Knowledge key to graduate value

Student outcomes have as much impact on innovation as research and rankings

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At last week’s annual Universities Australia conference, the opening keynote speaker, Jo Ritzen, argued that graduate outcomes have as much impact on innovation as research.

Noting that “unlike iron ore, higher education is a value added export”, Dr Ritzen called for greater investment and support for education to enable it to make the contribution to this critical national innovation agenda.

Government and society need to invest in and support higher education. Universities also need to constantly critique their value-add and resist getting stuck on research and rankings alone.

Ritzen is well placed to make such a pronouncement as a former minister for education and sciences in The Netherlands and as someone who enjoyed an illustrious academic career before entering politics.

He has recently spent significant time in Australia and in his opening remarks said he had seen and heard a lot about the need for innovation in Australia, but that innovation plans and statements were almost always framed as being about research.

While acknowledging the critical importance of the research component of innovation, he said Australia’s innovation agenda would be equally well served with a greater focus on graduate outcomes. It is these graduate outcomes that will drive economic growth.

This is an important statement, and one that has so far been overlooked in the innovation debate. Close to 300,000 students graduate from Australian universities each year. Imagine what the impact of their arrival in the workforce, or indeed in establishing their own businesses, would be if they were armed with deep knowledge and expertise in entrepreneurship, innovation and creativity.

What other kinds of graduate outcomes should we be seeking to ensure our students attain? Which competencies contribute to innovation and growth? Ritzen’s view is that they must first of all include “cognitive achievement and knowledge of the field in problem-solving mode”.

This is a welcome departure from the common higher education dictum about the primacy of the content of a discipline area. Here the implication is that students must have knowledge of the discipline not just in the more traditional mode of knowing and applying the knowledge but in being able to solve the real problems of the field and across fields. This is an area in which we could make a real step change in the learning experiences of students.

Other competencies mentioned by Ritzen included some of those that have been widely agreed upon, such as the ability to work in teams, good communication skills, intercultural understanding, and knowledge of information and communication technologies. He also included competencies that many would consider to be personality traits and hence either difficult to teach or not teachable, such as: “openness, conscientiousness, extroversion, agreeableness and emotional stability”. And he added economic traits such as “impatience, risk aversion, trust, altruism, and positive and negative reciprocity”.

Imagine students beginning their studies not with “introduction to the field” type subjects but with a set of real problems derived from business and industry. They could learn right from the start of their studies about strategies for solving these problems from a range of perspectives. They could do this in teams, where processes of problem solving, critical thinking, and teamwork are as important as the outcome of that process. Academics would model not only approaches to solving problems but also some of the other personality attributes and economic traits mentioned above. Students would build knowledge of the discipline and collaborate across disciplines in the context of solving these problems. There are pockets in which this innovative approach to learning is already happening, but to quote William Gibson: “The future is already here, it’s just not evenly distributed.”

It was very heartening to see the discussion at the UA conference on the nature of the new skills, attributes and graduate outcomes. On the one hand, there were assertions by industry groups that today’s graduates do not meet industry needs, while other commentators cautioned against educating students for the short-term job market, noting the futility of that approach in times of such rapid change.

It is clearly a debate well worth having and it needs to gain more prominence. The conference heard an astonishing statistic from Britain’s Teaching Excellence Framework that 45 per cent of students show no change in skills acquired in the first two years of study. Australia has no framework for measuring this, so we can only hope we would not replicate these results. However those would be the words of an optimist and we need to immediately focus our attention on this.

It wasn’t only Ritzen who urged a new focus on graduate skills and outcomes. Kate Carmell, the former chief executive of the Australian Chamber of Commerce and Industry, advised us to focus on what jobs will look like in the future, in an era of such rapid change in technology and the use of data, for example. Her view was that there was much to gain by focusing not on brand new jobs but on the different skills that will be needed in existing jobs. The challenge, she said, is how we go about equipping the existing and future workforce. Innovation is as much about people and process as STEM invention.

The plan for the successor to the Office for Learning and Teaching is yet to be announced but, whatever form it takes, it would do well to focus on identifying the graduate outcomes needed to foster and sustain innovation and economic growth so student outcomes take their rightful place as equal contributors with research to the innovation strategy.

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