



# 13<sup>th</sup> Global Conference of Actuaries 2011

## *Emerging Risks... Daring Solutions*



Professionalism and actuarial education

## Educating Actuaries

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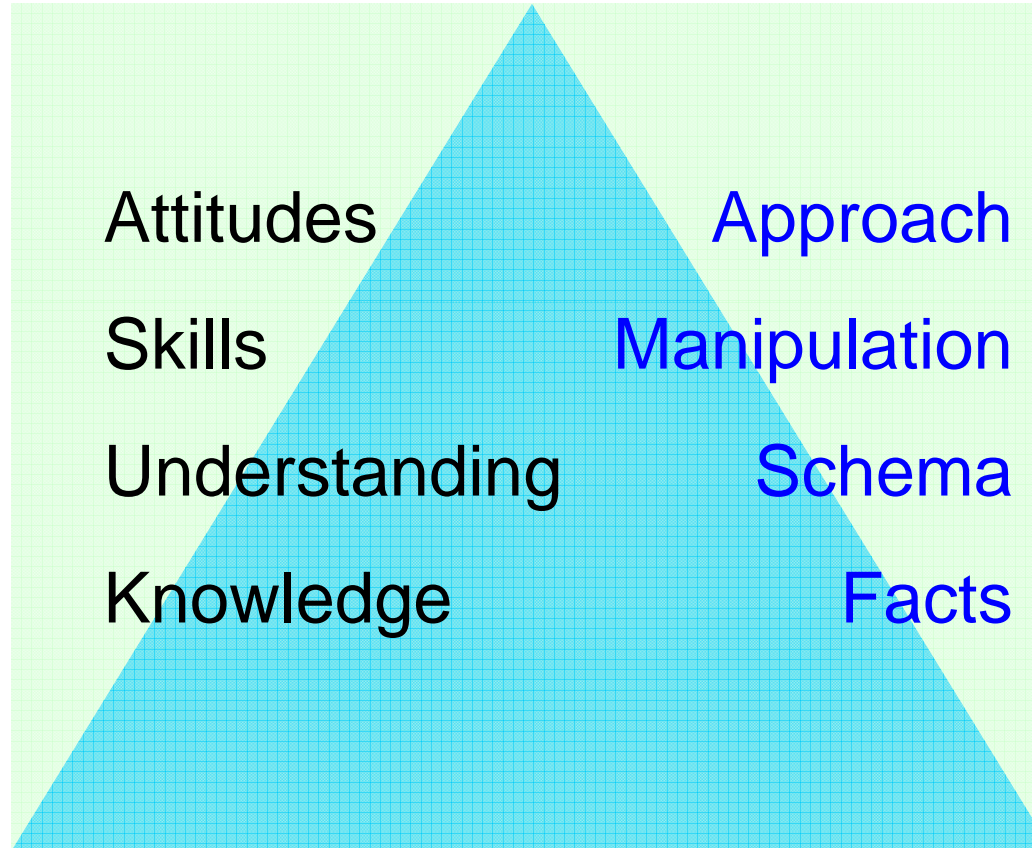
# Presentation outline

Following the structure of the accompanying paper:

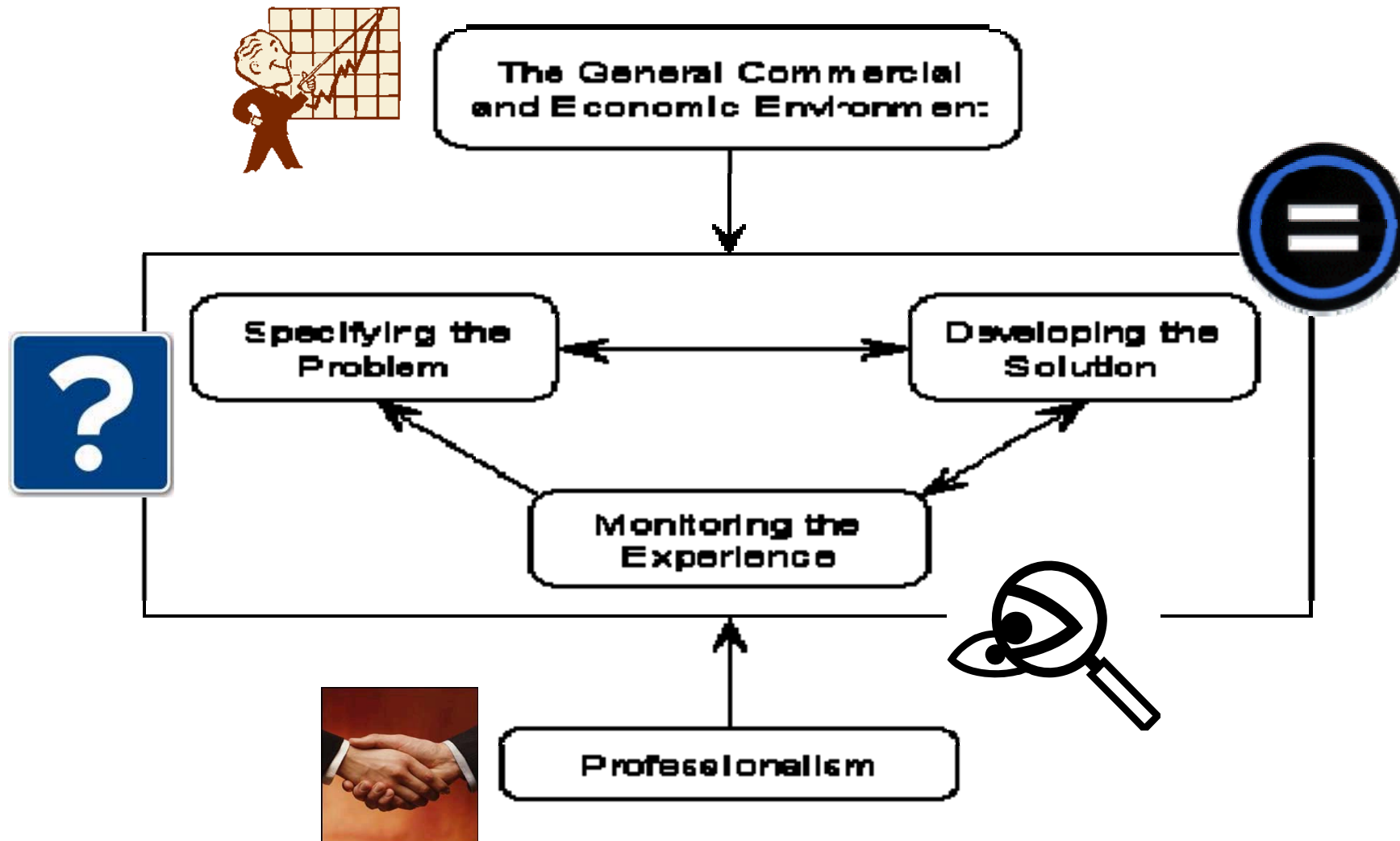
- What is education?
- What are our objectives?
- How do we support and assess effective learning?
- How should we monitor education effectiveness?
- Conclusions



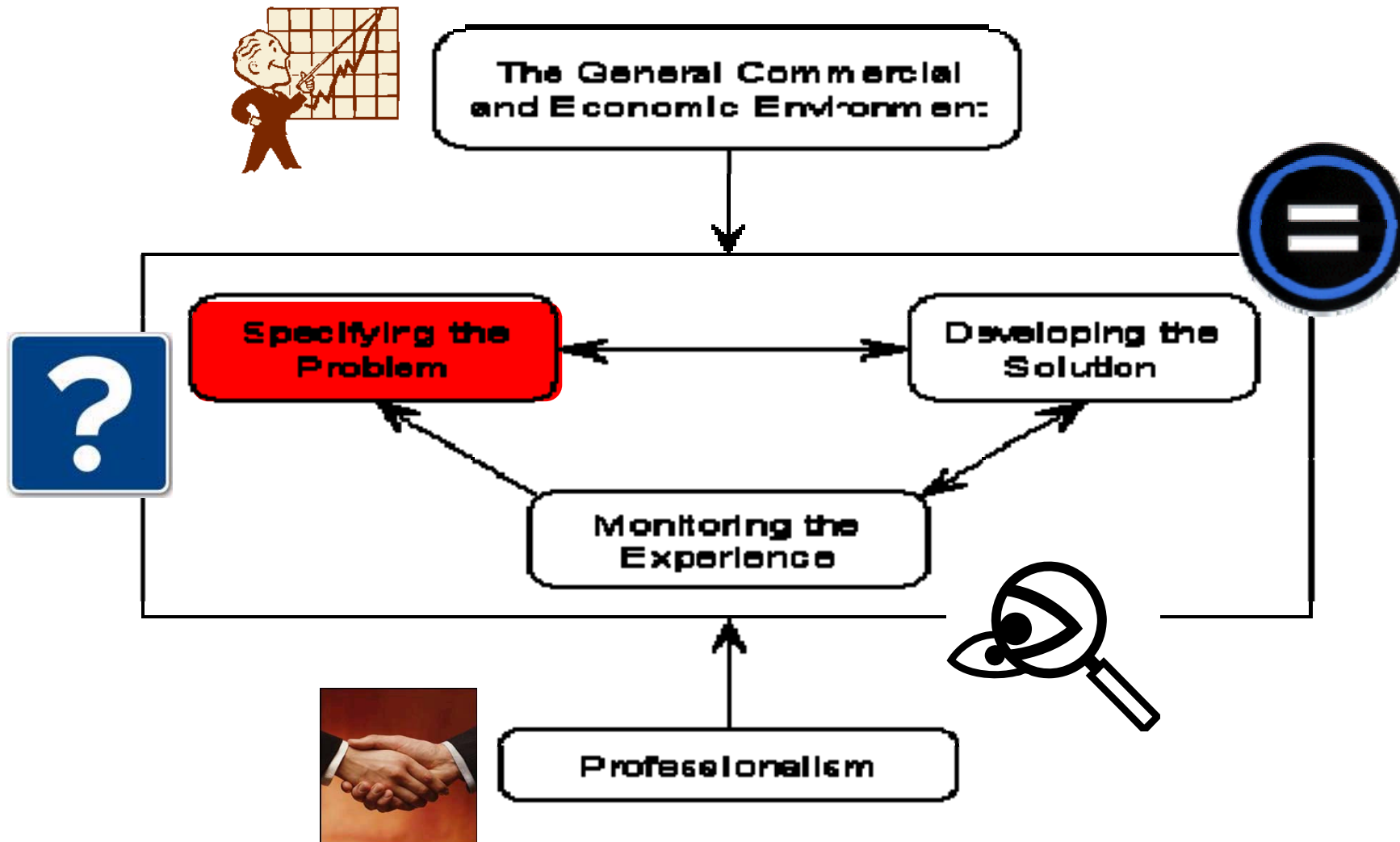
# What is education?



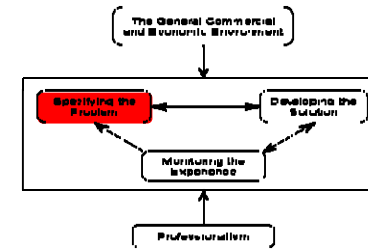
# The actuarial control cycle



# The actuarial control cycle



# Start with the end in mind



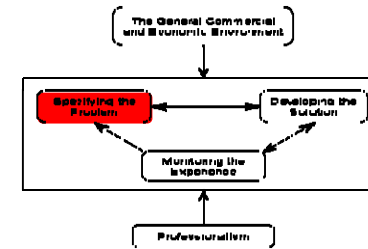
Quality

Objective

Number

To **optimise** the supply of actuaries through appropriate educational provision.

# Who is the customer?



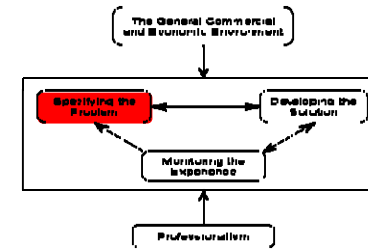
Current customers say that actuaries need...

- better business understanding and judgement
- stronger communication skills
- improved ability to work in multi-disciplinary teams
- ...

UK Profession's strategic review 2005

# What learning is appropriate?

- External forces & industry knowledge
- Communication
- Interpersonal collaboration
- Analytical problem-solving skills
- Strategic insight & integration



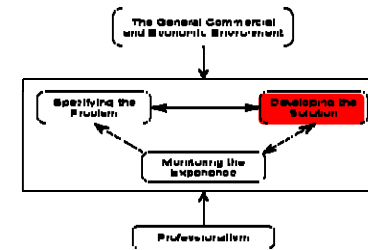
“demonstrating the listening, writing & speaking skills required to effectively address diverse technical and non-technical audiences in both formal & informal settings”

Specific, Measurable, Attainable, Relevant, Time-bounded

excerpts from *10 principles for SOA education*



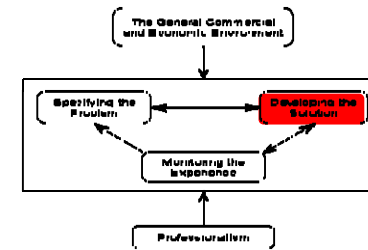
# Components of a solution



**Learning**, including  
Assessment *for* learning

**Assessment** *of* Learning

# How do we support effective learning?



Effective learning is...

Problem-based learning?



situated

social



meta-cognitive



personalised



Distance learning?

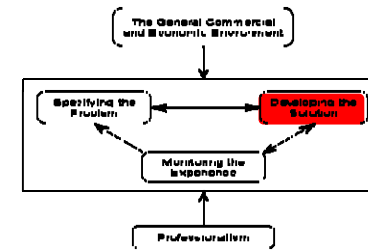
# How do we assess learning?

## Formative:

- external, e.g. marking service
- self-assessment, e.g. online testing, SOA's FAP
- peer-review, e.g. within a student cohort
- expert assessment, e.g. observation of behaviour

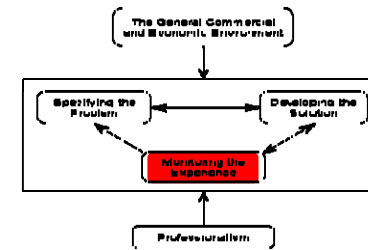
## Summative:

- 'traditional' exam, e.g. MCQ or open answer
- observation of controlled exercise, UK's CA3 & Australia's CAP



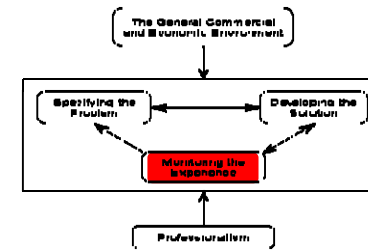
# Monitoring education

**KPI:** greater proportion of joiners are non-maths majors



**KRI:** (falling?) average class of degree of joiners who are maths majors

# Monitoring education



Part of any solution is preparation to answer questions such as..

“Why has the pass rate risen?” e.g. CA3

“Has the new assessment technique achieved higher levels of validity?” e.g. FAP

# Conclusions

To achieve our objectives in actuarial education we must:

- design systematically, not piece by piece
- improve higher-level learning objectives
- be more explicit about KPIs and KRIs
- sponsor greater innovation in learning / assessment tools
- adopt more well-situated experiential learning / assessment techniques
- invest in research that helps us to learn from the experience of implementing education strategy.

# Discussion

- **Professionalism in Society & The Actuarial Profession**

*Ronnie Bowie*

President of the Institute & Faculty of Actuaries

- **Professionalism & Actuarial Oversight**

*Jon Thorne*

Project Manager

Financial Reporting Council

- **Educating Actuaries**

*David Wilmot*

Director of Education

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