

A guide to the creation of employer engagement modules and descriptors.

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Contents

- 3 Introduction**
- 3 What is alignment?**
- 4 How do I achieve constructive alignment?**
- 4 A planning matrix for constructive alignment**
- 7 Forming intended learning outcomes**
- 13 Learning and teaching strategies**
- 17 Assessment**
- 19 Writing the descriptor form**
- 20 References**
- 20 Contact**

This guide is intended to help module authors to create or update module descriptor forms. The guidance is particularly, though not exclusively, focused towards employer engagement courses.

The guide has been produced to support colleagues within REEDNet. REEDNet is the Rural Employer Engagement Development Network. A network of England's land based colleges led by Harper Adams University College in Shropshire and the Royal Agricultural College in Gloucestershire. REEDNet brings the two colleges together at the heart of a network of all the land-based colleges in England. REEDNet has government funding through the Higher Education Funding Council for England to support work based training and staff development in the rural economy.

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Introduction

Learning outcomes, approaches to learning and teaching and assessment underpin a module's design. It is important that when designing a module these three elements are considered in detail. The three elements need to work together to enable a cohesive learning experience. This guide outlines some of the points to consider when designing a module.

The central role of the learning outcome

Learning outcomes are statements that describe essential learning that learners can demonstrate at the end of a module. Learning outcomes are central to module design. The process of forming learning outcomes is considered in more detail later, from page 7.

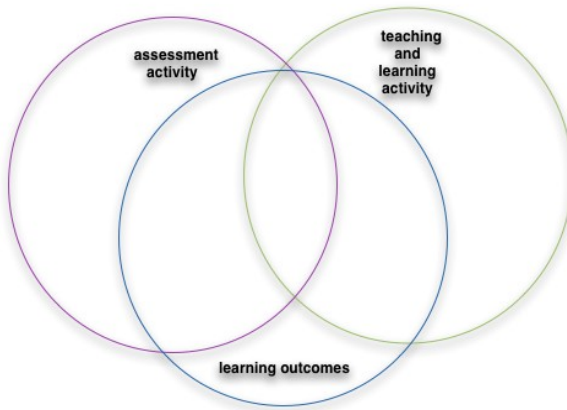
What is alignment?

Constructive Alignment is a term coined by John Biggs (1999). The principle underpins requirements for programme and module specifications, with an emphasis on ensuring that learning outcomes can be developed by assessment tasks and associated criteria.

“The basic premise of the whole system is that the curriculum is designed so that the learning activities and assessment tasks are aligned with the learning outcomes that are intended in the course. This means that the system is consistent.

We must have a clear idea of what we want students to be able to do at the end of a unit of study, and communicate these intended learning outcomes to students so they can at least share in the responsibility of achieving them. However, we know that students will inevitably tend to look at the assessment and structure their learning activities, as far as they are able, to optimise their assessment performance. We must therefore make sure that the assessment very obviously does test the learning outcomes we want students to achieve, that, by being strategic optimisers of their assessment performance, students will actually be working to achieve the intended learning outcomes. In other words, the ILOs, the learning activities and the assessment must all be aligned.”
(Houghton, 2004 p.27)

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Constructive alignment:
The greater the overlap
between the three
elements, the more
likely that learning will
take place.





How do I achieve constructive alignment?

It may be useful to use a planning matrix in the design process (see below). This planning grid is not for use on the module descriptor form, but it is a useful 'behind the scenes' tool to visualize how learning outcomes line up with the teaching and learning approaches and with assessment. Where the module is being designed for a programme a further level of alignment will be needed between the module learning outcomes and the award outcomes.

Intended Learning Outcomes (What should the students be able to do as a result of their learning?)	Learning and Teaching Strategy (How will the students achieve the learning?)	Assessment (How will the students demonstrate that they have achieved the learning outcome?)

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When translating ideas in to a module design the following questions may be considered:

-  Will the teaching and learning approaches proposed really enable the participant to meet the learning outcomes? For example if the learning outcome requires a competence to be demonstrated, does the teaching strategy facilitate the development of the skill and allow scope for the participant to practise it.
-  Do your assessment strategies allow participants to show that they have met the intended learning outcome? For example, if a learning outcome requires a participant to “explain”, does the assessment give the opportunity for them to actually explain?
-  Are several teaching and learning approaches needed to strengthen the learning experience and learner success rates? Does your proposed strategy assist learners who learn in different ways? For example does your learning and teaching strategy include opportunities for discussion as well as for listening?
-  Could technology be used to add value to learning and teaching provision? In addition to providing resources online, you may consider how scheduled discussions or the use of different tools may add value.

For learners in the workplace, particularly consider:

-  Are your assessment strategies suitable for the working patterns and practices of participants?

For example, for the intended participant group:

Are incremental portfolio approaches more manageable than exams which involve on-site attendance?

Could the creation of a series of small assessment products be more in tune with existing work practices, compared to, say, a single essay or exam?

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Are your assessment strategies going to satisfy or add value for employers? Will the completed assessment be of use to them?

If an employer wishes to promote additional skills in information reporting or presentation, alongside the main themes of a module, consider whether the assessment can be adapted to meet this requirement.

- For an employer who wishes to develop formal report writing skills alongside specific areas of knowledge within tenancy law, an assessment could be steered towards forming a series of written reports.
- For an employer who wishes to develop an eye for observing in the field as well as theoretical knowledge of crop management, consider the use of annotated photographic field-work journals.
- For an employer who wants staff to develop presentation skills, consider the production of a presentation (slides and voice-overs) or a video of an actual presentation to colleagues or peers, or an in-depth information poster.

The format of assessment can, when carefully considered and discussed with employers, assist employees in developing relevant skills for the workplace.

Rarely will the three elements (intended learning outcomes, teaching and learning strategy and assessment) fit neatly together at the first stage. It is likely to take a number of revisions and some discussion with colleagues.

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Forming intended learning outcomes

Recent developments in higher education have meant a move to outcomes based education. Courses are defined by what a learner can do upon completion rather than by what content a lecturer or tutor can teach (an input based approach).

The intended learning outcomes specify what a student must be able to demonstrate in order to achieve a pass in the module.

- Learning outcomes should be written in the future tense.

It may help to introduce your learning outcomes with the phrase

'By the end of this module students will be able to: ...'

Or

'At the end of this module/course you should be able to: ...'

- Learning outcomes set the threshold level of achievement for the module. Learners may well exceed them.
- Typically, for a 15 credit module, there would be 4-6 outcomes; for a five credit module there would be 1-2 outcomes.

There are three key inclusions in any learning outcome:

- Learning outcomes should refer to a context. (see page 8).
- Learning outcomes must reflect the assigned level of learning (see page 8).
- Learning outcomes must refer to a behaviour which can be demonstrated (see page 11).

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Context

Intended learning outcomes should be expressed in a way that is meaningful to students, they should align with their academic and professional aspirations and should help provide relevant context. It is more realistic to ask students to: “Prepare a business plan for a new rural enterprise,” than it is to ask them to: “Synthesise aspects of business organisation, finance and marketing”.

Where a group of participants have varied professional background refer to ‘their sector’ or ‘your organisation’

Examples of context within learning outcomes are underlined here.

By the end of this module participants will be able to :

- Describe key leadership roles in their sector.
- Identify essential requirements for the growth of successful potato crops.
- Describe a range of common behavioural disorders that occur in companion animals.
- Construct a brand identity and plan a marketing strategy for a new business initiative.
- Describe and evaluate the impact of routine staff interactions within a horse yard.

Level

The level of credit is based on the relative complexity of knowledge, extent of student autonomy and the use that is to be made of the knowledge (including understanding, application, analysis, evaluation and synthesis). To establish the level at which a module is pitched a number of sources may be consulted.

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First, see the appropriate section of the academic quality assurance documentation. For example, the generic outcomes for all award levels (see section 4.3.2 of the Harper Adams *Academic Quality Assurance Manual* or *Section 1, Paragraph 6* of the Royal Agricultural College Teaching Quality Handbook) at each of levels 3 – 7 provide a reference point for establishing the level at which module specific learning outcomes should be presented.

A second useful reference point for establishing levels at Harper Adams and the Royal Agricultural College could be The England, Wales and Northern Ireland combined credit consortium level descriptors (below).

Level 4 – *Develop a rigorous approach to the acquisition of a broad knowledge base; employ a range of specialist skills; evaluate information using it to plan and develop investigative strategies and to determine solutions to a variety of unpredictable problems; and operate in a range of varied and specific contexts, taking responsibility for the nature and quality of outputs.*

Level 5 – *generate ideas through the analysis of concepts at an abstract level, with a command of specialised skills and the formulation of responses to well defined and abstract problems; analyse and evaluate information; exercise significant judgement across a broad range of functions; and accept responsibility for determining and achieving personal and/or group outcomes.*

Level 6 – *critically review, consolidate and extend a systematic and coherent body of knowledge, utilizing specialised skills across an area of study; critically evaluate new concepts and evidence from a range of sources; transfer and apply diagnostic and creative skills and exercise significant judgement in a range of situations; and accept accountability for determining and achieving personal and/or group outcomes.*

Level 7 – *display mastery of a complex and specialised area of knowledge and skills, employing advanced skills to conduct research, or advanced technical or professional activity, accepting accountability for related decision making including use of supervision.*

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Thirdly, there is another interpretation of the FHEQ (The Framework for Higher Education Qualifications in England, Wales and Northern Ireland) levels, the so called 'Dublin Descriptors' (under adoption within the European Higher Education Area), these are shown below and may be a useful point of reference when determining levels.

Dublin Descriptors for establishing the level of credits

	Level 5	Level 6	Level 7
Knowledge and understanding	is in a field of study that builds upon general secondary education and is typically at a level supported by advanced textbooks.	[that is] supported by advanced textbooks [with] some aspects informed by knowledge at the forefront of their field of study.	provides a basis or opportunity for originality in developing or applying ideas... often in a research context.
Application of knowledge and understanding	often in occupational context.	[through] devising and sustaining arguments.	[through] problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) context.
Ability to make judgements	to identify and use data to formulate responses to well-defined concrete and abstract problems	[through] gathering and interpreting relevant data.	the ability to integrate knowledge and handle complexity, and formulate judgments with incomplete data.
Ability to communicate	their understanding, skills and activities, with peers, supervisors and clients.	information, ideas, problems and solutions.	their conclusions and the underpinning knowledge and rationale to specialist and non-specialist
Learning skills	to undertake further studies with some autonomy	needed to study further with a high level of autonomy.	to study in a manner that may be largely self-directed or autonomous.

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Behaviour

Learning outcomes should also indicate the *active* behaviour that the student should demonstrate at this level. 'Knowing' or 'understanding' etc. are passive behaviours which can only be demonstrated by the student doing something. To make intended learning outcomes meaningful to students, they should be expressed through *active* behaviour. Here are some key words to help articulate active behaviours, adapted from Gosling & Moon (2001).

Activity which requires evidence of knowing: Define, describe, identify, label, list, outline, reproduce, recall, select, state, present, name, extract, organise, recount, write, recognise, measure, underline, repeat, relate, match.

Activity which requires evidence of understanding: Interpret, translate, estimate, justify, convert, clarify, defend, distinguish, explain, extend, generalise, exemplify, give examples of, infer, paraphrase, predict, rewrite, summarise, discuss, perform, report, present, restate, identify, illustrate, indicate, find, select, represent, formulate, judge, contrast, translate, classify, express, compare.

Activity which requires evidence of application: Apply, solve, construct, change, compute, discover, manipulate, modify, operate, predict, prepare, produce, relate, show, use, give examples, exemplify, draw (up), select, explain how, find, choose, assess, practice, operate, illustrate, verify.

Activity which requires evidence of analysis: Recognise, distinguish between, analyse, break down, differentiate, identify, illustrate how, infer, outline, point out, relate, select, separate, divide, subdivide, compare, contrast, resolve, devote, examine, conclude, criticise, question, diagnose, identify, categorise, point out, elucidate.

Activity which requires evidence of synthesis: Propose, present, structure, integrate, formulate, teach, develop, combine, compile, compose, create, devise, design, generate, modify, organise, plan, re-arrange, reconstruct, relate, re-organise, revise, write, generalise, précis,

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derive, conclude, build up, engender, synthesise, put together, suggest, enlarge.

Activity which requires evidence of evaluation: Judge, appraise, assess, conclude, compare, contrast, criticise, discriminate, justify, defend, evaluate, rate, determine, choose, value, question.

Take an overview of the module's learning outcomes to ensure that there is some variety in the types of behaviours that are to be developed i.e. that the action words draw from across the different groupings.

A journey of outcomes

The learning outcomes may be seen to tell the story of a learners journey. Whilst there is no requirement to sequence learning outcomes in any particular way, it may be helpful to both teaching staff and learners to present the learning outcomes in an order which reflects any sequencing.

For example:

- exploring theory will come before application
- the identification of key terms would most likely come before an evaluation activity; the proposal of a development to practice should usually come after a consideration of theory and issues, since such an activity draws upon knowledge from these former steps.

Considering the sequence of your learning outcomes may help you to conceptualise what learning and teaching activities will be useful.

'If participants are to learn desired outcomes in a reasonably effective manner, then the teacher's fundamental task is to get participants to engage in learning activities that are likely to result in their achieving those outcomes' (Shuell, 1986, p. 429)

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Learning and Teaching Strategy

There should be a clear route for participants to achieve the award outcomes using a variety of teaching and learning approaches. Teaching and learning strategies need to be described.

The QAA (Quality Assurance Agency) offers some useful advice on how teaching strategies may support different types of learning (summarized below):

"Knowledge and understanding of a subject is often developed through lectures and seminars and by assignment or project work. Knowledge and understanding is often assessed through unseen written examinations, but most if not all assessment methods will require some demonstration of knowledge and understanding

Intellectual skills such as analysis, synthesis, evaluation, and problem solving may be practised and demonstrated through more active learning processes involving assignments or projects, group-learning activity such as a seminar or tutorial, laboratory, workshop, or field-based activity. Assessment of intellectual skills can utilise unseen written examinations or problem-based exercises. Independent project work or research dissertations are typically used to demonstrate capability in a range of intellectual skills linked to specialist knowledge, understanding and practical skills

Practical skills need to be developed through opportunities to practise the activity in an appropriate learning context (e.g. in laboratory, field, or workplace placement). Workbooks or guidance manuals may also be used to support learning. Assessment of competence in exercising a practical skill must involve practical demonstration of it, as opposed to talking about it in an exam.

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Transferable/key skills, that are readily transferable to employment and other contexts, such as communication, teamwork etc can be developed through naturally arising opportunities within the curriculum. For example, written communication skills can be developed and assessed through essays or dissertations; oral communication skills through presentations in seminars; or team working skills through collaborative projects. Skills may be developed also through extra-curricular activities including work experience, participant representative work, and social and cultural activities” (QAA, 2009).

“Information can be communicated, in large amounts, in books and articles, or downloaded to our computers. But it’s not knowledge till we do things with it... apply it, extend it, interrogate it, analyse it, disagree with it, compare and contrast it, and so on” (Race, 2009, p9.).

In addition to traditional methods of teaching and learning (lectures, seminars, workbooks and tutorials) please **consider** the value that can be added to the programme by the inclusion of opportunities to reflect upon knowledge and learning, to use and apply skills within the workplace and to discuss and to discover.

Examples of such approaches could include:

- Action research projects where participants identify an area within their practice that would benefit from improvement, then using their existing knowledge extended by research and understanding they formulate an action to implement in their work place. Through systematic approaches the intervention is then evaluated and further steps for improvement and development can be formulated. Consider that an action research project could be used as both a way of learning and as the final assessment product.

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An example of action research being used as an approach to learning and as a foundation for assessment

A group of learners, who are working in a customer facing role, are seeking to develop their knowledge and skills in managing customer relationships. The individuals and their employer are keen to use their emerging knowledge to improve actual practice.

Learning outcomes are developed such that activities in the workplace are the main vehicle for learning with additional support offered through resources and workshops. The learning outcomes are created to follow the action research journey.

1. Identify a range of ways in which customer relationships can be improved in their sector. [Find out]
2. Plan and apply a new technique to improve customer relationships in their workplace [Make a plan and then make a change to practice].
3. Evaluate an approach to customer relationships in their workplace [Evaluate the impact and effectiveness of plan],
3. Produce a plan for improved customer relationships in their workplace [Re-plan and disseminate knowledge within the workplace].

The assessment then becomes a project report showing the unfolding research journey. First showing the planning which includes engagement with literature and professional publications as well as engagement with other practitioners. Then a report or evidence on the implementation of an intervention. Then an evaluation which could include data collection and an impact report, and then an informed plan for further development of the new practices.

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- Online tutor led discussions, for example, about how new knowledge affects practice, or on the complex issues around the application of knowledge.
- The presentation of authentic problem based scenarios for resolution through the formation of strategies or approaches. Problem solving exercises can be done individually or in groups, face to face or online.
- Reflective journal writing supported perhaps by signposting of topics to be addressed and guidance on reflective writing.
- The use of tutor and/or industry expert online question and answer sessions.
- Attendance at events held across the REEDNet network or which may be available through professional bodies.
- Peer led discussion (online) or learning set discussions.
- Reflection upon and discussion of, the achievement of competencies and standards.
- Online or face-to-face skills workshops (for example on data analysis or evaluation).
- Online field trips (utilise existing high quality web content by signposting learners through resources and hosting key discussions).
- Role play debate whereby key issues are explored as participants assume roles from within and from outside their sector. This may be done very successfully online (asynchronously) as participants have time to undertake research to inform their contributions.

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It may add value for employers, if you create learning and teaching strategies which reinforce employer requirements regarding transferable skills. For example, an employer seeking to develop ICT competence alongside specific knowledge may benefit from a stronger online element. Where an employer is seeking to develop team-working, action learning may be a preferred strategy to add value to a programme.

Assessment

Assessment is an opportunity for learning and it need not be seen as a bolt-on activity simply to measure achievement. Wherever possible it is good practice to integrate assessment into the learning experience such that work done towards assessment (or assessment preparation) contributes to the learning of the participant, i.e. assessment as learning.

For example:

- An assessment as a portfolio or a report on an unresolved problem, for example, can act as a vehicle for learning (as information is found and applied), whilst at the same time the product developed demonstrates the participant has met the learning outcomes.
- A role play debate could be an approach to exploring key differences in values and perspectives. Participants could capture their experience through a short account of their engagement with this activity and they could evidence learning gains by exploring how the activity has contributed to their developing knowledge.

Work-based learning assessment can also draw upon the work place setting to capture the participant's experience of using their new knowledge in practice. Ways in which this can be achieved include portfolios of evidence, presentations or reports on how new knowledge has affected practice, reflection upon an action or activity or small action research projects. Assessment, wherever possible, should complement practice and not be entirely separate.

It may also be productive to explore whether the assessment could add value to the course for the employers: Would a poster design

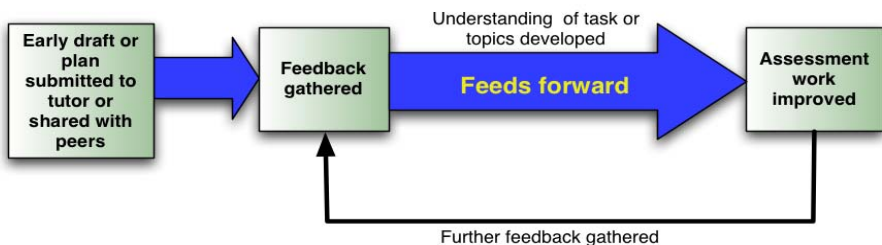
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demonstrating knowledge and understanding be able, within the workplace, to further disseminate that learning within the workplace? Would a presentation or report writing assessment enable the employer to develop a desirable skill in their participants? Assessment represents an opportunity to further support the needs of employers.

A menu of assessment tasks for work-based learners may include: design projects; market research projects; experiment-based assessments; observation records; commercial projects; action research projects; reflective portfolios; patchwork portfolios; oral presentations; annotated learning journals; or, problem based learning assessments; reflection upon work-based experiences; reflections upon learning tasks; articles; posters; articles for sector specific publications; self-review of group work; examination; photo journals with commentaries.

Feedback

At the point of design, consider how assessment will be supported by formative feedback. Examples may include peer review, tutor review, online automated tests, sharing experiences or sharing extracts of particular parts of the assessment process in a learning group. Planned formative feedback can form an important part of both the teaching and learning and the assessment approaches.



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Be clear about timely moments where formative feedback from tutors would be particularly useful, for example when a plan and a 'first section' are completed rather than on a complete draft. Part of the value of feedback is that it feeds-forward into the participant's work; time needs to be allowed for this to happen. Feedback is most useful when it can feed into learning, this may need to be planned into a module to be most effective.

The circumstances of work-based learners engaged in assessment activities will vary, some may be on short courses on campus for one day only, others may be learning entirely from the work-place whilst some may have a series of campus hosted sessions. When participants are on-site it would be useful to allocate time for assessment issues (discussion of issues arising, clarifying understanding of expectations, planning and review) so that they do not leave campus with undue worry around assessment. For those learning fully or mainly online, similarly scheduled discussion of assessment can help.

Writing the module descriptor form

For validation the module descriptor form needs to be completed. The notes with the form are intended to give guidance for the more mechanistic elements of the form, whilst this booklet is intended to support the process of forming the pedagogic decisions.

Writing a module can be easier when working with a critical friend rather than in isolation; use colleagues as a sounding board or to make suggestions on plans. Use the support available through REEDNet colleagues within the *Aspire* Centre for Excellence in Teaching & Learning (CETL).

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