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Formality and informality in the summative assessment of motor vehicle apprentices: a case study

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Abstract: This article explores the interaction of formal and informal attributes of competence-based assessment. Specifically, it presents evidence from a small qualitative case study of summative assessment practices for competence-based qualifications within apprenticeships in the motor industry in England. The data are analysed through applying an adaptation of a framework for exploring the interplay of formality and informality in learning (Colley et al, 2003a). This analysis reveals informal mentoring as a significant element which influences not only the process of assessment, but also its outcomes. We offer different possible interpretations of the data and their analysis, and conclude that, whichever interpretation is adopted, there appears to be a need for greater capacity-building for assessors at a local level. This could acknowledge a more holistic role for assessors; recognise the importance of assessors' informal practices in the formal retention and achievement of apprentices; and enhance awareness of inequalities that may be reinforced by both informal and formal attributes of assessment practices.

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Introduction

This article explores the interaction of formal and informal attributes of competence-based assessment. Specifically, it presents evidence from a small qualitative case study of summative assessment practices for competence-based qualifications within apprenticeships in the motor vehicle industry in England, which reveals informal mentoring as a significant but hidden element of the process. Such practices contrast with the formalities that are generally assumed to assure the validity of summative assessment, and appear, in some cases, to influence outcomes.

We begin by explaining briefly the nature of apprenticeships in England, including in the motor vehicle sector, and the nature and levels of the National Vocational Qualifications (NVQs) associated with them. We go on to define mentoring, and to review how such informal practices have previously been discussed in the literature on assessment. We then introduce an analytical framework for exploring the interrelationship of formal and informal aspects of assessment, and, after outlining the background and methods of our research, we present data which contrast official accounts of competence-based NVQ assessment with the interplay of mentoring and the unofficial assessment of apprentices' dispositions that we observed in day-to-day practice. The article ends by exploring further issues posed by our findings, and we suggest some tentative ways forward with regard to local capacity-building for assessment.

Apprenticeships and NVQs: the English context

In England as a whole, just over 70% of young people aged 16 go on from compulsory schooling to full-time education, with a further 20% going into work-based apprenticeships. Usually, apprentices spend four days each week working for an employer, and one day in a college or private (but government-funded) training provision, a format traditionally termed 'day-release'. The frameworks for apprenticeships in each occupational sector are designed by national training organisations (NTOs); whilst their general operation and funding is overseen by the national Learning and Skills Council (a government-funded agency) and its 47 local bodies. This system, however, differs greatly in England and the rest of the UK from those in other European countries. Employer participation is on a voluntaristic basis, the length and stability of apprentice participation can vary considerably (Unwin & Wellington, 2001), and many sectors are strongly gender-stereotyped (Fuller et al., 2005). As Fuller & Unwin note, there is no underpinning legislation to regulate core features and guarantee quality across the national system, and 'social partnership arrangements between government, employers and trade unions, which commonly apply in other European countries, do not exist in the UK' (2003, p.8). Moreover,

Steedman's comparative study of the UK with seven other European countries found apprenticeships here wanting 'on every important measure of good practice' (2001, p.37, cited in Fuller & Unwin, 2003, p.7). In particular, an unusual feature of apprenticeships in the UK is that their funding is outcome-related, so that colleges or training providers receive funding only upon apprentices' successful completion of programme qualifications. Given the voluntarism of employer participation, this places considerable pressure on providers to ensure that apprentices complete their programme, and that employers allow them to do so.

The motor industry (here we are looking at occupations such as vehicle fitting, maintenance and repair, and body and paint operations) is among the 10 largest of the 86 programmes which offer government-sponsored apprenticeships, with just under 10% of total recruits. Statistics from the LSC for the year 2005/2006 (LSC, 2007) show that advanced apprenticeships in this sector are strongly gender-stereotyped, with girls comprising only 1.9 percent of entrants. They are also considerably less ethnically diverse than the population as a whole, with only 3.8 percent of entrants, compared with 7.9 percent of the UK population as a whole (Office for National Statistics, 2007), identifying themselves as belonging to minority ethnic groups. Only 26.3 percent of leavers had achieved the full framework qualification, but the available statistics do not break these down by gender or ethnicity, so it is difficult to ascertain whether or not female apprentices or those from minority ethnic communities have similar completion rates to those of male or White trainees.

Apprenticeships are certificated as a minimum by NVQs, with additional units in 'Key Skills' (which include communication, number, and information technology) According to the Qualifications and Curriculum Authority (QCA) (a government-funded agency separate from the government's Department for Education and Skills), which oversees qualifications in England:

[NVQs] are work-related, competence-based qualifications...based on national occupational standards. These standards are statements of performance that describe what competent people in a particular occupation are expected to be able to do... including best practice, the ability to adapt to future requirement and the knowledge and understanding that underpin competent performance... (QCA, 2007, p.1)

They are not time-bound, but government-sponsored apprenticeships are only available to 16-24 year olds, and the general expectation is that an advanced apprenticeship will be completed in two to three years. Assessment is carried out according to detailed specifications in terms of performance criteria, underpinning knowledge requirements, and range statements which refer to competence across a number of likely contexts. These are structured within a set of 'units' relating to key aspects of the job. Normally assessment takes place through on-the-job observation and questioning, along with assessment of a portfolio of documentary evidence, and assessors 'sign off' each unit as they judge the candidate to be competent in it.

Levels 2 and 3 of the 5-level NVQ system are those most applicable to young apprentices. 'Foundation' apprenticeships bear a Level 2 NVQ qualification, roughly equivalent to school-leaving General Certificates of Secondary Education in four subjects at the 'pass' standard of grades A-C. Our study was mainly concerned with 'advanced' apprenticeships, which qualify motor vehicle apprentices to the traditional craft/technician level now represented by NVQ Level 3. As we shall discuss in the presentation of our data, official accounts of NVQ assessment strongly emphasise the

formal aspects of this process. However, the literature on assessment points to informal aspects which may be less visible, but are also important to consider.

Informality in assessment

Since the 1980s, in the UK newer forms of ‘authentic assessment’ have been introduced in contrast with traditional academic examinations. These new methods include criterion-referenced and competence-based qualifications in vocational learning, as well as the introduction of Records of Achievement (RoAs) to assess students’ personal and social ‘skills’ in addition to their academic learning. This shift ‘placed a dialogue between teacher and student about the student’s strengths and weaknesses at the heart of such novel assessment processes’ (Torrance, 1995: 51), in part because of their focus on ‘soft’ outcomes beyond narrow academic performance. However, there are different perspectives on this change.

For example, Pole’s (1993) study of the RoA process shows tensions that can arise when teachers discuss fairly intimate issues of, for example, home life or friendships as part of this assessment. On the one hand, RoA rests on a rationale of ‘holistic care’, whereby teachers work with pupils to overcome personal as well as academic problems, and coach young people to present themselves and their wider experiences positively for the labour market. On the other hand, the process also seems to offer considerable potential for disciplinary surveillance and control in practice. Pole points to the dangers inherent in teacher assessment of pupils’ out-of-school activities as appropriate or inappropriate, according to a social hierarchy ‘defined by the values of the teachers and their thoughts about what employers would regard as worthwhile achievements’ (1993: 89).

In the context of Advanced (Level 3) General National Vocational Qualifications (GNVQs), which are college-based qualifications in broad occupational areas, Ecclestone (2002) presented evidence that teacher-student relationships were more mutually engaging and more intrinsically motivating for students, in part because the explicit nature of the learning objectives and assessment criteria engendered more concrete discussions with teachers. However, the less formal practices in which teachers in that study engaged to coach and coax students through the course emphasised instrumental and credentialist outcomes: many students chose to ‘aim low’ and remain within their ‘comfort zone’ rather than face more difficult challenges, or risk failure. Bathmaker (2001) takes a more sanguine view of such collusion in ‘playing it safe’ for students who have experienced – often traumatically – failure at school, and for whom vocational education is a ‘second chance’. Her study of Foundation-level (Level 1) GNVQ students shows that their relationships with staff teaching and assessing them were key to retaining these students and allowing them to succeed for the first time.

Mentoring within the assessor’s role

We argue that some of these less formal practices could be described as mentoring. Although it has proved difficult to define mentoring precisely (Colley, 2003), there appears to be a general consensus that it is a process:

...whereby a more knowledgeable and experienced person actuates a supportive role of overseeing and encouraging reflection and learning within a

less experienced and knowledgeable person, so as to facilitate that person's career and personal development (Roberts, 2000: 162).

Mentoring entails, then, both instrumental, career-related functions (including aspects of teaching, advising, sponsorship etc.) and expressive, psychosocial support (such as encouragement, motivation, esteem-building) (Kram, 1988; Roberts, 2000).

There is considerable discussion in the literature on mentoring about the extent of its compatibility or conflict with summative assessment, if both are present in the same person's role. Some see the two functions as inseparable (e.g. Watson, 1995; Stephens, 1996), while others argue that there is 'a world of difference between being a mentor and being an assessor' (Smith and Alred, 1993, p.113), since the role of a mentor should be fundamentally non-judgmental (Anforth, 1992). Many, however, regard *formative* assessment as being integral to the contribution a mentor makes, especially in workplace learning situations (Roberts, 2000).

By contrast, the literature on assessment makes only occasional reference to mentoring. The relationship between competence-based assessment and mentoring has been discussed explicitly by Wolf (1995; Wolf et al., 1994). She argued that attempts to combine the two roles of assessor and mentor in one person, within close-knit professional work-groups that include trainees, fail largely because of people's unwillingness to criticise their colleagues:

People's reluctance to pass negative judgement on fellow workers – especially if they belong to the same professional or craft group – may be as much of a problem for the quality and integrity of workplace assessment as the opposite threat, viz. that it can be used to exert control and punish 'difficult' or unpopular candidates. (Wolf, 1995: 98)

The risk, then, is that the assessment process is not just subverted, but becomes 'no assessment at all' (Girrot, 1993, cited in Wolf, 1995: 98). While there are some similarities with the critiques of assessment as an aspect of the mentor's role discussed above (mainly regarding the tensions of combining both roles), here we see the critique coming from a different angle. The incorporation of mentoring in the assessor's role is viewed as potentially undermining the judgement required in assessment activities, through bringing to bear on those activities the social relationships and group-held values of the workplace context. The power of the community over the assessor to include their mentee may be more relevant, in such cases, than any use (or abuse) of power by the assessor to control or exclude their mentee. Overall, the conclusion Wolf draws is that mentoring should not be part of the assessor's role.

A second, and more recent, work relevant here is James and Diment's (2003) detailed exploration of the activities of one NVQ assessor (named Gwen) in the customer service sector. They found that Gwen's activities regularly included wider practices that were not specified or acknowledged in official accounts of her work, and that parallel closely many definitions of mentoring. These included close relationships with candidates that bordered on counselling; episodes of teaching; negotiating learning opportunities in the workplace; unconditional individual support for problems in completing units of the qualification; critical moments of intervention, including advocacy on candidates' behalf with employers; and guidance on future career development (pp.414-415). This mentoring (as we term it) formed 'underground', or hidden, contributions to learning by the assessor that were vital to

candidates' successful assessment. James and Diment seem to argue, in contrast with Wolf (1995), that mentoring can indeed be combined with the role of assessor, and possibly that it should be. However, the practices they describe could not be said to constitute a set of assessment practices *per se*, and as such, it might be more appropriate to think of them as 'supplementary mentoring activities associated with assessment'.

Informality and formality in assessment

Colley et al. (2003a), in their study of informality and formality in learning, argue that certain practices associated with learning are typically thought of as 'informal' (e.g. mentoring) and others as 'formal' (e.g. summative assessment), and that these are often regarded as separate – even incompatible – categories. Drawing on an extensive literature review and a range of empirical research projects, they conclude that it is more helpful to understand that attributes of formality and informality are invariably intertwined in learning situations. They offer a framework for analysing these attributes which is adaptable to the many different contexts of learning – and, we argue here, of assessment also – according to the particular definitions of 'formal' and 'informal' that are assumed within the prevailing culture. This suggests that practices should be analysed according to four 'clusters' of criteria for attributing degrees of formality or informality: process; location and setting; purposes; and content (Colley et al., 2003a, p.30-31). For example, in terms of processes, learning which has no assessment might be regarded as informal (as in youth work practice); formative assessment might mean that learning is regarded as more formal/less informal than this (as in non-certificated workplace learning); and learning which is summatively assessed and certificated might be regarded as formal (as in apprenticeships). In terms of content, which is taken to include the outcomes of learning, these may be rigidly specified and formal (as in NVQs); flexible and less formal (as in some forms of adult education); or serendipitous and informal (as in everyday learning).

Such groupings of attributes into these aspects, and their characterisation as formal or informal, is necessarily tentative and illustrative, but can, we argue, be applied to assessment practices themselves, and to supplementary mentoring associated with them. Summative assessment, for example, epitomises 'formality'. It is supposedly objective, valid and reliable in its methods, and qualification depends upon it. As Torrance et al. (2005: 12-13) note, the competence-based assessments used for vocational qualifications like NVQs are particularly strongly formalised, emphasising transparency, clarity of criteria and technical quality of assessment. Formative assessment is thought of as a more 'informal' process. It may take a conversational rather than a structured form, it may draw on processes that involve the subjective perceptions and experience of the tutor or mentor, and qualification outcomes are not directly at stake in the interaction. Mentoring, on the other hand, is generally viewed as an 'informal' practice, a personal relationship which is supportive, caring, and in which the mentor sometimes 'breaks the rules' of established institutional practices (Philip et al., 2004).

This may go some way to explaining why there is little allusion in discussions of assessment to practices associated with mentoring: a similar debate is largely precluded, since the permeation of less formal practices into summative assessment might threaten the very status conferred by its appearance of rigorous formality. However, the blinkering effect of this discursive separation of formality and informality can be challenged through more detailed, qualitative investigations, in

which micro-level practices are observed, and compared with both official and individual accounts of those practices (Colley et al., 2003a). We turn, then, to our case study of assessment in motor vehicle apprenticeships.

A case study of assessment in motor vehicle apprenticeships

The study on which we draw was part of a research project funded by the Learning and Skills Research Centre, City and Guilds (C&G), and the University for Industry (Ufi), investigating 'The Impact of Different Modes of Assessment on Achievement and Progress in the Learning and Skills Sector' (Torrance et al., 2005). A series of parallel case studies were undertaken across settings in school sixth forms, further education colleges, workplaces and adult learning environments.

The data presented here derives from the study of assessment for NVQs in Motor Vehicle Engineering Levels 2 and 3, in the context of advanced apprenticeships. The college or training provider is responsible for summative assessment of the apprentices, and tutors may conduct this work themselves. Assessment is based on evidence of their competence that the trainee has compiled in a portfolio cross-referenced to the specified performance criteria, supplemented by witness testimonies from employers or customers, observations of their work, and questioning around underpinning knowledge. The fieldwork, conducted from September to December 2004, included 18 interviews with staff involved in assessment at different levels (from internal assessor to chief verifier) from two colleges, a product manager for an awarding body, and 12 employers; 23 interviews with motor vehicle apprentices; 12 observations of assessment events in workplaces; and collection of documentary evidence. Two of the workplaces were main dealerships, and 10 were small garages, reflecting the general predominance of small businesses in this sector. Attempts to gain access to private training providers were refused by them. All staff interviewed were involved in assessment, but here they are referred to according to their main role in the delivery of apprenticeships.

Although we have used the framework outlined above for analysing different aspects of assessment according to their formal and informal attributes, in order to give a more coherent and less repetitious account of the data, we present it here in a narrative form which heuristically moves from the more to the less formal practices we encountered.

Official accounts of the NVQ assessor's role

Official accounts of the NVQ assessor's role are shaped by a key feature of these qualifications: the 'conceptual separation of learning and assessment' on which the notion of being able to judge workplace competence is founded (James and Diment, 2003: 412). These assume that the process of assessment consists of candidates and assessors 'working together to identify and record examples, incidents or episodes that demonstrated competence in accordance with a specification' (James and Diment, 2003: 414). Assessors have to hold NVQ-type qualifications themselves, of which the most current are the A1 and A2 units of the Standards in Assessment and Verification within the Learning and Development suite of National Occupational Standards. These outline assessor competencies as follows:

Unit A1

- A1.1 Develop plans for assessing competence with candidates
- A1.2 Judge evidence against criteria to make assessment decisions
- A1.3 Provide feedback and support to candidates on assessment decisions
- A1.4 Contribute to the internal quality assurance process

Unit A2 Assess candidates' performance through observation

- A2.1 Agree and review plans for assessing candidates' performance
- A2.2 Assess candidates' performance against the agreed standards
- A2.3 Assess candidates' knowledge against the agreed standards
- A2.4 Make an assessment decision and provide feedback

(ENTO, 2005a)

Such a catalogue conveys the objective process that assessment is supposed to constitute, and is supported by a complex system of verification.

Additional guidance for these units further emphasises the technological aspect of assessment based on specified standards:

All assessors...must have sufficient occupational competence to ensure an up-to-date working knowledge and experience of the principles and practices specified in the standards they are assessing... All assessors will have a sound working knowledge of the content of the standards they are assessing and their assessment requirements (ENTO, 2005b: 1-2).

One Lead Verifier described how this should look at the local level:

[When the assessor sees the job card] they're supposed to sit and talk to the candidates and say, 'Well, I see you did this cooling system, you bled the system. Well, how did you know how much coolant to put in?' and that sort of thing, to validate the evidence. They then assess it and stamp it, and then the portfolio is built up. (Lead Verifier)

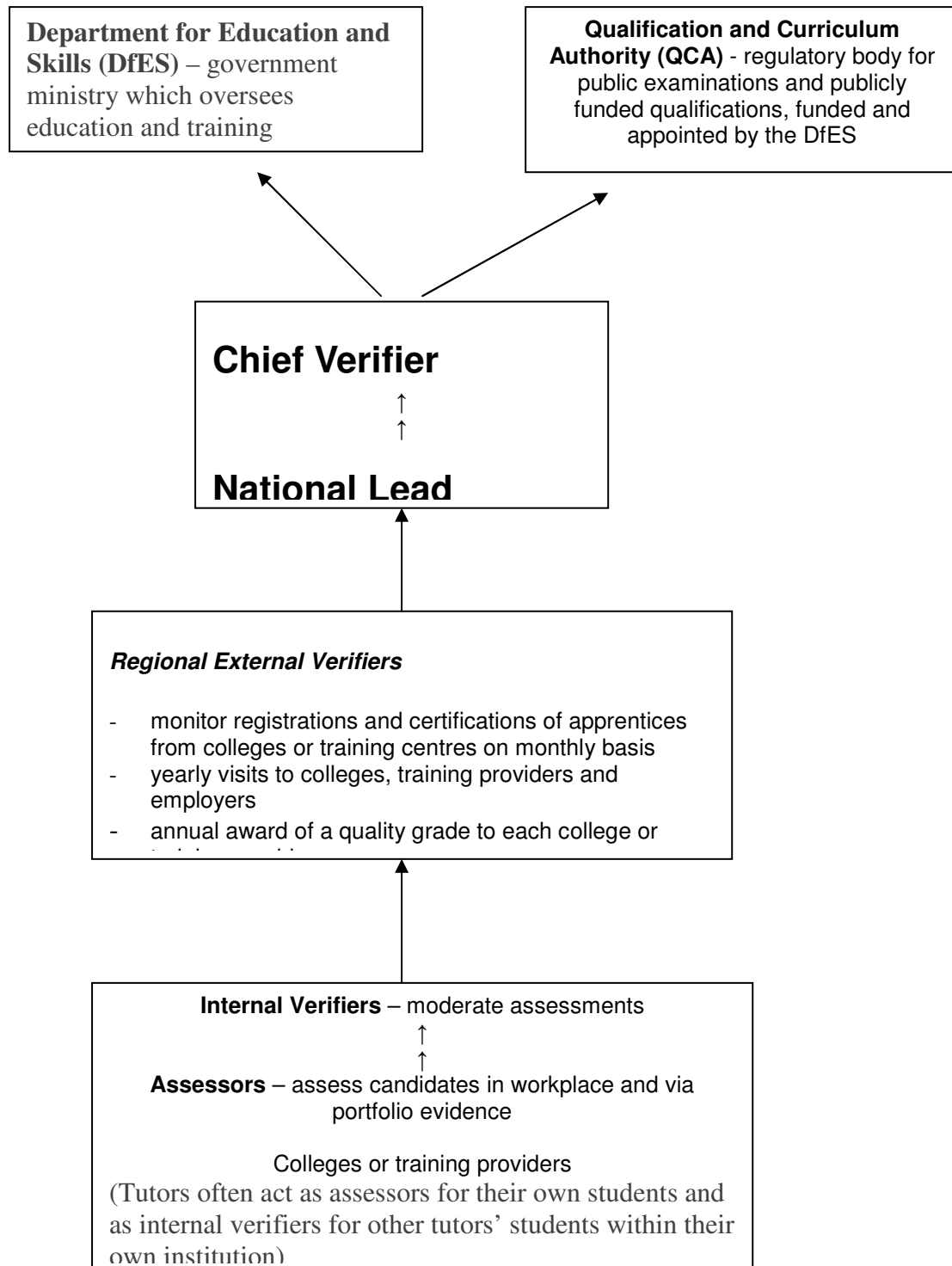
Among the senior staff and verifiers we interviewed, concerns about the quality control and auditing of assessment were very prominent.

Quality control is built in, and everyone reviews what the others do. (Product Manager)

At the first level beyond local providers, regional external verifiers (EVs), monitor registrations and certifications of apprentices from colleges or training centres on a monthly basis. Among other things, this scrutiny is supposed to prevent learning providers from certifying apprentices before they have actually assessed them, since (as we noted earlier) all funding is outcome-related. EVs also visit colleges, training providers and work placements on two separate days each year to scrutinise a selection of trainees' portfolios, examine internal verifier records, interview staff about procedures, and award the centre a grade. These monthly and annual reports are

sent through to national Lead Verifiers (LV) and the Chief Verifier at the awarding body's head office, who in turn ensure that the requirements of government agencies and ministries – the Qualifications and Curriculum Authority (QCA) and the Department for Education and Skills (DfES) – are met (see Figure 1).

Figure 1: Structure of NVQ assessment and reporting



Beyond this formal machinery of ‘pure assessment’, however, we found quite a different set of practices on the ground at the local level, practices which are rarely (if ever) subjected to independent scrutiny.

Supplementary mentoring activities associated with assessment

We have already discussed James and Diment’s (2003) findings on the supplementary mentoring activities associated with NVQ assessment in one case study. In our larger sample, we found numerous examples of similar mentoring on the part of assessors, particularly as some assessors were also tutors for the day-release element of the NVQ at college. Apprentices often displayed resistance to the more academic requirements of their qualification, in particular the additional units relating to Key Skills, and assessors would use their relationships with trainees to counsel them to persevere, despite their difficulties or frustrations. They also had to support apprentices in relation to ‘mega personal problems... the parents will get divorced, or they’ll fall out with whoever they’re living with’ (College Head of Department).

Assessment visits to the workplace could spill over into teaching episodes, where employers were not devoting sufficient attention to developing or reinforcing the underpinning knowledge required by the NVQ. This seemed most common when assessors were conducting questioning on the underpinning knowledge criteria alongside observation of a workplace task as a required part of the assessment process. Like Gwen, some assessors also provided fairly unbounded support to apprentices for the completion of their NVQ portfolios, which most found very onerous. They encouraged trainees to contact them whenever they needed help, or taught and reminded the trainees how to complete the necessary paperwork based on the ‘job cards’ which they and the employer fill in for each task:

Our lads have got a matrix to follow, and that’s been a bit of a job to get them to look at it and say, ‘Well... how many engine jobs have you got?’ ‘We don’t do engines.’ ‘Alright, you do cooling, don’t you? You change a water pump or a timing belt?’ ‘Oh yes, we do that.’ ‘Well, that’s an engine job, isn’t it?’ ‘Oh, we never thought of it like that!’ That’s sorted that problem out now, hasn’t it? That’s how I feel the assessor’s job should be, to help them, guide them, show them what’s going on. (Assessor)

Negotiation with employers to create adequate learning opportunities in the workplace also featured large in assessors’ activities. Sometimes this related to issues around practical training:

It’s not just me looking at him [*the apprentice*] working, it’s to make sure that you [*the employer*] are training him properly and you’re giving him a fair crack of the whip. Sometimes you have to tell employers off: ‘You’re expecting too much of this lad, have you shown him what to do? Have you taken a bit of time and explained how to do this? ... What do you want him to do, if you haven’t got the time and patience to show him how to do it?’ (Assessor)

This could extend to organising exchanges between apprentices in different workplaces who had not been able to access particular equipment and tasks required

for NVQ assessment with their own employer. Limitations existed in very small enterprises, which often lacked diagnostic equipment, for example, but also in main dealerships concentrating on one manufacturer's cars:

Volvo gearboxes don't go wrong! Now, the [NVQ] standards say he [*the apprentice*] must show four pieces of evidence for transmission, so we have to do a driveshaft, clutch and gearbox. In two years he's been there [*at a Volvo dealership*], they haven't had a clutch or a gearbox in the whole place to do... (College Head of Department)

Other negotiations with employers related to support for apprentices' underpinning knowledge:

They [*employers*] say, 'Well, he's a lad and he works for us,' and I say, 'Well, that's fine, but when he's working with your, show him things, tell him things.' ... So I go out, and I say [*to the apprentices*], 'Well, what are you doing?' ... and they show me what they're doing. OK, that's fine. 'Well, why are you doing it?' And it's that 'why are you doing it?' bit, what's gone wrong and you've diagnosed what the problem is, why are you doing it – that's the bit they're not getting [*from the employer*]. (Assessor)

Supplementary mentoring activities were by no means provided by all assessors: a considerable amount of data points to significant variations in the degree of support that apprentices received, particularly where the agency managing their apprenticeship was a private training provider rather than a college. This lack of equity was acutely felt by apprentices whose assessors were difficult to contact, made infrequent visits to their workplace, and had little time to devote to support portfolio-building. In a number of cases, these apprentices were considering abandoning the NVQ, and taking whatever work they could get without the qualification. This further suggests that supplementary mentoring plays an important role in motivating candidates to persevere with their training through to achievement of the qualification.

However, there was also evidence in our study that some assessors' local and unofficial practices on occasion went beyond supplementary mentoring, to influence both the process and the outcomes of assessment itself. We first present the data to illustrate these practices, and then go on to discuss their implications.

Mentoring activities integral to assessment

As we have already shown above, assessment is supposed to comprise an objective and impartial process, in which the assessor judges evidence presented for competence, and tests the apprentice's underpinning knowledge. On the ground, however, a somewhat different picture can emerge in assessors' accounts of their practices, and in our observations thereof. Here, we are no longer talking about mentoring activities which are supplementary to the process of assessment itself, but which are integral to it. We found four types of such local practices in assessment: fast-tracking of some apprentices through the assessment process; judging the validity of witness testimony; assessor completion of portfolio evidence; and manipulation of the outcomes of assessment, or (as one respondent put it) 'getting a good bloke through'. These could be said to move along a spectrum, from compliance with the formal regulations to subversion of them. Firstly, we present the data which reveals

these practices, then we go on to discuss their resonance with particular forms of mentoring.

Fast-tracking assessment for some apprentices

Assessors' practices may, on one level, be fairly straightforward adaptations of the officially defined assessment process, which do not appear to subvert or contradict it in any way. For example, while most trainees spend two years completing their NVQ Level 2 to enable them to gain experience, and may take five years to complete Level 3, one college Head of Department would 'fast-track' some apprentices through their assessments to gain their qualifications more rapidly:

He [*the apprentice*] had done all of Level 1, so we said, well, there's no point in putting him through the first year of Level 2 NVQ, because he's done it all. So we said, 'Right, we'll fast-track you' ... and he's done his Level 2 second year now and ... he'll get his certificates... So next year he'll be going on to Level 3... It depends on the candidate's aptitude and ability, really... We've done it with two or three lads, and they've all achieved very well, actually, because their attitude is good. They want to achieve something and do something, and they're very good practically as well. (Assessor)

Such fast-tracking would allow them to enter the labour market sooner, with evidence of outstanding performance in their apprenticeship, and would be particularly advantageous for apprentices who had already achieved Grade C at General Certificate of School Education (GCSE) examinations in English and Maths. It would increase their chance of completing their apprenticeship to NVQ Level 3 within three years of sitting these examinations, and this in turn would dispense for them the requirement to undertake the Key Skills qualifications. (This differs from the accreditation of prior learning (APL), which has been used in England to accelerate the certification of adults who are already experienced and have competence in a job.)

Judging the validity of witness testimony

Other accounts provide fine-grained insights into the activities assessors must undertake in order to conduct assessments. They indicate how limited accounts of formal procedures are in understanding the assessor's role in practice. For example, assessors can, at best, only devote sufficient time to workplace visits to observe around 50% of the required elements. The rest must be evidenced by 'witness testimonies', often provided by the apprentice's employer, and assessors should ensure that such evidence is genuine. The process of assessment therefore involves other activities that enable the assessor to judge its validity:

Probably after four or five visits the first year of visiting a lad in an establishment, you get to know the student and the employer. Are they genuine or not? If you feel – you sort of get a gut feeling for it – that this employer couldn't care less and is signing a bunch of job cards and letting the lad get on with it and not really bothering, and all of a sudden he says, 'Well, this lad is a waste of space', you say, 'Well, hang on. You've been signing his witness testimony saying he's been doing this, that and the other, so it's up to you to supervise him and check on his work at the end of the day.' (Assessor)

We might also infer from this that, once an assessor's 'gut feeling' is that both employer and apprentice are 'genuine' in their commitment to training, witness testimony might be accepted as valid rather than scrutinised or audited more closely. This in turn opens up the possibility of, for example, the fabrication of portfolio evidence – especially since we have seen that both small and large enterprises can have problems in providing a sufficient range of tasks to meet the requirements of the NVQ standards and verifiers.

'Vehicle protection', and things like that, is on every page of the portfolio, and to me, if the lad's got his overall and boots on for one job and he's been assessed like that, surely that should be good enough, you can assume that he's going to use it all the time. (College Head of Department)

Assessor completion of portfolio evidence

We also found evidence of 'informal' practices which clearly appeared to influence the assessment process and its outcomes in ways that should be precluded by its formalities. It appeared, for example, to be common practice for apprentices to record minimal notes on the work they had done on garage job sheets, rather than completing the more detailed job sheets designed to provide portfolio evidence for their NVQ. They routinely expected their assessor to transform these garage records – which might include only a job type, reference number, and car registration – into portfolio records, including cross-referencing the evidence to all the relevant units and criteria. The portfolios were thus created and owned by the assessor rather than the apprentice – practice which appear to go well beyond the definitions of mentoring we have considered, but which could be viewed as a form of instrumental sponsorship that has been criticised in informal workplace mentoring (we discuss this further below).

Such support, however, seemed to depend on tutors' and assessors' opinions of the young person's practical ability and their commitment to meeting the employer's needs, garnered through more regular mentoring activity:

B [*Apprentice's name*] is a big problem. He's a fantastic worker. He's quite bright. His social skills are non-existent, they really are, and he will not attend his Key Skills, he walks out. I even asked G [*tutor/assessor's name*], 'Just do the Level 1 portfolio with him...give him some support for that.' (College Head of Department)

'Getting a good bloke through'

However, we suggest that these practices begin to verge on what was described as 'getting a good bloke through' – that is to say, passing an apprentice who may not have fully demonstrated competence in the formally required manner – when the apprentice was regarded as 'a good worker' by the employer, and was not troublesome to the college or training provider. The most extreme form of this manipulation of the assessment process appeared commonly during assessors' questioning of apprentices about their underpinning knowledge. As we noted above, this part of the assessment often evolved into a 'teaching episode' when apprentices could not give a correct response:

Assessor: Do you know how disc brakes automatically adjust?

Apprentice: Disc brakes? How they automatically adjust? Not disc brakes.

As: Have you done brakes yet?

Ap: Must have missed that bit.

As: You know the piston, how many callipers has it got? One or two?

Ap: One.

As: So you've got a single action piston. The pistons are here [*draws diagram*]... Now, what's stopping that fluid going round the piston?

Ap: A seal.

As: ...so when the piston is pushed by the brake fluid, depending on the amount of pressure, it'll push the-, if the pad material is worn a reasonable amount, then the piston has to go a little bit further out, doesn't it?

Ap: Yes.

[*Discussion continues in this vein for another nine turns, with assessor using diagram to illustrate explanations*]

As: ...Now then, if the piston has to go a little bit further because the pad is worn, the rubber seal allows the piston to go through it and then grips it in a new position, and that's how it automatically adjusts to allow for any wear on the pad. Clever, that little bit of rubber!

(Assessment event observation)

Yet despite having used leading questions, or even provided the answer, assessors would (as in this case) sign the element off as 'competent'. We found similar instances in the assessment of NVQs in the care sector (see Torrance et al., 2005). Interestingly, they also emerged in the assessment and grading of assessors and assessment centres themselves:

There are some people who will say maybe they [*assessment centre*] should be a C, but they're good old boys, so I'll give them a B. (Chief Verifier)

Defining 'the good bloke'

Assessors, since they work for learning providers whose funding depends on retention and achievement, are under pressure to ensure that as many candidates as possible successfully complete their NVQ. However, our evidence suggested that this is not just an instrumental attitude, but is also driven by a sense of personal duty towards equipping the young trainees for their future career and supporting their learning and achievement. Moreover, assessors have to address the fact that many employers are less than fully committed to supporting apprentices' qualification, but will do so on condition that their trainee displays a 'good' attitude to work. This is more than a question of employers' judgement about their vocational competence, but also of trainees demonstrating engaged commitment to the needs of the business. One assessor described a recent incident involving an apprentice who was struggling with his college work, which reveals the dispositions that will encourage both assessor and employer to 'get him through' the NVQ:

His boss was putting a cylinder head back on a bus ready for a school run the following morning, and he couldn't manage it himself, and this was 7pm at night, the lad's already been working all day, and he'd gone home. The boss rings up, 'Can you come down and give me a hand?' 'Yes, OK, I'll be there in five minutes.' Comes down, works till 4am in the morning, falls asleep putting the tools away, boss carries him home, and he's there again at 7.30am in the morning, ready to see the bus out. You don't get that with modern kids these days. His boss thinks he's the best thing since sliced bread. (Assessor)

Other such stories emerged, and employers' own comments about their apprentices underline the priority support given to those who display certain dispositions:

We'll encourage him all the way... He's reliable and conscientious... [*but*] he doesn't like the writing. He didn't like school, you see. (Employer)

I interview [*school-leavers*] and I've got good contacts with all the schools round here. They know that I take apprentices on, and if they've got someone coming up that they think will be good, not necessarily-, not many of them have done very well academically in school. A lot of them just didn't want to be in school, but as soon as they come here, they're doing what they want to do, and they shine. (Employer)

Often, though, this support seems to be limited to allowing the apprentice to attend their day-release at college, and an expectation that tutors/assessors will help get them through the requirements for the qualification:

I could have copped for a bad lad I suppose. But he's a good bloke. I think the college is helping. I can't stand for an hour discussing the finer points. Like brakes, he's gone through it, he knows what he's actually doing when it comes to getting your hands dirty and going through it, but I can't stand for an hour and discuss the finer points. (Employer)

We encountered many discussions about the importance of apprentices 'fitting in' in their particular workplace. These seemed to point at times to the gender-stereotyping of motor vehicle engineering as a male-dominated industry (only one of the apprentices we encountered was female); at times to racial stereotyping of, for example, young Asian people as having unrealistically high career ambitions that would discourage them from commitment to this manual occupation; and at times to the distinction of class fractions, where prestige dealers preferred articulate apprentices who fitted the image of 'technicians in white coats', and small garages favoured those who might not be at all articulate, but were 'not afraid of getting their hands dirty or their finger-nails broken'. All these considerations appeared to influence the degree of support that apprentices would receive, including through local practices of assessment. But what do these practices, which are integral rather than supplementary to assessment on the ground, have to do with mentoring?

Mentoring-as-sponsorship within the assessor's role

The supplementary mentoring activities carried out as part of the assessors' role reflect some of the practical functions of a mentor, regardless of the in/formality of the context: counselling, teaching, negotiation and advocacy. However, some of the local practices of assessment described above could well be seen in terms of the political function identified in more informal, or unplanned, mentoring: sponsorship of the favoured novice (Colley, 2005; Megginson et al., 2005). The first impetus to develop planned mentoring came from minority ethnic and women's equality campaigners: as research revealed the benefits of unplanned mentoring, so it also exposed the ways in which it covertly reproduced social inequalities through white, middle-class, male 'old boy networks' (Gray, 1986; Kram, 1988; Long, 1997;

Scandura, 1998). Senior managers sponsored, via their mentorship, the juniors who most resembled them, and who fitted in easily with the dominant vocational culture (Guy, 2002; Ellinger, 2002; Megginson and Clutterbuck, 1995). Groups under-represented in the higher levels of management pushed for this support to become more widely available through the introduction of formally planned mentoring, but it was always questionable whether this could prevent or counter the continued operation of more informal mentoring-as-sponsorship (Gray, 1986; Hansman, 2002).

Such 'informal' mentoring is arguably an element of the assessor's role, as evidenced in some of the data we have presented here. In this respect, it confirms the proposition by Colley et al. (2003a) that even the most 'formal' learning situations also entail aspects of informality, and that unpicking this interplay through the study of micro-level practices in authentic settings is vital to understanding them. But it also highlights the complexity of the inter-relationship when we do so. Visible 'formal' assessment procedures can be seen as influenced by the informalities of mentoring, both in terms of supplementary support activities and in terms of sponsorship.

At the same time, the apparent informality of mentoring-as-sponsorship conceals its own aspects of formality too. The vocational culture of the workplace, and of associated vocational training, creates a process by which trainees' dispositions are assessed *prior to official assessment events* in on-going and disciplinary ways, by both employers and assessors, and deemed deserving or undeserving of sponsorship to 'get them through'. Such assessment of dispositions has been shown elsewhere to play a part in the *triage* of 'suitable' and 'unsuitable' trainees in a range of vocational training areas (Bates, 1990; Colley et al., 2003b). Whilst such assessment has no written criteria, no officially regulated procedures, and is opaque rather than 'transparent', it nevertheless enforces the 'doxa' of the industry's vocational culture – the established way of doing, thinking and being which pervades it, but which is virtually invisible and unchallengeable (Bourdieu & Wacquant, 1992: 73). In enacting social structures of class, gender and race within the workplace, such 'informal' assessment might be argued to express a rather high degree of formality (see Billet, 2002), as it determines through quite rigid norms who are 'the good blokes' deserving of mentoring and sponsorship. This could be viewed, however, as a significant subversion of the formality proclaimed in official accounts of summative assessment.

This raises dilemmas in thinking about the implications these findings might have for practice. On the one hand, the claims of criterion-referencing (at its strongest in NVQs) to create a more egalitarian form of assessment is thrown into question by this evidence. Not only did apprentices' access to supplementary mentoring activities depend on the resources of the learning provider assessing their NVQ, with wide inequalities in achievement as a consequence; but also the covert assessment of apprentices' dispositions determined assessors' allocation of sponsorship-mentoring to some and not others, introducing inequalitarian practices into the overtly formal procedures of summative NVQ assessment. In short, 'good blokes' were passed by their assessors, even though they had not necessarily demonstrated competence according to all the criteria in the officially required manner. This resonates with the critiques of (implicit) mentoring within assessment advanced by Pole (1993) and Ecclestone (2002) that we discussed earlier. It also reflects Wolf's concern that, if there are serious contradictions between the assessment system and social practices in the workplace, 'assessment and the quality of assessment judgements will suffer' (1995: 126).

On the other hand, these stories could be interpreted quite differently. We see assessors working with a system of assessment that, officially at least, utilises detailed specification to try and ensure standardisation on a national level, while having to implement it in inherently varied local situations where contingent factors often make such standardised judgements impossible (cf. Wolf, 1995). In the face of that situation, assessors engage in human interactions with both apprentices and employers that seek to ensure appropriate educational, social and economic outcomes for both (whatever one's opinion of the feasibility of such harmonious outcomes might be), while also providing visible outcomes that are appropriate to maintaining – in appearance at least – the national assessment regime. The assessment judgements involved are moral and political, rather than technical. Such an interpretation reflects the analysis advanced by Bathmaker (2001) and by James and Diment (2003). This approach could be seen as a form of strategic compliance with the system – including elements of resistance to it – rather than straightforward complicity with it. It is one which acknowledges that, since there is no perfect correspondence between learning and assessment, there must be trade-offs in the necessarily ambiguous space of local practices. Those trade-offs, our evidence suggests, are often benignly intended to favour apprentices' integration into the workplace, though they do not challenge deeper-rooted inequalities. From this perspective, the inequalities uncovered focus more on the lack of resources for broader assessor support to *all* apprentices, and on the need for both labour market regulation and capacity-building for teaching and assessment staff to overcome the discrimination that keeps young women or minority ethnic youth out of this industry.

Issues for competence-based assessment

On the basis of this evidence, and drawing on the framework outlined above for analysing formality and informality in assessment, we would argue that the *processes* of assessment, observed in authentic *settings* of both workplaces (less formal) and colleges (more formal), may entail a far greater degree of informality than is generally acknowledged, or than is apparent in the formality of official accounts thereof. The *content* of assessment includes both formal judgments about apprentices' competence in terms of NVQ-specified performance criteria and underpinning knowledge, but also the subversion of such judgments on the basis of informal judgments about candidates' attitudes and dispositions and, consequently, of their personal worthiness. The *purposes* of assessment practices also reflect this complex interplay of formality and informality and the influence of power relations, ranging from the assurance of standards of competence and qualification to personal support for troubled young people and, potentially, to the unwitting reinforcement of social inequalities within the motor industry.

The conclusions we draw from these findings are necessarily tentative, given the limitations of the case study sample and the potential for different interpretations. It appears clear that there are a number of issues posed in thinking about attempts to ensure the rigour and transparency of competence-based assessment, and a recognition that these will only ever be given meaning through local instances of participation that bring them to life – but these instances may also, in doing so, subvert those attempts for better or for worse. We have no simple answers to ease these tensions, but point to one of the key conclusions of our project overall:

The balance between complying with ‘national standards’ and interpreting them appropriately *in situ* needs to be re-examined... definitions of standards can never expunge local interpretation, and the evidence from this study and others (eg Fuller & Unwin 2003, Stasz *et al.* 2004) is that local ‘communities of practice’ constitute the context in which all meaningful judgements about standards are made... Further improvement of both the numbers of successful candidates, and the quality of the experience and awards they receive, will be dependent on capacity building at local level. (Torrance *et al.*, 2005: 3)

The case study we have presented, in its more positive interpretation at least, suggests that such capacity-building needs a variety of elements. First, it requires a holistic acknowledgement of the assessor’s role in practice, of its informal as well as formal aspects, and of the relationships that assessors build with apprentices and with employers – including the aspects of mentoring their role may entail. Second, it should recognise that these more informal aspects of the assessor’s role often contribute greatly to the formal retention and achievement of learners, partly because they have to supplement inadequate resources available to training providers or devoted by employers to support apprentices’ learning. Effective capacity-building therefore depends on first ensuring that resources match apprentices’ needs more realistically. Third, capacity-building should involve greater awareness of some of the inequalities fostered both formally and informally by the vocational culture of (in this case) motor vehicle engineering and perpetuated by employers’ expectations of ‘the good bloke’ defined by gender, race and class fraction.

These aspects of capacity-building focus on informal aspects of assessment-related structures and practices than on their formal aspects – but, paradoxically, it is perhaps in developing a more open acknowledgement of informality as an important contributory attributes of assessment practices, and relaxing the demand for their intensive formalisation, that the inherent ambiguities of inevitably imperfect assessment systems might indeed ensure that they function for better rather than for worse for the young people who enter those systems.

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References

- ANFORTH, P. (1992) Mentors not assessors, *Nurse Education Today* (12) 299-302.
- BATES, I. (1990) No bleeding, whining Minnies: the role of YTS in class and gender reproduction, *British Journal of Education and Work* 3 (2) 91-110.
- BATHMAKER, A.-M. (2001) ‘It’s the perfect education’: lifelong learning and the experience of Foundation-level GNVQ students, *Journal of Vocational Education and Training* 53 (1) 81-100.

- BILLET, S. (2002) Critiquing workplace learning discourses: participation and continuity at work, *Studies in the Education of Adults* 34 (1) 56-67.
- BOURDIEU, P. AND WACQUANT, L.J.D. (1992) *An Invitation to Reflexive Sociology*, Cambridge: Polity Press.
- COLLEY, H. (2003) *Mentoring for Social Inclusion: a critical approach to nurturing mentor relationships*, London: RoutledgeFalmer.
- COLLEY, H. (2005) Formal and informal models of mentoring for young people: issues for democratic and emancipatory practice, in L.CHISHOLM & B.HOSKINS (Eds), *Trading Up: potential and performance in non-formal learning*, Strasbourg: Council of Europe.
- COLLEY, H., HODKINSON, P. AND MALCOLM, J. (2003a) *Informality and Formality in Learning*, London: Learning and Skills Research Centre.
- COLLEY, H., JAMES, D., TEDDER, M. & DIMENT, K. (2003b) Learning as becoming in vocational education and training: class, gender and the role of vocational habitus, *Journal of Vocational Education and Training* 55 (4) 471-496.
- ECCLESTONE, K. (2002) *Learning autonomy in post-16 education*, London: RoutledgeFalmer.
- ELLINGER, A. (2002) Mentoring in contexts: the workplace and educational institutions, in C. Hansman (Ed.) *Critical Perspectives on Mentoring: Trends and Issues (Information Series No.388)*, Columbus: ERIC Clearinghouse on Adult, Career and Vocational Education.
- ENTO (2005a) Assessor standards summary, available at http://www.ento.co.uk/standards/full_catalog.php?catalogue=aandv, accessed 3 July 2006.
- ENTO (2005b) Additional Guidance on Assessor standards, available at http://www.ento.co.uk/standards/assessment_guidance_av_units.pdf?catalogue=aandv, accessed 3 July 2006.
- FULLER, A. & UNWIN, L. (2003) Creating a 'Modern Apprenticeship': a critique of the UK's multi-sector, social inclusion approach, *Journal of Education and Work* 16 (1) 5-25.
- FULLER, A., BECK, V. & UNWIN, L. (2005) *Employers, young people and gender segregation (England)*, Manchester: Equal Opportunities Commission.
- GIROT, E.A. (1993) Assessment of competence in clinical practice – a review of the literature, *Nurse Education Today* (13) 85-90.
- GRAY, W.A. (1986) Components for developing a successful formalized mentoring program in business, the professions, education and other settings, in W.A.Gray & M.M.Gray (Eds) *Mentoring: Aid to Excellence in Career Development, Business and the Professions – Proceedings of the First International Conference on Mentoring Vol.II*, Vancouver: International Association for Mentoring.
- GUY, T. (2002) Telementoring: shaping mentoring relationships for the 21st century, in C. Hansman (Ed.) *Critical Perspectives on Mentoring: Trends and Issues (Information Series No.388)*, Columbus: ERIC Clearinghouse on Adult, Career and Vocational Education.
- HANSMAN, C. (2002) Diversity and power in mentoring relationships, in C. Hansman (Ed.) *Critical Perspectives on Mentoring: Trends and Issues (Information Series No.388)*, Columbus: ERIC Clearinghouse on Adult, Career and Vocational Education.

- JAMES, D. AND DIMENT, K. (2003) Going Underground? Learning and assessment in an ambiguous space, *Journal of Vocational Education and Training* 55 (4) 407-422.
- KRAM, K.E. (1988) *Mentoring at Work: Developmental Relationships in Organizational Life*, Lanham: University Press of America.
- LEARNING AND SKILLS COUNCIL (LSC) (2007) Directory of Apprenticeships: Reports 2005/2006. Available online at: http://www.apprenticeships.org.uk/NR/rdonlyres/A3DD8CE7-02CA-4CBB-9C30-9DED0CFBBB15/0/Report1_0506_Julymonthlystartsandinlearning.xls [accessed 7 February 2007]
- LONG, J. (1997) The dark side of mentoring, *Australian Educational Researcher* 24 (2) 115-133.
- MEGGINSON, D., CLUTTERBUCK, D., GARVEY, B., STOKES, P. & GARRETT-HARRIS, R. (2005) *Mentoring in action: a practical guide for managers*, London: Kogan Page.
- MEGGINSON, D. AND CLUTTERBUCK, D. (Eds) (1995) *Mentoring in Action: A Practical Guide for Managers*, London: Kogan Page.
- OFFICE OF NATIONAL STATISTICS (2007) Ethnicity: population size. Available online at: <http://www.statistics.gov.uk/cci/nugget.asp?id=273> [accessed 7 February 2007].
- PHILIP, K., SHUCKSMITH, J. & KING, C. (2004) *Sharing a laugh? A qualitative study of mentoring interventions with young people*, York: Joseph Rowntree Foundation.
- POLE, C.J. (1993) *Assessing and recording achievement*, Buckingham: Open University Press.
- QUALIFICATIONS & CURRICULUM AUTHORITY (QCA) (2007) NVQs. Available online at: http://www.qca.org.uk/14-19/printable.asp?p=/14-19/qualifications/index_nvqs.htm [accessed 7 February 2007].
- ROBERTS, A. (2000) Mentoring revisited: a phenomenological reading of the literature, *Mentoring and Tutoring* 8 (2) 145-170.
- SCANDURA, T.A. (1998) Dysfunctional mentoring relationships and outcomes, *Journal of Management* 24 (3) 449-467.
- SMITH, R. & ALRED, G. (1993) The impersonation of wisdom, in: D. MacIntyre, H. Hagger, & M. Wilkin, (Eds) *Mentoring: Perspectives on School Based Education*, London: Kogan Page.
- STEEDMAN, H. (2001) *Benchmarking Apprenticeship: UK and Continental Europe compared*, Centre for Economic Performance Working Paper, London: London School of Economics.
- STEPHENS, P. (1996) *Essential mentoring skills: a practical handbook for school-based educators*, London: Stanley Thomes Ltd.
- TORRANCE, H. (1995) Teacher involvement in new approaches to assessment, in H. Torrance (ed.) *Evaluating authentic assessment: problems and possibilities in new approaches to assessment*, Buckingham: Open University Press.
- TORRANCE, H., COLLEY, H., GARRATT, D., JARVIS, J., PIPER, H., ECCLESTONE, K. AND JAMES, D. (2005) *The impact of different modes of assessment on achievement and progress in the learning and skills sector*, London: Learning and Skills Research Centre.
- UNWIN, L. & WELLINGTON, J. (2001) *Young People's Perspectives on Education, Training and Employment*, London: Kogan Page.
- WATSON, A. (1995) A mentor's eye view, in: B.M. Kaworski & A. Watson, (Eds) *Mentoring in mathematics teaching*, London: Palmer Press.

WOLF, A. (1995) *Competence-based assessment*, Buckingham: Open University Press.

WOLF, A., SILVER, R., COLLINS, P., AND TAMBINI, D. (1994) *Assessing broad skills. Final report to the Employment Department*. London: Institute of Education.