depth analysis of the Omani primary and secondary curricula, and then adapted existing published activities to the Oman context and developing some new ones to match curricular outcomes. Students and teachers used the garden to study its ecology and learn about pest and beneficial organisms, nutrient cycling, soil composition and general plant husbandry.

Following the establishment of the school gardens and the preliminary data collection, a six-month teaching intervention took at each school. Specific teachers were provided with initial intensive training in using the activities. As part of this training, the researchers modelled some of the activities with the students and the teachers to allow teachers the opportunity to experience the garden as a learning resource from a learner's perspective.

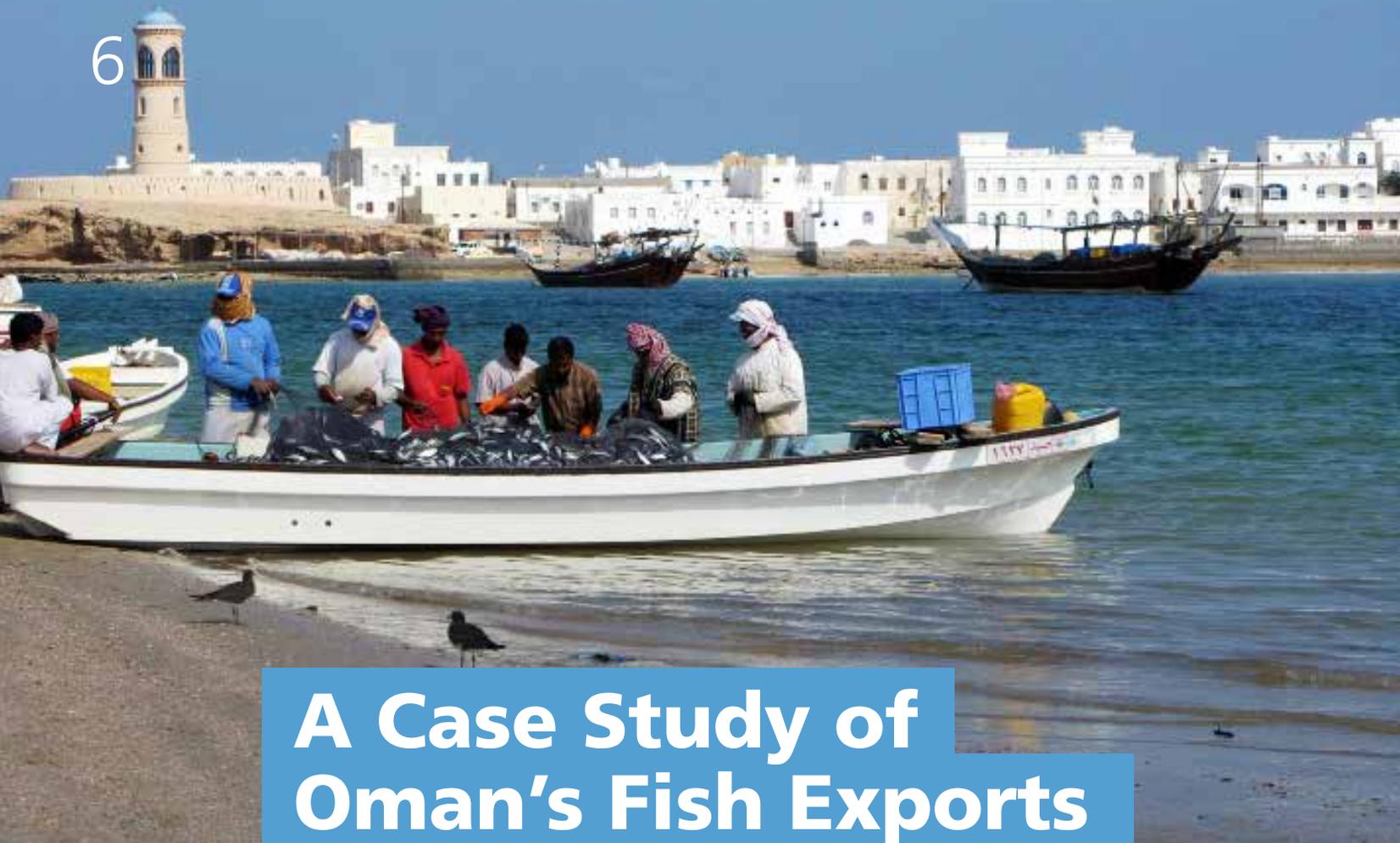
As with the findings, for the Grade 7 component of the project, those for Grade 2 indicate that there could be benefits in adopting school gardens as teaching resources in Oman. The quantitative findings for this cohort of Grade 2 students suggested that the gardening intervention had a greater positive impact on female students than on male students. This pattern was evident for all three tested areas: science skills, science content knowledge, and attitudes toward healthy dietary habits, science, and gardening. The attitudinal survey also indicated that the students in the experimental group were statistically more inclined to adopt healthy dietary habits than those in the control group and that within the experimental group this effect was greater among female than among male students.

The qualitative findings were encouraging, as the responses to the gardening project from students, teachers, and parents were consistently positive. Young students are almost inevitably keen to please when asked if they like something, and all the students indeed claimed that they enjoyed the experience of working in the garden. However, most could specify what they particularly enjoyed about the school garden, which was generally the esthetics, such as calm, fresh air, and the smell of the fruit, flowers, and vegetables. The learning that they specified included planting vegetables, soil types, and growing and looking

after plants. These results were confirmed by interviews with parents who verified the general enthusiasm shown by the students for the school gardens by relating the students' conversations at home. The most encouraging were reports from those parents who said that their children had changed their dietary habits to encompass healthier choices and were now eating more fruit and vegetables.

Results for Grade 2 differed from the findings for Grade 7 students, where there was little evidence of dietary improvement, which suggests that stimulating dietary change may be easier among younger children in Oman. "There was no scope to follow up on these reported dietary changes to see if they were sustained in the longer term, but it is encouraging that studying in the school garden and growing their own fruit and vegetables appeared to have impacted positively on these young children's dietary habits at least in the short term. Another positive finding concerned the apparent affective benefits for students of studying in the garden. Several students said that they experienced a sense of calm while studying; a finding supported by those parents who said their children had told them of their feelings of calm", Prof. Ambusaidi concluded.





A Case Study of Oman's Fish Exports to the EU

The global concern of seafood quality and safety and the subsequent development of rules and measures adopted by the leading fish importing countries have important strategic implication for a country like the Sultanate of Oman for political, economic, and strategic reasons. SQU researchers say that it is important to investigate the potential impeding effects of economic and policy-related factors on Omani fish exports with particular focus on border rejections and domestic ban.

Following the WTO Doha Development Round, and with the advent of Agreements on technical barriers to trade (hereafter, the TBT Agreement) and on sanitary and phytosanitary measures (the SPS Agreement), the trade regime of fish and fishery products has witnessed a gradual decrease in protective tariff measures and the proliferation of NTMs such as SPS mea-

asures. The SPS Agreement sets out rights and responsibilities of national authorities and provides them with a framework to develop their domestic policies on food quality and safety. The SPS measures affect exports of fish and fishery products in two opposite ways. First, the trade-impeding effects which is based on 'standards as barriers argument' is influenced by com-

pliance costs associated with the adoption of SPS standards. Second, the demand-enhancing effects resonating 'standard as catalyst argument' due to safety and quality assurance through the disclosure of detailed description of product attributes and certification.

The global concern of seafood quality and safety and the subsequent development of rules

and measures adopted by the leading fish importing countries have important strategic implication for a country like the Sultanate of Oman for, at least, the following political, economic, and strategic reasons. First, as a member of the WTO since 2000, Oman has the commitment to abide by the rules stipulated in the Agreements and by the fish importing countries with regard to quality and safety. Second, to strengthen the role of fisheries as foreign exchange earner, and being a net exporter of fish and fishery products it is important to respond to food safety standards introduced by the leading seafood importing nations and lucrative markets such as the EU and the USA. Finally yet importantly, fisheries in Oman are anticipated to play a vital role in the national economic diversification portfolio and, in this context, the authority should boost the country's international competitiveness using the benchmark of fish quality and safety.

With this background, it is important to investigate the potential impeding effects of economic and policy-related factors on Omani fish exports with particular focus on border rejections and domestic ban. Furthermore, the decline of Oman's fish exports to the EU since mid-2000s has caused legitimate concerns among policy-makers and exporters. However, the potential reasons

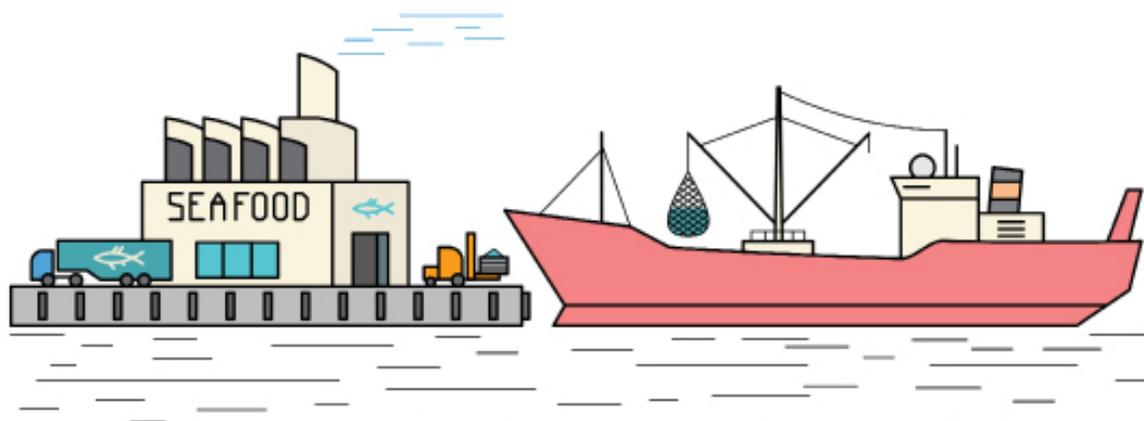
for the decline have not been fully elucidated. Although perception-based qualitative statement of the potential impact of quality and safety measures is conveyed in local studies, the empirical analysis of such issue is limited in Oman, and, therefore, such empirical undertaking should provide useful information to the process of policy refinements and their effective implementations in both private and public sector environments. For this reason, and considering the historical trade relations of Oman with the EU countries and the increased usage of SPS measures in seafood trade, a review paper portrays the legislative and regulatory initiatives that have been undertaken by the authority in Oman to overcome challenges following the SPS Agreement and the resulting EU ban on fish exports in 1998.

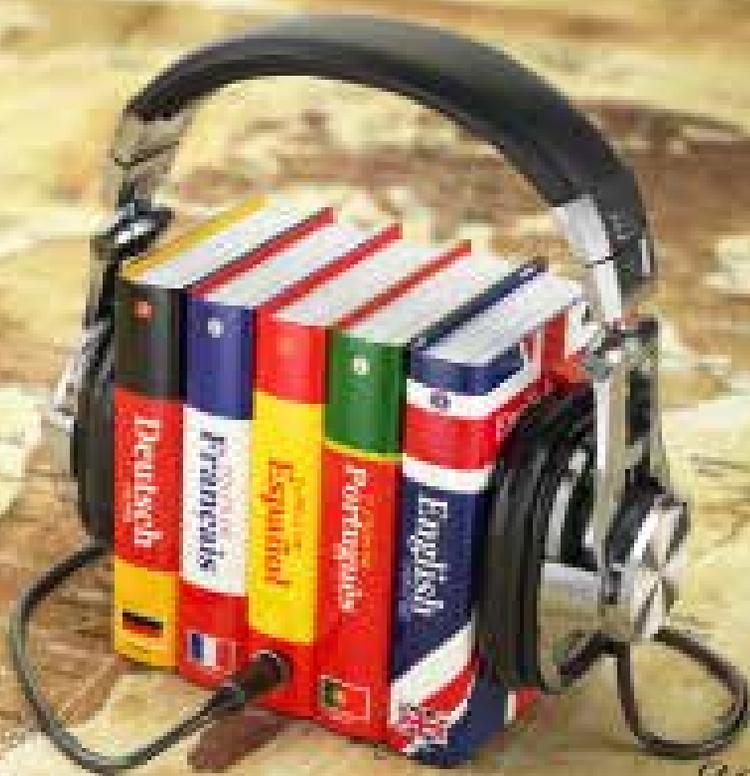
The paper was authored by Dr. Shekar Bose, Amina Al Naabi (MSc. Student), Dr. Houcine Boughanmi and Jaynab Begum Yousuf (PhD Student) of the Department of Natural Resource Economics, College of Agricultural and Marine Sciences at SQU. The paper proceeds to examine whether empirical support (or otherwise) can be given to the following two statistical hypotheses: 1) the domestic export ban rather than the border rejections by the EU countries is acting as significant barriers to fish exports to the EU, and 2) economic downturn faced

by the EU and exchange rate fluctuations have significantly affected Oman's fish exports to the EU. To investigate the intended hypotheses, a log-linear specification of a panel regression model linked to the traditional gravity model was used covering the period 2000-2013.

The empirical results of this study provide support to the first and second statistical hypotheses that suggests that the domestic export ban rather than the border rejections by the EU countries, economic downturn faced by the EU during 2009-2010, and exchange rate fluctuations had exerted significant influence on Oman's fish exports to the EU. These findings provide important signal to policy makers of the respective countries in designing adaptive policy approach to address such influences.

However, some limitations of this study are worth mentioning. First, this study is based on the EU market only, and therefore the results presented are not representative of the other markets such as USA. Further research involving other quality stringent markets would be of great value. The findings should provide motivation for future research concerning the preferences of export markets.





Language Learning Through Extracurricular Activities

Victoria Tuzlukova & Hranush Ginosyan
Centre for Preparatory Studies

Foundation programs in tertiary education institutions in Oman have been designed to provide university entry students with time and set of courses that make it possible for them to define and advance their academic studies. However, for many foundation programs students, the physical, social and cultural environment of the tertiary education is new, overwhelming and intimidating. This new sociocultural and physical environment of learning features coeducation, multicultural teaching and academic community, use of the English language as medium of instruction, learner-cent-

tered teaching methods and approaches, and multiple computer and internet-based tasks and assignments. In order to deal with the foundation courses' requirements, students need to learn a wide range of skills in a short time, independently pursue knowledge, and be actively involved in thinking, questioning and reflection, whereas their learning background has been largely dependent on memorization, repetition and information recall. As a consequence, students' progress may be hindered; they may experience less intense language development and demonstrate decreased

emotional well-being and self-confidence. In response, many foundation programs in tertiary education institutions in Oman have implemented focused a collaborative and more focused approach to providing support. In-house teaching materials, a Writing Centre, a Tutorial Centre, Computer Labs, Moodle-based courses and assignments are some of the main co-curricular support channels for all the areas of the foundation program provided by the Sultan Qaboos University's Centre for Preparatory Studies. Similar to other institutions of higher education, extra-cur-

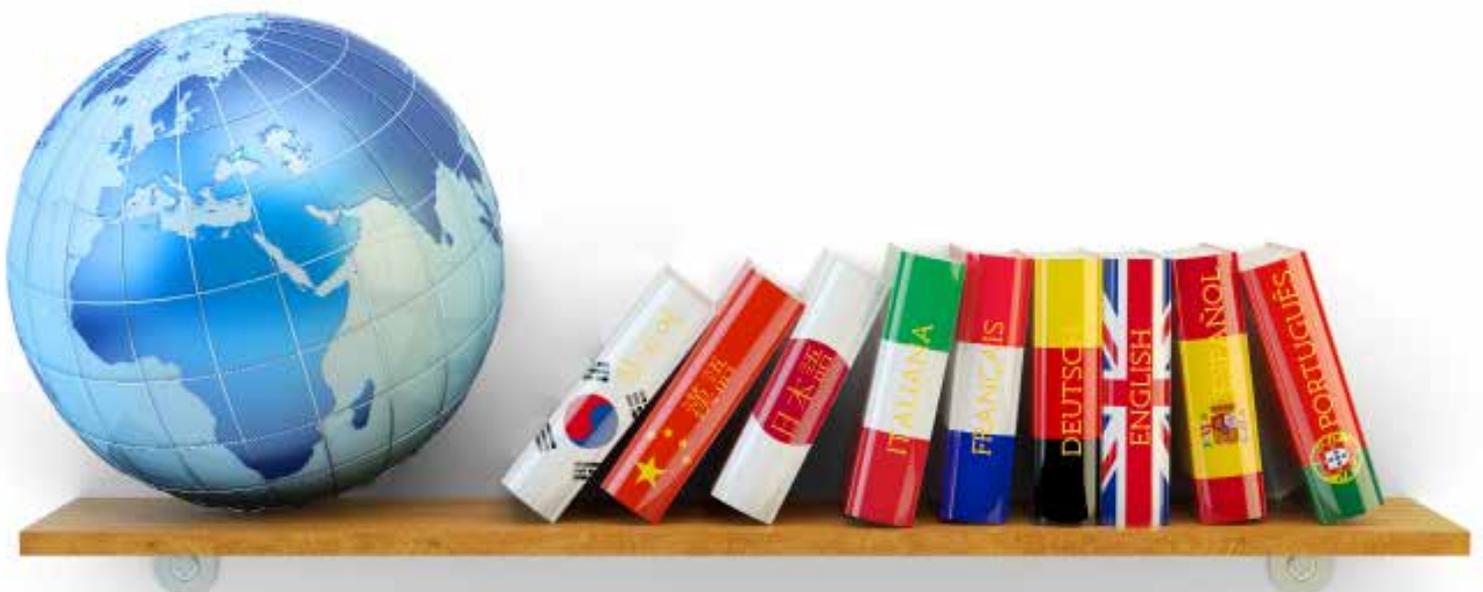
ricular activities are effectively employed in the Centre.

Indeed, a substantial body of research demonstrates that extracurricular activities mitigate students' adjustment to academic life and promote academic performance in students. It also emphasizes their important and beneficial role in building and strengthening students' academic growth and development. However, there is no substantial body of research on this topic, and up to now there is no unified approach to defining or classifying formally extra-curricular activities. For example, such activities are generally described by a variety of descriptors that refer to the degree of their association with the student's major or curriculum. Also, there is a substantial body of unanswered or partially answered questions about the specific effect that various extra-curricular activities produce, optimal number and diversity of extra-curricular activities that boost educational outcomes, any trade-offs involved with decisions to participate in extracurricular activities, and any dependence of the impact of the extra-curricular activities on academic performance on inside (institution-based, academic) and outside (social) influences.

For example, in the context of Oman's foundation programs, as identified by 2017 round-table meet on 'Enhancing Student Participation in Extra-curricular Activities' organized by the Student Activities Office at Middle East College (MEC), currently discussed list of the challenges faced by higher education institutions in engaging students in extra-curricular activities includes over-emphasis on grades, too many assignments, gender consciousness, over-indulgence in virtual interactions, social media, etc.

However, this list is not complete, and needs more focused research. Also, there is need for exploring student type of participation and activity type to better understand how these influence the relationship between participation in extracurricular activities, and academic performance and adjustment of the students. Currently, diverse extra-curricular activities are offered to foundation program students. For example, Gulf College conducts its annual grand extra-curricular activities event, and its 2018 theme was 'English: Moving beyond the classroom and toward globalization', in which participants were involved in both direct and indirect extra-curricular activi-

ties. These included, as reported in Muscat Daily, a speed-typing contest, an essay-writing contest that encouraged students to hone their technology and English skills, a My Omani Sweets Competition aimed at aiding improvement of students' skills related to business and marketing, and many others. Foundation students at Sultan Qaboos University are encouraged to join Centre for Preparatory Studies' clubs, such as, for example, Spill the Tea Club, Debate Club, Science News club, Games Club, Chess Club, Spelling Club, Reading Club and Film Club. These are organized and implemented by the Centre's faculty with strong administration support and encouragement rooted in understanding that extra-curricular activities can provide students with safer environment to develop and enhance their language skills, and share their interests and needs context for their active engagement in reflection, motivation, thinking, and abstraction. Also, extra-curricular activities can provide teachers with venue to support students' smooth transition into the tertiary education system continuum to lead students to better academic and social performance.





Why Open Source is Good for Your Economy

Prof. Dr. Dirk Riehle is the Professor for Open Source Software at the Friedrich-Alexander University of Erlangen-Nürnberg. Before joining academia, Riehle led the Open Source Research Group at SAP Labs, LLC, in Palo Alto, California (Silicon Valley). Before this, he was the co-founder of an on-demand business software startup in Berlin, Germany, which used agile methods and strategically employed open source software. Riehle works on open source and inner source software engineering, agile methods and continuous delivery, complexity science and human collaboration, and software design. At the fourth edition of the Free and Open Source Software Conference (FOSSC 2019 Oman), organized by SQU and ITA, Prof. Riehle gave talk on how the oil and gas, tourism and the trading industry can benefit from collaboratively developing open source software.

What is the primary reason to assert that Open Source is good for (almost) any economy?

It is no secret that software is everywhere. No traditional product has remained untouched, whether the product is being produced using software or whether software is an integral part of it. As part of this wave of digitization, established vendors from outside the software industry need to avoid that someone else will reap all the profits from their products. That someone else would be software companies that supply needed components. In particular, software platforms can have such network effects that their providers can reach a monopoly position so that dependent vendors who need the platform will face a diminishing profit margin.

One counter action for traditional product vendors is to build up software development capabilities and develop the software components they need themselves. And one certainly should do so to not be left behind. Sadly, some ecosystems, most notably Silicon Valley, are so far ahead on the curve that a pure game of catch-up will be hard to play except for the most determined companies and economies.

How do you view the prospects of national level or international partnerships in developing open source components?

Right. A better strategy is to take the outside profits out of the software industry by replacing closed source software

components with open source software components. Such open source components can be developed jointly with other companies and even between countries. A good organizational form to make such joint work sustainable are open source user consortia. A long running example is the Kuali Foundation, which guides the development of software needed for operating universities. Another more recent example is the German openKONSEQUENZ cooperative, which guides the development of software needed for the smart (energy) grid. I initiated and helped setup this second example.

Many more are in the making. At the recent Open Source Leadership Summit, the Linux Foundation announced several more "foundations" like the ASWF, a foundation-like project with its own governance to guide the development of software needed to produce movies, and LF Energy, a foundation-like project to guide the development of software for long-distance energy network operators. The Eclipse Foundation, another umbrella open source foundation, offers several "industry working groups", which are also foundation-like projects. Examples domains covered by the Eclipse Foundation are the automotive, the geographical, and the science domain.

What should be the role of the governments in supporting the open source components?

It is not always easy for non-software companies to

actively shape their software future. For this reason, governmental support and policies can be helpful in the form of education and organizational support. Once companies understand the impact of reducing their dependency on foreign software vendors by way of community open source software, however, important gains can be made that strengthen both the companies in need of the software as well as the local supporting software industry.

Could you summarize the advantages of open source software in oil and gas, tourism and services sectors for a country like the Sultanate of Oman?

Oil and gas products, beyond the physical product, require software to be delivered. This is even more true of tourism as a product. In the development and operation of this software, open source components can play an important role in replacing expensive closed source components from foreign vendors. When you replace those expensive components with cheaper open source components, you avoid the erosion of your profit margin by gaining freedom from vendor lock-in. In addition, you get the freedom to innovate faster and better than before. For these reasons, the Omani government should support the creation of open source software and a local ecosystem of developers.





19th Anniversary

SQU Day 2nd May

