Work-Based Skills
Student Document

Introduction

The Actuarial Profession in developing the 2005 education strategy is keen to develop the practical aspects of a student's training as well as the theoretical aspects. The work-based aspect of a student's training is a further opportunity for the student to learn. The student gets an opportunity to understand how practical considerations can affect theoretical models. In addition, the student develops personal skills in the work environment. We want to encourage young professionals to develop a culture of self-assessment and professional development to help them plan their future as an actuary. We also want to encourage them to discuss ideas and thoughts with colleagues.

This will apply to all students joining after 30 June 2004.

Aims of Work-Based Skills

The aims of the work-based learning can be summarised as helping students to:

- understand the interaction between theory and practice when using actuarial techniques
- understand the commercial environment
- work within a professional and ethical framework
- communicate with stakeholders and colleagues
- develop management skills including self-management
- satisfy the public need for competence
- understand the need for continuing development
- develop processes for reflection and self-assessment of competence

Key Dimensions

The aims of the work-based learning period thus cover acquisition of specific skills in the following key dimensions:

- technical application of actuarial skills
- judgement
- professional and ethical
- communication
- commercial
- Information Communications Technology
- management

In addition, bearing in mind the continuing development aim, skills associated with being a positive reflective learner will also be emphasised.

Learning Log

All students are required to maintain a learning log of their programme of professional development.

This will include:

- A self assessment by the student of skills addressed for the next review point. This will include on-the-job training.

- A record of formal learning activities including computer-based training, training events and courses attended with reasons for attendance and comments on what was gained from the activities.

- A record of review questions addressed as part of the review on skills acquisition including the discussion on these questions. The student's attempts on the review questions should be attached.

- A sign off by supervisor of review period. This will either say particular skills have been addressed satisfactorily or recommend further work on the skills.

- A statement of the skills to be addressed in the next period of development.

- Final sign-off on qualification by a Fellow of an IAA recognised actuarial association. This would normally be done by a Fellow of the Faculty or Institute.

Skills Map

The key skills dimensions may be expanded to produce a detailed skills map which is shown in **Appendix A**.

In planning a student's programme of work-based skills training all dimensions must be covered. Within each dimension a variety of skills relevant to good actuarial practice is shown. It is not necessary to cover all skills shown but an appropriate selection should be made. Some skills will take time to develop whereas others will be acquired in a shorter period of time. Companies are encouraged to use their own skills maps if they prefer but the links to the seven key dimensions of the profession must be shown.

Assessment of Skills

The main emphasis is that the student has been through a learning process. Assessment will be by employers so it is difficult to achieve consistent standards across employers but this is less important if the emphasis is on the learning process.

The supervisor will sign off each key skills dimension when it is considered that:

- The student has been exposed to appropriate skills and experiences in the map and demonstrated an understanding of the dimension (not necessarily a set standard of competence).

- The student has satisfactorily presented reasoned answers on review questions relating to that area.

Review Questions

Students are expected to answer review questions that aim to make them reflect on their current work experience, discussing the questions with colleagues before presenting a reasoned answer as part of the evidence for the next supervisor review. Students are required to answer two questions in each six month period. Typical review questions might be:

1. Explain how actuarial judgement came into a recent piece of work, you have undertaken. How sensitive were the results to the judgement and assumptions made?

2. Describe the range of stakeholders for a particular project you have been working on recently. Has it been possible to meet all their interests and needs giving examples in each case?

3. Explain why it is important to document your work adequately. Describe the documentation needed for a recent piece of work.

The answers would typically be 500–1000 words and the emphasis is on content rather than literary style. Where appropriate bullet points or notes may be used in preference to an essay. The supervisor may require the student to add to the answers provided if it is felt that insufficient thought has been given to the question.

It is also possible that a student might revisit a question at a later stage in their training.

Students for Fellowship are required to answer a minimum of twelve different questions with one question addressing each key dimension. The remaining questions can be drawn from any key dimension.

Students for Associateship are required to answer a minimum of four different questions covering four different key dimensions.

A record of review questions addressed and a note on the discussion should be included as part of the review on skills acquisition. The student's attempts on the review questions will normally be attached. However if the material is confidential to the company this requirement will be waived for some questions. This requirement can be waived for up to half the questions.

Time for Skills Acquisition

The time taken for acquisition of skills will differ from individual to individual. However, it is appropriate to consider learning experiences measured in time. Students are required to have a discussion on their learning and capabilities at regular intervals, typically six months but at least annually. A student would start on joining the profession to maintain their learning log. This would then need to be reviewed six months after joining and then after six/twelve months to ensure there has been time for evidence of development. After one year if the supervisor is satisfied, then the work-based learning requirements for the Associate qualification will have been met. After three years, with periodic reviews normally at six month or twelve month intervals if the supervisor is satisfied then the work-based learning requirements for the Fellowship qualification will have been met. The period of time helps to ensure that students have an exposure to a variety of work and technical situations and to develop their professional judgement. While these are the normal time periods special cases will be considered. Students will be required to continue their learning logs up to qualification. These can then form the basis of records for Continuing Professional Development (CPD).

A university student undertaking work experience might join the profession as an Affiliate to start the learning log.

Role of Employers

All employers are encouraged to support the work-based skills training. The aim is to develop students to perform their future job as actuaries well. The employer will need to have a commitment to the work-based skills aspect of the qualification process and not simply to the examinations part. There will be a need to ensure that students have experienced a wide range of skills. It is recognised that there may be additional costs for the employer in sending students on relevant courses. The supervisors will also need to find time for regular discussion with the students. However, it is hoped that this process might tie in with existing appraisal processes in the company.

Role of Supervisor

Each student will have a supervisor who would normally be a Fellow of the Faculty or Institute of Actuaries. The supervisor will be responsible for the development of the student during their learning period. We envisage the supervisor as being the person who is also responsible for carrying out the employer's own internal appraisals. We anticipate that the profession's requirements for the development of work-based skills will be easily subsumed into existing internal appraisal systems. The supervisor will normally sign off the student's learning log. Non-actuarial managers and more experienced actuarial students can act as the supervisor, but in such cases the final supervisor who signs off of the learning log must be by a Fellow who is familiar with the student's work and progress.

The supervisor will be expected to meet with the student regularly and normally at last once every six months. The purpose of these meetings is to:

- review with the student their progress to date
- discuss review questions that the student has answered
- discuss what skills should be addressed in the next review period
- consider what training is needed — both on-the-job and through relevant courses

Where a student works for an organisation which does not employ any Fellows the student and supervisor should contact the Registry in Oxford. An actuary will be appointed by the profession to supplement the work of the supervisor.

Formal Learning Activities

It is not intended that there will be a need to send students on numerous costly external events. Internal training events e.g. lunchtime briefing session may be included in the learning log. Computer-based learning activities may also be included.

On-the-job Training

An important feature of the scheme will be the on-the-job training a student receives. This should be simply a recognition of current practices.

Some Practical Points

- **Change of employment**

  Learning logs can be taken by the student from one employer to another employer if the student changes jobs during the training period. The final supervisor will normally look at the full and completed learning log when signing off the work-based skills requirement. However, if there are confidentiality issues the part completed log may be sent to the Profession on change of employment.

- **Qualification period**

  The learning log should be continued throughout the period before the student qualifies. For students who take more than three years to qualify it is suggested that after the initial review questions have been completed the requirement would drop to one review question each year. The learning log will be continued as an assessment of skills which have been addressed, skills which will be addressed and training/learning activities undertaken. This is an important training for Continuing Professional Development (CPD) for any professional person.

- **Learning logs — pre-approval**

  To avoid delay in the award of Fellowship or Associateship, learning logs may be submitted to the profession immediately after a student has sat the anticipated final examinations for pre-approval. This will help avoid any delay in the award of Fellowship or Associateship as Napier House will receive a high number of learning logs following publication of examination results. If the student is unsuccessful in the examinations at this stage subsequent additions to the learning log may then be sent when the examinations are actually completed, if this is more than nine months from the last date of submission.

- **Learning log approval — fee**

  The final learning log must be accompanied by the appropriate fee.

- **Gaps in employment**

  If a student wishes there can be gaps of time in the learning log e.g. for career changes/breaks. However the total time covered must normally be three years for Fellowship and one year for Associateship.

- **University students**

  A university student undertaking work experience before or during their university course can join the Profession as an Affiliate and include this experience in their learning log.

- **Appeals**

  Each employer should have a mechanism whereby any student who is not happy about the work-based skills assessment may have their learning log reassessed internally. The Actuarial Profession has an appeals process for cases where there is continued disagreement or where no mechanism within the employer is available.

- **Format of learning logs**

  An example of the proposed learning log is available on the website at www.actuaries.org.uk. However companies may choose to adopt their own format which ties in more closely with their appraisal systems as long as all the required elements covered in the learning log are apparent.

- **Transition**

  Learning logs will be required for students who joined the profession on or after 1 July 2004. However any student who joined before 30 June 2004 is welcome to do so provided they have employer support and the Actuarial Profession need not be informed directly.

- **Business Awareness Module**

  All students joining on or after 1 July 2004 are expected to take CT9 the Business Awareness Module within 15–18 months of joining the profession. Attendance at the Business Awareness Module is to be included in the learning log at the appropriate time and a relevant business awareness review question should also be completed at that time.

Quality Assurance

As part of the qualification process the Actuarial Profession will review all completed learning logs.

In addition, the profession will also review all learning logs once a year during the transition period 1 July 2004–30 June 2007.

Quality assurance during the transition period aims to ensure that supervisors and employers are implementing good practice in the development of students' work-based skills. If during this initial review by the profession a student's learning log is considered to be less than satisfactory the student will not be penalised. Comments on the learning logs will be fed back to the supervisor or a nominated person within the employer, with the intention of helping the employer develop their system for helping students acquire work-based skills.

At the end of the transition period many employers will be required only to submit student's learning logs at the end of the qualification process. However employers that have gained little experience in the supervision of actuarial work-based skills process may be asked to submit learning logs annually for an initial period of time.

Over time the profession expects to develop minimum standards for this aspect of students' training. It is anticipated that many employers will be setting their own standards for work-based skills which will be well above this minimum.

Appendix A

Work-Based Skills Map

Discussions have lead to the map of skills and experiences required by actuaries given below and additional skills may be added as appropriate. This is intended to be purely indicative and employers may wish to draw up other statements but the seven key dimensions must be included.

Associate

Technical application of actuarial skills

- Validate data.
- Analyse data.
- Build models under supervision.
- Analyse and validate results from a model.
- Apply actuarial principles and methods to solving defined and routine problems.
- Perform useful checks on work.

Judgement

- Prepare actuarial report under supervision.
- Understand audit and verification concepts.
- Understand regulatory requirements.

Professional and ethical

- Accept professional responsibility and accountability.
- Understand the purpose of guidance notes.
- Understand the need for ethical considerations.
- Consider issues of public interest.
- Understand the viewpoint of a customer and how much this can conflict with the company viewpoint.
- Understand the role of the professional body.
- Understand the need to act only where competent to do so when tackling ethical dilemmas.

Communication

- Communicate in writing to a range of audiences.
- Communicate in writing using a range of communication media.
- Communicate orally to a range of audiences.

Commercial

- Understand general business environment.
- Understand specific business products or processes.
- Understand the bigger picture as well as individual role in a project.
- Understand internal customer needs.
- Be aware of budgetary constraints.

ICT

- Use a variety of forms of Information Communications Technology effectively in the workplace.

Management

- Appraise own performance and identify future objectives.
- Work as a member of a team.
- Manage own time effectively.
- Accept personal responsibility for work.

Fellow

Technical application of actuarial skills

- Validate data.
- Analyse data.
- Build or specify models for a variety of different purposes.
- Analyse and validate results from a model.
- Perform useful checks on work including work of others.
- Apply actuarial principles and methods to solving defined and routine problems.
- Apply actuarial principles and methods to solving unstructured problems.

Judgement

- Make reasoned judgements in a defined situation.
- Prepare an actuarial report for a defined problem.
- Understand the interaction of assets and liabilities.
- Understand the risk of inaccurate results.
- Display creative approach to problem solving.
- Consider different approaches to problem solving.
- Act as a peer reviewer.
- Understand audit and verification concepts.
- Understand regulatory requirements.

Professional and ethical

- Accept professional responsibility and accountability.
- Understand the need for ethical considerations.
  Understand the impact of issues of public interest.
- Use professional guidance notes.
- Justify professional opinion in the face of questioning.
- Understand the viewpoint of a customer and how this can conflict with the company viewpoint.
- Understand the role of the professional body.
- Understand the need to act only where competent to do so.
- Understand priorities and sensitivities.

Communication

- Communicate in writing to a range of audiences.
- Communicate in writing using a range of communication media.
- Communicate orally to a range of audiences.
- Demonstrate an understanding of business implications in presentation of result.

Commercial

- Understand wide range of stakeholder interests.
- Understand specific business products or processes.
- Understand the bigger picture as well as individual role in a project.
- Understand internal and external customer needs.
- Manage expectations of clients and customers.
- Find solutions which add business value.
- Demonstrate an awareness of budgetary constraints.

ICT

- Use a variety of forms of Information Communications Technology effectively in the workplace.

Management

- Appraise own performance and identify future objectives.
- Accept personal responsibility for work.
- Work as a member of team.
- Plan a work stream.
- Manage projects effectively.
- Develop controls to manage risk.
- Manage own time effectively.
- Manage other people.