Effective Assessment for Effective Learning
(Joint Practice Development of Everyday Work in the Classroom)

Samantha Sara Alvarez

Paper presented at the British Educational Research Association Annual Conference, University of Warwick, 1-4 September 2010

Correspondence

Samantha Sara Alvarez
Sussex Downs (Park) College
King’s Drive, Eastbourne BN21 2UN
01323 637672
Sam.Alvarez@sussexdowns.ac.uk

Work in progress
Not for quotation or citation without permission of the author
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Literature Review</td>
<td>4</td>
</tr>
<tr>
<td>Methodology</td>
<td>7</td>
</tr>
<tr>
<td>Findings</td>
<td>12</td>
</tr>
<tr>
<td>Analysis</td>
<td>17</td>
</tr>
<tr>
<td>Concluding Remarks</td>
<td>20</td>
</tr>
<tr>
<td>References</td>
<td>23</td>
</tr>
<tr>
<td>Appendix 1: Extracts from basic and detailed mark schemes and an exemplar answer</td>
<td>27</td>
</tr>
<tr>
<td>Appendix 2: A detailed mark scheme prepared collaboratively by the students</td>
<td>30</td>
</tr>
<tr>
<td>Appendix 3: An example of a students’ answer using just a detailed mark scheme and an improved version of that answer after reading a model answer to a similar question</td>
<td>32</td>
</tr>
<tr>
<td>Appendix 4: An example of feedback sheet completed after writing an answer to a question</td>
<td>34</td>
</tr>
<tr>
<td>Appendix 5: A table to show the percentage of students performing better than, the same as and worse than their minimum expected grade (based on their GCSE results).</td>
<td>35</td>
</tr>
</tbody>
</table>
"A teacher is one who makes himself progressively unnecessary."

-- Thomas Carruthers

**Introduction**

The purpose of this research was to identify, implement and evaluate, collaboratively with nine other members of the A level Business team, assessment practices that could best support and develop our students’ A level education. I work for a large further education college as a Course Leader and teacher of A level Accounting, Business Studies and Economics at one of their two main campuses. At the start of the 2009/10 academic year changes were made at a senior level which led to us having a new manager in charge of all the business education at both the main campuses; previously there was one manager at each. With the same manager, we were effectively now one team – and we shared the same problem: that our students find it difficult to develop the analytical and evaluative skills needed to engage meaningfully in their A level education; in an environment where education is not about learning how to pass an exam, but learning how to exercise “critical intelligence” (Coffield 2009:61).
Literature Review

Our interest in investigating assessment and feedback practices is linked to the recent reforms in 14-19 education. From September 2008 the 14-19 curriculum changed dramatically following the launch of the reforms laid down in the Government’s White Paper, ‘14-19 Education and Skills’. As teachers in the sixth form area of the college we were particularly interested in the changes that had been made to “strengthen” A levels (DfES), 2005, p9). As a team we welcomed these changes, seeing it as an opportunity to free ourselves of the burden of having to “get through” copious amounts of content as dictated by the old syllabus. The new A level syllabus seems to be less about what you know, and more about what you do with what you know – a chance for our students to appreciate that education matters, and has a purpose (Biesta, 2008).

We suspected, as put forward by Lombardi (2008) in ‘The Role of Assessment in Authentic Learning’, that these changes in education would need to be supported by changes in assessment. For us the increased emphasis on the development of the transferable skills of analysis and evaluation was most significant, and we felt that one way of supporting our students with this development might be to provide assessment opportunities that allowed them to demonstrate and gain feedback on these skills.

Lots of research has been done on assessment and feedback methods. Professor John Hattie (1999) analysed over half a million research studies on teaching methods and concluded that the factors that have the most effect on learning are challenging activities and informative feedback on performance in those activities. Professors Paul Black and Dylan Wiliam (1998)
spent four years studying and reviewing research into feedback and formative assessment and 
they came to the same conclusion. Our concern, though, was that not all assessment 
techniques would be beneficial in supporting and developing A level education. Torrance 
(2007) warns that some assessment practices can come to completely dominate education and 
delay the development of independent thinking; something that would not sit well within the 
changed culture of the 14-19 framework. The kinds of practices he is referring to are those 
where the task of how to gain a good score is described in too much detail, making the 
exercise too prescriptive and reducing the scope for creativity and originality of thought. The 
challenge then for us, as we saw it, was to find ways of making assessment more informative, 
insightful and progressive without controlling our students’ learning (Fielding, 2001) and 
hindering the development of independent thinking, when learner autonomy is such an 
important element of A level education.

The assessment criteria typically used at A level is designed to help students move beyond 
the goal of passing exams to become critical learners. In order to achieve an A or B grade 
students must show substantial evidence of criticality – something we have found particularly 
hard to measure and define when applying assessment criteria to students’ work. Many 
studies have shown that it is difficult to make explicit assessment criteria and standards 
through written documentation or verbal descriptions in class (Rust, Price and O’Donovan, 
2003). Chanock (2000) and Hyland (2000) in their investigations into assessment and 
feedback, found evidence that students do not understand the feedback given by tutors and 
are therefore not able to take action to close the gap. This may be because the tutors 
themselves were not clear on the specific improvements needed to demonstrate a higher level 
of performance. Yorke (2003) in his research into formative assessment found most criteria 
for complex tasks are difficult to articulate.
“statements of expected standards, curriculum objectives or learning outcomes are generally insufficient to convey the richness of meaning that is wrapped up in them”
(Yorke 2003 p.480)

One approach to clarifying goals and standards to both teachers and students is to provide ‘exemplars’ of performance (Orsmond, Merry and Reiling, 2002). Boud (1986) suggests that developing students’ self assessment skills is an important aspect of helping students both to identify standards/criteria that apply to their work and to make judgements about how their work relates to these standards. For students to assess their own work they would arguably need to have the same evaluative skills as their teacher (Sadler, 1989) – skills that are often assumed rather than taught, especially in further education. Black et al (2002) suggest that students will become more skilled at self assessment when experienced at peer assessment.
Methodology

Our approach to this research was very much influenced by our view on generating knowledge. We felt that knowledge about education and assessment would come from exploring and improving our practice in the classroom, reflecting on that practice and from sharing experiences with students and other teachers. A scientific approach to our research would suggest that we saw the knowledge as divorced from the people who create that knowledge (McNiff 2002) so this approach was clearly not suitable. Action researchers on the other hand see knowledge generation as learning from experience (McNiff 2002) and this is the approach we deemed most suitable. Learning in this view is firmly rooted in experience in that it involves reflecting on the experience of practice, deciding whether the practice was in line with your expectations, and then deciding on future action as a result of that reflection (McNiff, 2002). Reflection on practice was central to our approach and is an inherent part of action research methodology (Schon 1983).

Our data was collected from six AS level classes, two Accounting, two Business Studies and two Economics, using a range of methods: three peer observations, two interviews with an opportunity sample of three students per class and notes from teachers’ and students’ reflective learning logs. In addition we referred to students’ assessed work; three different pieces of work from all 120 students involved.

We felt that the peer observations would provide an extremely valuable opportunity to gain some feedback from another practitioner on our work in the classroom; we particularly welcomed the fact that these lesson observations would not be graded and would be followed
by supportive and developmental peer coaching conversations. Making assessment techniques the focus of a lesson observation raised the importance of assessment and feedback in the minds of the students and, therefore, encouraged them to take more responsibility for improving this aspect of their learning. One disadvantage of such focused lesson observations is that it is often easier for the observer to reach conclusions about the mechanics of the teaching than it is to evaluate its impact on students’ learning (Marriott, 2001). The quality of their responses to activities in that particular lesson may help determine whether learning is taking place but it does not help determine whether that learning can be transferred to situations beyond the immediate. For that very reason we decided that more than one observation was necessary. Having three observations helped us to discuss the extent to which the students’ learning developed over time.

We decided to interview just 3 students per class – as to interview them all would have been too time consuming. We chose to use an opportunity sample (Bell, 1999), selecting students who we felt would be willing to make themselves available for a one-to-one interview outside their normal lesson time. The fact that the interviews were conducted outside of lesson time may have been quite daunting for some students making it more difficult for them to speak freely. The students we chose to interview were not selected at random. We involved students who we deemed confident enough to voice their opinions, yet at the same ensuring that they represented a spread of ability.

The students were interviewed individually with each interview lasting approximately half an hour. We decided not to interview the students together as a small group because although it may have been beneficial in that it would have presented them with an opportunity to share
their ideas about learning with their peers (Morgan, 1988), we felt that it was more beneficial to our research to focus more on the students as individuals. As this was the first time that the students had been involved in practitioner research we felt that the risk of them feeling they needed to conform to the group norm was too great (Flores and Alonso, 1995). Each student was interviewed twice, once in the middle and again at the end of the 12 week research period. We were particularly interested in finding out how their perceptions of their learning changed during the time of the study. The sessions were semi-structured to allow us to cover the issues and questions we felt needed to be addressed, yet at the same time allowing us the opportunity to develop any unexpected issues that the students raised.

For the duration of the 12 week research period the role of assessment changed dramatically – moving from something that both the teachers and the students saw as solely the teachers’ responsibility and that was predominantly associated with the giving of a grade on a piece of homework or test, to something that was less formal, more frequent and a significant part of, rather than detached from, the ongoing learning experience.

In order to analyse and form an opinion on the effectiveness of the various assessment techniques used during the research period we looked at 3 pieces of work from all 120 students involved; one done at the beginning, one in the middle and one at the end of the 12 week period. All 3 pieces of work were similar in that they tested not only knowledge and application of that knowledge to a specific business case; but also the arguably more difficult higher order skills of analysis and evaluation.
We met as a team every 3 weeks to share our findings to date and to discuss and develop our common approach to formative assessment. Using exemplars of performance has proved particularly effective with our students in clarifying what is meant by analysis and evaluation in the context of a given assignment; skills that are typically difficult to develop and demonstrate in assessed work. We worked collaboratively with our students to identify examples of excellent performance and over time developed a shared understanding and metacognitive awareness of what are important characteristics of good writing; which in A level Accounting, Business Studies and Economics is typically writing that shows evidence of the analytical and evaluative interpretation of business and economic information. These examples, being finished products, although useful when assessing and giving feedback on completed work, were not always useful when formulating and assessing the processes involved in arriving at a finished article. This suggested a need for us to strengthen our students’ self-assessment skills. Helping them develop an understanding of not only the product they are trying to achieve, but also the process of achieving it, that is “the habits of mind that contribute to successful writing” (Frederikson and Collins 1989 p.30), could in turn lead to an improvement in performance (Shepard 1997, Watkins 2001).

We felt that our students would find it easier to make the link between their work and the A level standard they are striving to reach if they understood what is meant by the assessment criteria in the context of a particular assignment. To help them develop their self assessment skills we created opportunities for them to work collaboratively with each other and with us to pick apart and make more specific to a particular assignment, the often quite vague grade related criteria. Engaging students in writing assessment criteria, although useful in clarifying the elements of good writing, especially when combined with involving them in identifying exemplars of performance, did not always lead to students being able to self-
assess their work. Black et al (2002) suggest that students become more skilled at self-assessment when experienced at peer-assessment. We worked collaboratively with our students to develop a shared understanding of the processes involved in achieving a certain grade and expressing those processes as assessment criteria. This shared understanding was further developed by providing opportunities for them to use their criteria to assess and give feedback on each other’s work. We wanted to help them develop the ability to work at a cognitive level and therefore make it easier for them to manage and control their own performance (Gipps, 1999).
Findings

What was interesting about the students’ development during the research period was that as well as learning how to apply their knowledge of the subject material and how to become more analytical and evaluative, some students were also able to talk about what they learnt about their own learning. The common theme that emerged from their comments was that they now recognise that education is not a passive activity. Their feedback suggests they have begun to appreciate that becoming actively involved in their education by developing the ability to assess their own progress has empowered them to take control of their learning and identify what actions may be needed to move on to the next level. To give a sense of the students’ experience I have drawn on the comments of 3 students in particular, each representing a different ability. Ria* has a relatively low GCSE score, 5 subjects at grade C, but is keen and hard working. She has made excellent progress with her A level education to date. Jon-Paul* has a good GCSE score, 5 subjects at grade B and 2 at grade A. He made quite a shaky start to the course, often turning up late and missing homework deadlines. Since being involved in the research project he has adopted a more purposeful attitude to his studies. James* has an excellent GCSE score, 1 subject at grade B and 6 at grade A, and is able to apply, analyse and evaluate subject material with great maturity and skill.

(* to protect their identity, the students’ real names have not been used)

Ria talks about how using exemplar answers (appendix 1) helped her to appreciate what is meant by analysis in the context of accounting and in turn how it helped her to plan her answer to a recent exam question.

“I found having model answers to similar questions as the one I had to answer very useful because before that I wasn’t exactly sure what kinds of things you had to cover when analysing. From looking at model answers I now know that to analyse in accounting means to discuss the possible causes and knock-on effects of certain financial information. When I did my accounting exam recently I was confident that I
had answered the ratio analysis question well because before I answered the question I wrote myself a little to do list – based on what I had learned about how to write a good answer from looking at model answers and picking out what made that answer good.” (Ria)

James talks about how having an exemplar answer helped him to make sense of the mark scheme (appendix 2). He discusses how using both an exemplar answer and a detailed mark scheme together helped him to improve his first attempt at the question.

“When I wrote an answer to a question looking only at the detailed mark scheme I found it hard to see what I needed to do to make it better. But the model answer made me realise that my answer wasn’t structured well and although it showed some evidence of analysis – in that I had kind of talked about cause and effect – it wasn’t done in enough detail. Having the model answer helped me to improve my work. I think my second attempt is much better than my first. The model answer gave more meaning to the mark scheme – which although more detailed than the old mark schemes we used to have, didn’t really make complete sense until I saw how someone else had understood it.” (James)

(The work James is referring to is presented in appendix 3).

As well as talking about the benefits of learning more about the process of learning and assessment the students also discuss how they still find it difficult to assess and give feedback on their own and their peers’ work. This may be because self and peer assessment was not common practice in our lessons before we embarked on this small scale research. Many teachers, myself included, find assessing students’ work and providing useful feedback challenging- but as with teachers, our students found that the process got easier with experience and when discussed with other teachers and students.

“I thought I knew what I was doing until I had to mark my own or someone else’s work. I knew what the question was about and I knew what the mark scheme was looking for but trying to assess the work to say if it was good, excellent or not very good was really difficult. It was easier to get a gut feeling about the standard of the work but to back up that gut feeling and give some useful feedback to say what was good and why and what needed improving and how that was really difficult. It felt a
bit of a cheek giving another student my opinion – but actually we all got more comfortable doing that the more we did it”. (Jon-Paul).

In trying to help students engage more meaningfully with their A level education and become more involved in the assessment process we have tried to create opportunities for them to work in groups and share their ideas as much as possible. They have worked collaboratively to discuss what makes a good answer, to write detailed mark schemes and to assess and give feedback on their own and each other’s work. The students’ comments show that they found learning from others both enjoyable and useful.

“I have really benefited from working in groups and feeding back ideas to the class as a whole. Working in small groups to assess each others’ work and give each other feedback was particularly useful – and strangely enough really enjoyable. I have enjoyed getting lots of work done in detail and having less input from you. Without so much help from the teacher we have had to get on with things and develop our ideas. It has been good to see everyone grow and get more confident and knowledgeable. I think we have become really supportive of each other and have done our best to make sure no-one gets left behind.” (James)

“I like the way we do our assessments in accounting now. We work together in groups a lot writing mark schemes, talking about people’s answers and what makes them good or bad. Those that take the work seriously come up with some amazing ideas and I think wow I wouldn’t have thought of that. I try and remember those comments and use them to improve my own work in the future. However I think we could do more working in groups to write answers to questions. We usually do that bit individually but I think I would benefit from working through all the stages with someone else – sharing our opinions and giving each other advice at the time when it’s most needed, when you’re actually writing the answer!” (Ria)

In helping students take more control of their education by involving them more in the assessment process it seems we have also helped them become more critical learners in general. Some of their comments on the ways in which they feel our teaching has developed during the 12 week research period illustrate my point.

“What I have noticed is that you have become more and more enthusiastic as time has gone on. You have tried lots of new things with us and not given up on us when we
have struggled. You have given us more and more responsibility for our own learning which has really helped me with my other subjects as well – when I’m struggling to do something I use the same technique as we learned in accounting and try and think about some useful questions to ask the teacher or another student. You talk to us more than other teachers and always ask us what we think.” (Ria)

“I feel that the main change in your teaching following the project is that you have got to know us all as individuals. We seem to get more individual support and feedback within the lesson than we used to. Actually we all seem to know each other better now. It’s like when I’m working with someone and they get stuck or make a mistake I can often guess what’s happened because I am used to that person’s work – having marked it before and given them help before!” (James)

Interestingly, though, involving students more in the assessment process did not lead to better than expected A level examination results for all students. The number of students performing above their minimum expected grade (MEG) increased in each of the 3 pieces of internally assessed work; with the most significant increase being evident in the last piece of work (see appendix 5). This trend was encouraging and led us to believe that the A level examination results would show further improvements, but this was only the case in Business where the examination results were exceptional. In Business 21 of the 40 students, 52%, performed better than expected. This is a significant improvement on last year, when only 27% of students gained a higher than expected grade in their January exam. In Accounting only 16 of the 40 students, 34%, exceeded their MEG; this is only slightly better than last year when the figure was 30%. Most surprising, and disappointing, was in Economics where only 4 of the 40 students, 11%, achieved a higher than expected exam grade. This does not compare favourably to last year when 32% of students performed better than expected at this point in their course.

The students’ comments offer some insight into why their grades were lower than expected.
“My accounting exam didn’t go as well as I expected because I was thrown by the first question. It was nothing like the questions we’d done in class. I wasn’t quite sure what the question was asking and I kept changing my mind about what I needed to do. That slowed me down and I ran out of time. I didn’t get round to answering the last question which was worth 18 marks.” (Ria)

“I totally messed up the multiple choice questions part of my economics exam. For me there always seemed to be more than one correct answer. I am annoyed with myself because I did really well in the other part of the paper where you write more detailed answers. I made sure I applied the theory to the specifics of the case and developed my argument to show evidence of analysis and evaluation.” (Jon-Paul)
Analysis

In analysing our findings and placing them in the wider context, an overarching theme of assessment education has emerged.

According to Shephard (1997) and Watkins (2001), as discussed earlier, teachers should focus their efforts on strengthening the skills of self-assessment in their students as this helps them to develop an understanding of not only the product they are trying to achieve, but also the process of achieving it. So was developing the ability to self-assess their own work by engaging them more in the assessment process, most notably by creating opportunities for them to work collaboratively to develop exemplars of performance and assignment specific assessment criteria, beneficial to our students? Ria talks about how working with exemplar answers to identify the characteristics of a good answer, one that shows evidence of analysis and evaluation, helped her to plan the steps, as well as the content, involved in writing her answer to a recent exam question. James discusses how working with exemplar answers helped to give real meaning to the mark scheme/assessment criteria and that even the more detailed marked schemes developed collaboratively with other students were only useful in understanding what should go into a good answer when used in conjunction with a model answer. He mentions how getting more involved in the assessment process has helped him understand how to improve his work, which for him involves making more connections between one topic and another.

What cannot be ignored, however, is that despite talking about how learning more about learning and the assessment process was beneficial, the students also mention some of the
difficulties they faced. Jon-Paul talks about how he found giving useful feedback, saying what was good about his own or someone else’s work and why and what needed improving and how, really difficult. Interestingly though, he makes reference to how the process gets easier with more experience and more exposure to different students’ work. In helping students become comfortable with assessing their own and each other’s work it may be useful to refer to the advice of Watkins (2001) who suggests that “building a focus on learning requires everyday practices in the classroom” (p.7). What this may suggest then is that learning about learning needs a whole college approach so that more involvement in learning about learning and the assessment process becomes commonplace in all subject areas.

McGuiness (1999) suggests that focusing on collaborative learning may help students develop their thinking skills and in turn their learning. Coffield (2008) refers to collaborative learning as participative learning. He claims that creating opportunities for students to construct knowledge with their peers helps to quash the notion of teacher as “expert” and therefore reduce the risk of isolating learners and hindering learning. So was this the case with our students? The students certainly recognised and were able to talk about what they learned from others. Ria discusses how she likes listening to other people’s ideas as it helps her improve the quality of her own work. She talks about the value of working together to write mark schemes and to discuss the strengths and weaknesses of other students’ work. She has even gone on to recommend how other aspects of learning could be improved by working on it with others, e.g. writing answers. James talks about how working in small groups to assess each others’ work was particularly useful and enjoyable. He mentions how, with less input from the teacher, they had to pull together to share and develop ideas. The fact that he talks about the group growing together and becoming more supportive of each other so that no-one gets left behind supports McGuiness’ (1999) claim that students are capable of
performing at higher intellectual levels when asked to work in collaborative situations than when asked to work individually and that the group diversity in terms of knowledge and experience contributes positively to the learning process.

Watkins (2001) suggests that focusing on learning rather than on performance can help students improve their learning and, in turn, improve their performance. As discussed above, most of the students felt they benefited from gaining a better understanding of their learning and from becoming more involved in the assessment process both individually and collaboratively but it did not help all students perform better than expected in their January A level exam. This is not ideal and needs further investigation. There could be a number of reasons why some students underperformed in their A level exam despite showing good progress in class, but I suspect, as can be gleaned from Ria and Jon-Paul’s comments, that it was due to them not fully understanding the subject material at this early stage of their course.
Concluding Remarks

Conducting this research collaboratively with other teachers into helping students engage more meaningfully with their A level education by involving them more in the assessment process has helped me develop into more of a reflective practitioner. I have come to realise that finding ways of improving students’ education is far more beneficial when the focus is on learning rather than on teaching. I have also realised that more can be discovered if the problem is discussed and researched with others. I feel I have become part of a learning community with the other teachers involved and with my students which as Hord (1997) suggests has made me feel less isolated as a teacher. Louis and Kruse (1995) suggest that professional learning communities have a shared vision. For us that shared vision has been one of focusing on our students’ education. For me this focus has meant I have been able to get to know the students far more as individuals than I ever have previously.

But have we solved our problem? Have the assessment practices our students have experienced helped them develop their analytical and evaluative skills enough to enable them to engage meaningfully with their A level education? Do we now know how assessment can help students take more control of their learning? I would say that helping students to improve their understanding of their education is not about giving them simple solutions; it is about helping them to make intelligent choices (Bransford et al, 1987). Despite the fact that this research has been conducted with a relatively small sample of 120 students in the localised context of 6 A level classes, it is still possible to come to a “fuzzy generalisation” (Bassey, 2001). I would suggest that the following assessment for learning practices promote independent thinking and therefore help students develop their analytical and evaluative skills:
Studying model answers and mark schemes in groups – this involves working with students to identify examples of excellent performance and over time developing a shared understanding of what are the important characteristics of good writing.

Formulating assessment criteria collaboratively with students – this entails creating opportunities for students to work together to produce a detailed and assignment specific set of assessment criteria, which they feel gives them enough guidance on how to write a good answer and gain maximum marks.

Self- and peer assessment – this is about arranging for students to give feedback on exemplar assignments, for them to assess each other’s work, and then to assess their own work. This helps students take more responsibility for their own learning.

Structured dialogue – by this I mean encouraging students to ask questions, summarise, clarify and predict rather than rely on teachers to take the lead on providing information and asking questions.

I would also suggest that what teachers and students might discover if they were to carry out similar research is that learners who know more about the process of learning and assessment become more independent and critical and therefore gain a much deeper understanding of their subject matter, making their educational experience more challenging and enjoyable. In researching their own classrooms, teachers may also become more reflective practitioners, more informed learners and therefore more informed teachers.

So what next? Much of what I have learned from carrying out practitioner research will be extremely helpful when undertaking my new role as a Research Mentor (commencing
The management team are keen to engage all teachers in small scale research, so that ultimately action research becomes a whole college approach to effective continued professional development. The emphasis will be on “joint practice creation” (Fielding et al, 2005) rather than on the transfer of good practice. For us the idea of transferring good practice suggests that one party is a good teacher and the other is a bad one, and that has obvious negative connotations. It trying to build a culture of working collaboratively to create new practices we hope to improve our understanding of teaching and learning. This communal way of working is intended to be supportive and respectful; recognising that as teachers we essentially share the same values, so any differences in ideas should be celebrated and treated as triggers for new learning opportunities. As a Research Mentor I will be working alongside other teachers and their teams; meeting because they want to explore an aspect of their practice. My experience as a teacher researcher will help structure our approach to any practice based enquiries, but what is researched will ultimately be driven by the needs of each team. My enhanced understanding of formative assessment may be useful in our quest to improve teaching and learning, even if it is not directly related to the problem being investigated. After all, if Black and Williams’ (1998) claim that assessment has the most effect on learning is true, then it should be directly or indirectly linked to all problems pertinent to teaching and learning!
References:


Biesta G (2009) Good education in age of measurement: on the need to reconnect with the question of purpose in education
http://www.springerlink.com/content/42763204qm11h5v5/fulltext.pdf


Juwah, C. et al (2004) Enhancing student learning through effective formative feedback *The Higher Education Academy Generic Centre*


*This document was added to the Education-line collection on 9 March 2011*
Appendix 1

Extracts from basic and detailed mark schemes and an exemplar answer

Question and mark scheme

Write a brief report (2 marks for report format) to Sid Plates, owner of a retail outlet selling crockery analysing his most recent financial ratios (5 marks for analysing the ratios).

Before this research project I would typically set students a question and tell them how many marks were available for answering that question, but fail to give them more guidance on the steps involved in achieving those marks. Now students are given a much more detailed mark scheme/set of assessment criteria. In the early stages of the project I prepared the detailed mark schemes but as the students have become more experienced they are increasingly able to work together to produce their own mark schemes (an example of which is presented below).

Question and detailed mark scheme

Write a brief report (2 marks for report format) to Sid Plates, owner of a retail outlet selling crockery analysing his most recent financial ratios (5 marks for analysing the ratios).

Guidance:

Report format (To, From, Date, Reference) –½ mark for each element

Analysing the ratios:

- Calculate and state the result
- Explain what the result is telling you (what have you calculated?)
- State whether the result is good or bad (compared to another business, last year, the industry average – if that information is available)
• Explain what may have caused the result to be good or bad (look at the other ratios and the other financial information for reasons)

• Explain the knock-on effect of the result (in the short and long term)

1 mark for each element

Exemplar answer

Before the research project I never thought about showing students exemplar answers to similar questions in advance of them writing an answer to a question. The first exemplar answers that the students were shown were either ones I had written or ones produced by the exam board, but as their skills and the quality of their work improved they were increasingly able to use their own or each others’ work as exemplars. Below is an extract from an exemplar answer to the above question produced by one of the students (James).

To: Sid Plates

From: James Penn

Date: 16 April 2009

Reference: A brief report analysing your most recent financial ratios

**Working Capital Ratio (Current Assets/Current Liabilities)**

Your working capital ratio is 1.2:1 which is telling you that you are able to pay off your current liabilities with your current assets (as your current assets are 1.2 times bigger than your current liabilities). Although this is adequate, it does not compare favourably to the same ratio last year which was 1.8:1. It may also not compare favourably to the industry average and/or your competitors’ results (although that information has not been presented to me so it is difficult to comment). I suspect your working capital is being drained by
increased loan repayments as your balance sheet shows that your long-term loans this year are much higher than last year. This will leave a limited amount of funding available for other vital business expenditure like payments to creditors for stock which in the short term may lead to penalties for late payment and in the long term may lead to suppliers no longer offering credit.

Students’ comments on the exemplar answer

The students would work together to discuss what characteristics made the answer good, and by identifying those features they then had a checklist of what to include in their own answer to a similar question. Below is a list prepared by 2 students (Ria and Jon-Paul) detailing what they thought was good about James’ answer.

*We think James’ answer is very good because:*

1. *He has used the correct report format and used the question to come up with a decent title*
2. *He has said how to calculate the working capital ratio and has said what the result is*
3. *He has said that result is not good compared to last year and even though he didn’t know the industry average or another businesses results he said it might not be good compared to them*
4. *When he described what caused the result to be bad he connected his answer to other information like the loans on the balance sheet*
5. *When it talked about the knock-on effect of the bad result he talked separately about what might happen in the short term and the long term*
Appendix 2

A detailed mark scheme prepared collaboratively by the students

Before answering a question the students work together to produce a detailed mark scheme, which gives guidance on how to write a good answer and gain maximum marks. Below is an example of a question the students were given to answer and the mark scheme they devised to help them answer it. Initially they used my detailed mark schemes as examples but over time they adapted my style to suit their own needs. The mark scheme below was created towards the end of the research period which explains why it is very detailed. Every time the students write a piece of work they learn what else they need to remember to make the answer better and these “tips” become part of the mark scheme for the next piece of work.

Question

Write a brief report to Mr Supps, the owner of a small convenience store (report format 2 marks)

i) Analysing his most recent net profit margin (5 marks)

Mark Scheme

Report format (To, From, Date, Reference) – ½ mark for each element

Analysing the net profit margin:

- Calculate and state the result (make sure you show the formula in words and your workings)
• Explain what the result is telling you (what have you calculated? E.g. if your answer is 30% you need to say what is 30% of what)

• State whether the result is good or bad (compared to another business, last year, the industry average – if that information is available. Make sure you say whether the result is a lot or a little better or worse. E.g. if your answer is 30% this year and it was 22% last year you could say that this year’s result is much better than last year’s)

• Explain what may have caused the result to be good or bad (look at the other ratios and the other financial information for reasons. E.g. if the net profit margin improved look to see if the loans on the balance sheet got smaller because that would mean less loan interest, less expenses and more profit)

• Explain the knock-on effect of the result (in the short and long term. E.g. if the net profit margin improved it will mean more profit per item which could be used in the short term to do some advertising or in the long term to expand the business)

1 mark for each element
Appendix 3

An example of a students’ answer using just a detailed mark scheme and an improved version of that answer after reading a model answer to a similar question

Below is a student’s (James’) first attempt at an answer to the question presented in appendix 2. When writing this first attempt he had access to the detailed mark scheme he had developed with other students (also presented in appendix 2), but did not have access to a model answer to a similar question (which covered the same topic – ratio analysis – and assessed the same skill – analysis – but involved a different financial ratio – the stock turnover rate rather than the net profit margin).

To: Mr Supps

From: James Penn

Date: 10th May 2009

Reference: A brief report analysing your net profit margin

Your net profit margin looks at your net profit as a percentage of your sales (net profit/sales x 100). So with a net profit of £12,500 on sales of £625,000 your net profit margin is only 2%. This is extremely bad because for every £1 in sales, you only get 2 pence profit. This could be due to a high level of expenditure or a low selling price. This leads to slow business growth.

(After looking at a model answer to a similar question, James realised he had skipped some of the stages detailed in the mark scheme and subsequently submitted a much improved
second attempt at the question – see below).

To: Mr Supps

From: James Penn

Date: 10\textsuperscript{th} May 2009

Reference: A brief report analysing your net profit margin

Your net profit margin looks at your net profit as a percentage of your sales (net profit/sales x 100). So with a net profit of £12,500 on sales of £625,000 your net profit margin is only 2%. This is extremely bad because for every £1 in sales, you only get 2 pence profit – and is worse than last year when your net profit margin was 6%. This could be due to a high level of expenditure or a low selling price – looking at your profit and loss account for the last 2 years it seems that the problem is with sales. Your expenses have stayed pretty much the same but your sales revenue has dropped quite significantly. This suggests that you have either sold less items or that you have sold the same number of items, but for a lower price (or both). A low net profit margin leads to slow business growth in the long term and in the short term it means that you may not generate enough sales income to cover any increase in expenses (like an increase in your gas and electricity bill which is highly likely to occur).
Appendix 4

An example of feedback sheet completed after writing an answer to a question

After completing a piece of work the students have to read over their answer and use a detailed mark scheme and a model answer to help them identify what feedback they feel they need from a peer and/or from me to enable them to improve their work and better meet the assessment criteria. Below is an example of one student’s (Jon-Paul’s) feedback sheet showing his request for feedback and the responses from another student (Ria) and myself.

<table>
<thead>
<tr>
<th>What feedback do you want?</th>
<th>Feedback from peer</th>
<th>Feedback from teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>My answer is very long.</td>
<td>Your answer is very detailed and contains correct information but if you look again at the mark scheme you will see you have done more than is required. You have gone on to give suggestions on how the business could improve their stock turnover rate – when all you had to do was analyse (talk about the cause and effect of) the stock turnover rate.</td>
<td>One way to write a shorter answer but still get full marks is to look in detail at one cause and effect – rather than list several causes and effects. It is better to go deeper into one issue (showing good understanding), rather than to skim the surface of a number of issues.</td>
</tr>
<tr>
<td>How can I make it shorter but still get full marks? I know I won’t have time to write that much in the real exam.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 5

A table to show the percentage of students performing better than, the same as and worse than their minimum expected grade (based on their GCSE results).

Timeline:

Week 1 (onwards) – introduce assessment for learning techniques
Week 4 – first assessment
Week 8 – second assessment
Week 12 – third assessment
Week 15 – A level exam

<table>
<thead>
<tr>
<th>Assessed work:</th>
<th>A Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Accounting (40 students):</strong></td>
<td></td>
</tr>
<tr>
<td>% of students that performed:</td>
<td></td>
</tr>
<tr>
<td>Better than their MEG</td>
<td>12</td>
</tr>
<tr>
<td>Same as their MEG</td>
<td>53</td>
</tr>
<tr>
<td>Worse than their MEG</td>
<td>35</td>
</tr>
<tr>
<td><strong>Business (40 students):</strong></td>
<td></td>
</tr>
<tr>
<td>% of students that performed:</td>
<td></td>
</tr>
<tr>
<td>Better than their MEG</td>
<td>14</td>
</tr>
<tr>
<td>Same as their MEG</td>
<td>60</td>
</tr>
<tr>
<td>Worse than their MEG</td>
<td>26</td>
</tr>
<tr>
<td><strong>Economics (40 students):</strong></td>
<td></td>
</tr>
<tr>
<td>% of students that performed:</td>
<td></td>
</tr>
<tr>
<td>Better than their MEG</td>
<td>17</td>
</tr>
<tr>
<td>Same as their MEG</td>
<td>55</td>
</tr>
<tr>
<td>Worse than their MEG</td>
<td>28</td>
</tr>
</tbody>
</table>