

Research Centers' Role in Building Policies and Strategies



Horizon

Department of Public
Relations and Information
Sultan Qaboos University

News Update

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HORIZON

ISSUE 342

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90199997



Skills We Need

Education is primarily concerned with providing graduates with employability skills. Individuals, during the time of education or after getting a job, value employability, as it is the opportunity to develop skills and experience, which make an individual a fit for a variety of roles. This makes employees feel more secure in their employment and opens up a range of possibilities both with their employers and in the wider labour market. This translates into higher levels of engagement and performance. Now, what is the different between employment and employability? In a recession, employment can crash, but employability may rise, as people need to compete harder for available work. Employability is that set of attributes that makes a graduate worth employing: how well students' learning matches with what the labour market needs. It is the most sought after outcome that, in increasing proportions, prospective students expect to get from higher education.

A student need to acquire three attributes through education. The first is knowledge, the teaching of which is higher education's speciality. The second is "social capital", and it covers a huge range of attitudes and behaviours. Social capital indicates the networks of relationships among people who live and work in society, enabling that society to function effectively. The third element is skills. Higher education has a better record in developing students' hard (job-specific) and soft (transferable) skills.

Raising of students' self-awareness about employability itself develops employability. Therefore, being more transparent about employability as a clear, simple and deliberate goal of a degree course will help. Since it is a form of personal development, helping students to understand the various ways they have benefited should be a welcome feature of any course, whatever the students' initial reasons for studying it. Raising awareness helps academics to engage with employability, too. Having a simple and common language to describe employability will help them better embed the development of the relevant skills, attitudes and behaviours into their programme design without forcing anyone to change their course content.

The education sector needs to do more to overcome students' tendency to see a degree merely as a career passport and connect them, instead, with the thing itself: the real value that they will be able to offer to an employer. Employability, at its heart, is about having a rewarding future.

Horizon invites contributions from SQU members of staff and faculty. Contributions in the form of articles, news, travelogues, stories of unique and interesting experiences, encounters, etc., are welcome. Contributions may be edited for the sake of clarity and length. Please send your contributions to horizon@squ.edu.om preferably, as MSWord attachments. Authors will be suitably credited.

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Workshop Sheds Light on R-Statistical System



The Department of Marine Science and Fisheries of the College of Agricultural & Marine Sciences (CAMS) at SQU organised an introductory workshop on the usage of the R statistical system on 17 and 18 of May. As many as 28 CAMS participants including faculty, researchers and PhD students and 16 participants from the Ministry of Agriculture attended the workshop. The workshop was aimed at introducing participants to R, a free open source language and environment for statistical computing and graphics program.

Topics discussed included an overview of the program, data types and structures, exploratory statistics, plotting, linear regression and correlation, high quality graphics and analysis of variance. The participants appreciated the power and flexibility of using R (which is command based) as opposed to point-and-click GUI-based systems. They learned to import and explore data in R. In addition, participants gained an understanding of how to program logic, loops, and functions in R. Finally, the participants were introduced to resources for practicing and building R programming skills. The workshop held at the CAMS computer lab, was led by Drs. Alyssa Marshall, Mohammed Al Abri, and Michel Claereboudt.

National Bioethics Committee Meets



The National Bioethics Committee held its second meeting for the year 2016 on Wednesday 11 May. Sheikh Dr. Kahlan Nabhan Al Kharusi, Assistant Grand Mufti of the Sultanate and Vice Chairman of the Committee, chaired the meeting. The meeting approved the minutes of the first meeting, briefed the members on the action taken to implement the Commission's recommendations in its previous meetings, and the preparations for the Intellectual Forum to be held in October 2016. The Intellectual will focus on organ transplantation discussed by a number of experts from Oman and abroad.

The Committee also reviewed the reports about the participation of members of the National Bioethics Committee in the International Conference on Bioethics held in Germany in March 2016 and the Conference on Stem Cells held in Bahrain. The committee is keen to take advantage of these scientific conferences in preparing of national legislation in bioethics and organizing the Second international conference on Bioethics to be held in 2017. The committee reviewed the activities of the team of specialists that studies and documents the cases of abortion in Oman.

SWAE Holds Academic Program Review Workshop



By: Amina Al Hosni & Amani Al Araimi

The Department of Soils, Water & Agricultural Engineering (SWAE) at the College of Agricultural & Marine Sciences at SQU organized a workshop on Academic Program Review and Accreditation on 18 May 2016. The workshop was aimed at collecting the feedback from the stakeholders on the quality and academic accreditation of the three academic programs offered by the department in the backdrop of ongoing radical changes being taken place in undergraduate education as programs are being shifted from generic to more specialized.

In his speech at the opening ceremony, Dr. Hemantha Jayasuriya, Associate Professor and Head of the Department, gave an overview about the different programs offered by the department. He listed the

activities and the accomplishments of SWAE. "The main objective of the workshop is to gather views of the stakeholders about the programs. Every constructive suggestion will be valuable for the improvement of the department and its academic activities", he said.

Later in the workshop, program coordinators outlined three undergraduate programs offered by SWAE. Dr. Said Al-Ismaily, coordinator of soil science, Dr. Salem Al-Jabri, coordinator of water technology, and Dr. Yaseen Al-Mulla, coordinator of agricultural engineering, spoke about each program in detail. Their presentations covered the subjects offered under each major and their relevance in the job market, employability of the graduates, quality of the programs and the academic accreditation process for each program. Dr. Ali Al-Maktoumi, the coordinator of the internship outlined the status of the internship programs for the students in the department. He elaborated on the status and importance of internship programs and the need for more collaboration between host organizations and the department to yield fruitful results from internship programs.

Current students and alumni representing the three majors shared their experience and views on the academic programs. This was followed by a panel discussion on the programs. As many as 60 persons including graduates from the department, alumni, potential employers, and officials from the ministries, public and private institutions from Oman attended workshop.



Research Centers' Role in Building Policies and Strategies

By: Sanaa Al Khayari
Research Assistant
Humanities Research Center



Everything in life starts with a question followed by a search. Most of the materials, instructions, and rules in our everyday life are being applied after conducting a research on its behalf. Research centers all around the world are considered as fundamental institutions that support the community to develop and evolve. They follow objective approaches to look up things in different perspectives. This variety of perspectives do not allow personal feeling integration, which ensures that the results are fair. For this reason, public policies are being applied on a community after questioning and testing them to make sure that they suite all community members. Not only do research centers play a significant role in enriching the scientific field, but also do they build both plans and public policies that affect a whole society.

For example, one of the policies that has been applied in the Sultanate, specifically in the education field, is prohibiting corporal punishment at Omani government schools. After conducting much research in this subject it was found that corporal punishment affects the student negatively in both his/her school life and home life. D. Eron (1996) conducted a research on the same subject and found out that "corporal punishment affects [negatively] on the aggressive behavior of the youngster" (D. Eron, 1996, p. 823). Such research is being considered in producing a policy that prevents school's faculty from using corporal punishment. This example shows how researchers and research centers work to find the closest fact that serve the good and healthy life, which all humans seek to live.

Research centers also organizes people's lives by finding which roles that best serve community. Future plans need

to be planned especially if they were for an institution or a government. The more people are targeted and covered in future projects the more the plan needs to be studied. Research centers in general take into consideration the affected amount of people of a certain aspect. Humanities research, for example, study the different ways of life that people are living at the moment to make sure if these ways are the best or the worst to live on. Environmental research also tries to figure out the best ways to keep the environment a healthy place for all dynamic environments.

Future expectations can be predicted by scientific research, which studies causes and effects. Human life is easy to be foreseen when using the different theories and scientific methods, which then ease the choice of a certain policy that suites life now and in the near future. However, the different changes that occur every day in the world make the research case a must ongoing process in each aspect of life. This changeable time might disable a policy that worked on for years, in one day. For this reason, continuous research must be ready to follow up such changes. Keeping research centers functional and prompting their importance in the society, helps to strengthen the outcomes of its research and it helps not only produce statistics but also actions that change the society to the best it can be.

Many countries build most of their strategies on scientific research that their research centers produce. For instance, Canada has more than one thousand research centers and it is considered as one of the leading countries in the world while most countries in the third world has less than 20 research centers each. The political conflicts in the Middle East might be referred to unplanned and unsearched polices which have been applied for a long time that it does not suite the current ideologies that moves people to live like those in the developed countries. In general, we can say that the more research centers are found in a country the more the country becomes stabilized and developed. Research centers helps the country in being up to date in all fields especially if the country provided research centers in all of the important aspects of life like, engineering, science, humanities, languages etc.

Papers and research is not accurate one hundred percent and it does not suite all periods. Moreover, research is an accumulative process that almost never ends. Each research is a block that finishes a previous question and starts a new one. Results that are found ten years ago might not be applicable nowadays. For this reason, research centers regenerate new research in the same subject from time to time. This regeneration is due to the changes in the world that affects people's and other creatures' lives. One notable example is technology. For instance, social media is a new invention that became an important part of humans' use of theology. Many research centers studied the effects of social media on the different aspects of humans' lives. Thus, a policy for social media has been applied to all users. Privacy policies, for example, keeps the user safe from any harmful intervention.



An Evening with Professor Jack C. Richards

By: Neil Mcbeath, Language Centre

I once worked with a fatuously pretentious woman who described herself as an “author and educator” as if she were a combination of Noam Chomsky and Maria Montessori, when she had done was self-publish some plagiarized nonsense about pets on the internet, and qualify as a secondary school teacher. Jack C. Richards, by contrast, is the real thing. In EFL circles, he is an acknowledged “name”.

Officially retired since 1999, he still gives classes at the South East Asian Ministers’ of Education Organization’s Regional English Language Centre in Singapore, where he teaches on the Masters of Applied Linguistics course, and travels extensively between Singapore, Australia and New Zealand. His work is frequently cited in scholarly publications, his appearance at EFL conferences is guaranteed to produce a large audience, and so the chance to meet him in a more intimate setting is not to be ignored. For that reason, when Cambridge University Press invited me to a reception at the Crowne Plaza Hotel on May 1, I grabbed at the opportunity with both hands.

Now let us be honest. Cambridge University Press is not a charitable foundation. Its *raison d’être* is to sell books, not to feed hungry scholars. In this instance, the specific aim of the meeting was to publicize Professor Richards’ latest book – “Key Issues in Language Teaching” – and to that end, a select audience had been assembled. Representatives from the Oman Ministry of Education; Sultan Qaboos University; the Muscat Higher College of Technology; the British Council; Al Manahil Books; Canford Publishing and the College of Health Sciences were first offered food and then presented with “goody bags” that included CUP publicity material and a sample chapter of the aforesaid book. Most importantly, however, the audience was given the chance to hear the author speak about the book, and that was particularly enlightening.

Richards’ primary thesis is that the centrality of schools to the learning process is now being questioned. To some extent, this is hardly news. Gaither (2008) has explored the growth of “homeschooling” in the USA, but Richards was more concerned with the extent to which technology has enabled autodidacts to take control of their own learning.

Using, in many cases, anecdotal rather than quantitative evidence, he links the famous Scandinavian ability to speak English with the fact that in the Nordic countries, movies are never dubbed. They may be sub-titled, but anyone with even basic “school-English” will be able to hear semi-authentic speech in a dramatic setting that is intended to engage the attention.

He links this to six other phenomena. Firstly, there is the development of communicative skills by using English as a language of interaction, which he exemplifies with the fashion, in Hong Kong, of employing Filipino housemaids. These maids are chosen precisely because they speak no Chinese, and so the children of the household are forced to communicate with them in English.

Secondly, there is the expansion of learner proficiency in specific skill areas.

French and Finnish teenagers are currently forced to learn at least technical terms in English, if they want to be able to play computer games. Their desire to master this skill may lead them to seek out native speakers of English, and I have personal experience of exactly this scenario with two decidedly unacademic boys in Bahrain.

Similarly, technology can be used to facilitate peer-supported learning. In the example above, English-speaking teenagers would count as peers, but songs, movies and particularly chat rooms are also effective. Chat rooms are linguistically non-threatening environments; they depend on a willingness to communicate, and conversations are saved. There is an automatic record of interactions, and this itself affords the opportunity for learners to “notice” specific items of grammar and lexis.

In more specific areas, Richards referred to “silver rooms”, or self-access centres that are available to middle-aged and elderly Japanese. These are often used by Japanese “salarymen” who wish to improve their English language skills, but like chat rooms, they can also be places in which to simply socialize.

So, too, are the Language Villages of South Korea and Japan. These are specially created language immersion centres, rather like theme parks, where it is possible to combine a holiday or weekend break along with total immersion in a language and an introduction to another culture, without the bother of actually traveling abroad. In one sense it is totally artificial, but almost exactly the same technique has been used, for years, at the Summer Language Institute at Battleboro in Vermont.

Finally, and this is probably more familiar, Richards spoke highly of an experiment in Germany, where high school students were simply asked to interview English speaking tourists, asking them set questions in the first instance, and then extemporizing as the need for more effective communication kicked in. Quite how this approach could be transferred to other countries is, however, problematical. Certainly in Britain, the paperwork involved in allowing school students to leave the premises has reached the stage where many schools no longer even try to allow their pupils outside the school gates.

And here, of course, is the paradox. At a time when the reality of our students’ out-of-class lives is demonstrable proof that books and classrooms are not the only way to learn, external stakeholders like school boards, Academy Trusts (in Britain), politicians and civil servants argue in favour of “standards” which may often be based on narrow, reductionist criteria that offer little above the lowest common denominator. In Richards’ phrase “The dynamics of the landscape of learning are changing”, and if Key Issues in Language Teaching leads to a wider acceptance of that belief, then the book will have brought a major benefit to both language education, and education in general.

Reference: Gaither, M. (2008). *Why Homeschooling Happened*. *Educational Horizons* 86/4. 226-37.



Academic Participates in Research in Malaysia



An academic from the Department of Educational Foundations & Administration of the College of Education at Sultan Qaboos University was involved in an international research project that studied teachers' use of the cloud based Virtual Learning Environment in schools in Malaysia. Dr. Aisha Salim Al Harthi conducted this research along with Dr. Chris Campbell from the University of Queensland in Austria, and Arafah Karimi from FrogAsia, the educational company that is managing the project in Malaysia.

The paradigm shift in adoption of cloud-based technology in educational settings across the globe is undeniable. For the first time an entire nation is connected through a single, cloud-based (online) learning platform under the Malaysian 1BestariNet project. The Malaysian Ministry of Education has connected over 10,000 public schools, 5 million students, 500,000 teachers and 4.5 million parents via high speed 4G Internet connectivity and the cloud based Virtual Learning Environment (FrogVLE). The project focused on teachers' cloud-based resource development and used a Technological Pedagogical and Content Knowledge (TPACK) framework to investigate teachers learning designs that teachers can create prior to class and then make available on the cloud for their students to access, both during class time and outside of class. Factors affecting the successes of the teachers learning designs has been investigated along with how the cloud-based resources are being used in the classroom. Dr. Aisha Al Harthi said that the project involved analysing over 500 of the cloud based sites to investigate ways the sites can be used to introduce innovative teaching and learning approaches to teachers as well as the factors that affect teachers' creation of high quality, cloud based content. The research team went to Malaysia and interviewed both teachers and school principals to further analyse the success factors.

"Teachers use the cloud based FrogVLE in a variety of ways to enhance their teaching. They also use it for a variety of content areas such as English, Malay, Chemistry and other sciences, mathematics and extra-curricular and enrichment content such as ethics education" she said. Teachers are very positive about the reasons as to why they create their own sites with teachers stating reasons such as "I can personalise my sites according to the interest of my own students as my students are very different in level, ability and focus time. I also get to put in my touch in the sites so students feel like they are appreciated when the teachers take the time to create a lesson to cater to their need"; "it is interesting and fun plus we could see how far we could be creative"; and, "easy to create the sites in the frog VLE than create your own blog. All the widgets in the Frog are easy to use".

According to Dr. Aisha, the future directions of the project include further in-depth analysis of teachers use of the sites as well as investigating how teachers can further develop their skills in creating cloud based teaching content. It also targets developing a greater understanding of the digital leadership required from the school administrative team to support teachers through providing a strong technology vision, planning for school processes related to technology adoption, and providing encouragement and incentives so more teachers will be involved in using the sites.

Expert System for Breast Cancer Awareness



A group of Information systems undergraduate students at Sultan Qaboos University published a paper on improving breast cancer awareness through an expert system in the 21st proceedings of UK Academy for Information systems (UKAIS) Conference in Oxford held from April 11 to 13 2016. The paper will be indexed shortly in SCOPUS database and published in AIS library. The article presented the development of an expert system prototype to improve the aware-

ness of breast cancer. The article publication was led by Meaad Al-Lawati in collaboration with Sara Al-Belushi and Fatma Al-Dhuhouri, under Dr. Kamla Ali Al-Busaidi's supervision. This publication was based on a group project in knowledge-based systems major elective course taught by Dr. Kamla. The paper received a good review from the conference; one reviewer stated that "I enjoyed reading this paper. This paper reports the design and preliminary evaluation of an expert system for breast cancer. It has some novel features, such as the focus on life style. The results of the short evaluation are promising. This a valuable piece of research in an important area, and I am sure it will attract much interest."

The objective of this paper was to demonstrate the development of a breast cancer awareness and diagnosis prototype expert system that focuses on raising awareness of breast cancer, help the female population be evaluated and diagnosed, and help them understand the likelihood of having this disease depending on their users' lifestyle, personal and family history, and, various symptoms of breast cancer. According to the literature, breast cancer is considered a second kind of cancer affecting women's lives globally, and it affects about twenty percent of women in Oman, mainly due to a lack of awareness and early detection programs in some places and to cultural barriers. The system incorporated the knowledge acquired from two domain experts who are senior consultants in Oncology. One of these experts was Dr. Bassim Al-Bahrani, Director of the National Oncology Center at the Royal Hospital and the Senior Consultant of Oncology.

Ten potential users were asked to evaluate the system. All users indicated that the system is useful and they were satisfied with it. About 90% of them indicated that they trust the system and they will use it. About 60% of the participants indicated that they prefer the developed expert system over a human expert because (1) human experts are not available anytime and anywhere, (2) some people felt hesitant to share their personal information with someone else, (3) the system satisfies all their needs and (4) the system saves their respective time, money, and efforts. On the other hand, 20% of participants indicated that having a human expert is better than a developed expert system because (1) they feel that a human expert can be much more accurate, reliable, and trustworthy; (2) one can communicate and interact with a person but not with a system; and (3) a human may be more intelligent than a developed expert system. However, 20% of participants preferred both the developed expert system and the human expert. They indicated that both of them are important and can be used to provide information and recommend solutions. The developed prototype system was to demonstrate the application and value of expert system technology to improve awareness of breast cancer. Several development rounds are needed to finalize the accuracy, completeness and usability of this developed system.



Meeting Professional Development Needs of the Faculty

Dr. Victoria Tuzlukova,
Dr. Marine Arakelyan & James Scully
Language Centre



In order to meet the professional development needs of the faculty, the Language Centre at Sultan Qaboos University organizes “Collaborative Blended Problem-Solving Course”. It is aimed at contributing to better understanding challenges involved in teaching problem-solving skills to the students as well as collaboratively searching for solutions to cope with these challenges.

The implementation of various technological devices has currently thoroughly amended the underlying paradigms of educational continuum in the domain of teaching and learning (Sharma, 2007), as well as in teacher professional development. Online platforms and tools can support virtual professional development and flexible interactions in terms of a pace of study, a mode of collaboration, depth of material discovery, place and amount of time. Moreover, they can be inevitable milestones to contribute to the creation of a blended teacher professional development curriculum which in addition to flexibility and convenience of virtual courses can retain the benefits of the face-to-face multilayer interaction (Sharma & Barrett, 2007), and expand the horizons of teachers’ professional development. Obviously, the process of blended learning combines the best practices with the benefits of technology and provides a variety of pedagogical approaches. According to Sharma (2007), if blended learning is incorporated into teaching, better learning takes place with more tangible, enduring understanding and highly attained learning outcomes. This platform opens much wider horizons to combine traditional teaching/learning formats such as face-to-face interactions with e-learning driven modes of learning/teaching.

In line with what has been said above, the Language Centre at Sultan Qaboos University attaches a highly significant role to any opportunity to meet the professional development needs of the LC EFL teaching community. The Language Centre has a comprehensive range of profes-

sional development activities for teachers; however, due to lack of time, and a huge teaching and workload, a number of faculty cannot gain all the professional development they desire. Therefore, the use of a professional development course in blended learning environment that utilizes a Moodle-based platform was proposed to help meet this need and extend the scope of professional development opportunities. Such three-week intensive blended course titled “Collaborative Professional Development: Focus on Problem-Solving” was organized by the Language Centre Professional Development and Research Unit in collaboration with the Faculty Academic Support Unit.

The course comprised of four virtual modules and four two-hour face-to-face sessions over three weeks in April 2016. It aimed at contributing to better understanding challenges involved in teaching problem-solving skills to our students as well as collaboratively searching for solutions to cope with these challenges. Dr. Marine Arakelyan, James Scully and Dr. Victoria Tuzlukova led the sessions and facilitated virtual communication. More than twenty Language Centre faculty partook in the course. Indeed, the blended collaborative teacher professional development course set forth the importance of understanding of what constitutes the problem-solving phenomenon in the context of English language teaching and learning. It also addressed the underlying principles of problem solving skill development as an integral part of the 21st century skill set and an appreciated trigger to foster efficiency and analytical thinking, decision-making and creativity in this multilayer and ever-changing academic and professional environment. In particular, the course attempted to reveal the ways to introduce the concept of problem solving, root causes, models, principles, and teaching techniques. In addition, it offered the participants the opportunity to question their own teaching and determine techniques and strategies of incorporating problem solving into their English language classroom.



Prof. Dr. Wilfried Bauer: Oman may Hold Surprises for Future Explorationists



Prof. Dr. Wilfried Bauer is an Associate Professor at the Department of Applied Geosciences, GUTech, Muscat. He obtained his PhD in Geology 1995 from RWTH Aachen University in Germany and continued to work at RWTH Aachen from 1995 to 2002 as a Post-Doc and later as a Research Assistant with a scientific focus on the structural geology, metamorphic petrology, mineral chemistry and geochronology of Precambrian metamorphic rocks in high-grade gneiss terranes of the East Antarctic Craton. As a member of an inter-disciplinary team, he worked between 1997 and 1998 on balanced cross-sections of the West-Uralian fold-and-thrust belt with special emphasis on the deformation of the Proterozoic crystalline basement within the southern Ural Mountains. He participated in a geological mapping campaign of the Norwegian Geological Survey that covered four sheets of the geological map of Mozambique in 2004. From 2005 to 2007, Prof. Bauer was a Senior Survey Geologist at the British Geological Survey and the deputy leader of a team that mapped and compiled 40 sheets of the geological map of Madagascar in a World Bank-funded project. Between 2007 and 2014, he was responsible for the R&D department of an Australian exploration company that focused on the exploration of gold, bauxite and graphite in Madagascar. He joined the GUTech as an Associate Professor in February 2015. Of late, Prof. Bauer presented a workshop on “mineral exploration in Oman”, organized by the pre-innovators’ incubator (PII) of the Independent Learning Centre at Sultan Qaboos University.

Horizon: Oman is a geological wonderland. Could you explain the potential for mining and mineral exploration in Oman?

Prof. Bauer: Indeed, for geoscientists Oman is a geological paradise. Nowhere else on this planet, we can study the development of oceanic crust or even the composition of the upper mantle of the Earth like in Oman’s Samail ophiolite. There are other geological wonders like the Hawasina nappe, a sedimentary cover of the ancient Tethys Ocean, Jabal Jalan and the Mirbat area where we have an insight into the basement of the Arabian platform. Finally yet importantly, the sedimentary succession of Mesozoic carbonates that host the Sultanate’s vast oil and gas reserves contribute to the magnificent landscapes and their histories which is telling you so much about the evolution of our planet. Exploration focused during the last 40 years on oil and gas, and to a minor amount on copper along the Batinah coast. Other commodities like chromite, manganese, lead, zinc, gold and silver are still underexplored. For many of these commodities Oman may hold some positive surprises for a coming generation of explorationists. In my view, exploration companies should have a closer look on the rock sequences outside the ophiolite, which have been largely neglected so far.

Horizon: To what extent, could the authorities explore the mining potential of Oman? What about the prospects for future exploration and tapping of mineral resources?

Prof. Bauer: I think that mineral exploration is a high-risk business, which is usually done by specialized companies, which receive funding from investors willing to take such risks. Such companies, called junior explorers, are listed on the Perth or Toronto stock exchanges and have the appropriate technical skills to carry out exploration with state-of-the-art techniques. In my opinion, the authorities are only responsible to set the framework: a clear mining code, fair fees for licensing exploration or exploitation permits and environmental regulations to minimize the risk for the natural environment and for communities that might be affected. It is also crucial for exploration companies that a country sets up a transparent cadastral system, e.g. on a first come – first serve base and that regulations to solve potential conflicts between mining license holders and surface right holders are in place.

Horizon: How would you comment on the role of geosocial researchers and academicians to promote research and capacity building in this area?

Prof. Bauer: Researchers from university and public institutions can set the foundation for a mining-friendly society. That means that we have to listen to local communities, to their fears and to their expectations. This should be done as early as possible, long before major investments are made. Once local resistance against such projects has been build-up it is generally too late. Mining can offer multiple chances, if it is done in the right way. For example, jobs can be created and even if a mine is exhausted, an experienced miner can find easily a new job in another mine. Also the mining-related industry, smelters and metal processing industry may persist; they can import ore and produce even when mines have been closed. Mineralogists and geologists from university can contribute to the general understanding of the formation of mineral deposits, create new models and help the industry. They provide enthusiastic students and young entrepreneurs with fresh ideas. Here at GUTech mineral exploration is part of the curricula. I teach subjects like mineral resources and exploration for several semesters. That includes excursions abroad to active mining districts; for instance, students visited operating lignite mines in Germany. I realized that our students here in Oman are very interested in these topics and they see the chances of a development towards a diversified mining industry.