Assessment and Assessment Design



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Abstract

This paper focuses on the importance of assessment as part of the student learning journey in higher education. Assessment is, however, a product of many influences, often strong and rarely within the complete control of individual teachers. Whilst the paper explores Constructive Alignment theory and the influences of curriculum design it also uses the illustrative example of seminar responses at the Faculty of Economics of Taras Shevchenko National University of Kyiv. At the seminar, held in May 2018, the following overall objectives were set out:

1. To provide an overview of the UK regulation of Higher Education as an example of a Quality Assurance based system. 2. To link the constructivist paradigm with global accreditation in Business Education.

3. To discuss different types of assessment and different assessment design.

Assessment is not only the focus for many students but also the visible evidence of good pedagogic design and sound quality assurance. The seminar included some interaction with delegates and the paper contains observations and feedback on the interaction of the academics at the seminar within a pedagogic framework mirrored in global educational quality assurance systems.

Analysis of the interactions reveals a shared understanding of constructive alignment of assessment design within an environment where innovation is not common.

Keywords: constructive alignment, quality assurance, higher education, business education, assessment design.

Rationale

"Assessment is probably the most important thing we can do to help our students learn"².

Much effort, discussion, planning, reflection and pedagogic theory is bound up in the design and preparation for assessment. This paper focuses on the importance of assessment as part of the student learning journey in higher education. Assessment is, however, a product of many influences, often strong and rarely within the complete control of individual teachers. There are strong influences such as institutional or even national assessment culture³; student experience and expectations⁴ as well as teacher expertise and confidence.

Quality Assurance systems and regulations can influence assessment choices together with the lack of trust in students that drives the call for

¹ I wish to record my thanks to my good friend of 24 years, Professor Vladimir Shevchenko, for facilitating and organising the seminar at the Faculty of Economics of Taras Shevchenko National University of Kyiv.

² Brown, S. (2005). Assessment for Learning. ... pp. 81-89.

³ Dawson, P. et al (2013). Assessment Might Dictate the Curriculum, But What Dictates Assessment?..

⁴ Brown, S. (2005). Assessment for Learning. ...

"authenticated" assessment — assessment where the identity of the student and the origin of the assessed work can be authenticated. Summative exams often represent the line of least resistance in these circumstances. Research and commentaries on assessment are rarely as readable as the free ebook by Chris Rust¹, eminent professor at the renowned Oxford Centre for Staff and Learning Development.

Constructive Alignment

Many Educational systems around the world adopt Constructive Alignment theory² to aid curriculum and assessment design. The articulation of Intended Learning Outcomes (ILOs) for a programme or module of study is an important foundation for good learning and teaching.

Assessment design is a creative and innovative process but guided by clear educational rationale. There's nothing easier than setting an exam but nothing more engaging for students and staff to bring the assessment alive with imagination and authenticity.



Figure 1. The assessment cycle

Figure 1 sets out a logical continuum that guides assessment design in schools that adopt the constructive alignment model:

• ILOs are set at a programme and module level. Programme ILOs reflect the overall outcomes for graduates and assume a coherent suite of courses that combine to introduce, develop and support achievement of key competencies.

• Module ILOs reflect the subject specific knowledge and the cognitive and other skills required to achieve an award.

• An example comes from a module designed and delivered by the author and offered at Loughborough University as part of a Masters degree (MSc) in Wealth Management³. The module is a basic economics course labelled Financial Services Environment. It lists four ILOs:

a) ANALYSE the key issues in strategic decision making in the financial services industry;

b) EXPLAIN the key economic concepts in finance by which the macro-economy is managed;c) EVALUATE the key drivers of strategy in

the financial services market;

d) COMMUNICATE complex economic concepts to a variety of audiences;

Taking the first of these ILOs there is a clear link to the Programme ILO that promises graduates, on successful completion of the programme, the ability to: "*manage creative processes in self and others; organise thoughts, analyse, synthesise and conduct critical appraisal*"⁴.

• The next logical step is to devise assessment criteria that will be able to differentiate between candidates who have achieved the ILO at an appropriate level and those deemed to have performed unsatisfactorily.

Examples at both undergraduate and postgraduate levels are shown in Tables 1 and 2. Table 1

Tables 2 and 3 show characteristics of high level and lower level work. This will become important when developmental feedback is to be given.

• Best practice dictates that assessment criteria are shared with students when the assessment task is revealed — it is akin to knowing the "rules of the game" before the whistle blows to start playing.

• The third step can be the most interesting and innovative for educators — designing the assessment. Later in this paper I provide examples of different tasks that combine not only the need to engage and motivate students but also the need to test them against the ILOs for the module and the programme of study.

However, assessment design is influenced by several factors⁵. These include:

a) Curriculum level decisions — often made at the planning and accreditation stages for a programme, conforming to national, professional or cultural norms and requirements.

b) Pedagogy level decisions –) often within the control of the discipline group or the individual teacher and made before the start of the teaching, and

¹ Rust, C. (2013). What we know about Assessment...

² Biggs, J. (1996.) Enhancing teaching through constructive alignment...; Meyers, N. & Nulty, D. (2009). How to use (five) curriculum design principles to align...; Wang et.al., (2012). An exploration of Biggs' constructive alignment in course design and its impact on ...

³ Loughborough University (2018b). Financial Services Environment module specification...

⁴ Loughborough University (2018a). Postgraduate programme specification for ...

 $^{^{\}scriptscriptstyle 5}$ Dawson et.al. (2013). Assessment might dictate the curriculum, but ...

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Table 1

AN EXAMPLE OF ASSESSMENT CRITERIA AND RANGE STATEMENTS FOR WRITTEN ASSIGNMENTS / ESSAYS OR REPORTS (UNDERGRADUATE)

Criterion	<49% Poor fail / fail	50—59% Satisfactory / sufficient	60—64% Good	65—74% Very Good	>75% Excellent	
Focus	General and sometimes inaccurate focus.	Very general statements about the business.	Mostly focused on the questions asked.	Good focus on the key questions	Keeps to the point, focus on questions.	
Content	Very basic detail, some inaccurate reporting of case.	Little detail or explanation, general "headlines" without much supporting text.	Reasonable level of detail. Some key points missed.	Good level of detail and explanation. Most key points covered.	Clear facts, very well explained, Good level of detail (not overboard)	
Use of models / concepts	No basis in theory or accepted models.	Basic use of theory, derived from lectures alone.	Good use of theory, based largely on lectures	Good use of relevant theories / models / concepts extending beyond the lecture notes.	Excellent use of relevant theories and models, extending beyond the lecture notes.	
Evidence of Research	No citations / references. Statements have no supporting evidence.	Statements often not supported by evidence, few sources cited.	Statements supported, some meaningful research undertaken.	Good referencing, statements supported by evidence. Good sources used.	Wide range of research. Excellent sources of data and references.	
Analysis / discussion	No real analysis or application of theories.	Descriptive, shallow, shows basic information without any analysis.	Good attempt to analyse, or prioritise issues.	Good attempt to analyse, or prioritise issues and to draw conclusions.	Evidence of argument, analysis and discussion. Good conclusions drawn.	
Presentation of report	Unstructured, messy, spelling and grammar mistakes	Neat and tidy but with no real structure. Some spelling errors.	Well presented with minimal errors. Room for improvement in structure. Well presented with a good attempt to structure.		Good logical structure, neat and tidy. Good "signposts" (headers / footers / sub-headings)	

Table 2

AN EXAMPLE (EXTRACT) OF ASSESSMENT CRITERIA AND RANGE STATEMENTS FOR WRITTEN ASSIGNMENTS (POSTGRADUATE)

CRITERIA	A 70+% Distinction	B 60–69% Merit	C 50—59% Pass	D 40–49% Marginal fail	E 39% and below fail
ANALYSIS and EVALUATION 1. Evidence of critical analysis e.g. • Identifying and challenging assumptions. • An awareness of the importance of context in creating meaning. 2. Critical evaluation of the strengths and weaknesses of cited research/ literature 3. Credible conclusions are made.	Excellent evidence of critical analysis accompanied by a profound appraisal of the literature and evaluation of theoretical concepts. The material is managed in a highly creative way demonstrating evidence of originality of thought. Excellent evidence of synthesis of ideas and key concepts, articulately expressed.	Very good evidence of critical analysis with evaluation of the literature/ theoretical concepts. The material is managed in a creative way with expression of some original thought. A good level of synthesis of ideas and key concepts.	Whilst there is evidence of critical analysis some issues required further exploration. There is a competent level of evaluation of the literature and theoretical concepts. There is evidence of originality of thought, although some areas are underdeveloped.	Very limited evidence of critical analysis and much of the writing is descriptive. Evaluation of the literature and key concepts is scarce. Lack of originality in the way the material is handled.	Little or no evid- ence of critical analysis and the discussion is en- tirely descriptive. Poor evaluation of the literature and theoretical con- cepts and no cred- ible judgements are formed. No evid- ence of original and innovative thought or creative use of concepts.

c) Operational level decisions — day to day decisions about feedback, technology (on-line or hard copy?) logistics (for group work or presentations).

The fourth and fifth steps relate to the marking and feedback for the assessment. Marking can be very subjective but in more "consumerist" societies students are willing to appeal marks awarded and challenge teachers. Marking by using the assessment criteria not only gives teachers a consistent basis of evidence to support marking decisions but also a source of developmental feedback.

There is still subjectivity in determining whether a "good" or "very good" mark is awarded but agreeing assessment criteria in advance helps the individual marker to distinguish the difference. In Figure 2 good and very good performance in the analysis and evaluation aspect of the work is shown as:

• *Good* — Good attempt to analyse or prioritise issues;

• Very Good — Good attempt to analyse or prioritise issues and to draw conclusions.

Feedback for the student achieving a "good" rating, following the so called "feedback sandwich" protocol (Commend, Recommend, Commend) could then include a phrase such as:

"You make a good attempt to prioritise issues in your essay, you could develop your ideas further by drawing conclusions or discussing the impact of your analysis on decision making. Your framework for analysis is clear".

Feedback given to students is the subject of a whole, different, seminar or workshop but its purpose in an educational setting is demonstrated here. Feedback to students on their work should be detailed, comprehensive, meaningful to the individual, fair, challenging and supportive¹. It should also be timely — especially when submission and return of written work informs subsequent assessments or learning objectives.

Online marking systems such as Turnitin's GradeMark² facilitate common or "stock" feedback phrases since many educators use the same phrases for different students. There is no reason why manual marking cannot use common feedback phrases linked to assessment criteria.

Quality Assurance

For higher education systems based on what I will call the "engineering" method of Quality Assurance — i.e. the setting and adherence to a blueprint or set of rules and procedures, the tendency is towards pre-authorisation; regimes based on rigorous documentation, and regular internal and external feedback and reviews to ensure that the original design is being delivered in a consistent way. This has been reinforced in the UK by the recognition that Universities are subject to the same market based concepts of "treating customers fairly" as banks, motor manufacturers or purveyors of sausages.

In its advice to UK Universities, the Competition and Markets Authority³ stipulates, for example, that the structure of courses should be given before the students' decision to apply. Not too controversial, but where this structure embeds clear indications of assessment the University must continue to offer that course structure to the student until the point of graduation, perhaps 5 years later. Flexibility and innovation in assessment practice can be stifled in the short term.

Universities can change their assessments but only over the long-term or where evidence can be shown that the bulk of students would benefit from such a change.

Overall, however, the UK quality assurance framework is permissive, recognising the independence and history of academic freedom that pervades the sector. The degree of flexibility and innovation is restricted as noted above but not impossible. The key elements of the UK Regulatory framework are illustrated in Figure 2.

The framework is overseen by:

• The Quality Assurance Agency which issues benchmark statements in a variety of subject areas, including Business, Economics and Finance. Benchmarks set academic standards for Bachelor and Masters level study. The subject benchmark in Business and Management⁴ gives a definition of the discipline, expected subject knowledge, skills development and practical application in Business and Management but does not determine teaching and learning style, nor assessment, preferring to leave that choice to the degree awarding body (University).

• The Office for Students (a relatively new grouping) that oversees access to and participation in higher education for students, funding and the maintenance of good governance for universities and a complaints system for the disgruntled.

Within this, as opined above, the flexibility of the individual institution can be seen. Forward thinking institutions can, and often do, incentivise innovation not only to differentiate their offerings

¹ Brown, S. (2005). Assessment for Learning...

² Turnitin (2018). GradeMark ...

³ Competition and Markets Authority (2015). UK higher education providers — advice on ...

⁴ Quality Assurance Agency (2015). Subject Benchmark Statement: Business and ...





Figure 2. Regulatory Building blocks in the UK

but also to recognise the changing nature of pedagogy.

In the UK there are national teaching awards¹ that are often mirrored at institutional level. Funding and time is released to individuals to develop innovative ideas and to share them. An excellent example of this can be seen at BI Oslo's Learning Lab² and at various UK institutions.

Global accreditation standards also focus heavily on clear objectives in business education programmes. Figure 1 (above) can be revisited to understand the steps expected under The Association to Advance Collegiate Schools of Business³ guidelines for a concept known as "Assurance of Learning". EFMD places some emphasis on this aspect too as part of its EQUIS and EPAS (respectively, institutional and programme level) accreditations.

The basic question that these global accreditors ask is:

"How does the School ensure that participants meet the agreed objectives and learning outcomes for individual awards?"⁴.

It was with this background of theory, practice and regulation that the seminar held at Taras Shevchenko National University of Kyiv asked participants some key questions:

1. ILOs — where do you want your students to end up?

2. Assessment criteria — how can you tell if the students have achieved the standard? and

3. Innovation in assessment — what assessments do you use?

Intended Learning Outcomes — where do you want your student to end up?

Dawson cite eminent educationalist David Boud who advises:

"Students can, with difficulty, escape the effects of poor teaching, they cannot (by definition if they want to graduate) escape the effects of poor assessment"⁵.

Recognising the good assessment emanates from a clear communication of learning objectives seminar delegates offered 40 different responses to the question — where do you want your students to end up?

After analysis of the responses 17 (43%) were considered to be of high clarity. These contained a clear verb such as:

- DISCUSS...
- COMMUNICATE...
- PREPARE...
- ANALYSE...

Such verb forms are useful as they advise the students very clearly what the examiner expects from the ultimate assessment and begin to suggest the appropriate measurement or assessment tool. Can the students discuss? — this can be determined in a variety of ways including exam questions, assignments, reports or even presentations, role plays and debates.

These verbs draw heavily on the work of Benjamin Bloom and the work of Baxter-Magolda highlighted by Bock⁶. Both Bloom and Baxter-Magolda recognised that there is a development of educational goals as learning progresses.

In the seminar there were also 10 (25%) responses of medium clarity. These contained verbs but ones that were less capable of being measured such as:

- PARTICIPATE...
- UNDERSTAND...
- USE...

Further and better detail of just how students should participate or what evidence of understanding will be sought are needed to allow these perfectly good outcomes to become clearer. What educators wish is that students do "understand" concepts but we cannot know if the individual student actually understands or

¹ Higher Education Academy (HEA) (2018). HEA Awards ...

² BI Norwegian Business School (2018). Learning Lab ...

³ AACSB (2018). Eligibility Procedures and Accreditation Standards for ...

⁴ EFMD (2018). EQUIS Standards and Criteria ...

 $^{^{\}scriptscriptstyle 5}$ Dawson et. al. (2013). Assessment might dictate the curriculum, but ...

⁶ Bock, M. T. (1999). Baxter Magoldas Epistemological Reflection Model ...

has, for example, memorised a few essay answers written by somebody else or has even allowed an assignment to be written by a third party, possibly for payment. What the educator can see is evidence of understanding — the relevant research has been undertaken, the appropriate tools have been used to analyse a situation or key concepts have been applied correctly to a real-life scenario.

The remaining 13 (32%) responses required a lot of thought before they could be used to indicate the outcomes of the teaching and learning. These included:

• PASS THE EXAM ...

• STUDY NEW SPHERES...

• DO BUSINESS CASES...

The Type of outcome also ranged from Knowledge Based (32%), those indicating cognitive skills of different levels (24%) and those aiming to help development of transferable/ employment skills (31%). The remainder (8%) defied easy classification.

Delegates showed some very good insight in this area and a readiness to share it with others. ILOs of the highest clarity are not only helpful but make the alignment of outcomes and assessment much clearer.

Assessment criteria — how can you tell if the students have achieved the standard?

Once the clarity of Learning Outcomes is established educators must consider the sort of evidence they will need to ensure that the individual student has achieved the published outcome. The US based AACSB accreditation body uses a concept that it calls "Assurance of Learning"¹. In AACSB Standard 8 accreditors seek evidence that the learning is appropriately and consistently substantiated.

In an interaction with delegates at the seminar there were 33 responses to the question asking: "What would you look for...if you were asked if the student had Analysed; Evaluated or Explained...."

After careful analysis 14 (42%) could be described as "Clear" whilst the remaining 19 (58%) would benefit from greater precision in language.

Those judged to have greater clarity in respect of evidence for analytical skills included:

• "Process the information and draw a conclusion";

• "Compare different companies";

• "Create graphs and tables".

Those statements that were less clear included:

• "Give main blocks";

• "Show different aspects", the hazardous;

• "Speak to the student".

Through the mechanism of teachers thinking deeply about ILOs, discussing and agreeing the evidence sought for the various educational outcomes and then sharing the assessment criteria with students a clear link is made that can assure learning.

Figures 2 and 3 summarise types of evidence sought to justify different levels of achievement. In Figure 2 good and very good performance in the use of models / concepts aspect of the work is shown as:

Good — Good use of theory, based largely on lectures;

Very Good — Good use of relevant theories / models / concepts extending beyond the lecture notes.

Effort expended at the planning stages of teaching can, and does, make the agreement of marks and provision of feedback to students more consistent. Students can be known to complain about grades but by adopting the method outlined above, academics can defend the marks allocated if called upon to do so.

Innovation in assessment — what assessments do you use?

In a final interactive exercise with seminar participants 42 responses were given to the question "What type of assessment do you use?".

The mechanics of assessment, built as a foundation in curriculum planning can support not only traditional assessments such as exams but also more innovative assessments created by teachers. The responses were not untypical of Universities around the world.

19 responses (45%) noted exams, tests or a quiz. Such tools are very useful in the testing of memorization of knowledge and in the ability to communicate key points in a time constrained manner. However, tests are swift to mark and can give vital feedback to students in a formative way, where they occur during the teaching period. Exams, however, are normally summative. They do have the advantage of being able to fully identify the individual student however!

Exams using case studies or open book exams that seek problem solving skills can be very useful in assessing higher level skills — often those outcomes the programme of study sets out to achieve. Although 6 (14%) responses were impossible to classify the remaining 17 (41% showed some innovation and good practice.

5 responses indicated that written assignments were used and a further 12 that classroom

¹ AACSB (2018). Eligibility Procedures and Accreditation Standards for ...

participation, including discussions took place. Discussions can be both formative and the basis for summative assessment. They also engage collaborative learning as such activities are naturally better achieved by groups.

Some innovative assessments not only test the outcomes we seek to test but also help to develop key skills that students will require after graduation. Such skills include:

• Time Management (to plan, research, write and submit an assignment).

• Effective communication with others (in a group assignment).

• Reflection (as evidence of skill development can be captured individually as a portfolio).

Examples given in the seminar are summarised in Table 3.

Exams are typically "unseen" and time constrained. They can test knowledge acquisition and can show clarity of communication. Exams are typically handwritten whereas on-line exams do reflect the writing that most graduates will engage with in their future lives. The technical difficulties of invigilation of on-line exams, however, is prohibitive for many institutions.

By adding a case study element to some exams, the range of competencies and ILOs tested can expand. The case may be "seen" or "unseen" at the time of the exam. "Seen" case studies can also test research skills as students can engage with the materials before the exam. "Unseen" case studies test a smaller range of skills.

The level of test and assurance of learning envisaged in the ILOs will also depend on the careful wording of exam, assignment or presentation and video briefings. What is it that students should do to provide evidence that they have achieved the ILOs? The verbs in the ILOs themselves provide significant clarity. Exams that are designed to test learning, rather than to find out how much students have failed to learn will use the ILOs as a guide.

Conclusion

This paper has summarised and reports upon a seminar in a Ukrainian Faculty of Economics. It is not conceived as a research paper and so conclusions are not backed by rigorous evidence or testing. The conclusions are, however, backed by over 30 years of teaching experience, programme design and management and, more recently, school management in respect of standards in learning and teaching.

There is enough evidence, therefore, to conclude that the Constructivist paradigm is understood by many in the seminar. The importance of clarity in the planning and design of curricula and the format of assessment is also well evidenced.

What is less evident is the opportunity, experience or confidence to use assessments that are more innovative, more designed for learning than merely for judgement and may even be more engaging for our students.

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Table 3

ILO / Assessment type	State / Describe	Explain	Analyse	Research	Organise	Structure	Communicate
Multi-Choice Test	\checkmark	?	Х	Х	Х	Х	Х
Exam	\checkmark	\checkmark	?	Х	Х	Х	
Case based exam*	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	
Assignment / Essay	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark
Case based essay	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark
Presentation	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Video	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	

USING DIFFERENT ASSESSMENTS MATRIX

* based on a "seen" case delivered to students before the exam.

ac.uk/3607/1/LATHE%201.%20Assessment%20 for%20Learning%20Brown.pdf

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