Using assessment to change student learning 1: problems with traditional summative assessment (testing)

1. Summative assessment is often assumed to give an accurate measurement of a person's achievement (or worse still, of their ability). That ignores philosophical questions about the nature of achievement and what we might know about it. I believe that the very idea of summative assessment is rooted in realist ontologies and positivist epistemologies. Most modern philosophies take the non-physical world to be deeply problematic and insist that knowledge of it must be, to a greater or lesser extent, be provisional and partial. Assessment likewise.
2. Modern summative assessment is criteria-referenced, which means that detailed standards of achievement are pre-specified and performances are then rated against them. Not only are there philosophical objections to the idea that a rule (a criterion) can dictate its own interpretation (its application for assessment purposes) but there is a great deal of empirical work showing that it is expensive to ensure that worthwhile, non-trivial criteria are used in a tolerably reliable way.
3. There are practical difficulties with criteria-referenced assessment. Criteria are not easy to write and tend to proliferate. They cannot be unambiguous, nor anticipate all possible learning outcomes. They are least appropriate when complex achievement, such as reading for understanding, are to be assessed because complexity is, by definition, resistant to unambiguous pre-specification. Consider the assessment of reading. Reliable assessments tend to be measures of low-level or simplified achievements.
4. It is often assumed that criteria-referenced assessment says what people can do and pinpoints their level of achievement. However there are philosophical and psychological problems with making claims to competence (can do) by generalising from situated performances (did do). Furthermore, attempts to define levels of achievement usually rely on bogus discriminators ('more', 'better', 'greater') and on unproven assumptions about progression and development.
5. The simpler the achievement, the more possible it is to define it precisely and assess it cheaply and reliably. Where cheap reliability is the priority, complex learning, such as reading for understanding, gets simplified for assessment purposes, as can be clearly seen with most reading tests.
6. Summative assessments typically generate numerical data that are almost always mis-manipulated and mis-interpreted. Numbers, be they grades, degree classes, or percentages should be interpreted very cautiously. Besides, numbers are uninformative: they are not icons or indexes of performances but highly disrupted symbols - misleading metonyms – a point I develop later.

Summative assessment is most defensible when it is applied to well-defined performances, and takes the form of multiple judgements with a variety of instruments by well-trained, carefully monitored assessors working to well-understood assessment criteria. This is expensive, difficult to apply to complex achievements (impossible without considerable cost) and hard to schedule. Furthermore, the results may be misleading, implying that a learner is able to do something (has a transferable skill) when we know that transfer depends on many factors. For example, regardless of other skills, we know that those who are most likely to persist with novel, difficult problems have distinctive self-theories that are not measured by summative assessment as it stands (Dweck, 1999).

If summative assessment is in such disarray it would be unwise to use assessment data as performance indicators for quality management purposes.

Using assessment to change student learning 2: Fifty-three assessment techniques

There are as many assessment methods as we can imagine are fit for the purpose in hand.

Some are well-established as ways likely to support reliable, affordable summative judgements. Others are best as stimuli to learning conversations.

All benefit by learners having a good idea of 'the rules of the game' and of the criteria that identify what is being valued.

With low stakes, formative assessment, questions also arise about who is involved in making judgements - the learner, other learners, outsiders or tutors?

1. Annotated bibliographies.
2. Artefacts/ Products, especially in fashion, design, engineering, etc.
3. Assessment as gatekeeping: entry to classes on production of bullet point summaries etc.
4. Assessment of performance on a sample of questions from a question+answer bank.
5. Assessment of work-based learning (in a variety of ways, many times, by a variety of people, for different purposes).
6. Book, website or program reviews.
7. Completing structured summaries of readings, debates etc.
8. Computer-based self-assessment.
9. Contribution to threaded electronic discussions.
10. Defence of lab records.
11. Design and build (similar to 2, above)
12. Dissertations and theses.
13. Double-loop assessments (formative → summative).
14. Electronic monitoring of web searches, program use & communications.
15. Essay writing - one 5000 word, piece (make harder/easier by varying amount of tutorial guidance, range of reading expected, novelty of the topic/problem, time available, conceptual complexity, etc.)
16. Essays writing - 2x2500 word pieces.
17. Exhibitions.
18. Field work and lab work assessment (traditional and well established).
19. Formative assessment of logs/journals/portfolios (when the purposes are formative, students identify areas for discussion. *If* summative, sampling recommended.)
20. Games and Simulations.
21. 'General' assessments, drawing together learning in several modules.
22. Making annotated bibliographies for next year's students.
23. Making concept maps.
24. Making designs, drawings, figures, tables or plans.
25. Making models (literally, in some subjects, conceptual models in others).
26. Making web pages.
27. Multiple choice questions (they do not have to be only tests of information, although it is a lot quicker to write MCQs like that. See also 4, above).
28. New tests in which learners use old software/programmes/notes.
29. Objective Structured Clinical Examination (OSCE).
30. Open-book, end of course exams.
31. Orals and vivas.
32. Performances.
33. 'Pop' or 'pub' quizzes in classes.
34. Portfolios. (see also 49, below and 19, above).
35. Posters.
36. Problem-based learning - quality of diagnosis, suggested solution, problem analysis, etc..
37. Problem-working and completion exercises.
38. Production of course reader for part of next year's course.
39. Production of structured logs of project/dissertation progress and reflection on it.
40. Projects.

41. 'Real' problem working, which involves defining 'fuzzy' situations and bringing some order to ill-defined issues.
42. Replication of published inquiries.
43. Role playing.
44. Self-assessment (students complete the self-assessment column on the standard coursework cover sheet -- see handout 5).
45. Seminar presentations (in or out of role; with or without use of video, OHT, Powerpoint, etc.).
46. Short answer questions. (MCQs *plus*)
47. Short appraisals of target papers.
48. Small-scale enquiry.
49. Submission of claims to achievement with reference to portfolio (grade on the claim alone but only if sufficient evidence is present).
50. Takeaway papers/questions/tests.
51. Terminal, unseen examinations.
52. Writing exams/tests/assessments to tutor specification.
53. Writing memoranda or journalistic summaries.

This is based on Brown, S. and Knight, P. (1994) *Assessing Learners in Higher Education*. (London: Kogan Page) and Hounsell, D., McCulloch, M. and Scott, M. (Eds.) (1996) *The ASSHE Inventory* (Edinburgh: University of Edinburgh and Napier University).

Using assessment to change student learning 3. Sample coursework cover sheet

Please complete sections 1 & 3. You may contribute to section 2. Please attach these sheets to your assignment.

Section 1.

Your Name **Course number** **Date submitted**

Assignment number and title

Section 2. Departmental grading indicators. You are invited to tick the description which you feel *best* fits your assignment. Please note that essay marking is an act of professional judgement. The indicators help to show the relationship between performances and marks but they do not replace judgement. There are times when a piece of work is strong in some respects and weak in others and tutors have to judge whether to recognise the strengths or respond to the weaknesses. Grade indicators help them to start thinking but do not replace it.

Your view	Tutor view	Grade indicators
		Starred First 100. An essay is assigned this grade just because it is an excellent answer that could not be improved in the time available on the course. It is original and meets the other indicators of a First.
		Good First (76-85). These marks denote a novel treatment of an academically-worthwhile issue which demonstrates independent thinking and meets the other indicators of a First.
		First (70-75). These marks signify a convincingly reasoned answer to the question at issue. The work displays a systematic control over its argument with an excellent review due to an intelligent and insightful commentary. It draws on relevant literature so that the argument is well-grounded in existing theory and research. The use of appropriate quotations, as well as good and consistent referencing, demonstrates this connection with the literature, and debates and contradictions within the literature are addressed. The essay is well structured and clearly focused on the issues raised by the essay question.
		Upper second (60-69). An essay meriting an upper second mark displays an ability to handle the relevant literature and research in a critical and analytical matter. It is more than a good description of the various theories, studies and perspectives relevant to the question. It does not necessarily have a watertight argument, but it is clearly structured and its conclusion does not take the reader by surprise. An upper-second essay develops a well-expressed theme or argument from a critical and appropriately referenced consideration of relevant literature. Competing claims, and the evidence advanced in defence of them, are examined and evaluated. An upper second essay avoids unsubstantiated assertions.
		Lower second (50-59). An essay at this level is descriptively strong and answers the question. It shows a good grasp of the research literature. It describes the major theories and perspectives in the relevant research area and contains evidence of reading and adequate referencing rather than of reliance solely upon lecture material. It may not be entirely consistent, but it will display signs of critical detachment and will go beyond argument by assertion. Where assessors have to infer an argument - where it is, at best, incipient - a mark in the higher 50s is more likely than one in the lower 60s.
		Third class (40-49). An essay at this level shows signs of engagement with the essay question and is of degree standard. It displays some familiarity with the literature and some awareness of the issues raised by the question. Essays at this level are often identified by inconsistency in argument and unsubstantiated assertions, sometimes resulting from patchy acquaintance with the relevant literature and poor referencing. Sometimes the source is a misunderstanding of what the essay question requires. Such work is a genuine, if flawed, attempt to engage with the subject matter. The difference between a mark in the high 40s and one in the low 50s is often that lower marks go to those essays that give thinner and less complete descriptions.
		Pass (35-39). A Pass mark is awarded for those essays that, as the word suggests, meet the minimum expectations fo study at this level. An essay is graded as a Pass in virtue of the fact that some answer is given to the question set. But answer is markedly incomplete and/or incorrect with a reliance on global assertion with suspect specificity applied to relevant course material. Work which is given this mark does not go far beyond that which could be derived without s and reflection.
		Fail (30-34). An essay is assigned a mark in this range either because it is a badly structured answer replete with factual inaccuracies to the question set, or because it is a successful attempt to answer a question other than the question set. If deciding whether a Fail or a Pass mark is the more appropriate, assessors will often consider the accuracy and quality of the prose and the references cited.
		Bad Fail (15-29). A mark in this range denotes work that is an unsuccessful attempt to answer a question other than the question set, work which is a collection of ideas, or work which is a string of assertions. Poor English and referencing compound the impression that no serious and sustained attempt has been made to engage with the topic in question.
		Clear Fail (0-14). Work which is frivolous or vacuous or which may not amount to an essay at all.

Using assessment to change student learning 4. Information about dissertations/projects for students

Aims

1. To promote your intellectual independence - see Programme Specification 10.2C (2, 4).
2. To provide deep engagement with educational issues and discourses in ways that call upon a range of intellectual skills - see Programme Specification 10.1 and 10.2A.
3. To engage your research and (or) information-handling skill through a sustained study - see Programme Specification 10.2B (1, 2).
4. To promote an effective learning culture - see Programme Specification 10.3.
5. To support career management and the formation of claims to employability - see Programme Specification 10.3.

Outcomes

By the end of the course, you should have:

1. Acquired an in-depth knowledge and your understanding of one topic - see Programme Specification 10.2B (2).
2. Developed your powers of creativity, imagination and critical analysis - see Programme Specification 10.2A (1).
3. Have enhanced your knowledge of mainstream educational and social research methods and of their application - see Programme Specification 10.2B (2).
4. Displayed skill at reading and evaluating research reports - see Programme Specification 10.2A (1), 10.2B (1).
5. Shown that you can design a feasible, small-scale research inquiry *or* conduct a serious piece of sustained library- and web-based research - see Programme Specification 10.2B (1, 2).10.2C (3)
6. Taken responsibility for organising and managing your own learning- see Programme Specification 10.2C (2, 4).
7. Demonstrated skill at extended writing and command of the associated presentational conventions - see Programme Specification 10.2B (5, 6).

Some suggested readings

These all assume that you will be doing a dissertation rather than a project or library-based study, in which cases your supervisor will advise on alternative readings.

1. Arksey, H. and Knight, P. (1999) *Interviewing for Social Scientists*. London: Sage Publications.
2. Knight, P. (2001) *Small-scale Research*. London. Sage Publications and at http://domino.lancs.ac.uk/EdRes/eds232.nsf
3. Robson, C. (1993) *Real World Research*. Oxford: Blackwell.
4. Scott, D. and Usher, R. (2000) *Researching Education*. London: Cassell.
5. Wellington, J. J. (2000) *Educational Research: contemporary issues and practical approaches*. London: Continuum.

Consult http://trochim.human.cornell.edu/kb/, especially if contemplating quantitative research approaches.

Advice on the portfolio you will be keeping is in the departmental publication *Learning Profile (2001 entry)*, which is also available at http://domino.lancs.ac.uk/EdRes/eds300.nsf.

Grade indicators for empirical dissertations

The questions below point to the qualities that those who are grading your dissertations will be looking for. Assessing complex pieces of coursework is not a mechanical exercise because professional skill has to be used to make two sets of judgements:

1. How far does the piece do what the writer claims it does?
2. How can the pattern of assessor response to these 13 questions be best reduced to a percentage mark? There is seldom a perfect match because some questions can be asnwered more positively by assessors than can others. Furthermore, it is often disputable whether a study is just descriptive or whether there is incipient analysis within it. In such cases markers have to use judgement to decide between degree classes

So, what follows should be seen as points of reference that are used in the process of making professional judgements about complex pieces of work. In making their judgements tutors will be well aware that empirical enquiries done for an undergraduate dissertation will be on a small scale and will often be the product of circumstances as much as of design.

Indicator	++	+	?	-	--
1. Is the style and substance of the report appropriate for the audience?					
2. Is there an account of why the research question or problem is significant and worth attention?					
3. Does the summary of the research literature clearly identify perspectives and issues that need further attention?					
4. Following 3, is your research plan "doable", i.e. do you believe that you can complete comprehensively, successfully and on-time?	d				
5. Is it clear what the research questions were?					
6. Is your research design within paradigm identified by you in 3, or have you made out a a case for considering the research design to be fit for the audience and questions?					
7. Are ethical issues addressed in line with national codes of practice					
8. Are your research instruments acceptable within a paradigm or have you made out a case for considering the research instruments to be fit for their purposes?					
9. Are the sampling strategy adopted and the depth of inquiry sufficient for claims based on the empirical work to be plausible?					
10. Are the sampling strategy adopted and the depth of inquiry sufficient for claims based on the empirical work to be plausible?					
11. Was data analysis rigorous and careful, irrespective of the methods used?					
12. Does the dissertation identify limitations to the data analysis and explaining why alternative analyses are not convincing?					
13. Have the research questions been answered *or* has the report gone as far as could reasonably be expected?					
14. Is it clear what's new, significant or useful?					
15. Does it appear that this is a systematic, honest and careful study? (What reliability and validity has it?)					

Where markers feel that the dissertation contains a very strong answer to one of these thirteen questions, they will tick the **++** cell; when they feel there is no answer they will tick in the **--** cell; The other columns are for intermediate responses.

Broadly, the mark awarded will follow the pattern of 13 ticks, although assessors must be free to respond to novel and challenging work and to exercise their best professional judgement when the columns show a scatter across the range.

Rational investigations

The grid above can be used but first change the following rows:

Row 7: Change to. 'is your specific research strategy adequate, i.e. this particular strategy has the capacity to generate a possible and plausible answer to your research questions, always provided this stratgey is thoroughly acted on?'

Row 10. Change to, 'what are the scope and limits of your main argument along with each specific element in it?'

Row 11. Change to, 'have you comprehensively set out and developed your main argument along with each of its particular elements?'

Row 13. Change to, are there standard objections to your main argument and have you also and adequately dealt with them? Are there "novel" objections which you have unearthed, and, if so, how well have you dealt with them?

A rational (non-empirical, theoretical) investigation requires a research-question to be addressed in terms of a sustained argument with due attention to its implications and explanatory scope. A central feature of such arguments is the concern with conceptual analysis and critical evaluation. These typically have three main parts:

(i) Introduction:

Central to your introduction is a review of available contributions to your main research-question. This amounts to a literature review which should put you on the right track by a survey of the major contributions to the general area which interests you. Make sure that you have provided a sustained, sound, and coherent academic treatment of the topic which is central to your project. This review is the basis for your own research-question, which may of course include a family of related questions. Your research-question should allow you to gain new insight and understanding in the clarification of these existing contributions by making an advance over them.

(ii) Argument

You may have one, substantial and sustained argument, or a family of related arguments which are equally sustained. Either way, you may well want to sub-divide this part of your dissertation into smaller sub-sections. The elaboration of your argument will require you to:

- state your argument with due to attention to its premises and conclusion
- analyse and discuss its key elements
- discuss existing or novel objections
- explore counter-arguments
- evaluate the explanatory strength of your argument

(iii) Discussion

This will summarise your answer to your research-question. It will relate your answer to existing contributions, possibly by identifying how others may "take forward" these issues in the future. It will also set out limitations on what you did. This is a good opportunity to put on display your understanding of relevant literature in the field and your own powers of analysis and critical evaluation.

In short, your research-question in (i) is answered in (iii) in virtue of the argument in (ii).

[Grade indicators follow in the full version of this guidance for students)

Using assessment to change student learning 5: What is your portfolio?

We appreciate that your first priority at Lancaster is getting a good degree. We also know that you want to be able to choose the job or postgraduate career that want. That means establishing a claim, in addition to your degree classification, to being a highly employable person. This is where your portfolio comes in. It is a working document for you to use throughout your time here at Lancaster. Eventually it will provide invaluable documentation of your learning while in higher education. Your increased understanding of what you are learning and how you learn best (which you study in term 3 of the Part I course) will help you to establish claims to the skills that employers value and to engage with the career planning that is central to getting employment and admission to postgraduate courses. Its purpose, then, is to help you make the best possible claims to have the understandings, skills, self-theories and habit of strategic thinking that together comprise 'employability'. Employability is about being fitted for graduate work and for continuing personal and professional development as a highly-skilled person. It is more than just being in employment: claiming employability is claiming the ability to do complex and demanding work now and to keep on developing in the future.

A key principle of profiling is that you can make stronger claims if you are fully aware of what you have learned and are able to document your achievements in a convincing manner. The undergraduate programme for Majors in the Department of Educational Research fosters a wide range of understandings, skills and qualities, as shown in Table 1, overleaf. Together, they make a powerful contribution to your employability.

Our programmes are designed to promote the learning achievements shown overleaf but they are not the only contributors to them. Some skills and understandings you bring with you to university. Others are enriched through your out-of-class engagements, whether through participating in university clubs and societies, part-time work, or leisure, social and family experiences. A portfolio that is intended to help you lay claim to high levels of employability should contain evidence from all of these sources so as to show that your claim to achievement is broadly-based, not dependent on one piece of evidence taken from one course you took in your first year at Lancaster. This means that you are welcome to make claims to learning achievements that are **not** included in the department's programme specification. Table 1 identifies things that are very much to the fore in our teaching. It is not intended to restrict the claims you make.

This portfolio is a public account of this extensive learning. A programme of classes (see p. 3 for details) runs throughout the undergraduate programme for Majors in the Department of Educational Research and helps you to make and refine the portfolio and to be skilful at career planning and management. These support sessions help you to identify achievements and directions for development. They are organised by the Chair of the Undergraduate Committee and are additional to the contributions made by mainstream classes. The third term's work in Year 1 is very much about learning and employability but there is also an orientation class in week 5 of the first term. In Year 2 there are two-hour support classes with input from careers staff at 12.00 on Wednesdays in weeks 6 and 16 and in Year 3 classes are in weeks 4 and 14.

So, although it seems a long way ahead, by the time you graduate, you should have a portfolio of your strengths and evidence of the activities you have undertaken in order to develop them, which you can use to make effective job or course applications.

Note: This document sometimes talks of 'skills' and their development. This is a jargon word used commonly as a shorthand term - particularly by employers, the government and commentators on the labour market - to refer not only to manual or task dexterity (its more traditional meaning), but also to personal attributes and attitudes. When the term is used in this document it is used in this less precise sense.

Using assessment to change student learning 6: portfolio structure

A portfolio has three parts, although you may later prefer to collapse the first and the second part into one. There is a strong case, though, for keeping your portfolio in three parts and reducing it to two as the occasion demands. In addition to these three sections, there is a recurring need to review what you have achieved and identify directions for development. There is more about that on pages 9 & 10.

Section 1: claimsmaking. First, there are your claims to achievement, which will be written in continuous prose, highlighting the points that you think present you to your best advantage. Although you will inevitably refer to your cv and say something of the courses you have done, jobs you have had and qualifications gained, this section is about *making claims* based on those experiences and achievements.

It is quite likely that this first section will be edited to show your strengths in a somewhat different light when you come to address your portfolio to different employers or colleges. It should be an accessible, crisp summary of the highlights of section 2, but what counts as 'crisp' varies from audience to audience. When you are applying for a job you will draw on this section to provide two or three paragraphs in a letter of application. You may find it useful to write all your claims up in full, taking up to 1500 words, perhaps, and then edit them for particular purposes.

Section 2: associating claims with evidence: The second part should list your achievements - such as practical, intellectual and key skills - say a little about each and refer readers to the evidence that fleshes out the claim. Table 3, overleaf, shows what section 2 might contain. You are welcome to add rows and headings so that you can establish claims that enhance your employability but which are not made in our Programme Specification. If you have this document on disk, then it is best to treat Table 3 as an electronic form and simply add to it every time you collect fresh evidence or have new claims to make.

Section 3: The evidence. The third section is likely to be a box or a more sophisticated filing system containing the evidence you want to use in support of your claims. Some, but not all of this evidence will be presented to interviewers when you are applying for a postgraduate place or a job and it is important that they - and you - are quickly able to understand which claims are supported by any one item and why. For example, you might have put a particularly good essay in your file because it shows high academic achievement, good presentational skills, ICT skill and numeracy. Table 3 provides a way of keeping track of the evidence and the claims related to each item. However, each piece needs to be clearly tagged, perhaps with coloured post-its showing what claims you wish to make and explaining, *briefly* how the item supports the claim (that's not always obvious). This means that you need a filing system that can do two things. First, tell you what is in the file and, secondly, identify the claims that can be supported by each item. And, as was just said, there has to be a note explaining how each item is to be read as evidence of the claims you are basing upon it.

That cannot be too strongly emphasised. Employers and admissions officers are not very interested in what you have done. They are very interested in evidence that you have learned from what you have done and in the claims you are able to make on the basis of it. It is the claims you make on the basis of evidence that count, not the evidence itself.

The portfolio is an organised, purposeful and up-to-date reference file from which you extract and reformat evidence for a cv, letter of application, interview or presentation.

Using assessment to change student learning 7: portfolio criteria

Department of Educational Research Programme outcomes. They identify things we hope you will learn from the degree programme.	Elaboration of the outcome statements and some illustrations of what they could mean.
10.1 Knowledge outcomes: Knowledge of …	
1. A changing set of discourses & evidence concerning teaching, learning, development & assessment in formal & informal education, with due attention to culture & context.	Learning about & developing your own position, based on evidence, on educational issues
2. How to make intelligent use of social science perspectives applied to education.	Understanding & knowing how to apply concepts such as 'cultural capital' or 'development' to illuminate questions about, for example, inequalities or underachievement.
3. Educational arguments in relation to contested positions, principles & values, with special care for analysis & critical assessment	Appreciating how ideologies underpin competing positions on, for example, approaches teaching of English , citizenship etc. *Plus* critical capabilities (10.2 A1, below*)*
4. Research skills in application to valid problems in education.	Understanding & showing how research approaches have been applied to educational issues; assessing the value of findings
10. 2 A Intellectual skills, notably	
1.Critical capabilities - selects, analyses, synthesises & evaluates perspectives in terms of their principles & concepts	Bringing together your understanding of perspectives on child development & exploring their implications for educational practices.
2. Argumentation - justifies rationally & in a freely chosen way personal positionings on educational matters.	Making a sustained & well-supported case for your position on gender inequalities & their causes in schools
3. Open-mindedness - able to reflect upon &, as appropriate, accommodate to new perspectives, arguments, ideas & evidence.	Showing you can carefully fairly weigh arguments, including ones counter to your position, & to alter your position as appropriate
4. Tolerance of ambiguity - avoids taking a simple position if it is inappropriate to decide an issue one way or another.	Seeing, for example, causes in social life, paradoxes in some educational policies, pros *&* cons of perspectives you support etc.
10.2 B Practical skills, notably	
1. Information-handling - locate, retrieve sift & select information that is fit for the purposes in hand.	Searching for books & articles on-line & in more traditional ways; differentiating between relevant & irrelevant, useful & less useful etc.
2. Research skills - generate questions, review relevant information sources, select suitable research strategies, collect, analyse & interpret data, present findings appropriately.	Demonstrating skills at a novice level, but covering all aspects of research, from design, through implementation to reporting
3. ICT - use www, departmental websites, email etc. to identify relevant data	Using, but not to creating, these resources & using them in a discriminating way
4. Number - read intelligently data summaries based on a range of standard descriptive & inferential techniques.	Being able to understand what the numerical data mean & interpreting them for the purposes at hand
5. Conventional - follow referencing, orthographic & grammatical conventions	Using the system of referencing properly & consistently & writing in a reader-friendly way, according to standard practice & conventions
6. Presentational - conveying conclusions orally & in a variety of written forms.	Presentations, essays, reviews, short papers, posters etc.. You are advised to have strong evidence of oral **and** written accomplishments.
10.2 C Transferable skills, that, taken together, show flexibility and adaptability	
1. Reflectiveness - appraise own achievements, learning methods & self-theories	Looking at what you do, why and how.
2. Independence - takes responsibility & initiative: learns through self-organized &, increasingly, self-directed study.	Developing increasing levels of autonomy: not relying on your lecturers for guidance, support & feedback
3. Problem-working - engages intelligently with novel situations	Applying knowledge & understanding acquired in one situation appropriately to another
4. Work organization - meets deadlines.	Meeting ones for you and ones you set yourself
5. Interpersonal - learns partly through networking (face-to-face, electronic), being active in communities of practice.	Working with others, sharing & developing ideas informally or formally
6. Groupwork - can work in a team & lead when appropriate.	1. Show that you can work with others and help the group to work effectively 2. Show that you have led groups successfully.
10. 3 Key principles in an effective learning culture are that…	
1. People's beliefs about successful achievement matter considerably in life.	Understanding that having skills, knowledge & understanding is not enough - attitudes & values are also important for success
2. People usually have choice about how they interpret situations, react & feel: Those with high self-efficacy are likely to act differently from those with learned helplessness.	Appreciating that those who think that others have control over (& are to blame/praise for) their failures & successes are usually less effective & successful than those believing the opposite
3. Commitment & persistence count. Persistent people attribute achievement to effort & strategic thinking. They expect to find ways to ease difficult situations.	Recognising that much success is due to perspiration as much as to fixed intelligence
4. Metacognition. Knowing what you know & having control of how you know are associated with your achievement.	Reflecting on what we know **and** on how we can use it and how we learn more

Using assessment to change student learning 8: making a portfolio

One piece of advice that has pervaded this pamphlet is that you should keep anything that could turn out to be useful evidence. But which evidence is best for supporting any particular claims to achievement? Seven principles are suggested for helping you to choose the evidence to highlight in your claimsmaking. Although they are presented here as principles to use at the final putting-together-a-portfolio stage, they can also be used when you are putting together a portfolio and reviewing your claims to achievement and development intentions.

1. Evidence must be ethical. Persons and organisations should not be identified unless they have given their consent or, less satisfactorily, unless no conceivable harm could come from their identification. This, of course, is only a matter of concern if your evidence is shared with anyone else. It also goes without saying that evidence must also be authentic!
2. Evidence should indicate levels of achievement. It is not always possible to say that a skill has been developed to a certain level because there might not be any level statements applicable to it. Where there are level statements available, good evidence supports claims to achievement at the appropriate level.
3. It is sometimes helpful to know about the frequency of achievement. For example, has a skill or other achievement been displayed once? Sometimes? Frequently? And if so, how frequently is 'frequently'?
4. Evidence that shows a skill or achievement being applied in a range of settings is more persuasive than evidence restricted to one or two settings.
5. Evidence of achievement may be more convincing if it takes a variety of forms - different sorts of writing, tape recordings, photos, posters, references to web-sites, print-outs of email exchanges etc.
6. The more the evidence shows that achievements are individual achievements - done without a great deal of support from others or outcomes of your own initiative - the more convincing it is. The obvious exception is when claims to interpersonal skill and working with others are concerned.
7. Evidence of that shows development and learning over time always goes well because it suggests that there is more to come - the ceiling has not yet been reached.

It is increasingly expected that graduates (and other workers as well) will keep portfolios throughout their careers, which means that what you have started as an undergraduate is an approach and habits that are likely to serve you well within a career of life-long learning.

The message is that you should not throw your portfolio away when you get your first graduate job. The three sections may be directly useful for some years to come and your habits of reflection, evaluation, claimsmaking and choosing evidence to fit are likely to be very useful in your future.