What is the point of graduate attributes work?

Steve Draper
Department of Psychology
University of Glasgow
Glasgow G12 8QQ U.K.
s.draper@psy.gla.ac.uk
http://www.psy.gla.ac.uk/~steve/qee/#gradas

Introduction

There are at least five quite different possible purposes for formulating a list of graduate attributes (sometimes denoted "gradAs" below). Whether these are valid or disreputable goals, and how to act on them, is quite different depending on which goal is adopted. This memo argues that the first of these, to produce a list of attributes of all graduates to tell employers about, can only bring the university into disrepute. There are however four other goals that might be adopted, and how to proceed with each one is outlined. Two at least of these seem both practicable and valuable.

The five alternative goals for graduate attribute work are:

1. To boast to employers that all graduates have the same list of employability attributes.

N.B. a variant on this might be to seek something general that distinguishes (e.g.) all Strathclyde University graduates from Glasgow University ones. This differentiation seems unlikely unless you make [3] or [5] below a university policy, carry it through all degree programmes sufficiently, but other universities do not.

2. Produce degree-specific descriptions of attributes relevant to explicating and promoting the employability of those graduates. Produce (and keep updated) one of these for each degree programme.

3. Develop remedial employability training. To identify unsatisfied but important employability requirements for most graduates that could be realised by supplemental teaching and learning.

4. Identify the ineffable value of HE. The vast majority of those with a degree feel the experience was valuable; but they seldom cite either the specific subject content or the usual type of "gradAs". This suggests there is a real value, but one which people can't describe.

5. Add distinctive intellectual value to all graduates by global curriculum reform.
Develop requirements on teaching in each discipline to equip graduates with a critical view of their discipline and how it relates to both neighbouring disciplines and related practice outside universities.

What's bad about the whole idea: goal [1]

The goal here is to produce a set of terms and to claim that all graduates have these qualities, regardless of discipline. The procedure here is to go round finding words that at least some academic in each discipline will sign off on. At best one might say that to adopt this goal is to "mistake convergence of vocabularies for convergence of views" [Geertz]. In fact it is worse than this because the phrases are not in fact native in many of the disciplines they are forced on, and because the value given each one is enormously different in different disciplines. It amounts to an exercise in deliberate deception: to find weasel words that employers will be told mean the same thing for all graduates, when academics quite explicitly have defined them differently.

HE is fundamentally and profoundly organised by discipline, and that word is not an accident: it moulds the thinking of its adherents, and moulds them markedly differently.

Pretending there are similarities is worse: the reality is that each discipline has a set of values, and their priority is even more different than their identity. So you can get academics all to say OK to some specific attribute, yet for one discipline it is the top priority and they will fail any student who hasn't got it, and for others they think it is nice but give it no priority e.g. critical thinking, maths "Numeracy".

Worse still, is that what you can expect under some of these labels is quite different in quality depending on the discipline e.g. numeracy for a literature graduate and for a physicist. If an employer believed the "numeracy" claim and hired a literature student expecting them to do Fourier transforms, they would be the victim of false advertising. If they on the other hand assumed that GU physicists could only do standard grade arithmetic like a literature student, they wouldn't hire them at all. Similarly (see below) for the type of thought called "critical" in sociology and in physics. Even if you did provide translations of gradAs into each different discipline, why should the education-jargon version mean anything to employers? or to students?

Furthermore, in many cases the attribute for some graduates will still be at the level they gained at school, or learned outside any curriculum: in which case it is not a graduate one. E.g. arithmetic for literature graduates.

The truth about gradAs at GU is: white, middle class at least in demeanour and aspirations, young. If you don't list these attributes, then you aren't intending to describe real gradAs i.e. what employers can expect, so what are you trying to do?: the truth clearly isn't your aim. It is just a shabby marketing ploy. The value and meaning of our credentials is the core value (to others) of the university. It would be less damaging for a university to be caught fiddling its VAT than to be perceived as dishonest in its claims about its graduates.

What's good: Developing for each discipline an employment-relevant inventory of attributes. Goal [2]

This goal is to identify for each discipline a description of what graduates, from that discipline only, have as attributes; and to express this in terms that employers understand by responding to terms found in requests to staff for references about the graduates. The document therefore is addressed to a) employers, b) students, to help them communicate their real worth to employers, and c) to staff to assist in writing references. Employers often ask for qualities like graduate attributes (able to write well, critical thinking, etc.). The approach to dealing with the vagueness of these terms is to reply with factual descriptions of what the students have done that might relate to these terms, leaving it to the employer to make the judgement from this detailed information of how relevant or expected that is to them. There is thus no attempt at uniformity across all disciplines, but instead explicit description useful to graduates and employers alike, focussed on the attributes that employers of those graduates, not of graduates in general, have been shown to want and to inquire about in requests for references.

This is important and entirely feasible to do, but is not normally done. Important, because it helps employers, and equips graduates to present themselves to employers, bringing out what is valuable, true, and evidenced. I made a step in that direction some years ago, describing what the graduates of my department could say about themselves. I have a sample document, describing what is true of my department's graduates in terms of both what I estimate employers can understand, and in terms of phrases recurring in requests for references. http://www.psy.gla.ac.uk/~steve/resources/DegVal/

My proposal is that an applicant could attach to job applications a) their degree classification; b) their transcript, which currently lists about 20 distinct grades for aspects of the programme; c) this

document explaining some of the value in employability-related terms. It tells employers what to expect from this subset of graduates; tells the graduates how correctly and truthfully to describe themselves, and not to under-value themselves; and aims to improve reference-writing in that department by giving staff a resource to draw on by listing things worth saying, by offering well considered wording for these, and by showing how to justify them by factual (evidenced) statements.

This could be attempted in every department for every degree programme. You might want to identify an academic in each department with some idea about how their discipline is viewed from outside, and it would need updating every year. However this is not a great burden. It would be useful to couple this with persuading each department to maintain a pool of key terms found in requests for references from employers for that department: all common ones should be explicitly addressed in the document (e.g. see http://www.psy.gla.ac.uk/~steve/resources/DegVal/key.html)

What's good: identifying a few key generic employability skills. Goal [3]

The goal here is to develop remedial employability training: to identify unsatisfied but important employability requirements for most graduates that could be realised by supplemental teaching and learning. I.e. to remedy the most glaring omissions, unfit-nesses that many graduates have with respect to most workplaces. The intuition, or assumption, here is that a small amount of extra learning and teaching would remove a large amount of how lost some graduates are in many jobs. Obviously the extra skills would not be advanced, but by having the first steps in each area, the graduate would feel less disoriented and be much better placed to pick up more in that topic as required. Not even realising the existence and nature of a deficit is much more disabling than simply having to increase a skill you already have a nucleus of.

This entails identifying attributes, i.e. requirements, that are:

a) General to most graduate jobs
b) Are not automatically in place in most graduates/disciplines
c) Would not take too much time for students to acquire as additional learning. [10 credits worth over 4 years?]

There are two types of these:

- Either the training is best translated into a discipline-specific version and taught within a department
- Or is best taught by a central unit (e.g. basic budgeting)

Thus a different goal from listing discipline-specific attributes is to identify interesting employability attributes and consider what remedial training might be provided so that all graduates in a given university had the same minimum level of attainment here. This list would be driven by what is needed in jobs, not what disciplines automatically provide. It attempts to address directly areas of lack of readiness for jobs which our graduates have. What follows is the start of such a list, and for each item each my analysis and suggestions for how it could be acted on.

Where does the following partial list of generic skills come from? a) Vicky Gunn project; b) published lists; c) Scanning requests to staff from employers for references about students. It is the latter that should be systematically gathered in each department for their own use, then for passing on to a central university reference pool.

<u>Numeracy</u>:

- This probably means elementary budget management and spreadsheet use. Knowing the difference between transaction and commitment accounting. No discipline (except AccFin) teaches this.
- It might mean being able to handle orders of magnitude: tell the difference between millions and billions. Understand that there's no point fussing over a few pence when you are managing a million; and no point fussing over a few million when discussing the NHS budget; and no point fussing over a few billions when discussing repaying our new national debt.
- It might mean realising that no numbers mean anything except in comparison to some other number(s). So when you see that 3,000 died in the WTC towers collapse, you automatically work out that about 10,000 Americans died the same day of other causes (but no-one cared because they weren't on TV); that this was about 5 times worse than any previous aircraft disaster; but about 100 times less bad than the worst natural disasters in my lifetime.

Literacy. What the main failing of all graduates, and academics, usually is, is not grasping that there are no fixed standards of good writing. When your new boss asks you to write something, the good graduate will know the first thing to do is to find out what format and conventions are required for the piece (and be unsurprised that their boss doesn't realise that the local conventions and style aren't universal).

Might possibly also include some basic training on contrasting styles: e.g. how to write without the first person, even when you are in fact clearly signally a personal opinion ("The X report concluded C, but it might be asked why they didn't draw the natural conclusion D"); how to write in the first person even when you are not expressing anything personal ("The scoreboard showed 3 at half time and another goal was given by the referee in the second half, and I therefore conclude the final score was 4").

A possible valuable addition would be an introduction to what is sometimes called "reader response theory", inspired by Peter Elbow's work on feedback. Bureaucratic feedback is always relative to the (imposed, articulated) criteria for the writing. Another approach is to feed back how the writing affected the reader (the critic). E.g. "I couldn't understand this sentence", "the introduction made me somehow assume that this was about X", "I was wondering about Y but this didn't mention it", ... This approach a) is not constructive; but you can't be constructive when you don't know the writer's intention or meaning; b) is not judgmental: it is a description of the reader's thoughts. This makes it the best way to address the socio-emotional dimension of feedback i.e. to give feedback to a hypersensitive co-worker; c) it focusses the author on working to get the effect they want on readers, not on writing for no-one in particular.

Problem solving. In STEM (science, technology, engineering, maths) subjects this means taking a question expressed in English with perhaps some numbers, translating it into equations, and calculating a mathematical solution. In medicine it now means taking a description of a patient with problems, drawing on technical knowledge, working out what treatment to recommend. In the Arts they don't talk about problem-solving, they talk increasingly of "problematisation" i.e. creating problems where others don't see one. In normal life problem-solving mostly means dealing with hitches that occur when a plan (or normal practice) goes wrong.

There is thus no agreement about what it means. It has no natural place in the non-applied disciplines, which are not primarily concerned with making and executing plans. On the other hand, I imagine it is a prime requirement for employers to get staff who try to find solutions not problems, who get things done without being told how to do it. Most importantly, who recognise when they don't have the knowledge/skills required, and work around that: whereas most "problem-solving" in a discipline has the very loud implicit rule that the solution must use the techniques in the discipline and usually only those that were taught this week. This, then, may need to be taught outside the disciplines.

The implication from this is that employers shouldn't hire Arts/SocSci graduates; and should filter out science graduates who are stumped when a problem doesn't yield to any method they have already practised.

Problem-solving 2: Dealing with ill-defined and novel problems (as opposed to an expert pulling a standard solution method from memory, as a physician diagnoses a known disease). History graduates are trained to do this in exams: take the question asked, and strongly re-define it in a way that is defensible, soluble, but generally unique to that individual.

Problem-solving 3: In reality, for practical purposes, there are three skills, and disciplines each emphasise only one, so all graduates probably need remedial equipping with the other two.

a) Problematising: taking what others are letting slide by as OK, and flagging it up as something that needs treating as a problem. Every time a big fraud in a firm emerges, it is because people (auditors, ...) let it by. In fact employers need problem-spotters, although not all realise this.

b) Redefining an identified but ill-specified problem into something specific that can be addressed. (This is largely what I'm attempting in this memo.)

c) Solving it: pushing through to an actionable decision and conclusion. Generally speaking, the Sciences drill their graduates on this all the time, and the Arts do not; (or perhaps the applied disciplines do but the pure ones do not.)

Critical thinking is a social sciences value. It is not a term naturally used in science, even though scientific research is centrally about weighing evidence.

If we consider the discussion of the three elements of problem-solving above, then we may also reconsider the use of "critical thinking" as a desirable attribute. Four meanings are:

1) Applying expertise to solve problems of kinds that have been seen before is the main reason for employing professionals of all types. This applies only to applied/vocational disciplines, and the expertise is different in each of these. It is expert thinking, involving analysing cases in ways others can not.
2) Reducing an ill-defined problem, or one that is disguised, to one that can be solved is also extremely valuable; and while an extension to technical expertise, it also depends heavily on a knowledge of standard technical solutions. (There is little merit in reducing an ill-defined problem to an insoluble one.)
3) The Arts/SocSci meaning of not automatically believing what you are told, and of seeing problems where others do not. Detecting problems is useful (the intellectual equivalent of fire alarms). However identifying problems but not solutions is of little practical use. So what many disciplines call "critical thinking" is by itself of slight value to employers.
4) The most useful critical reviews or analyses are about assessing the available evidence (usually far less conclusive than you would like) and coming to a decision about what action to take. It is the aspect of a liberal education useful in training administrators and managers. Sitting on the fence is no use in practical matters, although it is the correct scientific response when the evidence is inadequate.

Thus [4] is of most general utility. Whether undergraduates are exercised in it is a matter for close examination in each discipline separately (as opposed to being sceptical but not constructive; or as opposed to arguing positions for the sake of being original). It is just possible that some practice for all students at coming to a specific recommendation for action based on the balance of assessed evidence would be useful. It is not part of most disciplines' teaching. It would probably be best described not as "critical thinking" but as "weighing evidence", "rational decision making", "balanced evaluation", "judicious appraisal" or something of that kind.

Fact based reasoning
What should perhaps be seriously considered as an additional GradA is the other half of science thinking: a writing style consisting almost entirely of facts which it is no longer considered productive to dispute, and often leaving the conclusion implicit (although entirely clear to the reader). This is a powerful rhetorical style, and one that is often persuasive to a variety of audiences (committees, managers, etc.), but not one practised in non-science disciplines. It is typically short in word count, and demands learning to write without discursion, allusion, disputation, or exhortation. The power of scientific thinking, at least the important part that isn't critical evaluation of what is not yet consensually agreed, is in establishing what is now beyond dispute and drawing new conclusions (deductions) from it. We don't even have a name for it; and of course its absence shows how the social sciences dominate education-speak yet cannot recognise values other than their own.

"Motivated, confident, adaptable". In my view, the real issue here is giving students a much better and evidence-based / experience-based grasp on their own knowledge and abilities. Essentially all assessment is designed to disciminate between students: to show differences of ability or attainment between the students in a group. But for a student to understand what they have to offer, they need to see what it is they all can do that all students in another discipline cannot do. When you climb a mountain in a group, you are naturally aware of who is in front and behind you: but (unlike in HE) you also periodically look round and see how far you have all come (a thousand times further than the difference between the slowest of your group and those at the bottom who aren't climbing your hill).

Thus this is a neglected issue in assessment and feedback, needs to be implemented within disciplines in a discipline-specific way, but is a general issue applying to all disciplines.

Thus one kind of assessment would compare the student's performance against students in other disciplines (but of otherwise similar mental comptence); and another kind (more directed at "adaptable") would measure their performance on surprise tasks. For instance, when I got students who had practised critical reviews of 4,000 words done in 3 months, to do one in 5 minutes, they found it a strain yet were exhilarated that they did well on such an unexpected and unrehearsed task.

Self-evaluation: see above under "motivated" and the need to equip graduates with a realistic grasp of what they know.

"Capable of effective professional interaction". This is a requirement in a vocational discipline; has no natural part in a pure discipline. I can see it may be a desirable employability attribute for most graduates. Will probably have to be taught outside the disciplines. Presumably it means ensuring the student has some grasp of how to have useful relationships that are not based on intimacy or consumeristic employer/servant modes. A possible venue for this is in study groups. Most study groups are based on prior friendship, and fail. Successful ones are assembled by students who are serious about getting work done, find people with compatible ideas about the amount of effort etc., and shape their joint behaviour accordingly.

Enquiry led learning. What does it mean? Allen Tough showed that 80% of everyone (including non-graduates) have this, so it is not a graduate attribute, but a human one. On the other hand, a graduate focussed on enquiry-led learning believes they know the questions in advance, and will not help their employer notice that the customers are using the product for something unexpected. In reality, "answers first then questions" is a vital style of learning.

Entrepreneurial: what's it mean. (?Having and owning a project, and bringing together the resources and people to make it happen. Essentially autonomous management of a project. ?)

Ethically minded.

Global citizenship.

Breadth and depth of discipline k.: these are in conflict; but can be taken for granted.

Conclusion
The earlier "attributes" in this section show the kind of analysis that can be done and followed through with practicable remedial teaching either generic and cross-discipline, or intra-disciplinary. For each we have to analyse what the employers' meaning is (if any: it may only be an empty educational buzz word, not an employability need), and how that relates to what is currently done in disciplines (regardless of similarity or differences in terminology).

As noted, the list of candidate attributes can be gathered from a variety of sources, most importantly from employers as seen in requests for references. Another neglected source is to survey past graduates of each department, asking about what attributes they got from their degree and found useful in their jobs, and what attributes they most now wish they had been equipped with. Academics have no idea about these, but our past graduates do. A central university unit dedicated to doing this for all graduates (but tabulating the information by the discipline of the graduate) might do enormously valuable work at the cost of about one person for three years.

Goal 4: to identify the ineffable value of HE

The goal here is to identify and articulate the ineffable value of HE. The vast majority of those with a degree feel the experience was valuable; but they seldom cite either the specific subject content or the usual type of "gradAs". This suggests there is a real value, but one which people can't describe. That makes it an interesting project for educational research. If successful, then it would also be valuable for political battles in securing funding and admiration for HE, and also for guiding what we can relinquish (gothic architecture?) and what we must maintain (peer interaction?) in HE as it changes.

Most educational writing is oblivious to this, and takes for granted an implicitly transmission view of education as delivery of pre-specified knowledge. I.e. if a clerk can't say what it is in writing, then there's nothing of value there. A few points follow that I've come across on HE's ineffable value.

Cardinal Newman
Newman advocated a liberal education: "the culture of the intellect". That is, to convert learners into less silly, and more rational people. He is a fore-runner of Perry in this: no stage theory, not explicitly about argument/evidence; but all about not having silly opinions, connecting one thing with another, seeing beneath the surface. Very like Jane Austin in fact. Without it people tend "to have no discriminating convictions, no grasp of consequences, and to talk at random". At one point he gives a fascinating sketch (apparently based on experience) of a man of above average intelligence, well read, but had not gone to university: and so is well informed in general, right about most things, but obstinate and unable either to learn from others or to consider that he might be wrong.

Newman also believes HE equips you "to enter with comparative ease into any subject of thought" i.e. as opposed to beliefs that you can/should only learn one thing.

Newman is clear that the professional credential is the main goal for most students in HE, but another is dealing with the variety of views that people hold: and having both personal experience of peer interaction that features this, and intellectual practice at it (critical thinking of a kind).

Brown & Duguid
In discussing universities in the digital age, they suggest that the hidden value of universities (beyond the credential awarding and the explicit knowledge transfer) is personal interaction with both staff and other students. This value is not tested and listed on transcripts, but is valued by employers as witnessed by their hiring those with degrees from universities that feature this over distance learning ones. They further have a concept of "misrepresentation": that universities (up to now) give portmanteau credentials that allow plenty of room for things that are valued by staff and students but are not justified or justifiable to others item by item. Both employers and graduates value this large tacit value component.

A suggestion here is that these features of HE were never explicit, but were an important side-effect of how universities used to work; as things change, we must worry whether the changes retain only the explicit properties of HE but have lost much of the real but tacit value: like being in the age before the identification of vitamins and being puzzled by how a change to systematic over-cooking (can't have too much of a necessary and good thing, surely) leads to vitamin deficiency symptoms.

Others
French élite schools: you meet, and establish a network with, the people you will be dealing with throughout your working life. When HE was confined to a small proportion of the population, then going to university meant getting to know, and to operate with, that section of society that had the power. This is broadly consistent with Newman's and Brown&Duguid's views of joining a community or anyway becoming familiar with dealing with it. (In other words, the stress on community and identity is probably not the defining element. The middle classes are much more effective at protest against courts, government, and commercial companies because of HE training.) In fact much the same really applies when a much larger part of society goes through HE. It is learning to live in the company of similar minds, regardless of whether this is a process of the student being modified to suit them, or forming a group where all modify all, or simply learning to deal with others even if you don't identify with them at all but just learn how to deal with and operate in that culture, however foreign.

Goal 5: Require a contextualising of each discipline

The goal here is to develop (mostly new) requirements on teaching in every discipline to equip graduates with a critical view of their discipline and how it relates to both neighbouring disciplines and to related practice outside universities. Four parts of this might be:

a) Philosophy of science: critiques of the discipline and its methods as a whole from outside.

b) Compulsory exposure to the applied end of the discipline. E.g. for physics this would mean being introduced to: applied Physics, mechanical Engineering, garage repairs, ... To understand what relationship and contribution, if any, a discipline actually makes to the practical. (E.g. is real medicine not science at all, but a continuation of shamanistic rituals to make ill people feel recognised, and part of society?).

c) Compulsory exposure to the pure end of the discipline. Take a vocational/applied discipline; look at the pure theory most related to it. Is this of any importance? what importance? what can and cannot be reasonably hoped from it? what parts of the applied discipline are quite separate from the theory part? (E.g. Where do antibiotics come from and is that era likely to end? ...).

d) Internationalisation, diversity etc.; construed as a project to gain exposure to, and some understanding of, differences in both practice and perception of the disciplinary matter in different groups, cultures, places. Quite apart from making the course much more useful to foreign students, this enriches it for domestic students by giving a broad perspective on how the discipline relates to different cultures and contexts.

This is a project of curriculum reform, applicable to every discipline. A university might do this, and become distinctive for doing it. It adds intellectual value, and probably general graduate attribute value, because instead of turning out blind, naive, narrow disciples, it produces those with a critical perspective on their discipline and what it is, and is not, good for.

Sussex and Keele did this when they were founded: it's not clear if it is feasible to do as a reform. It would mean (say) adding four new modules to a programme, and that means deleting four existing modules and their content.

Postscript: Comments on the GradA list for the QETheme

The current quality enhancement theme on GradAs has its own list. While the suaveity of this list of phrases is somewhat increased over earlier lists, it is basically subject to the same objections as those expounded above. Their meaning is unclear, they are not general across disciplines, etc.

- *Critical understanding*

Meaning what? this fails to express the basic joy in scientific understanding.

- *Informed by current developments in the subject*

This is not an unqualified good, but a tension for rich subjects like maths and physics, where there is no possibility of teaching all that is now known. You can't teach current developments without teaching all that underpins them; just because something is a current development does not mean it is currently relevant in fields outside research; just because something is old doesn't mean it isn't central to current practice and should have priority over new stuff. 35 years ago my physics degree taught quantum mechanics and a bit of the new particle physics but had to drop orbital mechanics: yet that was when satellite applications were just taking off, and planetary explorations were changing our view of the solar system. Was that a good choice?

- *An awareness of the provisional nature of knowledge, how knowledge is created, advanced and renewed, and the excitement of changing knowledge*

"Provisional", "changing" is the SocSci view of things, not the scientific one. What scientists are excited about is the permanence of what is discovered. Mathematicians still more so.

- *The ability to identify and analyse problems and issues and to formulate, evaluate and apply evidence based solutions and arguments*

The first half of this is the voice of people who never solve problems, certainly not permanently; while the second part is the voice of those who only apply other people's solutions, never do anything creative, and have no experience of when it is appropriate to do so. N.B. "creativity" is increasingly often mentioned in employers' desiderata.

- *An ability to apply a systematic and critical assessment of complex problems and issues*

I find it difficult to reject this because it is a core value of my own. But this probably just means it suits my own disciplinary prejudices. So the question is: what disciplines would this be alien to? Art school ones, probably. Art schools award HE degrees, but the people writing these attributes almost certainly didn't think about that. They certainly deal with complex problems, but probably not by "systematic assessment". On the contrary, they work towards interesting solutions in another way.

- *An ability to deploy techniques of analysis and enquiry*

This is universally true, true of school as well as university, and always means something different in each discipline.

- *Familiarity with advanced techniques and skills*

What does "advanced" mean? Actually, most taught Masters degrees are defined as "advanced" meaning precisely what ordinary graduates do NOT have. This is a particularly vapid marketing claim.

- *Originality and creativity in formulating, evaluating and applying evidence-based solutions and arguments*

There is no agreed meaning of "creativity". At school it meant painting or music. In artificial intelligence and linguistics it means the fact that nearly every sentence uttered is different from any previous sentence: which makes creativity a universal feature of everyday behaviour (not a graduate property). Disciplines differ in whether students are required to exhibit the appearance of originality (fine art, literary criticism, history essays), or required to disguise it (psychology). Jobs too differ in requiring its appearance or concealment: if you want to appeal to romantics then you present yet another application of an old idea as original; if you want to appeal to conservatives then you present what is actually novel as just another application of old ideas. Since everything you do is a bit of both of these, this is not hard; but it is not honest. Creative accountants belong in prison. On the road my life depends on drivers being predictable not creative. Many professions are about being predictable and not creative. Being evidence-based and being creative are mutually contradictory.

- *An understanding of the need for a high level of ethical, social, cultural, environmental and wider professional conduct.*

This is a requirement in vocational degrees, and not in others. Consumers want everyone else to be ethical, but not themselves: is that the understanding meant? My own understanding of medical ethics

is that the "need" served historically was to drive up pay for doctors partly by excluding the most disgraceful but even more by hushing up all other scandals. Is that the "understanding of the need for ethical conduct" referred to? There is no agreement about this; it is not naturally part of all disciplines although it is of some; and it is clear that not all employers want it.

In summary: it is not clear what most of these phrases mean. If pinned down, then disciplinary differences make them either false or contradictory. And there is no clear connection between them and any action that could be taken to benefit learners.

References

Brown, John Seely & Duguid, Paul (2000) The social life of information (Harvard Business School Pr, Boston Mass.) Especially ch.8 "Re-education".

Newman,J.H. (1852/1976) [ed. I.T.Ker] The idea of a university (OUP: Oxford).