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Issues of innovation and control in high
stakes assessment in Scotland

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Abstract

- ◆ As part of Scotland's new Curriculum for Excellence teachers will take more responsibility for high stakes assessment for qualifications and will continue to have the opportunity to create their own assessments for this purpose. It is sometimes argued that in order to become a profession, teachers would have to take more control of professional knowledge like doctors and lawyers do and one of the main elements of teacher professional knowledge is assessment literacy, skills and values. Extensive CPD and peer support through processes of moderation is required to support this, but is this sufficient? Do teachers do trust themselves and each other with assessment for high stakes purposes?



Inside the black box?

“The basic premise underlying any good assessment system is that it should do no harm and as much good as possible” (Black, 2007)



Scotland: an overview

- ◆ Part of UK
- ◆ 30% of UK land area
- ◆ 10% of UK population
- ◆ Decreasing population – fastest decline in Europe
- ◆ Over 2.5 million people with SQA qualifications (16+ population c 4.2 million)
- ◆ Unemployment rate – + 5%
- ◆ High level of incapacity/social issues



Scottish Qualifications Authority

- ◆ National statutory body
- ◆ 660 staff
- ◆ 20,700 Quality Assurance personnel - employed part-time, drawn from teachers and lecturers
- ◆ 1,750 approved centres
- ◆ A comprehensive catalogue of over 30,000 Units covering a vast array of subjects, mostly internally assessed



My learning intentions for you

I would like to share with you some thoughts grounded in the Scottish experience about:

- ◆ the history and purposes of assessment
- ◆ new qualifications in Scotland
- ◆ some problems with assessment
- ◆ some possible solutions
- ◆ the future



History and characteristics (of public high stakes assessment)

- ◆ Sui Dynasty 589 – 628 AD to today
- ◆ Characteristics
 - Paper-based
 - Formalised
 - Synchronised
 - Controlled
 - Uncoupled from learning
 - Industrialised
- ◆ Generally enjoys public and political confidence (Elliott, 2008)



New public high stakes qualifications in Scotland

- ◆ Courses unit based, success in contributing Units mandatory
- ◆ Most Units are internally assessed and not graded
- ◆ Flexibility in the number of Units in courses across curriculum areas
- ◆ SCQF level 4: **National 4** – course award based on achieving units and coursework and internally assessed - SQA will quality assure the assessment
- ◆ SCQF level 5: **National 5** – course award based on achieving units, coursework internally assessed and external assessment by SQA – SQA will quality assure the assessment
- ◆ SCQF level 6 and 7: **Higher** and **Advanced Higher** revised to align with this – external examinations retained for Course award
- ◆ Assessments designed to provide evidence of achievement of units and coursework but also possible to assess units individually
- ◆ SQA provided and locally developed assessments



A central dilemma in assessment?

- ◆ On the one hand it is argued that teacher assessment is unfair because teachers vary and can be unreliable and biased. On the other it is said that exams are simply a snapshot of pressurised bursts of activity that are unrepresentative of the work that can really be done. Given these opposing positions it seems nearly impossible to find a sensible way forward. (Tymms, 2009)



Some purposes of assessment

- ◆ For evaluating institutions (evaluative)
- ◆ For describing individuals (summative)
- ◆ For supporting learning
 - Monitoring learning: whether learning is taking place
 - Diagnosing (informing) learning: what is not being learnt
 - Forming learning: what to do about it (formative)



Some problems

Unspeakably more depends *on what things are called* than on what they are...creating new names and assessments and apparent truths is enough to create new 'things'.

(Nietzsche, 1887)

The individual in contemporary society is not so much described by tests as constructed by them

(Hanson, 1996)

I'm no good at spelling ..and I'm hopeless at times tables so I'm frightened I'll do the test and I'll be a nothing.

(Hannah age 11, Reay & William 1996)



Some problems

“Learning the formula for each external exam and practising it endlessly. I got an A1 in English because I knew exactly what was required in each question. I learned off the sample answers provided by the examiners and I knew how much information was required and in what format in every section of the paper. That’s how you do well in these examinations...There’s no point in knowing about stuff that is not going to come up in the exams. I was always frustrated by teachers who would say ‘You don’t need to know this for the exams but I’ll tell you anyway’. I wanted my A1 – what’s the point of learning material that won’t come up in the exams?” (Stobart, 2008)



Some problems

- ◆ “External exams bring a lot of stress which can lead to poor performance on the day of examinations” (school student)
- ◆ “External exams put a lot of pressure on teachers to get results. This means that learning takes place in a highly pressurised atmosphere” (school student) (Allan, Gray, McVittie, 2007)



Some problems with external exams: reliability

With an 85% reliable test, in a cohort of 30:

- ◆ Half the candidates will get a mark within 4% of their 'true score'
- ◆ Three-quarters of the candidates will get a mark within 7% of their true score
- ◆ One candidate will get a mark differing from their true score by more than 12%
 - Unfortunately, we don't know which student, nor whether the mark is 12% lower or higher than the true score...

(William 2008)



Some problems with external exams: validity

Validity is a property of inferences, not of assessments (Cronbach, 1971)

- ◆ A test is valid to the extent that it assesses what it purports to assess key properties (content validity)
 - Relevance
 - Representativeness
 - ◆ Fallacies
 - Two tests with the same name assess the same thing
 - Two tests with different names assess different things
 - A test valid for one group is valid for all groups
- (William 2008)



Some solutions?

- ◆ Within school differences greater than between school differences (OECD Report on Scottish Education, 2007)
- ◆ Teacher quality is the single most important determinant of student progress (Wiliam, 2008)
- ◆ Using teacher assessment for high stakes certification is attractive:
 - Increases reliability (increased test time)
 - Increases validity (addresses aspects of construct under-representation) (Wiliam, 2008)



Some solutions?



Some solutions?



Some solutions?

- ◆ More teachers led assessment and setting of standards
- ◆ More assessments created by teachers
- ◆ Assessment literacy central to initial teacher training and ongoing CPD
- ◆ Assessment that is fit for purpose
- ◆ Assessment that is central to learning
- ◆ Cumulative and integrated approach
- ◆ Self and peer reflection and moderation by teachers and students



Some solutions?

Assessment *literacy* would include knowledge of the types, methods and purposes of assessment, and an understanding of the reliability and validity, of responses, scores and grades, and so on, and their implications for learners. Assessment *skills* would in turn include competence in different assessment methods, question design, item writing, feedback, moderation, facilitation of self and peer assessment and so on. Assessment *values* would include an endorsement of the importance of consistency, impartiality and transparency in assessment practice. (Gardner, 2006)



Some challenges

- ◆ A “partial” profession (Gardener, 2006)
 - Assessment literacy
 - Assessment skills
 - Assessment values
- ◆ Teacher bias – gender, class and all that
- ◆ Self-doubt, distrust (“fox guarding the hen house”) little inter-collegiate discussion and fear of parental pressure
- ◆ Systemic constraints on, and affordances for, change (Black, 2007)



The future: teacher led assessment

Teacher led assessment as an integral part of effective teaching and learning. It allows progress to be recognised and celebrated and it informs the next steps and priorities of both teachers and learners. It:

- ◆ embraces new technology
- ◆ differentiates in the global market place
- ◆ is part of effective planning
- ◆ focuses on how learners learn
- ◆ is a key professional skill
- ◆ is sensitive and constructive
- ◆ fosters motivation
- ◆ promotes understanding of goals and criteria
- ◆ helps learners know how to improve



For high stakes: it works elsewhere?

- ◆ In Scotland, but not in high stakes qualifications for University entrance
- ◆ In Sweden, but they want to move back to external exams for high stakes purposes
- ◆ In Queensland, but they use externally marked 'core skills' examinations to calibrate internal assessments



Teacher assessment for the future: a metaphor

“The changes we are seeing now are as important as those associated with Gutenberg’s press” (Land, 2007)

