



جامعة زايد
ZAYED UNIVERSITY

Zayed University Research Strategy

March 2020

Moving from Teaching to Research-and-Teaching

Zayed University's mission statement refers to research, scholarship, and creative activities as among the ways in which the University has an impact for good, both locally and beyond. Furthermore, one of the University's five strategic objectives is to "enhance the leadership role of the University in scientific research and development in ways that contribute to a knowledge-based economy." In certain quantifiable ways, the University has reoriented its activities to create a greater research impact. Annual output has more than doubled since 2016. Year-on-year output has increased by 20% or more every year since 2015. For the first time, Zayed University entered the QS global rankings in 2019. This is, to a large extent, influenced by research, since many of the metrics are either directly (published articles, citations, research income) or indirectly (reputation) a measure of research quantity and impact.

The challenge as we develop a university strategy for the future, however, is different than simply increasing research output, which we have shown that we have the capacity to do. We now need to develop a strategy for moving from a primarily teaching institution that also is increasingly engaged in research, to an institution that can be described as a research-and-teaching university, with both activities together defining the university's mission and impact.

Zayed University's Academic Strategic Plan, developed in 2019, is organized around five "key paradigms." This document will primarily address the fifth of those paradigms, research and scholarship, and will suggest how the University might update the plan to guide it towards its future as a research-and-teaching university.

Outlines of a Strategy

1. Integrate research and teaching.

Any articulation of a strategic plan to move toward a greater research orientation must recognize that this will be done in the context of a large teaching obligation, and, in the absence of a separate government allocation for research, a funding formula that is based on assumptions about teaching. Since the two pillars of research and teaching cannot be separated, it is better to consciously and intentionally *integrate* them. This means creating a culture in which we naturally do more of what is often called "research-led teaching": a focus on making connections between teaching and research.

One beneficial outcome of research-led teaching is the symbiotic development of students as researchers as the university moves closer to becoming a research-and-teaching institution, as it is determined to become. We should think of the next phase of ZU's development as being analogous to a researcher's own development in terms of skills and outputs, and then actually incorporate that into the curriculum where most faculty still spend the majority of their professional time.

In an environment of "research-led" and "research-oriented" teaching (they are slightly different, but complementary, approaches), the college/department's research output becomes a resource for teaching as well as a model of research activity for students, potentially inspiring them to feel the same passion for research as their mentors do. If this is combined with a programmatic, intentional, staged introduction of higher and higher levels of research by students as they move through the curriculum, it

becomes more likely that students will see research-based knowledge as something they *produce*, and not only as something they receive. This is *not* a substitution of research for teaching. Rather, it brings them together into an organic whole that mirrors the kind of faculty we expect to hire. It reinforces the idea that research is central to the faculty identity. With this change in curricular orientation, the role of the teacher changes. The teacher is still an expert, but now also a role model, a mentor, and ideally an active partner in producing knowledge.

One of the challenges, of course, is that studies show that the response of students to a more research-oriented curriculum will vary, depending on a variety of factors including how academically-oriented the students are (as opposed to a more practical or employment orientation). Nevertheless, putting more of a research orientation into the curriculum can have the effect of a) producing graduates better equipped to solve problems and to move on to more advanced study, and b) helping to foreground research as part of the culture of the university for all faculty.

2. Clarify faculty expectations, and align evaluation and reward systems.

Zayed University's current policy on faculty roles and responsibilities obligates faculty to engage in both teaching and research (along with advising and service), but a common complaint of faculty is that expectations regarding the mix of these activities are not clear. The development of a new strategic plan is an opportunity to strongly emphasize the university's research mission while recognizing its heavy teaching responsibility. In doing this, a careful policy review should be undertaken to ensure that all approaches to rewards and recognition are aligned. This includes promotion, salaries, annual awards, and faculty evaluation. Without such alignment, it will be impossible for the university to assure current and potential faculty that it is serious about its mission. With such alignment, however, we will have at least the procedural framework in place to reorient the university toward a new strategy. Since a frequent complaint from faculty is that policies, expectations, and rewards are *not* aligned, this is clearly an area that needs some work.

3. Focus resources on key areas.

We cannot do everything with the constraints inherent in the university's resource base (financial, infrastructural, and human). While we should be prepared to support the research interests of a diverse faculty across a wide range of disciplines, the university should also make strategic decisions about areas where it can have a substantial impact by focusing resources. Some may complain that this will have the effect of privileging some research fields at the expense of others, and in fact that is true. But that is how a university starts to make a name for itself as an institution with impact. In the case of Zayed University, these strategic decisions will certainly be guided by national priorities, including areas related to the Fourth Industrial Revolution, transformative technologies, sustainability, economics (including the Islamic economy and energy economics), and the focal areas of the UAE's Science, Technology, and Innovation Policy. Other areas will undoubtedly emerge as well, but the main point is that Zayed University will be seen as more vital to the nation's development if it can say that it has real research strength in areas that are seen as crucial to that development. Focusing financial and personnel resources in those areas will be an important part of a new research strategy.

4. Attract and retain the right faculty.

This is a complicated challenge, made more difficult by certain factors that ZU cannot control:

- Some faculty we would like to attract may be nervous about relocating to this region. Whether this is through knowledge or lack of knowledge about the region makes little difference, since a move to a new country is as much an emotional/psychological decision as a professional one.
- Urban theorist Richard Florida has made a career out of identifying and tracking what he calls the “creative class.” He argues that certain types of metropolitan areas are better at collecting the kind of creative people—including top scientists and academics—that in turn attract more of the same kind of people. It’s a complicated mix of elements, including not only good universities but things like vibrant and diverse cultural life, freedom of expression and activity, good healthcare, and so on. The point is, not every urban space has all of these elements, or has all of them to the same degree. In a way, it’s a case of “the rich getting richer,” as concentrations of creativity attract more concentrations of creativity. For all its dynamism and fostering of innovation, many people still may not see the UAE as one of those places. We can do our bit to dispel that image, but it may be an uphill battle.
- Our compensation packages have become less and less competitive by the year, with a salary table that has not been updated in over a decade and benefits that some people feel have become less competitive. Adjusting the institution-wide salary ranges is not something we can do on our own, though we should advocate for it whenever we can. Deans regularly report now that they have a difficult time either hiring or retaining the faculty they most want because of non-competitive salaries.

We can, however, control some things, most notably our strategic decisions about our future. As we focus resources on key research areas, we will begin to develop one of the elements that powerful researchers want almost as much as they want the right facilities: other like-minded people to talk to and work with. If we want to hire a serious AI researcher, for example, it helps if we can tell that person that s/he will be working with faculty members X, Y, and Z, whose publications our recruit can look at to see whether or not this is a place where they want to work. The power of a research *community* to attract and retain top researchers should not be overlooked.

Additionally, though we cannot unilaterally change the entire salary scale without government approval, we should at least be willing to make adjustments *within* the existing ranges to reward those who make substantial contributions to the university’s research strategy. An increase each year for everyone, as currently practiced, is certainly appropriate, as the cost of living increases each year. But if that is the only increase, then we risk sending the message that we do not align our reward systems with what we say is important, as noted above.

5. Recognize that research requires time.

Facilities are important, grant funds are important, compensation packages are important, recognition is important, but the secret currency of research is **TIME**. Workload issues must be addressed in such a way that research-active faculty have the time they need to carry out the research that will turn ZU into a research-and-teaching university. One reason that grant funds are often not spent is because faculty develop an ambitious and worthwhile project, but then find they have no time to work on it. This does not necessarily mean that every faculty will have the same teaching expectation, as some are always going to be more research-productive than others. But we must ensure that our teaching loads are consistent with the profile of a research-and-teaching university, and we must especially ensure that the high-productivity faculty that we want to attract and retain are not turned away by high teaching loads.

In the global competition for talent, our current workload model makes it very difficult to make a persuasive case for the best talent.

There are benefits to adjusting workloads beyond the time this would give to researchers. In the section on Paradigm Five in the Academic Strategic Plan, one of the listed initiatives is to “increase the University expenditure on scientific research,” and there is a university KPI for this. The single most effective way to do this may be to adjust faculty workloads. This would allow more time for research, the value of which is considered an expenditure. With more time for research, a larger percentage of allocated grant funds would be used, which is also reported as an expenditure. Faculty would also have more time to pursue external grants. Indeed, the importance of workload adjustment is such that it would most likely have a positive effect on every one of the eight initiatives listed in the research section of the Academic Strategic Plan. *Workload reform is crucial to the next phase of Zayed University’s development.*

6. **Unburden the faculty.**

Faculty were hired to do what they do best: teach and carry out research. The more we burden them with paperwork, reporting, and constant evaluation, the less time they have to improve in those areas, and, more importantly, the less satisfaction they feel from their work. If we really want to unleash more of the existing and future research potential of the university, we must find ways to liberate the faculty from some of the administrative burdens that hamper them.

7. **De-bureaucratize research.**

Other than the lack of sufficient time, perhaps the greatest current frustration experienced by faculty researchers is bureaucratic processes that seem designed to create barriers rather than removing them. We need to carefully examine internal policies and processes to ensure that nothing unnecessarily obstructs research. This includes everything from academic approvals to procurement and finance processes, which are a constant source of headaches for faculty researchers. It also includes reducing short-term KPI reporting that discourages longer-term thinking and activity.

8. **Enhance relationships with industry.**

If we are serious about being relevant to the needs of the UAE, we must develop close ties with industry. There are multiple reasons for this, including the potential for university-industry partnerships (funding, expertise, resources, commercialization channels). Industry needs to know more about the research capacity of the university, and the university needs to know more about the needs of industry. Deans, as well as the Assistant Deans for Research and Outreach, should be encouraged to spend substantial time away from the campus, building relationships and exploring opportunities.

The Road to Research Excellence

As a young university, Zayed University has the advantage of being able to learn from the experiences of others, without decades or centuries of ingrained practices to struggle against. There are three primary lessons we should apply as we develop a strong research component for the Academic Strategic Plan.

Lesson #1: The competition for talent, including research talent, is global.

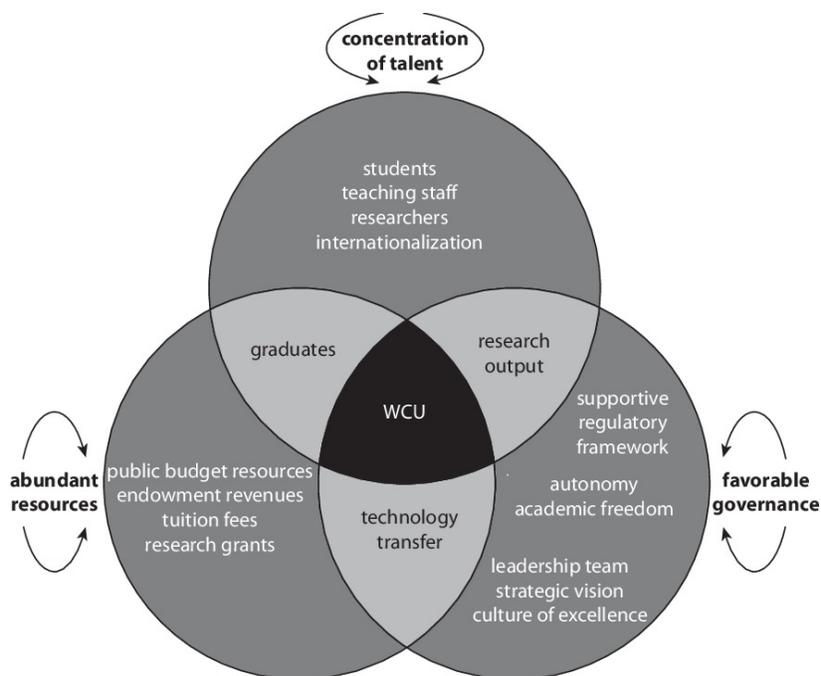
In his 2010 book *The Great Brain Race: How Global Universities are Reshaping the World*, education writer Ben Wildavsky notes that in an environment in which universities are focused on rankings (which are now global), and in which the development of “world-class universities” is the goal of nations across the world, the “competition for human talent” and “the race to produce innovative research” has also become global (p. 7). But since there is not enough “world-class” talent to fill every need, universities and national higher education systems must be very strategic in their thinking. There are few young universities that can “do it all,” building true research excellence in every field, but it is possible to carve out niche areas of excellence in which we build strong capacity, focus resources, and publicize our successes. Strength builds strength, and as we become known for our research in selected fields, with academic programs attuned to those fields, it will become easier to attract not only more highly productive researchers, but more motivated students at both the undergraduate and graduate levels. This in turn can lead to the kinds of research synergies that mature research universities generate, with faculty, students, visiting scholars, post-docs, and industry partners working collaboratively in high-impact areas.

Lesson #2: Internationalization is the key to future impact.

It is ironic, but true: The global academic environment is intensely competitive, but the universities that thrive are also intensely collaborative. In 2014, Alice Gast, President of Imperial College London (currently ranked 10th in the world by Times Higher Education and 9th by QS), captured both the irony and the necessity of international collaboration: “Just as students benefit from a university environment that represents the global spectrum of cultures and values, so does research. It is interesting that such a fiercely competitive academic endeavour benefits so greatly from international collaboration, essential to building the best research teams. We compete better when we collaborate effectively with our competitors.” (<https://www.standard.co.uk/comment/comment/alice-gast-to-stay-top-london-universities-need-global-links-9767396.html>) Gast has noted elsewhere that roughly two-thirds of ICL’s research output can be traced to international collaboration. The percentage at ZU is actually similar, but we need to find ways to both sustain and expand international collaboration, looking for high-value partnerships in our focal areas. In addition, we should work to generate greater international representation in our student body, as this will challenge students to think outside their comfort zones, which is essential to creativity and innovation. To attract more international students, we should look carefully at our curricular offerings and ensure that we have something of value that will attract them.

Lesson #3: The key factors in building strong universities, with strong research cultures, can be identified.

In *The Challenge of Establishing World-Class Universities*, a study published in 2009 by the World Bank, higher education expert and World Bank tertiary education coordinator Jamil Salmi examined universities across the globe. He distilled the lessons drawn from that study into a Venn diagram showing the interaction among what he described as the three characteristics of a world-class university: concentration of talent, abundant resources, and favorable governance, as shown below.



Source: Salmi 2009.
 Note: WCU = world-class university.

Not every element of this diagram applies to Zayed University (we do not rely on tuition fees, for example, with the exception of international students), but the overall picture is instructive. If we want to achieve the research outputs that we seek, including being recognized for excellence in key areas, and if we want research to be a central part of the Academic Strategic Plan, we should work intentionally to enhance each of the elements that we can influence. In particular, attracting and retaining talent should be a top priority. To do this, we must address compensation and workload issues, and clear away obstacles to the smooth functioning of a research environment. Enhancing revenues is not solely in our hands, but we should constantly advocate for a new way of funding the university with research in mind, and push hard to generate more external research income. While we do not control the external regulatory framework, we do control our own policies and procedures, which can be made more research-friendly, particularly in the areas of workload, faculty evaluation, procurement, and finance. As Salmi's diagram shows, research output is largely a function of the combination of talent and favorable governance. When abundant resources are added to the mix, the elements are in place for the making of a world-class university. We are not there yet, but our strategy must push us to improve what we can control, and influence what we cannot.