

Can Universities hit the mark with specialist actuarial education? An ERM case study

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Acknowledgement:

This presentation is primarily based on a paper that is available at the SOA's Actuarial Research Clearing House (2017.2) [with B. Whiting, B. Browne, T. Higgins, C.I. Tan]

Also includes insights and material from :

- A second ERM paper in the Risk Management and Insurance Review (Vol.20, Issue 1, 2017, pp. 99-131); (same authors as above) and
- for additional educational context on the Australian actuarial education system, see the Australian Journal of Actuarial Practice (Vol.5, 2017, pp.107-121). (with J. Du, B. Whiting)

Please forgive the shameless self-promotion here!

A bad place to start is oneself, but just for context...

- Have been at Australian National University (ANU) for 9 years, teaching a range of undergrad and postgrad courses (but not ERM!). Includes various industry and government consulting engagements
- Previous 9 years in life insurance and Defence (New Zealand)
- Previous 9 years in undergrad / postgrad study, research assistant, teaching fellow, wannabe All Black

Qualification Process for Actuaries in Australia

Professional exams		Description	Exams available through:	
			An accredited University program	The Actuaries Institute directly
Part I	8 exams	‘Core Technical’ (CT): a strong technical focus	Yes (all)	Yes (all)
Part II	3 exams	2 ‘Control Cycle’ exams + 1 Investments exam: focus on ‘transition to practice’	Yes (all)	No
Part III	Module 1: 1 exam	1 exam from a range of options / applied areas	Yes (one option)	Yes (most options)
	Modules 2/3: 2 exams	Both exams in one of four applied areas	No	Yes (all)
	Module 4: 1 exam	An 8-hour case-study exam (“Commercial Actuarial Practice”)	No	Yes
Total	15 exams			

ERM at ANU

- ANU introduced 2 courses in ERM in 2015
- These courses are predominantly (but not exclusively) split along qualitative (Semester 1) and quantitative (Semester 2) lines
- For exemption purposes for CERA accreditation, students need to achieve an average of 75% across both courses and achieve a minimum of 65% in each

“Be a baker who eats their own bread”

- Being actuaries, we really should monitor, review and adjust what we do in line with experience
- This should include education!
- So, in 2015:
 - With colleague Dr. Bronwen Whiting (Associate Dean of Education), sat in on most ERM1 classes in Semester 1, as observers
 - We interviewed 4 students after the ERM 1 course – all 4 had done well
 - Each of the 3 ERM lecturers ‘reflected and shared’ their thoughts, observations, learnings, etc

What did we find?

- Learning outcomes
- Materials
- Course Structure and Activities
- Assessment
- How to do well in the course

What did we find? – Learning outcomes

1. The holistic nature of risk

“How an organisation sets up its processes and underpinning culture to support risk management practice.”

2. Capital, culture, and risk appetite

“Risk culture . . . came up a lot, which wasn't something that I had really thought about.”

3. ERM as a framework for understanding risk in its entirety

“That mindset of just making sure you think about what are all the risks here and how are they going to interact.”

4. The upside and downside elements of risk

“I see risk as being both (the) risk of something bad happening as well as the possibility of or an opportunity for something good to happen.”

What did we find? - Materials

- ST9 notes and Sweeting textbook, some additional material

“The ST9 notes were pretty easy to understand . . . it works well in that we had like the Sweeting (textbook) which kind of goes into more detail and then ST9 kind of already summaries it.”

What did we find? - Course Structure and Activities

- Group work, case studies, participation around 'doing' rather than listening

“We did case studies in class. I liked doing that . . . you can read a chapter before class and have an idea what it's about, but it makes a big difference when you do a real life example.”

“I do think it depends because most of our classmates are not willing to share their ideas in the classroom . . . so if everyone could participate in a group discussion in a classroom, it would be quite helpful.”

What did we find? - Assessment

- Assignment based on interview with Industry practitioner (15%)
- group presentation to class based on industry presentation by practitioner (10%)
- mid-semester (15%) and final exam (60%)

“if you are forced to make a presentation just before your classmates... you do need to prepare a lot.”

“I didn't find it very useful listening to other people's presentations. . . I didn't really find it that engaging.”

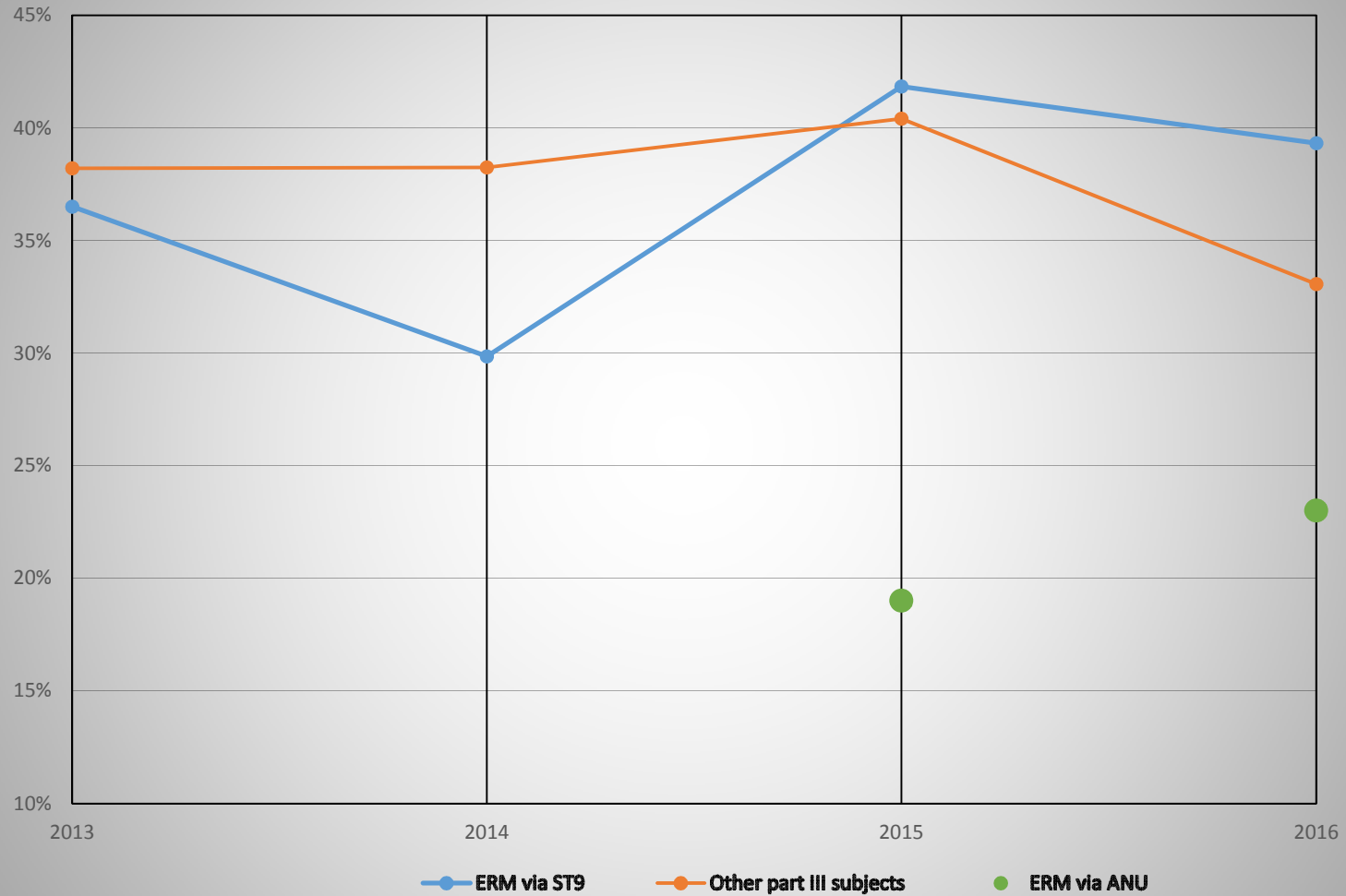
What did we find? – How to do well in the course

- Read, absorb, do, understand, discuss, context (tangible versus intangible)
- Compare to part I achievement!

Credibility / robustness – Industry links

1. Close adherence to the professional, CERA syllabus.
2. Credentials of ERM lecturers. Three are Fellows, two have PhDs, two are CERAs, combined tertiary teaching experience of 20 years, combined professional working experience of 36 years.
3. The role of an external examiner from industry - reviewed exams and exam scripts for those candidates close to exemption grades.
4. Industry-relevant assessment pieces.
5. The use of key guest speakers from industry, and the use of case studies.

Part III exemption rates for Australian candidates



The future....

- order and timing, “so that students are not thrown into technical financial institution related material too early” (ERM1 lecturer)
- adding more background material, as “historical incidents and extra readings on modelling techniques are good learning materials” (ERM2 lecturer)
- Pros and cons of ‘forced socialisation’
- Logistics of larger classes (80+)
- More hands-on use of software packages, real data, complex case studies, ...
- No issues with enthusiasm from Industry to be contacted and involved in interviews for assignments, guest lectures, ...

The question....

- Can Universities have a real role in delivery of professionally-oriented education, beyond the part I and II aspects of technical and 'bridging' skills?
- Yes. But with provisos.