



Welcome to the first newsletter sent out to members of the Actuarial Educators Network. It is a privilege to send this out to a truly global network of people who are involved in the critical activity of actuarial education, and ensuring that the next generation of actuaries will uphold the high standards of the actuarial profession.

As you may know, the Actuarial Educators Network (AEN) was recently formed to foster interaction between actuarial educators around the world and thereby improve the global quality of actuarial education and global access to actuarial education. The intention is to send a quarterly newsletter to members, providing information that we believe will be of interest to all our members.

## History and governance of the network

Since 1998 the International Actuarial Association (IAA) has focused strongly on education in all regions of the world. The mission statement of the IAA specifically refers to developing education standards. Recent discussions on education strategy have envisioned a role for the IAA in promoting quality in actuarial education and ensuring greater global access.

Following some discussions in the IAA around the possible formation of a network for those people involved in teaching and researching actuarial science, a group of actuarial educators and other interested parties met to discuss setting up such a network at the International Congress of Actuaries in Cape Town in 2010, and at this meeting, there was unanimous support for the formation of the AEN. The high level purpose of the AEN has been established as “to provide resources for and facilitate communication about actuarial education and research.”

The network was formally established in the IAA structures with the formation of the Subcommittee for Actuarial Educators, which reports to the IAA Education Committee. This Subcommittee is intended to provide leadership and direction for the AEN, and the current members of the subcommittee are as follows:

- Andrew Gladwin (IAA Education Committee, Cape Town, South Africa) (Chairperson)
- Jim Daniel (Emeritus, University of Texas, USA) (Co-Vice-Chairperson)
- Ian Senator (BPP Professional Education, UK) (Co-Vice-Chairperson)
- Douglas Andrews (University of Southampton, UK)
- Curtis Huntington (University of Michigan, USA)
- Isagani B. Jos (De La Salle University, Phillipines)
- Iain Macdonald (University of Cape Town, South Africa)
- Eduardo Melinsky (Universidad de Buenos Aires, Argentina)
- Peter Murdza (Soongsil University, South Korea)
- Derrick Asamoah Owusu (Kwame Nkrumah University of Science & Technology, Ghana)
- John Shepherd (Freelance actuarial educator, Sydney, Australia)
- Patrick Weke (University of Nairobi, Kenya)
- David Wilmot (BPP Professional Education, UK)
- Zhigang Xie (Shanghai University of Finance and Economics, China)



The terms of reference for the subcommittee can be found at [www.actuaries.org/index.cfm?lang=EN&DSP=CTTEES\\_SCAE&ACT=TERMS](http://www.actuaries.org/index.cfm?lang=EN&DSP=CTTEES_SCAE&ACT=TERMS).

## Membership and Administration

There are currently 263 members of the network. No membership fee is currently payable. The administration for the AEN is kindly performed by the IAA Secretariat with Christian Levac ([christian.levac@actuaries.org](mailto:christian.levac@actuaries.org)) the staff member responsible.

The AEN is open to anyone with an interest in actuarial education. Many of our members will be academics in universities and colleges, but others are working primarily in industry or in other educational and professional bodies.

We would like to establish a searchable database of our members, as this may facilitate networking with people who have similar interests, and development of actuarial education around the world. This database will only be accessible to those people who are members of the network. If you haven't filled in your details, please take a few minutes to do so at [www.actuaries.org/AEN/Membership.cfm](http://www.actuaries.org/AEN/Membership.cfm).

If you know of any educators, or people interested in actuarial education, who would be interested in the network, please encourage them to join by filling out the same form ([www.actuaries.org/AEN/Membership.cfm](http://www.actuaries.org/AEN/Membership.cfm)).

## Website

We have our own website at [www.actuarialeducators.org](http://www.actuarialeducators.org), hosted by the IAA. The website is intended primarily as a resource for educators and researchers, and we would like to populate it with useful papers and other materials. The website also contains information on events of interest to actuarial educators, terms of reference for the AEN and subcommittee agendas and minutes. We intend to add a searchable database of members shortly, as noted above.

If you have a contribution to the website, please send to [Christian Levac](mailto:Christian.Levac@actuaries.org) – we would like to build a high-class resource base to improve actuarial education and research globally.



## Meetings of Actuarial Educators

We would like to inform members of the following upcoming conference of Actuarial Educators

Region	Event	Dates	Host	Web page
<b>UK</b>	Actuarial Teachers' & Researchers' Conference 2011	14-15 July 2011	Department of Statistics, University of Oxford, Oxford	<a href="http://www.stats.ox.ac.uk/news_and_events/ATRC_2011">www.stats.ox.ac.uk/news_and_events/ATRC_2011</a>
<b>North America</b>	46 <sup>th</sup> Actuarial Research Conference	11-13 August 2011	Department of Mathematics, University of Connecticut, Storrs, Connecticut (USA)	<a href="http://www.math.uconn.edu/conferences/arc2011/">www.math.uconn.edu/conferences/arc2011/</a>
<b>Australasia</b>	Australasian Actuarial Education & Research Symposium 2011	1-2 December 2011	Australian National University, Canberra (Australia)	URL for web page to be advised (Interim contact: <a href="mailto:tim.higgins@anu.edu.au">tim.higgins@anu.edu.au</a> )
<b>North America</b>	47 <sup>th</sup> Actuarial Research Conference	1-4 August 2012	University of Manitoba, Winnipeg, Manitoba (Canada)	
<b>North America</b>	48 <sup>th</sup> Actuarial Research Conference	1-3 August 2013	Temple University, Philadelphia, Pennsylvania (USA)	

The Subcommittee has also discussed the possibility of an international meeting held by the AEN and open to our members around the world. While this is in the very early discussion stages, an event in late May 2013 in the Netherlands has been pencilled in. Any suggestions from members for topics at this meeting will be very welcome at this stage.

## Actuaries Without Borders

The AEN would like be a key mechanism in achieving the vision of global access to actuarial education. In this respect, a formal relationship has been established between the AEN and the education subcommittee of Actuaries Without Borders (AWB), which is a section of the IAA. In conjunction with the AWB, the AEN would like to publicise opportunities for educators to participate in educational projects in countries with developing actuarial professions. If you are aware of any opportunities, please also let us know, so we can outline them in future newsletter editions.



## What You Test Is What You Get

*The AEN would like to promote discussion on effective teaching and assessment in actuarial science. As an example of this type of discussion, we are privileged to have this short article from John Shepherd ([johnshepherd3@gmail.com](mailto:johnshepherd3@gmail.com)). We would welcome any feedback on this article, or any similar contributions from members.*

When teaching applied mathematics subjects I found that many of my students seemed to rely on memorising formulae, methods and processes to get them through exams. This was disappointing because it left those students without an understanding of the meaning and rationale behind the symbols used in the formula, method or process. In future they would likely struggle to solve a problem where the circumstances were different – radically or even slightly – from those assumed by the standard formula, method or process.

I tried very hard to persuade my students to focus on the underlying concepts and principles. In class, I demonstrated problem solving from first principles, without relying on formulae. I started with a blank transparency on the overhead projector and wrote down my solution, talking about it step by step as I wrote – the meaning of each term in an equation, what the right hand side represents, why the left and right hand sides were equivalent – using diagrams wherever possible to illustrate. I encouraged solving problems from first principles. I recommended, exhorted, begged, pleaded – and even threatened and cajoled – to little effect!

It was clear from in-class tests that many students were relying on plugging numbers into formulae to solve the problems set for them. I was frustrated and puzzled! The better approach was being ignored. My words and actions seemed to have been wasted!

Now I'm a slow learner but eventually the penny dropped. I realised that the underlying weakness was with the types of problem I was setting in tests and exams. Many of these problems **COULD** be solved by plugging numbers into formulae! It was possible for students to safely negotiate a test or exam **WITHOUT** having to demonstrate understanding of the basic principles or concepts involved. I needed to change the types of problem I was setting.

What I was saying and doing in class – over and over again – was being drowned out by the message given by the assessment tasks. The assessment tasks said: *"You don't have to understand this! You can handle this if you can plug numbers into formulae! You'll be fine!"* Assessment speaks louder than teachers.

So, instead of setting only problems that asked for numerical results (a price, a yield, a net present value, etc) I also included problems that required a written response – an explanation. A simple example would be giving some details about a fixed interest security (eg a bond) including the current spot yield and – instead of asking for the price to be calculated – saying:

*"Your classmate says the market price of this bond should be \$98.45 per \$100 face value. Without doing any calculations explain to your classmate in your own words why you know this cannot be the current market price."*

A student seeing this kind of question in an assessment is left in no doubt that he/she is going to have to understand the meaning behind the calculations.



From this experience I learned two things that greatly influenced my subsequent teaching:

- (1) For understanding how mathematics can be applied to the real world, words are just as important as mathematical symbols. The more they talk and write about the maths they are learning, the better our students will understand it. (And aren't we always talking about how a good actuary is one who can not only come up with the numbers but also explain what they mean?)
- (2) For many students, assessment **IS** the curriculum. It follows that assessment tasks are a powerful tool for influencing the behaviour of our students.

## Final Comments

The AEN is still in its formative stages and we would value any suggestions on how the AEN can achieve its objectives. Please send these to [Christian Levac](#) or [Andrew Gladwin](#).

Finally, you are receiving this newsletter because you are currently on our e-mail distribution list. We would very much like you to remain part of the network, but if you do want to opt out, or are receiving this e-mail in error, please inform [Christian Levac](#) who will remove you from the distribution list.