LEARNING OUTCOMES –

How to write them + some issues + some examples

Stephen Adam, March 2014

'Learning outcomes are statements of what a learner is expected to know, understand and be able to demonstrate at the end of a learning experience.'

SOME OBSERVATIONS ABOUT LEARNING OUTCOMES…

Very difficult to write well + this requires training and support – see manuals.

Used at different levels as ways to portray: QF, qualifications, modules, units, assessment/grading criteria, etc. They have a fundamental relationship with assessment and delivery.

UK Subject benchmark statements explain the core competencies at Bachelor degree and Master levels. They provide a means for the academic community to describe the nature and characteristics of programmes in a specific subject or subject area. They also represent general expectations about standards for the award of qualifications at a given level in terms of the attributes and capabilities that those possessing qualifications should demonstrate.

To distinguish between levels is not easy e.g. QF-EHEA cycles 1 and 2/EQF levels 6 and 7 is very difficult.

Good and bad practice creating learning outcomes

GOOD PRACTICE

- ❑ **Writing good learning outcomes takes time and reflection.**
- ❑ **It is pointless to write them to fit existing, unmodified modules.**
- ❑ **The benefits in the creation of learning outcomes result from the dynamic and cathartic process of creation. This will involve a simultaneous reflection on possible learning outcomes, their mode of delivery and their assessment.**
- ❑ **The creation of learning outcomes is not a precise science and they require considerable thought to write – it is easy to get them wrong and create a learning straitjacket.**
- ❑ **Learning outcomes are commonly divided into different categories of outcomes. The most common sub-divisions are between subject specific outcomes and generic (sometimes called transferable or transversal skills).**
- ❑ **The best learning outcomes are the product of sincere reflection about realistic and attainable combinations of any of the following: knowledge and understanding, practical skills (including applying knowledge and understanding), subject specific and transversal/transferable skills, etc. (see BLOOM: cognitive, affective and psychomotor domains).**

BEWARE

- ❑ **Do not be too prescriptive or too vague**
- ❑ **Avoid the use of simplistic terms such an 'understand' or 'explain' as these are imprecise and convey little.**
- ❑ **Generic qualifications descriptors, subject specific benchmarks/sectoral statements and national level descriptors should always be presented as guidance. They are not straitjackets.**
- ❑ **Existing qualifications should never be repackaged with newly minted but fake learning outcomes used to decorate old and substantially unchanged units.**
- ❑ **Beware of creating an assessment-driven curriculum where learning outcomes are over-prescribed and confine the learners' ability to make imaginative jumps and insights.**
- ❑ **The adoption of learning outcomes should never be regarded as part of a move towards the national or European standardisation of content.**

When creating learning outcomes consider <u>what</u> do you want your students to achieve?

'What' may include subject knowledge and understanding; a range of intellectual, subject based and transferable skills and their application in a range of contexts - perhaps also competency to practise; values and other qualities. Programme outcome statements can be created by completing sentences like:

◆ This programme is distinctive because it develops...

◆ The most important values which inform this programme are...

◆ The academic content of this programme concentrates on...

◆ The most important intellectual skills developed in the programme are...

◆ The most useful practical skills, techniques & capabilities developed are...

◆ The most important ways in which a student will learn are...

◆ On completing the programme we want students to know & understand...

◆ On completing the programme we want students to be able to....

1. **Thinking critically and making judgements** (Developing arguments, reflecting, evaluating, assessing, judging)

2. **Solving problems and developing plans** (Identifying problems, posing problems, defining problems, analysing data, reviewing, designing experiments, planning, applying information)

3. **Performing procedures and demonstrating techniques** (Computation, taking readings, using equipment, following laboratory procedures, following protocols, carrying out instructions)

4. **Managing and developing oneself** (Working co-operatively, working independently, learning independently, being self-directed, managing time, managing tasks, organising)

5. **Accessing and managing information** (Researching, investigating, interpreting, organising information, reviewing and paraphrasing information, collecting data, searching and managing information sources, observing and interpreting)

6. **Demonstrating knowledge and understanding** (Recalling, describing, reporting, recounting, recognising, identifying, relating and interrelating]

7. **Designing, creating, performing** (Imagining, visualising, designing, producing, creating, innovating, performing)

8. **Communicating** (One and two-way communication, communication within a group, verbal, written and non-verbal communication. Arguing, describing, advocating, interviewing, negotiating, presenting, using specific written forms)
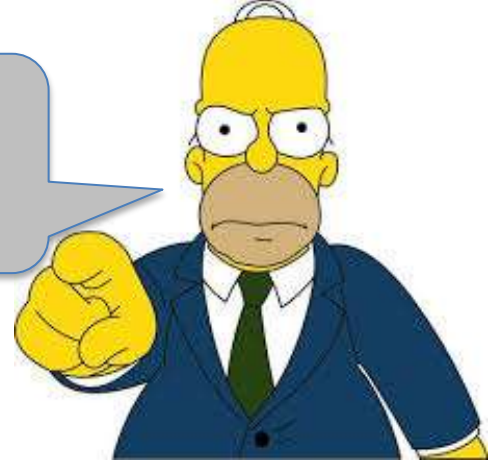
A. Self Management **This refers to a student's general ability to manage her own learning development. Abilities required to do this successfully include:**

- **an ability to clarify personal values**
- **an ability to set personal objectives**
- **an ability to manage time and tasks**
- **an ability to evaluate one's own performance**

B. Learning Skills **This refers to a student's general ability to learn effectively and be aware of her own learning strategies. Abilities required to do this successfully include:**

- **an ability to learn both independently and co-operatively**
- **an ability to use library skills, to find and organise information**
- **an ability to use a wide range of academic skills (research, analysis, synthesis etc.)**
- **an ability to identify and evaluate personal learning strategies**

C. Communication **This refers to a student's general ability to express ideas and opinions, with confidence and clarity, to a variety of audiences for a variety of purposes. Abilities required to do this successfully include:**

- **an ability to to use appropriate language and form when writing and speaking**
- **an ability to present ideas to different audiences using appropriate media**
- **an ability to listen actively**
- **an ability to persuade rationally**

D. Teamwork This refers to a student's general ability to work productively in different kinds of team (formal, informal, project-based, committee based, etc.) Abilities requires to do this successfully include:

- an ability to take responsibility and carry out agreed tasksan ability to take initiative and lead others
- an ability to operate in a range of supportive roles within teams
- an ability to negotiate, asserting one's own values and respecting others
- an ability to evaluate team performance

E. Problem solving This refers to a student's general ability to identify the main features of a given problem and to develop strategies for its resolution. Abilities required to do this successfully include:

- an ability to analyse
- an ability to think laterally about a problem
- an ability to identify strategic options
- an ability to evaluate the success of different strategies

F. Information Technology This refers to a student's general ability to use IT appropriately for their learning and employability. Abilities required to do this successfully include:

- an ability to use IT as a communication and learning tool
- an ability to use IT to access and manage information
- an ability to use IT to present ideas
- an ability to use specialist software where relevant to the discipline

Some useful sources for subject standards
(Tuning + UK Subject Benchmark Statement)
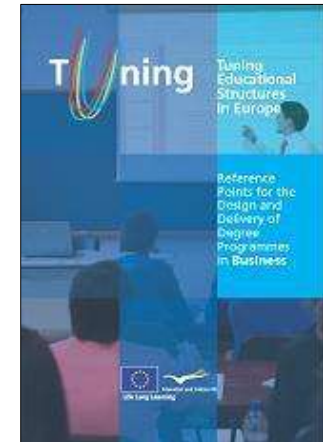
ECONOMY SBS learning outcomes - Master degrees in Business and Management are awarded to students who have demonstrated during their programme (some examples):

a systematic understanding of relevant knowledge about organisations, their external context and how they are managed

a critical awareness of current issues in business and management which is informed by leading edge research and practice in the field

creativity in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to develop and interpret knowledge in business and management

ability to acquire and analyse data and information, to evaluate their relevance and validity, and to synthesise a range of information in the context of new situations

ability to communicate effectively both orally and in writing, using a range of media

operate effectively in a variety of team roles and take leadership roles, where appropriate.

ICT (SBS: COMPUTING some examples):

demonstrate a sound understanding of the main areas of the body of knowledge within their programme of study, with an ability to exercise critical judgement across a range of issues

critically analyse and apply a range of concepts, principles and practice of the subject in an appropriate manner in the context of loosely defined scenarios, showing effective judgement in the selection and use of tools and techniques

produce work involving problem identification, the analysis, the design or the development of a system, with accompanying documentation, recognising the important relationships between these. The work will show problem-solving and evaluation skills, draw upon supporting evidence and demonstrate a good understanding of the need for quality

demonstrate transferable skills with an ability to show organised work as an individual and as a team member and with minimum guidance

apply appropriate practices within a professional, legal and ethical framework and identify mechanisms for continuing professional development and lifelong learning
explain a wide range of applications based upon the body of knowledge
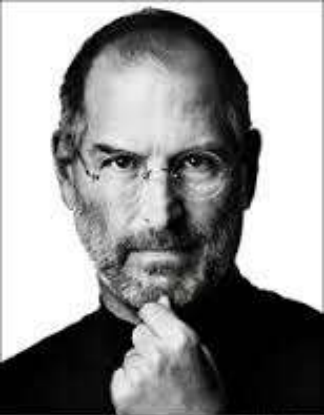
ENGINEERING (some characteristics):

be e rational and pragmatic, interested in the practical steps necessary for a concept to become reality

want to achieve sustainable solutions to problems and have strategies for being creative, innovative and overcoming difficulties by employing their knowledge in a flexible manner

be numerate and highly computer literate, and capable of attention to detail

be cost and value-conscious, and aware of the social, cultural, environmental, health and safety, and wider professional responsibilities they should display

appreciate the international dimension to engineering, commerce and communication

when faced with an ethical issue be able to formulate and operate within appropriate codes of conduct

be professional in their outlook, capable of team working, effective communicators,

and able to exercise responsibility.
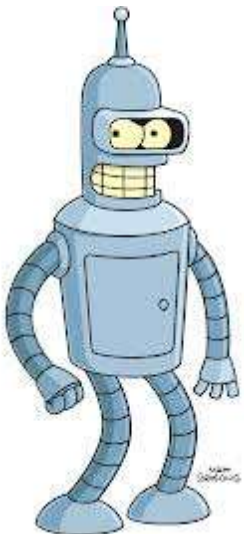
AGRICULTURE AND FOOD PROCESSING (some examples):

Demonstrate understanding of the scientific factors limiting production
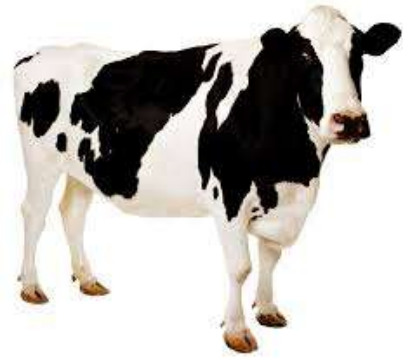
Communicate effectively on a wide range of agricultural or horticultural issues and review their performance critically

Be familiar with one or more of the following:
- *Applied plant science*
- *Applied animal science*
- *Applied microbial science*
- *Soil science*
- *Agricultural systems*
- *Environmental science*

Demonstrate a well grounded knowledge of the physical and chemical processes of the biosphere

Be able to advise on current practice and engage in discourse at a detailed level