quality,
adaptability
and sustainability
in times of change

Transitions

✳ University of Brighton

articles from the
Learning
and Teaching
Conference 2011

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in times of change Conference 2011

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Editorial introduction

This year's conference publication is aptly entitled *Transitions: quality, adaptability and sustainability in times of change*, a topical theme interpreted by contributors and keynote speakers in relation to their own theorised practice.

Emeritus Professor Sally Brown, Leeds Metropolitan University, considers an overarching theme of transition through and out from university in her keynote 'How can we best support students' transition into university, from level to level and into employment?' Sally explores ways in which students entering higher education, facing a variety of challenges, 'from concepts of learning to where to find lunch' can be supported in dealing with the demands of such transitional moments, towards a successful higher educational experience. Aspects of the study experience differ from their previous experiences when they enter university, and similarly, transitions between levels of the undergraduate programme can become increasingly difficult. The article looks at ways of enabling and supporting students during these transitions, to enhance succeful progress through their undergraduate studies into employment ('outduction').

The second keynote, from **Emeritus Professor Phil Race**, Leeds Metropolitan University, focuses on assessment and its relation to the empowerment of students. 'Towards assessment as learning: making the transition from spoon-fed expectant students to self-regulating learners', builds on Phil's extensive work with assessment. Starting from the premise that 'assessment is broken' in higher education, the article explores how assessment has become broken, reviews 'what the gurus tell us' about assessment and feedback, and discusses what we can do to make assessment more fit-for-purpose and a better driver for students' learning. It considers the pros and cons of some of the most often-used processes and instruments in traditional approaches to assessment, and explores ways of improving assessment, making assessment better for students by involving them in self and peer-assessment, using student self-assessment to initiate student-tutor dialogues, and making feedback more useful to students.

Catherine Watts looks at 'Supporting the reading experience of higher education students with visual stress', considering how the reading of complex texts at university poses a problem for many students; impacts on reading speeds, affects the amount of material that can be covered during a study session and causes stress. Catherine reflects on research carried out at the University of Brighton, which examined how university students' experience visual stress, and what can be done to support their reading tasks.

Focusing directly on transitions, in 'Same time, same place…or is it? Enhancing transitions and retention for top-up students', **Marilyn Doust** and **Catherine McConnell** look at transition from foundation degree (Fd) to the third year of an undergraduate degree (top-up), which can cause apprehension as students may feel they are entering a totally different world where they are presumed to know exactly what is expected from them. Fd students have preconceptions and expectations of the third year of study, and can feel apprehensive or appear over-confident. Marilyn and Catherine fill a gap in the literature by focusing on key features of a transitions programme developed by a student support tutor in collaboration with a partner college, which included visits, taught sessions, and a major component of PASS (Peer Assisted Study Sessions).

Retention is the concern in 'Should I stay or should I go?' Factors affecting first year international students' decisions to leave or continue with degrees' by **Jennie Jones** and **Stephanie Fleischer**, who explore the findings of their research into international student retention where high withdrawal rates of first year students have become apparent. They explore the experiences of first year international students, identify factors that influence their persistence or proposed withdrawal from degree courses and suggest that stress induced by difficulties of studying in English, combined with adjustment to UK higher education expectations; experiences of learning, teaching, assessment; and of emotional and academic support can influence their decisions to withdraw.

Support for student success and retention is the focus of the paper by **Catherine McConnell** and **Lucy Chilvers** with **Susan Carlton**, in 'Peer Assisted Study Sessions (PASS): the transition experience of student attendees and PASS leaders through higher education', which explains the PASS scheme, a student-owned, student-led, mentoring scheme involving trained student volunteers from levels-5 and 6 (second and third year), facilitating weekly study sessions for level-4 (first year) students. PASS enables increased provision for student support with minimal demand on staff time and is hugely beneficial for student learning, enhancing the quality of the student experience whilst promoting a deeper engagement with the university, and independent study.

One of the barriers to student transition into higher education is that of the language academics use, argues **Rachael Carden** in 'He just talks in a weird way' (transitioning FdA student): considerations of students' understanding of academic language', Rachael considers transitions between Foundation degree Arts (FdA) students and third year top-up, which present challenging, transformational learning moments for students, including international students, some of whom can be troubled by the terminology used to define the learning, learning outcomes and assessment criteria. Her research with FdA and University of Brighton students, explores student perceptions of the blocks to learning and knowledge construction which specialised language presents, and suggests good practice to overcome them.

Dr Dipak K Sarker looks at masters students in 'Comparative studies based on the form of viva voce examination, which accompanies presentation of a formatted 'manuscript-type' thesis and its impact on m-level (level-7) and level-6 pharmacy and

chemistry students, respectively,' and researches pharmacy and chemistry students tracking their appreciation of an improved mode of assessment of their degree theses. Courses, student expectations and professional preferences are matched against a survey of marks and compared to the pattern emerging from earlier theses, viva's and oral presentations.

Kate Williamson looks at undergraduate dissertations in 'Researching my practice of undergraduate supervision', arguing that such dissertations often form the transition from 'student' to 'researcher'. Kate considers the supervisory process through an ongoing project with undergraduate dissertation students and their tutors, looking at supervision as a socially constructed product of mutual expectations between student and supervisor occurring over a period of time and subject to negotiation and change.

In 'Playing the same game', **Kevin Morton** focuses on developments in the use of e and blended learning and the need to engage the active interest of students. He considers the use and effectiveness of a number of ICT advances, from handheld devices to vod/podcasting, video conferencing and free internet resources. The phrase 'Playing the same game' refers to differences between how students interact and learn outside of education and inside their college or university, and here Kevin highlights innovative methods of observation, feedback and assessment to positively support learning.

– Professor Gina Wisker, Chair, Conference Organising Committee

How can we best support students' transition into university, from level to level and into employment?

■ EMERITUS PROFESSOR SALLY BROWN

Abstract

Students entering higher education often face real challenges, as many aspects of the study experience (from concepts of learning to where to find lunch) are so different from their previous experiences. We can help the students greatly (and improve our retention and achievement data too) if we support them effectively at this time. Similarly, the transition between levels of the undergraduate programme can be difficult, and are likely to become more so with increasing fees, as students may be more likely to question the value of continuance.

Transition to employment (or 'outduction') has been reasonably well supported in the past, but we will need to maintain momentum in the tough current climate. This article will consider some of the barriers to effective transition; review strategies to ease transitions, and reflect on how students can be supported to be active agents in their own successful progress through their undergraduate studies.

Introduction

The context in which we are currently working in UK higher education is a complex and challenging one, characterised by financial instability in a rapidly changing fees regime. This leads to capricious staffing decisions as senior managers strive to manage resources without resorting to compulsory redundancies, and makes long-term and even short-term planning nigh on impossible.

At the same time, funding councils, students and their parents have high expectations of student progression and retention, and there is ever greater focus on outcomes of the National Student Survey and other measures relating to the quality of the student experience. New roles are emerging for students in quality assurance and enhancement activities, which is progressively changing the relationship that universities have with their students, and there are new requirements for public data to be made available in the form of Key Information Sets (KIS).

Simultaneously we are coping with intense global competition for students, and recently introduced International student visa restrictions are making life even more complex for admissions staff and university managers.

In this context, it is ever more important to review how we support students' transition into university life and beyond, to maximise progression opportunities for each student, while ensuring the financial stability of the institutions in which we work. Poor experiences of transition into higher education study lead to high rates of attrition and high levels of dissatisfaction, while good experiences, from pre-admission to outduction can be transformative of students' life chances.

A number of factors can interfere with our plans to support effective transition for our students entering from schools, colleges, employment and domestic commitments. Some issues are structural, like the tendency of HEIs to offer a 'cantonised' curriculum, where discrete study modules are offered to students who then have the responsibility to create course coherence for themselves by the choices they make, rather than coherence being integral to the programme. Others are cultural, for example, where staff focus on curriculum delivery rather than feeling the need to take responsibility for the wider student experience. Ideally we seek to offer a constructively aligned approach, where the learning outcomes, learning and teaching approaches and assessment methods articulate fully (Biggs 2003), but this isn't always the case.

Mapping the student experience

Yorke (1999) identified a number of reasons why students leave university early, including a poor quality of experience, the inability to cope with course demands, unhappiness with the social environment, the wrong choice of course (particularly if the student entered through the 'clearing' process) and financial need. He argued that the crucial period to focus on if aiming to improve retention, is the first six weeks of the first semester of the first year, since during that period effective study patterns can be established and confidence boosted (or destroyed).

Peelo and Wareham (2002) similarly identify common reasons for leaving early as: having low commitment or interest in the course chosen, having unmet expectations, experiencing poor quality teaching, finding the academic culture unsupportive (or even hostile) to learning, and having other commitments with a higher priority than studying.

To ease transitions, it can be helpful for staff teaching first year students entering university for the first time to ask themselves:

- Will students feel from the outset that they are on the programme they signed up to?

- Are we ensuring that students are immersed in the subject they have come to study from the outset?

- Is induction a valuable and productive introduction to the course (or just the distribution of bags and bags of paper)?

- Do students have a positive and balanced experience across the programme?

- Are there points in the academic year when there's not much going on?

Staff who can offer positive answers to these questions can ease transition into higher education, particularly for students entering from non traditional routes, and for those for whom there have been long gaps since they last studied.

What do students contemplating dropping out early on in the academic year say?

'I'm homesick'

'I can't sleep in the student residences which are so noisy'

'I feel left out by the other people in my flat'

'I can't find food I like to eat here'

'I don't know how I can fit in my religious duties'

'I've spent all my money'

'The tutors all seem so remote'

'Nobody here looks like me'

What are their learning approaches?

'How am I supposed to know what to write down?'

'The IT here is nothing like what I'm used to'

'Which books on the reading list are the really important ones?'

'The things they are asking me to do are all new to me'

'The library is huge!'

'I'm ok when I'm working on my own but the group work is doing my head in'

What are the pressures towards dropping out?

'I don't know anyone'

'I shouldn't be here in the first place'

'It isn't what I expected'

'I've done all this before'

'It's much harder than I thought'

'I don't know what I am supposed to be doing'

'There is much too much to do'

'There isn't enough to do'

'I hate it here'

Once the induction period has been completed, it is also important to ask:

- Is there a coherent model of progression across programmes?

- Are there clearly signposted sources of student support throughout the course?

- Are students using critical thinking and high levels of analytical thought?

- Are students working autonomously?

- Do students have opportunities of working together?

Transition between levels is a frequently overlooked area of curriculum planning. For example, few universities have arrangements for students completing their end-of-first-year assessments to have bridging tasks, to maintain momentum until they return to study at the start of the next academic year. We could, for example, provide them with preparatory individual or group tasks for the start of the second year and guidance on vacation reading. We can also consider encouraging students to use social networking in course-related contexts in the interim period to maintain course cohesion.

We similarly should consider how to build links between second year study and the final year. Many universities encourage students to start thinking about final year projects, but few do this in a particularly structured or coherent way. Doing so can be very helpful in ensuring a positive impetus for dissertations or major projects.

Retention of international students: some important considerations

In some universities formerly, there was a greater focus on recruiting fee-paying international students than on ensuring that they have the potential to succeed, but as global competition has increased and more universities depend on international student fees as a core component of the budget, the emphasis has steadily been changing.

There is a recognition that generic induction activities may be insufficient or inap-propriate for international students, and there may need to be additional activities framed appropriately to welcome them and help them integrate with their study cohorts. An increased understanding of the diversity of approaches to teaching and learning experienced globally (Carroll and Ryan 2005; Brown and Joughin 2007), has led to recognition of the need for dialogues on how pedagogic approaches differ internationally. Additionally, universities nowadays frequently aim to offer better support for their international students in terms of language support, crisis support, befriending and so on.

Strategies to ease transition

Students need to be encouraged to be active agents in their own transitions, and an important part of this is helping them understand the rules of the game. We need to plan strategically, from admissions through induction; to graduation and 'outduction' (Morgan 2011) and to recognise that student engagement (which is more than just attendance) is crucial to achievement and progression.

Since self-aware and reflexive learners become robust in the face of problems, we need to help them build resilience through a diet of early successes and positive reinforcement. Marion Bowl's seminal text on non-traditional entrants into higher education illustrates the issues at stake with a series of powerful quotations from students who studied in the West Midlands, talking about their experiences of transition:

> 'The hardship was not understanding. When they give you an assignment and say it was on this handout. But my difficulty is not understanding what to do at first…I think that there's a lack of my reading ability, which I can't blame anyone for. I can only blame myself because I don't like reading. And if you don't read, you're not going to learn certain things. So I suppose that's to do with me …it's reading as well as putting what you read into your essay. You can read it and understand it. I can read and understand it, but then you have to incorporate it into your own words. But in the words they want you to say it in, not just: She said this, and this is the way it should be. The words, the proper language' (Bowl 2003:90).

Another interviewee said:

> 'If 25 per cent of your marks is from reading, you've got to try and show that, even if you haven't read. I'm not going to sit there and read a chapter, and I'm certainly not going to read a book. But I'll read little paragraphs that I think are relevant to what I'm writing, and it's got me through, and my marks have been fine. But I can't read. If I read too much, it goes over my head. If I'm writing something, I know what I want to say and I need something to back me up…then I will find something in a book that goes with that. I'm not going to try to take in the whole book just for one little bit. I have my book next to me and then I can pick out the bits' (Jenny, full-time community and youth work student) (ibid:89).

The implications of this are that we can ease transitions for such students by helping them understand what is required with both reading and writing in the academic context.

Advice to staff teaching traditionally disadvantaged students might include:

- Help them to understand that there are different kinds of approaches needed for reading depending on whether they are reading for pleasure, for information, for understanding or reading around a topic.

- Help them to become active readers with a pen and Post-its in hand, rather than passive readers, fitting the task in alongside television and other noisy distractions.

- Give them clear guidance in the early stages about how much they need to read and what kinds of materials they need to focus on.

- Work on enabling students to feel part of a cohort rather than a number on a list by involving them in carefully structured group activities.

- Familiarise them with the language and culture of the subject area they are studying (Northedge 2003).

- Work with them to understand the various academic discourses that are employed within the subject/institution.

- Help them to understand when writing needs to be personal and based on individual experience, such as in a reflective log, and when it needs to be formal, using academic conventions like passive voice and third person, as in written reports and essays.

- Guide them on expectations in terms of style and tone of writing, and about the levels of formality required.

- Foster the information literacy and other skills that students will need to succeed, so that they become expert at evaluating the quality of the materials they use and reference, rather than using everything they find on the web uncritically.

- Support them in understanding what good academic conduct looks like, and help them to recognise and avoid plagiarism.

Assessment to support transition

How we use and integrate assessment can also be important in fostering effective transitions. Assessment should be perceived as being *for* learning not just *of* learning, and assessment tasks that are meaningful to students can provide them with a positive framework for activity. Where assessment is fully part of the learning process and integrated within it, the act of being assessed can help students make sense of their learning.

Sue Bloxham, a leading thinker in the Assessment for Learning Movement proposes in an unpublished paper for the Higher Education Academy that assessment can promote learning when:

- Tasks are challenging, demanding higher order learning and integration of knowledge learned in both the university and other contexts.

- Learning and assessment are integrated, so that assessment does not come at the end of learning but is part of the learning process.

- Students are involved in self assessment and reflection on their learning, so that they are involved in judging performance. Assessment encourages metacognition, promoting thinking about the learning process not just the learning outcomes.

- Assessment has a formative function, providing 'feedforward' for future learning which can be acted upon. There needs to be opportunity and a safe context for students to expose problems with their study and get help, and there should be opportunities for dialogue about students' work.

- Assessment expectations are made visible to students as far as possible.

- Tasks involve the active engagement of students who are developing the capacity to find things out for themselves and learn independently.

- Tasks are authentic, worthwhile and relevant, offering students some level of control over their work.

- Tasks are fit-for-purpose and align with important learning outcomes.

- Assessment is used to evaluate teaching as well as student learning.

Since feedback is the key locus of interaction between staff and students, it is really important that we make the most of feedback to support students' transitions. It is crucial to plan ahead to maximise the impact of formative feedback. We may need to reconsider staff deployment to enable staff to help students understand the importance of feedback, and the value of spending some of their time after receiving work back to learn from the experience. It is important too, to provide opportunities for students to respond to feedback, for example, by giving follow-up tasks or 'feed-forward' comments to improve their next piece of work. Staff need to think about the means by which feedback is delivered, since this can be vital in determining how much notice students take of what is said.

Mapping assessment

Key questions to ask to determine if the assessment strategy of a programme is working to support effective transitions include:

- Are tasks aligned to the learning outcomes?

- Are assessments part of the learning programme, or is everything 'sudden death' end-point?

- Is there excessive bunching of the assessment workload that is highly stressful for students and unmanageable for staff?

- Are there plenty of opportunities for formative assessment, especially for students struggling to gauge the level of study?

- Are students over-assessed?

- Are your assignments uninspiring/tame/excessively traditional?

Transitions out of the university

The task of supporting students' transitions includes the final transition into the next stage of their careers into employment, research or other life choices. To facilitate this, Personal Development and Planning (PDP) and employability skills need to be embedded throughout a programme of study, rather than retrofitted to a devised curriculum, as is sometimes the case. In terms of transition into postgraduate study, we need to make final year students aware of the range of study pathways available to them on graduation, and help them make choices appropriate to their skills and ambitions from as early a stage as possible, rather than letting them leave it all to the last minute. In a context where graduate satisfaction is becoming ever more important, as potential students weigh up the benefits of university study in terms of potential lifetime career advantage, this final stage of transition support may well be the most important of all.

Conclusion

Students fall through the gaps if we aren't strategic about transitions, but this requires us to adopt a holistic approach to curriculum design and delivery. In practice this means that there must be hyper-powerful communication between teaching staff, admin staff, information specialists and others to ensure joined-up approaches to enhancing the student experience. The risks associated with not doing so are serious in the current context, not just for students in transition, but for the universities where they study. Academic interventions of the right kind at the right stage can help to ensure that higher education is a positive and transformative experience for individuals, and contributes to the wider public good of a highly educated, confident and articulate populace.

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Supporting the reading experience of higher education students with visual stress

■ CATHERINE WATTS

Abstract

Many students entering university are often poorly prepared for the reading demands placed on them by degree level work (Fairbairn and Fairbairn 2001). Students at university are expected to read more complex texts than they may have experienced previously. This will impact on reading speeds and therefore the amount of material that can be covered during a study session. Research from the University of Essex (Wilkins et al 1997) showed that around 22 per cent of the population are affected to varying degrees by visual stress, which decreases fluency and increases error rates. This article will reflect on research carried out at the University of Brighton, which examined how students at university experience visual stress and what can be done to support reading tasks for these students in higher education.

Introduction

As students enter university life, they are faced with a myriad of challenges and for many, their lives will change significantly. For some students, the transition from school, college or work is an opportunity to thrive in a new environment; for others the experience can present frustrations as they grapple with academic life. Changes in the academic expectations from college to higher education (HE), particularly in the amount of reading required, can be one source of difficulty in the transition into university (Crabtree et al 2007). A study by Lumsden et al (2010) of first year university students, found that a large number were daunted by the amount of reading they were expected to do. This article will examine how a specific problem with reading, caused by visual stress, will further affect the reading experience. It will outline what visual stress is and what students, academic and support staff can do to improve reading at university for those students who have visual stress.

What is visual stress?

Visual stress refers to the discomfort some people feel when viewing text for long periods. Symptoms can vary, but can include headaches and migraines (especially when working at a computer or under fluorescent lights), eyestrain and words or

letters appearing to 'jump' or move on the page (Irlen 2005; Wilkins 2003). It is some-times referred to as Mearles-Irlen Syndrome, Irlen Syndrome or Scotopic Sensitivity, but visual stress has become the more commonly accepted term (Singleton and Henderson 2006). The difficulties arising from visual stress are visual-perceptual in nature, most probably originating in the visual cortex of the brain (Wilkins 2003) however; it is not the result of 'poor' eyesight and would not be detected by a stand-ard eye test.

A formal diagnosis of visual stress is made by a specialist optician (opthalmist), who may conduct specific tests when a difficulty with reading has been identified. This difficulty will usually have been investigated by the student themselves, a parent, a teacher or an educational psychologist, following reports of distortions in the text and/or a screening for a specific learning difficulty, for example, dyslexia.

Examples of common distortions caused by visual stress are:

- the print appearing to float above the page

- the word being read is clear, but other words on the page appear to move or swirl

- lines of print appear to shift and move up and down

- the white background becomes dominant and looks like rivers running down the page

- the letters double or have white, black or coloured images

- the words and letters on the page appear to blur

- parts of letters or words become faded or disappear

The effects of visual stress will vary between individuals (Cornelissen and Singleton 2007; Irlen 2005; Wilkins 2003) but for most people, the effects will occur after about ten minutes of reading. The outcome of reading with visual stress is that a student may tire quickly when working with text, have problems copying from the board, skip words or lines, and consequently read slowly and have difficulty absorbing information from text.

Visual stress and dyslexia

Like dyslexia, visual stress can have an adverse effect on the development of reading skills, especially reading fluency (ie the ability to recognise words quickly). However, whilst a student with dyslexia may experience visual stress, they are not the same thing: not all students with dyslexia experience visual stress, and not everyone expe-riencing visual stress is dyslexic (Singleton and Trotter 2005). Defining visual stress as a feature of dyslexia, rather than a condition in its own right, can have implications for assessment, diagnosis, provision of services and remediation in universities.

Following a review of practice at several universities, including the University of Brighton, research showed that visual stress was often diagnosed alongside dyslexia. However, with statistics indicating that approximately 20 per cent of people suffer from visual stress (Wilkins 2003; Singleton and Trotter 2005) compared to 10 per cent

with dyslexia (British Dyslexia Association 2010), it is easy to conclude that even if all those with diagnosed dyslexia had visual stress, a significant number of students studying at university are likely to be experiencing difficulties in reading that are not identified or supported, which may adversely affect their learning, and consequentially be detrimental to the outcome of their studies.

Singleton (2009) considered that whilst non-dyslexics may experience visual stress, it does not significantly impact on their reading development and skill, whereas for a learner with dyslexia the visual stress is significant, as it contributes to a cluster of other weaknesses, creating a compound effect. As there is no specific research into the impact of visual stress on non-dyslexic students in higher education, research conducted at the University of Brighton questioned Singleton's assertion that the impact is insignificant for this group of students.

Problems caused by reading in higher education

The processing of text-based information is affected by visual stress (Singleton and Trotter 2005), and a student's effectiveness at university can be hampered by undiagnosed visual stress that slows down their reading (sometimes by as much as 50 per cent), which affects their concentration and productivity. The effects of visual stress can be made worse by reading black print on a white background, reading small or densely packed text, and reading under fluorescent lights or from a computer screen (Wilkins 2003). These are conditions under which the majority of reading is done at university, and indeed research has suggested that university students are increasingly encouraged to read from computers (Pollak 2009) and to use journal articles (Northedge 2005), which are often produced in small fonts. Additionally, Northedge suggests that students should expect to spend approximately three hours reading in one sitting (ibid), but it is difficult to see how a student with visual stress would manage if they experience distortions after 10 minutes. Northedge also suggests that if reading sessions are too short, 'you don't have the opportunity to get into the frame of thinking' (2005:101). If, as Irlen states, 'reading is the basis of academic success' (2005:60), then managing a reading difficulty such as visual stress would make it 'very hard to get through the educational system' (ibid) effectively.

A small scale research project was carried out in 2010-11 to investigate the impact that visual stress had on the learning experience of students studying at the University of Brighton. Two schools were selected for the research, one covering mostly BSc courses and one mostly BA courses. This was done to get a range in reading experiences from the participants (Northedge 2005), to see whether the impact of visual stress on students differed between courses. Two second year students from each school were selected, who had been identified through dyslexia screening as showing indications of visual stress, but who had not shown indications of dyslexia. The reason for selecting non-dyslexic students was that there is some cross-over in the symptoms and experiences of visual stress and dyslexia, but the aim of the research was to specifically look at the learning experiences of those with visual stress in isolation. Before interviewing, it was necessary to confirm that the students were experiencing visual stress and this was done by using tests proven to be reliable and valid in assessing for visual stress (Evans and Joseph 2002; Wilkins 2003).

The four students with visual stress were interviewed in the autumn term to obtain information on how they experienced studying and visual stress. The findings showed that these students self-limited their reading through taking breaks or reducing the amount they read. All four said that they had considered dropping out of their courses, due to their difficulties with managing the reading. These students had been previously unaware that their experience of reading with visual stress was not 'the norm'.

> '…you don't really realise that it might be a problem just specific to you …I
> never really considered it a problem until it was pointed out …assumed
> that must be what everyone goes through' (Student A 2010).

To find out how aware students are of visual stress, a survey was conducted in the two selected schools at the University of Brighton. 10 students from each school completed a brief questionnaire. The survey found that 15 of the 20 students had never heard of visual stress (or Scotopic Sensitivity/Mearles-Irlen Syndrome) and the majority of students thought visual distortion of text was the result of dyslexia or tiredness. Other examples of possible causes of the symptoms of visual stress mentioned were: stress, migraine, drug and alcohol use.

This supported the responses of the four interviewed students, who sought to explain their problems with reading in a variety of ways; even though they themselves were experiencing visual distortions. Due to the lack of awareness of visual stress as a condition in its own right, it was assumed by all four students that everyone experiences visual distortions, or that their reading difficulties could be explained by some other cause.

The research project identified that the key barrier to effectively supporting students with visual stress was that, unless students are aware of visual stress and its effects, they would not consider seeking support or use remediation tools that could be highly effective (and easily accessible) in alleviating the symptoms.

What can students do to alleviate the experiences of visual stress?

Over the last 30 years, there has been significant research (Evans and Joseph 2002; Irlen 2003; Wilkins 2003; Singleton and Trotter 2005; Wilkins and Evans 2009) into the remediation of visual stress. Different methods work to varying degrees of effectiveness and include the use of coloured overlays or reading rulers, the use of coloured paper, reading under natural light, changing the background colour on computer screens and text to speech software (assistive technology)(Evans and Joseph 2002; Irlen 2003; Smythe 2010; Wilkins 2003).

The four students involved in the research project who were experiencing visual stress, read at a reduced rate and with an increased error rate to that of their peers. This finding is consistent with previous research (Irlen 2005; Singleton and Trotter 2005; Wilkins 2003). Following the interview, the four students were provided with a variety of recommended remediation tools (coloured overlays, reading rulers, text-reading software and monitor background colour adjustment software), that they were asked to try out and use over a period of five months to see if they appeared

to be beneficial in reducing the effects of visual stress. After five months, the four students returned for a follow up evaluation and assessment of reading. They reported the following:

'I feel less like going to sleep after half an hour; I can definitely read for longer'

'I really notice a difference if I have to read from a white background … it takes so much longer and I lose my place without it [ruler]'

'I always used to be miles behind with the reading … just skip it … I'm pretty much keeping up now'

'I'm not drowning anymore … I can actually do it [reading] without getting in a panic'

'Before, I had to ask other students to tell me what the reading was about … I felt stupid … now I'm in control'

The results of the evaluation and assessment showed, that when using coloured overlays or adjusting background colours, reading rate (i.e. speed) and accuracy (i.e. error rate) improved. The improvements in reading speed ranged from 32 to 45 per cent and error rates (measured using basic level text) dropped from an average of 6 per cent to an average of 0.5 per cent.

The four students reported that they had used the text reading software at least five times in the five month period to help manage the volume of reading required for their course. All four students reported that they would continue to use one or more of the remediation tools made available to them, although the preferred tool chosen varied between individuals and depended on the task being carried out.

The findings of the research project showed that improvements in reading speed, comprehension, concentration and confidence could be achieved for higher education students with visual stress. The four students evaluated were less inclined to limit the amount of reading that they undertook, once they had remediation tools available to reduce the symptoms of visual stress. This, in turn, greatly improved the effectiveness of their learning experience at university.

As well as the positive impact that remediation tools can have on students with visual stress, there is some evidence to suggest that using such tools may make reading more comfortable for all students (Wilkins and Evans 2009).

Supporting university students with visual stress

Whilst a key finding of the research project was that students needed to have a better awareness of visual stress and its impact on studying, the research also investigated awareness of visual stress among a small sample of staff in the two selected schools, and found that this was limited. Of the 10 staff surveyed in the project, nine assumed that visual stress was due to either dyslexia or tiredness, and that where students were having difficulties with managing the reading required on courses, this was due to other factors, as had been found in the student group.

However, where academic staff are aware of the indications of visual stress, changes in teaching practice can have an impact on the experience of those students with

visual stress, and students can be directed to support services such as the Disability and Dyslexia Team for screening.

Two members of academic staff from the selected schools volunteered to be involved in the research project, following staff training events on dyslexia. They were instructed to observe students in the autumn term for indications of visual difficulties and refer them to support services for screening where appropriate. Typical indications might be: experiencing increased difficulty with reading after an initial period of about 10 minutes, frequent movement of head or body position, moving closer to, or further from the page, reading slowly and having difficulty absorbing information, tracking text with a finger or the frequent rubbing of eyes. Following referral specifically for visual stress, 34 per cent screened positive and were subsequently advised on remediation methods.

The two members of academic staff were also asked to make adjustments to their teaching delivery, where possible, on one module each during the autumn term. This included the following:

- avoid fluorescent lighting, if possible

- print text in a larger font and avoid 'fancy' fonts (Tahoma, Comic Sans, Calibri fonts are examples of plain fonts)

- print on coloured paper – different students will prefer different colours, but pastel shades usually work well for all students

- vary how material is presented to lessen the use of text based resources

- encourage students to use text to speech software

Whilst there had initially been some concern about time and cost implications, the staff both felt that the changes had been easy to put into practice:

> *'I changed templates for PowerPoint and handouts…background colour and fonts…once I'd done this once I didn't have to worry again'*

> *'I've largely stopped giving out whole articles…I've been posting on studentcentral so they [the students] can use reading software or change backgrounds to suit themselves'*

They also reported positive feedback from their students to the changes:

> *'They like the fact it's not so wordy…less actual reading'*

By making simple adjustments to teaching practice, materials were made more accessible to those students with visual stress. There were also indications during the project, that the experience of other students could be improved by making adjustments to practice. However, further research would be required to assess the actual impact of such adjustments on a whole group.

Conclusion

Improvements in awareness among students and staff of the condition of visual stress is key to ensuring students' reading is supported in the transition into higher education. By using simple and cost effective remediation tools, significant improvements in the reading experience of those students with visual stress (and possibly other students) can be achieved.

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Same time, same place…or is it?

Enhancing transitions and retention for top-up students

■ MARILYN DOUST AND CATHERINE MCCONNELL

Abstract

Transition from foundation degree (Fd) to the third year of an undergraduate degree (top-up) can cause apprehension (Greenbank 2007:98; Tierney and Slack 2005:384). Students can find that they appear to be entering a totally different world where they are presumed to know exactly what is expected from them. The Fd students have their own preconceptions and expectations of the third year of study, and they may feel extremely apprehensive or conversely appear over-confident. There is very little literature about the transition from Fd to university and the student experience (Gorard et al 2006:116-119), and with the changes currently taking place in higher education, student satisfaction and achievement will become increasingly important (BIS 2011). This paper focuses on key features of a transitions programme developed by a student support tutor in collaboration with a partner college, which included visits, taught sessions, and a major component of PASS (Peer Assisted Study Sessions[1]). The data, case studies and a video were presented at the annual Learning and Teaching Conference, 'Transitions: quality, adaptability and sustainbility in times of change', 2011, to analyse the impact of the programme on student achievement and retention, and the satisfaction and views of the students.

Introduction

The academic transitional experiences that students face when entering higher education, particularly after a period of time out, or when arriving from a further education (FE) institution, can often determine their persistence, or have an impact on their academic success (Cook and Rushton 2009; Yorke and Longden 2004). The nature of the student journey demands that institutions plan for, and deliver a range of schemes that will support students to complete their courses and experience a personal transformation during their time in education.

The findings of a focus group carried out with the first cohort of top-up students studying on the BA (Hons) Sport Coaching and Development degree (2008-09), found that students struggled with the transition from Fd to top-up degree, both in

1 http://student.brighton.ac.uk/ask/index.php/pass

terms of their perception of the academic requirements of the top-up degree and in their social transition. Students had difficulty settling into the academic habitus, or as Yorke describes it 'understand[ing] the rules of the game' (2005:16), and their lack of familiarity with the department was considered a barrier to their persistence. We found that most students did not live locally, and spent very little time outside of lectures and seminars in their academic department due to paid work or home responsibilities. Findings also indicated that attendance rates were relatively poor, and internal statistics revealed a high attrition rate and relatively low academic success in terms of degree classification.

Following the focus group, a number of the issues were addressed and (as below), recommendations made for the transition process to the course teams at both Fd and top-up level:

- **Pre-application stage**: allow the Fd students to engage earlier with the university and current top-up cohort

- **Application stage**: trial mentoring sessions that involve existing top-up students or graduates leading group mentoring sessions with the Fd students

- **Offer stage**: enable prospective top-up students to make module choices at the same time as the 'traditional' final year undergraduate cohort

- **Arrival and orientation stage**: pilot a PASS scheme for the new top-up students across semester one, to include orientation, study skills, reflective journals and academic conventions

In order to implement the initiative, facilitative meetings were held with course staff from both Fd and top-up to plan collaboratively, and allow academic tutors to input their views on how and when the initiative could take place.

The transitions programme

This initiative involves approximately 20 graduating Fd students transitioning each year to a one-year top-up degree at the University of Brighton's Chelsea School of Sport, along with two pre-selected graduates who ideally have achieved BA (Hons) via the top-up route, or are themselves engaged in postgraduate study. Staff involved, include the student support tutor, academic members of course teams both at the partner college and top-up programme, with support from the head of school. (This initiative did not initially include students from the other top-up degree (Sport and Fitness) offered in the department.)

Activities

Pre-entry visits

At the beginning of February, (semester four for the Fd students) the pre-entry visits begin. The student support tutor, a current top-up student and a member of academic staff visit the local partner college to meet with the prospective top-up students in their own setting to give information on modules, the necessary

prerequisites and enrolment. Prospective students also have the opportunity to meet with a current top-up student to talk about student life and the final year of the degree, and to discuss any fears or concerns they may have with the student support tutor. The Fd students also complete an anonymous questionnaire about their expectations of the top-up, and the data is used by academic and support staff to assess the needs of the cohort, and implement any further support or advice to address their concerns.

Chelsea Exhibition

Prospective top-up students are invited to attend the annual 'Chelsea Exhibition', a showcase of final year and postgraduate work in May (Lines and Smith 2011). The role of the exhibition is to provide an opportunity for lower year undergraduates to develop awareness of the range and level of the school's postgraduate courses and student work, and to enhance the top-up students' engagement with the academic environment by giving them the opportunity to talk with current final year students and observe the standard of academic work. The aim of the exhibition as a whole, aligns with the work of Zepke and Leach '[to] create educational experiences for students that are challenging, enriching and extend their academic abilities' (2010:169). The students are also taken on a campus tour to support orientation to the site where they will be based for top-up study.

Students visiting the Chelsea Exhibition

Group mentoring session

Whilst attending the student exhibition, the Fd cohort can also attend an informal session held by a current top-up student, where they have the opportunity to ask questions in a non-remedial, confidential environment, about any aspect of the top-up or student life in general. Students have found these sessions invaluable to hear the 'reality' of their chosen course, and to explore the prospective transition through discussion with peers (Boud 2001; Mytton and Rumbold 2011).

Meeting with the course leader

Following the Chelsea Exhibition and group mentoring session, the top-up course team introduce themselves to the cohort and offer informal opportunities for the students to ask questions. The course leader explains the schedule of assignments, approximate timetabling of lectures and seminars and module choices in more detail.

Assignment hand-in

One of the issues that students in the previous top-up cohort made us aware of, was the difficulty of knowing how to go about handing work in, particularly practicalities such as filling in hand-in sheets, adhering to deadlines, and knowing where and who on campus to hand-in to. It was decided that a 'trial' assignment hand-in for the local partner college Fd students in May, could resolve these issues and give them the opportunity to orientate themselves with university protocol before arriving in September.

PASS Scheme (Peer Assisted Study Sessions)

From October, when the new top-up cohort arrives, timetabled PASS sessions take place on campus within working hours. They are usually scheduled straight after timetabled lectures or seminars during semester one, for students on BA (Hons) Top-up Sport Coaching and Development, and Sport and Fitness.

The aims of the PASS scheme are:

- 'To enable students to receive information through an additional 'mode of delivery' from a student perspective, relating to academic conventions, orientation to study at top-up level, from graduate students who have experienced a similar learning journey first hand

- To ensure students are in a position to gain appreciation of the workload, work ethic, academic protocol and University of Brighton systems and regulations – again from a student perspective

- To raise students' awareness and approach towards level-3 undergraduate study

- To improve the feedback loop from students to staff on transitional issues associated with moving from Fd to top-up level study

- To accelerate student orientation and integration to the top-up course, in order to enable students to grasp key academic and subject specific concepts earlier in the programme of study and contribute to student engagement'.

Analysis and feedback

Analysis and feedback on the success or challenges of this initiative have mainly been captured through interviews and focus groups with students, mentors and supervisors of the scheme.

Qualitative feedback

Pre-entry visit

'The transitions programme has given me direct contact with top-up students before they arrive and led to more students seeking my support' (Student support tutor)

PASS

'It's a comfortable environment for interaction' (Student)

'…we've started our own study group as a result of the sessions' (Student)

'You don't feel like you are being watched by lecturers' (Student)

'…getting the group to interact was difficult at the beginning, but as I felt my leadership skills improve so did the cohesion of the group' (PASS leader)

Top-up course leader feedback

'…some (top-up students) perhaps achieved their level of competence when they've done two years at the FE college and then come here at level-3… they haven't got the study skills – I don't think some have got the energy or the determination or many of them the personal skills to be successful in this environment'

'…the quality, outcomes and esteem/identity of the top-up cohort this year have all seen a considerable upward shift'

Quantitative data

We have also collected quantifiable data such as attendance, retention and achievement grades, to observe any improvements to the cohort average (table 1). However, this may not directly correlate to the scheme's intervention, but could contribute to the students' overall success.

Table 1: Student attainment data for PASS 2009-11
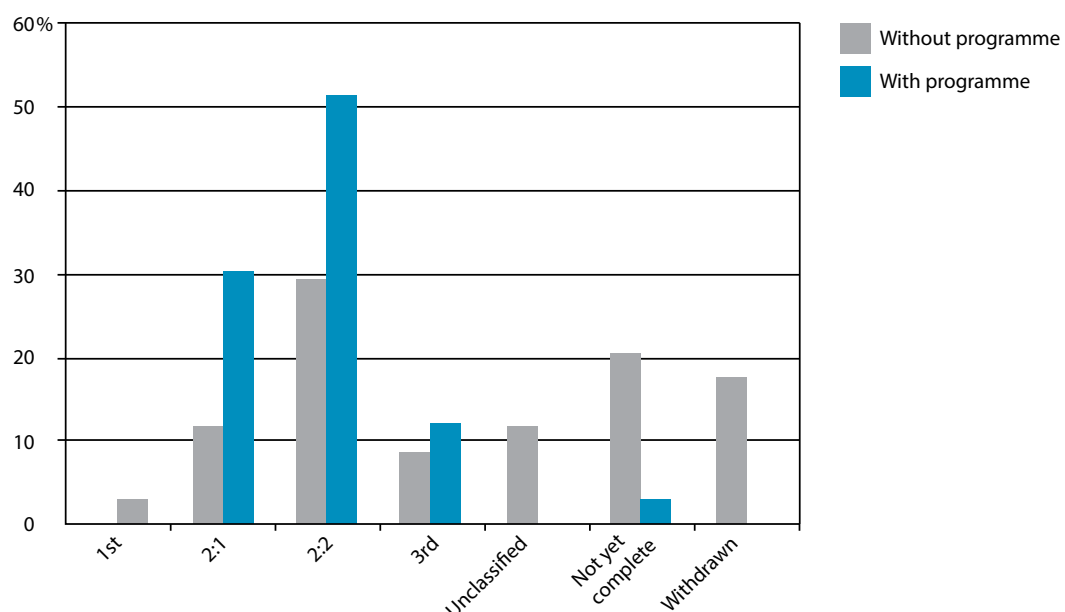
The cost and timeline

An initial pilot for this initiative was funded through a Centre for Learning and Teaching Fellowship over the 12 month period 2009-10. Chelsea School has now embedded the initiative through core funding. Costs involve: staff time for planning, supervision of mentors, monitoring and evaluating impact, hourly payment for trained mentors and training materials.

Table 2: Transitions programme timeline

February	Visit college with a current top-up student Look at module choices
May	Chelsea Exhibition and keynote lecture, meet course leader, group mentoring
	Campus visit, meet current students and student support tutor, tour of facilities
June	Test hand-in of coursework, join a Facebook group and receive newsletter
Foundation degree ends	
Top-up degree starts	
October (Semester 5)	Induction week PASS programme
February (Semester 6)	
July	Graduate

Conclusion

This initiative has seen the top-up cohort achieve better average grades, contributing to the improvement of attendance and retention rates, and improving the student experience of transition and orientation. Based on our findings, gathered through student feedback, we would offer the following guidance to practitioners:

- establish contact with direct entry students as early as possible

- invite students to attend a structured transition programme prior to entry

- involve existing students or graduates in a trained mentoring position

- enable direct entry students to see the academic standards expected of them at the joining institution.

The potential for transferability could include other user groups such as international direct entry to final year honours or intra/inter-institutional transfer students. Elements of the initiative are also being used with other student groups such as the PASS scheme, involving second year mentors and traditional first year mentees.

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Should I stay or should I go?

Factors affecting first year international students' decisions to leave or continue with degrees

■ JENNIE JONES AND STEPHANIE FLEISCHER

Abstract

International student retention is an increasing issue in UK higher education. This article focuses on research at the University of Brighton (UOB), where high withdrawal rates of first year international students have become apparent. This study explored first year international student[1] experiences, and identified factors that influence their persistence or proposed withdrawal from degree courses. The research incorporated two stages of in-depth interviews with first year international students studying business subjects, followed by a university-wide survey of all first year international students. The findings suggest that stress induced by difficulties of studying in English, combined with adjustment to UK higher education expectations; experiences of learning, teaching, assessment; and of emotional and academic support can influence international students' decisions to withdraw.

Introduction

Our research arose from concerns within UOB regarding non-completion rates of international students. Universities must standardise the quality of learning, teaching and support provided for international students, who are becoming increasingly vital to higher education (HE) economies in the UK. Our findings will contribute to the university and HE sector's commitment to internationalisation, which has now become a priority (BIS 2009). This will help inform policy and good practice regarding learning, teaching, assessment and support for international students; thus increasing international student engagement and retention.

Previous research

Previous research suggests that undergraduates leave university during their first year because they are unprepared, and have chosen the wrong degree (HEA 2008). Additional factors that may influence students' decisions to persist or withdraw, relate to quality and processes of learning, teaching and assessment; working

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1 For the purposes of this research the term International students refers to those within and outside the EU

relationships and communication between students and academic staff; peer support and friendship (ibid).

Friends and peers can support first year (including international) students, who feel isolated while adjusting to a new life at university (Wilcox et al 2005); and 'difficulties of making friends' may influence thoughts about withdrawal (ibid: 714). Hence, emotional support can be a significant factor in students' successful first year transition, affecting their decision to persist or withdraw (Trotter and Roberts 2006; Zepke and Leach 2005). For international students, transition difficulties may be exacerbated when culturally inflected experiences of education overseas contrast with new experiences of UK higher education (Andrade 2006; Griffiths et al 2005; Kingston and Forland 2008; Wisker 2004); and international students' stress in this context, may also influence their decision to leave their course (Griffiths et al 2006). Building on these findings, the UOB research proposes that the intention of first year international students' to withdraw from, or persist in, their courses relate to:

1   Experiences of learning, teaching and assessment

2   Adjustment to:

    i   living in the UK and the university environment

    ii   academic expectations of the UK university

3   Academic and emotional support from:

    i   friends and peers

    ii   lecturers and support staff

4   Stress levels related to propositions 1-3

Aims and objectives

The research will identify:

- Factors that influence international students' decisions to persist, or withdraw from their courses during their first year at university.

- Strategies that can inform university policy, to enhance learning, teaching, assessment and support practice for international students during their first year, in order to increase their engagement, success and wellbeing.

Participants and methodology

A qualitative/quantitative mixed methods approach was adopted. First, longitudinal paired and individual interviews were conducted with 11 first year male and female (EU/non EU) international students studying business disciplines at two 'key' stages in December 2010 and February 2011. We wished to identify how their experiences changed before and after the assessment period in semester one, and this was informed by the UOB 'Student Experience Timeline', which refers to different stress periods for first year students (UOB 2011). Appreciative inquiry techniques

helped gain insights into the complex factors associated with students' experiences regarding learning, teaching, assessment and support. This approach encouraged reflection on beneficial and challenging experiences, and ways in which problems could be addressed (Ludema, Cooperrider and Barrett 2006). Cross-sectional content analysis methods were adopted, applying pre and open coding. Building on the interview data, all first year international students at UOB were invited to complete an online survey in May 2011. The survey aimed to highlight variations between groups (EU/non EU) and courses. The response rate was 17.2 per cent and the data was statistically analysed.

Key issues

Supporting our propositions, the findings suggest that negative experiences of learning, teaching, assessment and feedback; and insufficient emotional and academic support, contributed to first year international students' stress levels, and thoughts of leaving their course. Standards of teaching, feedback and support for international students appeared inconsistent. Difficulties in studying in specialised degree level English contributed to low self esteem and thoughts of giving up. Money problems were also found to be a significant issue. The survey shows that non-EU international students experienced higher stress levels than EU students. 37 per cent of non-EU respondents stated a high stress level, while only 15 per cent of EU students stated high stress levels. This result was statistically significant (x^2 =7.017, df=2, p=0.03).

Building on the UOB Timeline (2011) our research found that timing is significant regarding varied stress inducing factors. The survey shows that in semester one, the four most frequently mentioned difficult factors related to: written coursework, English language, accommodation and money. In semester two, the four most frequently described problems were money, workload, group work and travel as shown (Chart 1) below:
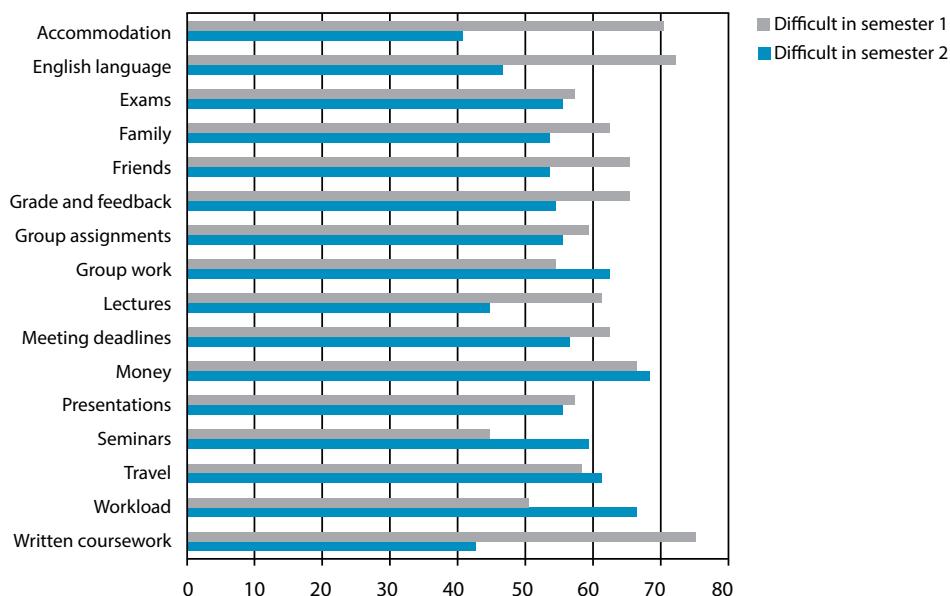

Chart 1: Percentage of aspects students find difficult in semester 1 and semester 2 (multiple answers)

The survey indicates that more than 20 per cent of respondents considered leaving during year one. By May, this percentage had dropped to below 10 per cent, suggesting that most international students who consider leaving do so before May. The main reasons given for students' persistence on their course are the desire to do well and the prospect of professional success (see Chart 2).
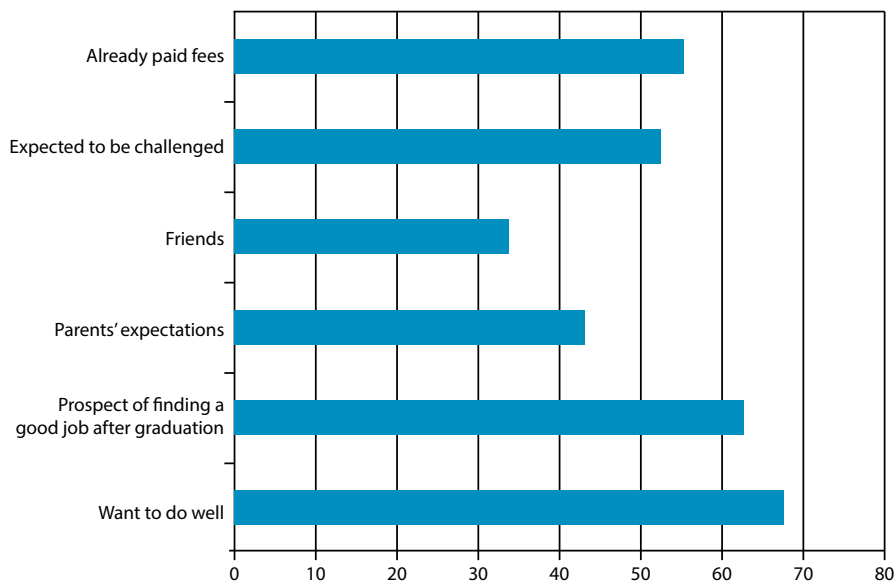
Chart 2: What made students stay on the course? (n=97)

Experiences of learning, teaching and assessment

1 Lectures and seminars

During stage one[2], participants commonly mentioned that good teaching included frequent examples, detailed explanations and time for questions, which increased students' understanding and motivation. Descriptions of inadequate teaching included sessions that were rushed with insufficient explanations, examples or time for questions.

By stage two[3], when teaching was good participants appeared more engaged. Further examples of good teaching included: extra revision, provision of interesting examples, and interactive or challenging activities. When participants were unhappy with teaching, the reasons were the same as in stage one, resulting in non-attendance, which detrimentally affected progress. However, the survey[4] confirmed that most respondents had positive experiences of teaching. 64.3 per cent of respondents rated lectures, and 62.8 per cent rated seminars as 'useful' or 'very useful' for their progress; whereas less than 20 per cent confirmed that lectures and seminars were 'not useful' (see Chart 3).

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2 Stage one refers to the first stage of interviews in December

3 Stage two refers to the second stage of interviews in February

4 The survey refers to the university wide survey of first year international students circulated in May
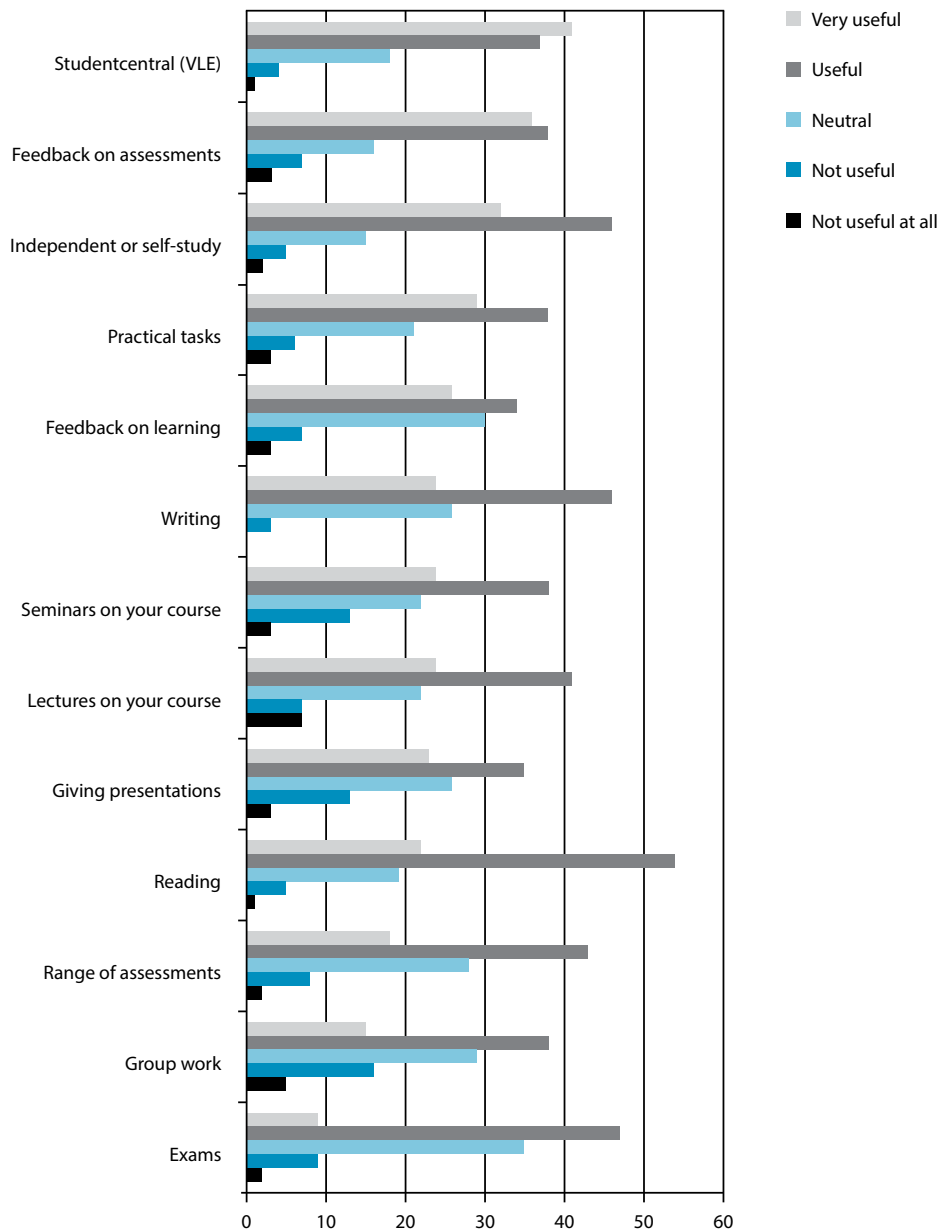
Chart 3: Usefulness of course-related factors that help students to make progress (n=123)

2 Assessment and feedback

Participants' experiences of assessment and feedback also varied. In stage one, most interviewees expressed concerns over exams, which were perceived as stressful, since reading and understanding exam questions was time consuming and left insufficient time to write answers. Participants often preferred assignments because time was less restricted. These findings raise questions regarding flexibility and types of assessment, particularly for international students. Understanding UK academic requirements and assessment criteria, was also perceived as challenging. Insufficient constructive feedback left some participants feeling unsure of how to improve, which de-motivated even more able students.

However, in general, the survey found that feedback on assessments (74 per cent) and practical tasks (70.5 per cent) was 'very useful' or 'useful' for international students' progress (see Chart 1). Exams were perceived as 'less useful' (55.9 per cent), corroborating the qualitative findings.

Challenges that participants experienced adjusting to UK academic expectations in semester one, support our research propositions that such factors contribute to stress and thoughts of withdrawal. By stage two, however, most participants had overcome their doubts, and were feeling more confident, as they had received positive results in assessments, and constructive feedback. Such students were more certain of success in end of year assessments. Conversely, a minority of participants were depressed by disappointing results and felt unconfident. These students needed good grades for acceptance on work placements, crucial for their future employment. They realised that their academic difficulties mainly related to insufficient levels in English. The difficulties that international students experience in English will be discussed at length later in this article.

3 Group work: formal assignments and informal study groups

In stage one, some participants enjoyed working collaboratively, and some found it difficult. There were some complaints that one or more group members did not contribute sufficiently, which affected participants' progress and caused them stress. In stage two, several participants described similar group assignment challenges. Sometimes there was a perceived difference between students from different cultural backgrounds and attitudes in this regard. Previous research suggests that such cultural differences can contribute to stress and to international students' thoughts of leaving their course (Griffiths el al 2005). The UOB survey results show that for international students, 'group assignments' are one of the most challenging aspects of university life from the beginning of the course, confirming that they need greater support in this regard.

4 Independent study

Although independent study was perceived as beneficial in stage one, some participants found time management difficult. Extra time was spent reading texts repeatedly, or looking up specialist terminology. Participants felt demoralised when their extra efforts were not recognised, and when they received lower marks than UK students. Extra pressure and lack of support in this context, sometimes contributed to stress and thoughts of giving up.

By stage two, participants often mentioned difficulties in juggling their work-life balance. The need for good organisation was often mentioned, because of additional time needed to read and understand important theories.

The survey shows that 78 per cent of respondents rated independent learning as 'useful' or 'very useful' in positively influencing their progress. However, 35 per cent of respondents indicated, as the findings suggest, that they needed extra time to read required material. 72 per cent indicated that they spent on average 1.8 extra hours per week looking up terminology in order to understand reading material.

5 Developing English skills and English classes

When participants experienced stress and disengagement in the context of the themes described, difficulties in English were a common factor. In stage one, some participants were experiencing challenges in written English, in addition to needing extra time to complete work. Difficulties in coursework and English language in semester one are also shown to be significant in the survey (Chart 4). While many participants had developed their English, particularly in speaking by stage two, a minority of participants were still unconfident in their English overall. This resulted in poor attendance, with an adverse effect on progress and self esteem. The survey results indicate that difficulties in English were a problem for a minority of international students towards the end of the academic year. Five per cent did not believe their English was good enough to pass the end of year assessment. Evidently, international students who struggle in English should attend English support. However, most survey respondents (95 per cent) and interview participants confirmed that they were not attending English support sessions because they found the classes too basic or inconvenient.
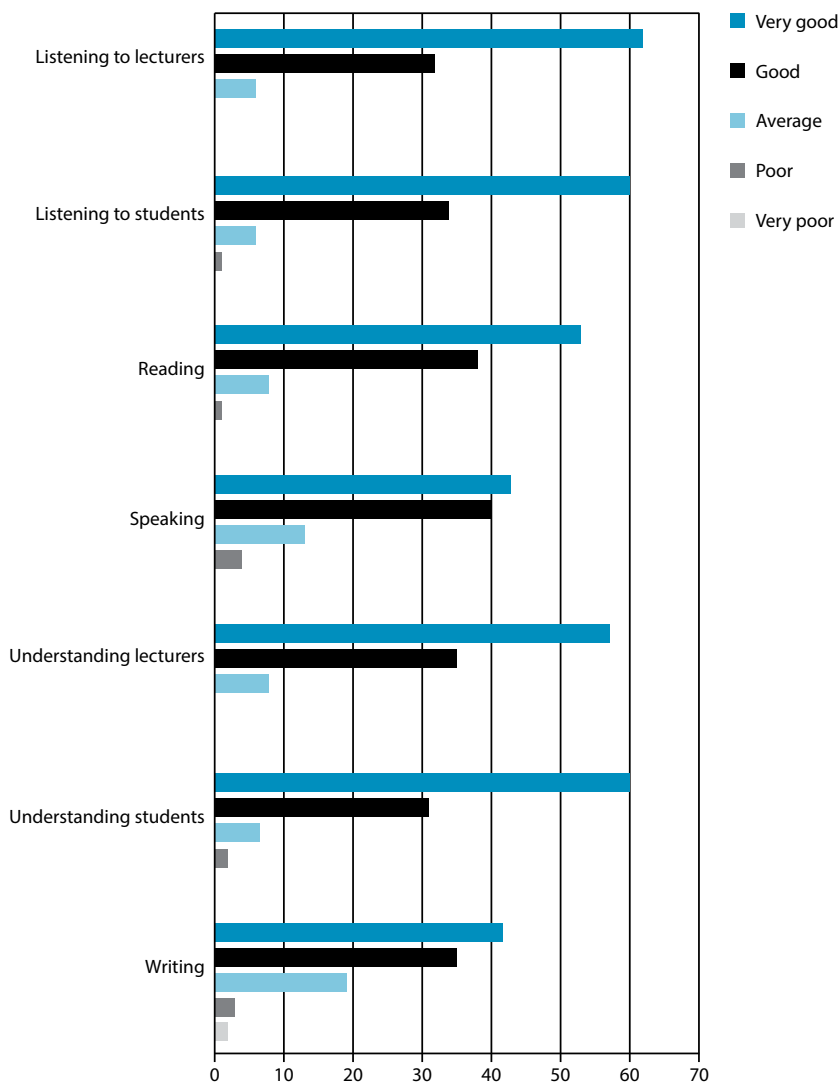
Chart 4: English skills in terms of meeting the English requirements for the course (n=111)

6 Additional support

Participants often said that the additional support provided for international students was a 'strength' of the university. The types of university support that were most frequently rated as useful or very useful in the survey were personal tutor support and support from individual lecturers (see Chart 5).

Legend:
- Not used
- Very useful
- Useful
- Not useful

Category	Not used	Very useful	Useful	Not useful
Academic skills sessions on the course	61	7	21	8
Peer support	61	12	23	4
Personal tutor support	27	31	36	6
Study support session from student services	79	4	11	6
Support from individual lecturer (not personal tutor)	34	26	37	3
Support from international student tutor	76	5	15	4
Support from mentor	65	9	24	2
Support from private tutor	85	3	10	2
Other (library, friends)	96	2	3	0

Chart 5: Percentage of usefulness of support received

In addition, moral support from friends was crucial in helping some participants to overcome difficult periods in their course when they felt like giving up. Explanations of how friends supported them included:

- offering explanations of learning material

- providing constructive feedback

- sharing their own work as an example

- sharing experiences and ways of tackling problems

- working collaboratively, and discussing ideas

- providing moral support and motivation

- editing or proofreading each other's work

- learning together

This is reflected by the survey, indicating that most respondents receive support from friends. These findings confirm our propositions and earlier research, suggesting that friendship is an important factor in student retention (Wilcox et al 2005).

Conclusion

Several factors described above, regarding learning, teaching and assessment in conjunction with high stress levels and low self esteem, evidently influence international students' thoughts of leaving their course during their first year. This supports our propositions based on earlier research (HEA 2008; Wilcox et al 2005; Zepke and Leach 2005; Griffiths et al 2005). Stress levels experienced during year one are found to be highest for international students from outside the EU. Moreover, there are particular times during the academic year when stress may be triggered by varied issues as suggested in the UOB Student Services Timeline (2011). Our research shows that stress caused by difficulties in English and written coursework is most frequently experienced by international students during semester one, and most international students who think of leaving, probably do so before May. Money is another problem for international students, particularly towards the end of the academic year, which also exacerbates stress.

Survey respondents who considered leaving during year one are in the minority (just under 10 per cent). The research overall suggests that most international students are confident, even in the early stages of their course, and that this confidence increases after the first stage of exams and assignments when students receive positive feedback.

The research shows that the key difficulties specifically affecting international students are the challenges they face in:

- studying and attaining the appropriate level in (often specialised) English

- adapting to UK academic expectations that vary across disciplines

However, all of our findings and the following recommendations relating to this research, may also apply to, and help support UK students.

Recommendations

It is recommended that the following suggestions to enhance learning, teaching, assessment and support for international students should be initiated at an early stage of year one, in order to reduce stress.

Support

English classes should be:

- discipline specific

- streamed

- focused on academic writing

- offered at varied times

Other support should include:

- international student tutorials

- personal tutorials

- academic skills sessions focused on professional skills

- extra support from lecturers

- frequent mentoring sessions

- informal study groups

Teaching, learning and assessment

Good practice in teaching should include:

- detailed explanations of material

- plenty of interesting examples

- revision sessions

- time for questions

Sufficient early constructive feedback on assessment requirements enables international students to understand their weaknesses, and ways in which they can improve. Constructive feedback should emphasise strengths, as well as weaknesses, to promote motivation. Early formative assessment should also be integrated in courses. Group assignments may need tighter monitoring by lecturers, who can intervene when necessary. This could also be an opportunity for training students to work effectively in groups, which is a crucial professional skill in many disciplines, particularly business.

Independent study

The need to work independently is identified as an important aspect of students' learning development at degree level. Study groups with friends, and appropriate English support are shown to be helpful in this context. There also needs to be greater awareness from academic staff and UK students of this additional pressure on international students.

Professional success as a key motivator

Finding a good job in the future is found to motivate first year international students to continue with courses, even if they previously considered leaving, particularly in the business disciplines. Motivation to succeed in this respect should be harnessed by university policy makers, lecturers and support staff. Workplace skills should therefore be a key element of all learning, teaching, assessment and support in order to help engage and retain international students in their first year of UK higher

education. This can help international students overcome doubts, and remain successful throughout their degrees and in their professional lives.

Research limitations and possibilities for future work

While this work has provided insights into international students' first year experience (particularly in business disciplines), similar issues will also be experienced by first year UK students (Zepke and Leach 2005) and further research would be useful to discern between the distinct groups.

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Peer Assisted Study Sessions (PASS)

The transition experience of student attendees and PASS leaders through higher education

■ CATHERINE McCONNELL AND LUCY CHILVERS WITH SUSAN CARLTON

Abstract

The Peer Assisted Study Sessions (PASS) scheme is a student-owned, student-led mentoring scheme involving trained student volunteers from levels-5 and 6 (second and third year), facilitating weekly study sessions for level-4 (first year) students. Both the first year students and PASS leaders benefit greatly from the scheme; students develop their course understanding, independent learning skills and a network of friends to study with. Leaders gain a wide range of leadership, communication and facilitation skills developing into high calibre, employable graduates. At this time of significant change in higher education (HE)(BIS 2011), PASS enables increased provision for student support with minimal demand on staff time, which is hugely beneficial for student learning. PASS enhances the quality of the student experience whilst promoting a deeper engagement with the university, and independent study. This paper focuses firstly, on evaluation of the impact of PASS on a range of student transition experiences into and throughout HE and on to employment. The findings, from evaluation of attending students and of PASS leaders, provide insight into ways of enabling the different types of transition that occur at different stages of HE for the students, and the development of leadership skills for the leaders. Secondly, a student experience case study enables representation of the experience and views of a PASS leader.

Background

Peer learning practices can afford students the opportunity to better understand the learning process (Donaldson and Topping 1996; Boud 2001; Falchikov 2001; Cook and Rushton 2008). Experienced peers can offer a new or less experienced student insight into the culture of the institution, and valuable support to manage the transitions experienced when arriving somewhere unfamiliar. There has been extensive national and international research into the first year experience and transition (for example, Harvey and Drew 2006; Yorke and Longden 2008; the STAR project

University of Ulster 2009; Whittaker 2008 for QAA), as well as research into issues surrounding student retention (Thomas 2002) and persistence (Horstmanshof and Zimitat 2003) in HE. Some of the key themes that can be drawn from the relevant literature include:

> Social and academic integration; managing and understanding expectations; preparedness; pre-entry support; meta-learning; support from tutors and peers; induction; embedded skills development; social peer support; developing learning behaviours; promoting first year learning communities; institutional habitus; cultural capital; the language of HE.

The Peer Assisted Study Sessions (PASS) model can enable new students to engage with the opportunities and practices (above), and to receive enhanced academic support. In other institutions, PASS has been proven to help retention (Blanc, DeBuhr and Martin 1983; Burmeister, Kenney and Nice 1996), motivation and achievement (Fostier and Carey 2007).

The growth of PASS schemes across HE institutions nationally has been significant, and the PASS model is derived from the internationally recognised US model of Supplemental Instruction (SI), an academic support and retention programme (Arendale 1994). SI was adapted by Kingston University in 1990, to better suit the nature of HE in the UK (Wallace 1995; 1996). The University of Manchester first piloted PASS in 1995, and are now the National Training Centre and benchmark of excellence, coordinating an ever increasing national network of PASS practitioners, of which the University of Brighton are active members.

The PASS approach

PASS is a student-owned, student-led academic mentoring scheme in which student volunteers from second and third or final year are trained in facilitation, leadership and communication skills to run small group study sessions for first year students. PASS leaders work in pairs to facilitate timetabled weekly or bi-weekly sessions, each involving approximately eight to twelve first year students. PASS has a non-remedial, proactive image, typically being embedded in challenging subject areas as opposed to targeting specific students. The sessions are intended to promote collaborative learning through exploratory discussion, and to provide an opportunity to share experiences. Most importantly, they are based on course materials already delivered through the module, and so reinforce the learning of the module rather than taking a stand alone study skills approach.

It is essential to clarify that PASS leaders do not re-teach course material, but are trained instead, to encourage students to compare notes, clarify what they read and hear, analyse, criticise, question and seek verification of ideas. In addition to consolidating knowledge of the subject and gaining deeper conceptual understanding, sessions also focus on integration of study and learning strategies. To ensure leaders are supported in their role, they attend regular debriefs with their PASS supervisor and other leaders in their discipline. Supervisors also conduct occasional observations to ensure that the quality of the sessions is maintained and enhanced.

PASS offers benefits to both student participants and the trained leaders; attendees develop their course understanding, independent learning skills and gain a network of friends to study with. Where asking questions in a lecture may seem intimidating for a student, PASS provides a safe place to explore the subject and admit not understanding (Coe, McDougall and McKeown 1999). Regular attendance at PASS has been shown to positively correlate with higher achievement (Fostier et al 2007; Cheng and Walters 2009; Parinson 2009). The students involved in the sessions as participants are the main beneficiaries of the system. However, PASS leaders are also beneficiaries: they gain a wide range of valuable skills for their cv and develop into high calibre, employable graduates (Coe et al 1999; Fostier et al 2007).

PASS at the University of Brighton

PASS was first implemented at the University of Brighton in academic year 2009-10, and was initially piloted with 20 PASS leaders in the School of Pharmacy and Biomolecular Sciences (PABS). There has been steady growth since then, and 2011-12 saw approximately 65 PASS leaders trained to facilitate PASS sessions across four more schools: the School of Applied Social Sciences, Brighton Business School, Chelsea School and the School of Humanities, as well as one partnering institution, Sussex Downs College, making PASS available to approximately 575 students. Table 1 gives a summary of PASS schemes at the University of Brighton in more detail.

Department	Courses/modules PASS is embedded into	Number of leaders	Number of groups	Approx. number of students PASS is available to
School of Pharmacy and Biomolecular Sciences	Biomedical Science BSc (Hons) Biological Sciences BSc (Hons) Master of Pharmacy with Honours Chemistry BSc (Hons) Ecology BSc (Hons) Pharmaceutical and Chemical Sciences BSc (Hons)	40 undergraduates	20	350
School of Applied Social Sciences	Criminology and Social Policy BA (Hons) Criminology and Sociology BA (Hons)	8 undergraduates	4	75
Business School	Accountancy and Finance BSc (Hons)	10 undergraduates	4	85
Chelsea School	BA (Hons) Sport Coaching and Development (top-up) BSc (Hons) Sport and Fitness (top-up)	2 postgraduates	1	25
School of Humanities	Creative Writing module	3 undergraduates	1	30
Sussex Downs College	Complementary Healthcare Foundation Degree	2 undergraduates	1	10

Table 1: PASS schemes at the University of Brighton 2011-12

To help provide an in-depth, first hand sense of experience of PASS, and to evidence the ways in which it enables cooperation in learning, the experience of one PASS leader follows.

A student's experience of PASS by Sue Carlton

My role as a PASS leader was one that I thoroughly enjoyed and found a creative and rewarding experience. Planning activities, facilitating sessions and working with other students really increased my confidence and communication, especially with public speaking. We made the sessions as engaging and helpful as possible, and it was great to see the supportive nature of the group develop throughout the year. The training sessions were informative and inspiring, covering all the skills that we would need. Although I think that the scheme was a little misunderstood by the supervisors in my college, the session feedback from the supervisors at the University of Brighton was constructive and helpful, and we always felt supported by them.

As I was attending a partner college, the ongoing training enabled me to familiarise myself with the university, and to meet other students and staff before I started the top-up course there the following year. This took some uncertainty out of the transition and my increased confidence enabled me to embrace the experience fully. Throughout the year, I have used all the skills that I gained through PASS and have developed them further. The facilitation and group management skills have been particularly useful when conducting focus group research in my final year.

In terms of employability, the PASS scheme has been an invaluable experience. Through the PASS sessions and the additional employability skills training, I am able to recognise and explain to employers all the transferable skills that I used and practiced, as well as show commitment, creativity and a work ethic. The scheme also enabled me to use and perfect skills such as leadership, team working, negotiation and facilitation in a practical environment before entering the world of work. In the future, I am keen to use this knowledge to continue into training and/or a learning environment in the business world.

Evaluation and measuring impact

Effective evaluation of the PASS scheme has enabled us to measure the impact on participants and leaders, and to inform future developments to the scheme. There are key questions that we have found useful to consider at the beginning, during, and end of each academic year. The questions (over) (Megginson et al 2006) have been helpful for us to use, to plan the evaluation strategy for the PASS scheme. The notes on the right column of the table indicate the factors we have measured:

Key question	Measurable factor
How will I know whether the scheme has been successful or not?	Improvement to the student experience Regular take up of the sessions (attendance at PASS) Improvement to assessment grades
What criteria will I use to make these judgments?	Quantitative: improved retention figures, grades Qualitative: feedback from students and leaders
What measures will I use to assess the scheme against these criteria?	Quantitative: data analysis of retention figures, grades, comparison year on year Qualitative: questionnaire with attending students and leaders to establish any improvement to their transitional experiences

Table 2: Evaluation key questions

The evaluation of PASS at the University of Brighton continues to develop; the pilot projects indicating a learning curve for the team. The process of evaluating the scheme includes research methodology, data organisation and awareness of the variety of measurable factors to be evaluated; all of which have become clearer and more through over time. The following section contains some snapshots of the evaluation findings from the first two years of PASS at the University of Brighton.

Quantitative findings

Student attendees' experience

All students, for whom PASS is available, were given a questionnaire to complete to provide feedback on their experience. Findings from the PABS scheme (116 responses: 67 Male, 44 female) in 2010-11, show the following, on a scale of 1 = lowest to 5 = highest:

- 68 per cent of students rated their experience of PASS as 3, 4 or 5 (n=113)

- 74 per cent of students believe that PASS has helped them in their studies (n=106)

- 59 per cent of students agreed/strongly agreed that they were more comfortable asking questions at PASS (n=105)

- 50 per cent of students agreed/strongly agreed that PASS helped make more friends on course (n=104)

- 44 per cent of students agreed/strongly agreed that PASS helped them make contact with students from higher years (n=104)

Attendance vs achievement

The correlation between students' attendance at PASS and achievement on two biology modules that PASS was embedded into within PABS, is shown in the graphs that follow. Figures 1 and 2 show that students who attended three or more PASS sessions achieved higher grades than students who did not regularly attend PASS, and this was found on both modules.

Module BY129: Average mark
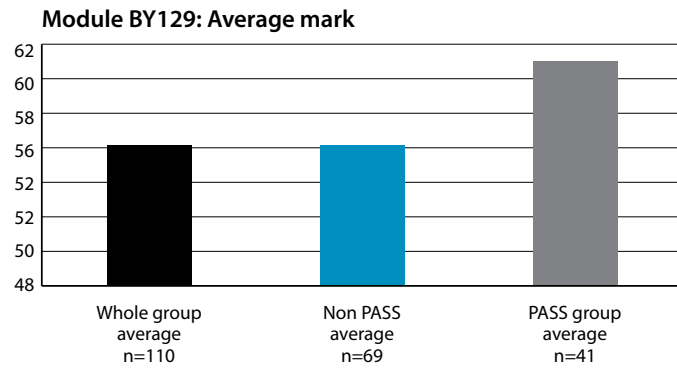
Figure 1: Student achievement vs PASS attendance for biology module BY129

Module BY130: Average mark
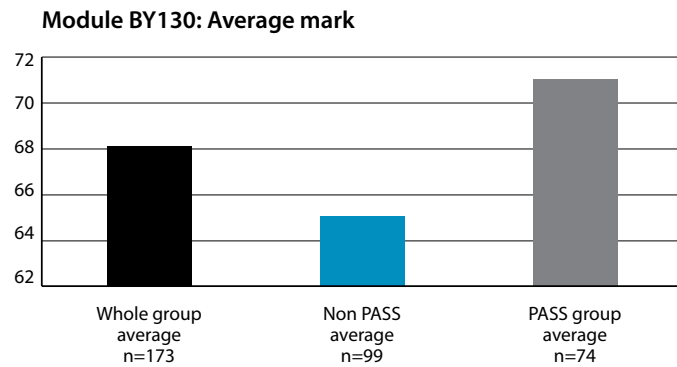
Figure 2: Student achievement vs PASS attendance for biology module BY130

The distribution of achievement across the varying grade boundaries for the students who attend PASS has also been examined, in order to establish whether it is just the high achieving students who attend PASS. It can be seen in both figure 3 and figure 4 that amongst the students who attended PASS regularly, there is still a normal distribution of grades, demonstrating that it is not just the highest achievers who attend PASS, but that students of varying abilities attend. The distribution of grades for PASS attendees shows that there is a larger proportion of students achieving higher grades.

Module BY129: PASS attendance vs grades

Figure 3: Attendance and grade distribution for biology module BY129

Module BY130: PASS attendance vs grades

Figure 4: Attendance and grade distribution for biology module BY130

Qualitative findings

Student attendees' experience

Students' comments on attending PASS from across the schemes demonstrate the positive impact that PASS has on their student experience, learning and personal development; comments included the following themes:

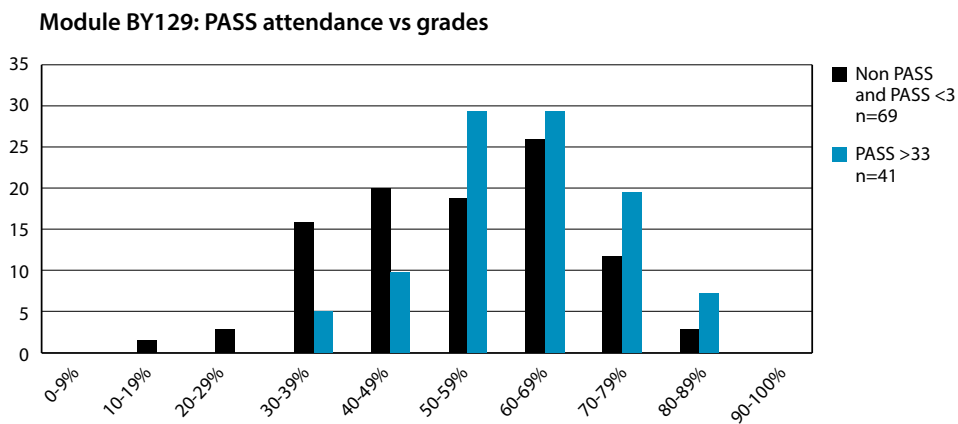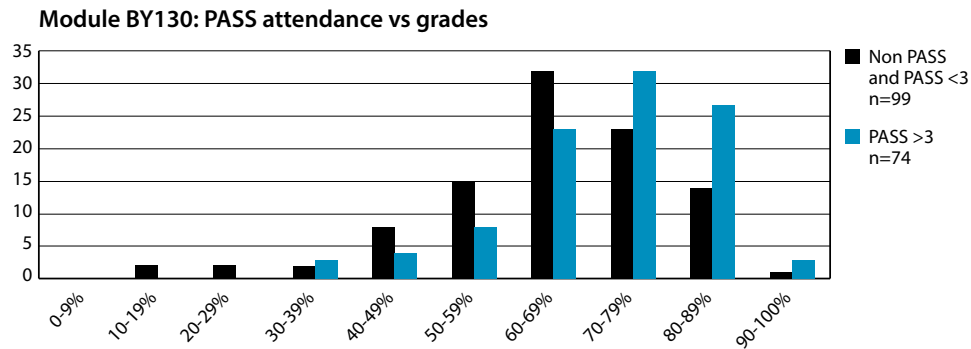### Increased confidence

'I think it made me feel more confident – at the start I felt like I didn't know anything and by the end I felt like I knew what I was doing' (First year Biology student)

Motivation to study

'PASS did motivate me to do work … when they give you a PASS topic you don't want to look stupid in the PASS session so you had to read up to contribute and I wouldn't normally do that so it helped me to revise … It was the only way I could get up and do work' (First year Biology student)

Improved study skills

'I am more confident after practising presentation skills … topics have been beneficial, i.e. writing essays, planning presentations, being confident to speak in front of peers. I found the PASS sessions very useful and insightful; having past students of the same course leading the sessions was particularly beneficial' (First year Social Policy student)

Peer support

'It was a lot easier because the third years were like your peers rather than someone who's gonna tell you you're wrong, you're stupid. PASS was good … it kept you on track really … with the lectures … they were enjoyable' (First year Biology student)

PASS leaders attending the University of Brighton national leader conference, November 2011

PASS leaders' experience

The PASS leaders' engagement with the student and staff community has shown the potential to have a major impact on their success, from integration, persistence and achievement, to graduate skills and employability. Through the use of an evaluative end of year questionnaire, the PASS leaders offer reflective commentary on their experiences:

Integration

'I enjoyed being able to mix with other years, make more friends throughout my course, come up with team bonding ideas and … seeing things click in peoples' minds as the group discussed a topic. It was really rewarding watching the group bond and friendships emerge. We helped them on how to reference, and where to find guidance on referencing. One of the sessions we did, also involved a presentation and we gave feedback about making eye contact and keeping the audience engaged and things like that' (Leader, School of Pharmacy and Biomolecular Sciences)

Persistence and achievement

'It's fun as well, as you get to go back and do what we did a year ago and it helps you remember and understand things you're doing now … some of the work I am doing at the moment is connected to what we're doing in PASS so it's good revision' (Leader, School of Pharmacy and Biomolecular Sciences)

Graduate skills and employability

'I've personally benefitted from being a PASS Leader through the recognition from tutors. It's useful as a means to revising and testing retained knowledge, learning facilitation skills, improv[ing] presentation skills and public speaking confidence' (Leader, Foundation Degree Business)

'PASS relates to the facilitation of learning. Becoming a PASS leader has given me strength in communicating with, and directing a group of students. This has led me to consider the possibility of teaching and gaining a Postgraduate Certificate in Education. On a very deep level, being a PASS leader has made me conscious of the effect of body language, eye contact and the way in which language can be used in discussions to stimulate and encourage. Being a PASS leader is a very rewarding means to achieving differentiation from my peers through an appropriate extracurricular activity' (Leader, Foundation Degree Business)

Graduate skills and persistence

'Acting as a PASS leader, I have the opportunity to talk about past experiences on my course. This has acted as a source of reflection and aided my personal development. It has allowed me to identify areas that I am weak in, and make plans for improvement. My role as a PASS leader has allowed me to explore and meet people at various Brighton campuses prior to attending in September 2011, smoothing the transition' (Leader, Foundation Degree Business)

Staff experience

Anecdotal feedback and comments from staff involved with PASS between 2009-10 and 2010-11 include:

- Seeing a reduction in the 'functional' student enquiries within personal tutor sessions, such as where to find services

- Receiving helpful feedback about the module or course that PASS is running on

- Students who were most engaged with PASS gaining the highest grades

- Since the introduction of PASS, students have been more engaged and participative in group discussion

  '…the quality, outcomes and esteem/identity of the…cohort this year have all seen a considerable upward shift' (Course Leader)

These comments demonstrate the positive impact of PASS to staff through the reduction of student enquiries that are more trivial in nature; receiving student feedback enabling real time changes and enhancements to be made where needed; and an improvement to student engagement in classes.

Conclusion

The PASS scheme continues to demonstrate and evidence increased student engagement and improvement to students' grades. It can also provide an 'early warning'

system for students that may otherwise have felt strongly about leaving their course. In this paper, we have discussed the PASS model and how it should ideally be implemented, as well as some of the emergent findings we have collated from the students and staff involved.

Moving into the planning stage for future PASS schemes across the university is now becoming a strategic and staged process, in order for the expansion of PASS to meet the needs of student groups who may benefit the most. The recent Access Agreement submitted to the Office for Fair Access (OFFA) reflects commitment to the retention and success of students, with peer assisted study clearly a priority for the University of Brighton, alongside additional targets relevant to this work, such as:

• better pre-entry and transition support

• peer assisted study sessions

• study skills support

We wish to further develop the leadership and employability of PASS leaders, and have developed a 10 credit, level-5 module, to accredit leaders' participation in the scheme through the submission of a portfolio of evidence of planning, delivering and reflecting on PASS sessions.

The issues discussed in this paper provide ample evidence that detailed planning, organisation and support for students and staff involved in peer learning is essential for the success of any formalised peer learning scheme. We have learned a considerable amount in the short time that PASS has been running at this institution. One area in particular that we wish to investigate further, is gathering quantitative data that may illuminate the relationship between attending PASS and the impact on retention, degree classification, and on leaders' employability and career progression. For further information about the scheme, please contact: Catherine McConnell at: c.mcconnell@brighton.ac.uk or Lucy Chilvers at: l.r.chilvers@brighton.ac.uk.

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Catherine McConnell and **Lucy Chilvers** are learning development specialists in the Centre for Learning and Teaching at the University of Brighton. Responsible for coordinating student academic enhancement projects across the institution, they work on initiatives such as PASS (Peer Assisted Study Sessions); ASK (Academic Study Kit) online study skills resources (http://student.brighton.ac.uk/ask), face-to-face study workshops, and online pre-arrival materials for new students. Current research interests include student personal, professional and academic development, employability, engagement, and investigating strategies to improve persistence and retention.

Susan Carlton was a PASS leader whilst studying in her final year of a foundation degree in Business at Northbrook College Sussex. After graduating, Sue progressed to the final top-up year of a BA (Hons) Business Management course at the University of Brighton. Sue has written about her experiences as a PASS leader, the impact it has had on her experiences of transition into the top-up year, and the employability skills she has developed from the experience.

'He just talks in a weird way' (transitioning FdA student)

Considerations of students' understanding of academic language

■ RACHAEL CARDEN

Abstract

Transitions between foundation degree students and third year top-up present challenging and transformational learning moments for students, including international students, some of whom can be troubled by the terminology used to define the learning, learning outcomes and assessment criteria. Research conducted with Foundation degree Arts (FdA) and University of Brighton students, explores student perceptions of the blocks to learning and knowledge construction which specialised language presents. Furthermore, in this paper, the links between this specialised language and learning blocks are explored with a specific focus on understanding and expectations of key terms such as analysis, evaluation and synthesis. The conclusions use research, experience and good practice suggested during work in progress dissemination, to offer ways forward to overcome the language and terminology blocks and enable student learning.

Context

I work in the field of Foundation degree Arts (FdA) delivery at City College Brighton & Hove (CCBH). I lecture on the full time foundation degree courses: Food and Culinary Arts; Travel and Tourism; Hospitality and Event Management and Business. The modules I teach are based mainly around business: Business Environments; Starting an SME (Small or Medium sized Enterprise); Accounting and Applied Learning Practices. Of these students, increasing numbers (60 per cent in 2010) are opting to continue their study by joining existing BA courses in their third year at the School of Service Management (SSM).

When I started teaching FdA students in 2006, I became aware that the learners appeared confused about what cognitive skills they were expected to evidence in their formal assessments. Study on various modules on an MA Education programme allowed me to explore this area more formally.

At the end of my first year's teaching, there appeared to be a positive correlation between learners who expressed confusion over what they were supposed to evidence in their assessments and low grade achievement. My working hypothesis was that if more explicit attention was given to achieving a shared understanding of skills requirements amongst the lecturers themselves, and subsequently between lecturers and their students, there may perhaps be more overall clarity, which in turn, may help students to achieve higher grades. This article details the research I undertook in this area between 2009-11, and offers suggestions on how we might work towards clarity of mutual understanding of the key terms/concepts at level-6.

The provenance of my students can be extremely varied; often arriving on the course with a mixed bag of skills, qualifications and experience. Some students have little in the way of formal education in the UK (mature students, overseas students and so on). Those with a more traditional educational experience with A-levels or BTEC qualifications, appear to find higher education academic terminology and practices easier to deal with than those who do not.

Research process

Given my initial concerns, and with the support of my department (comprising eight teaching colleagues), I set about investigating the problem area i.e. to explore whether there was a shared understanding of the terminology used on QAA (Quality Assurance Agency for Higher Education) and SEEC (South East England Consortium) benchmark level descriptors. These descriptors include terms such as 'analysis', 'description', 'evaluation' and 'synthesis', which are often cited and used as assessment criteria on our FdA assessments.

The research was conducted in two phases. Data was firstly collected from a cohort of six first year FdA Food and Culinary Arts students at CCBH in 2009, and secondly from a group of FdA students who had progressed to join the third year of BA (Hons) programmes at the SSM in 2010-11. Data collection took the form of questionnaires, focus groups and individual interviews. Further data was collected from seven lecturers at CCBH (via questionnaires) and six lecturers at SSM (questionnaires and follow up interviews). For details of sample sizes, methods and data collection see table 1 (over).

Part one of the research

Biggs (2003) defines the knowledge and learning habits that learners bring into the classroom as 'learner presage'. So, when I was involved in setting up a new foundation degree (Food and Culinary Arts) in 2009, I asked the new cohort of six students to rank their ability to achieve the learning objectives and skills as described on the SEEC (2009) levels descriptors for level-4, in order to investigate their 'presage'.

These descriptors (and those of the QAA), underpin the writing of our course designs and assessments. Five minutes later, when the learners were looking at me blankly, I realised that there was a problem. It transpired that the majority of these learners did not understand the terminology on the questionnaire. This led me to examine the assessments that I was about to hand out. On a single level-4 assessment I found all the following terms listed, with little or no explanation:

Target group: Year 2 lecturers at City College Brighton & Hove

Population	Data collection methods	When?	Sampling techniques	Response rate (%)	Sample size
8	Questionnaire	Nov 2009– May 10	Self selection: all were invited to participate by email	70	7

Target group: Year 3 lecturers at University of Brighton

Population	Data collection methods	When?	Sampling techniques	Response rate (%)	Sample size
21	1 Questionnaire	Nov 2009	Self selection: all were invited to participate by email	29	6
21	2 Interview (group)	May 2010		9.5	2
21	3 Interview (individual)	May 2010		19	4

Target group: 3rd year existing students

	Population	Data collection methods	When?	Sampling techniques	Response rate (%)	Sample size
Tourism International Event Management Travel Hospitality	342	Semi-structured interview	May 2010	5 students were recommended by an L3. All 5 were invited to participate by email	40	2

Target group: FdA top-up students

	Population	Data collection methods	When?	Sampling techniques	Response rate (%)	Sample size
Tourism		1 Questionnaire	Nov 2009	Self selection: all were invited to participate by email	36	9
International Event Management	9	2 Semi-structured group interview			36	9
Travel	7					
Hospitality	4	3 semi-structured individual interviews	March– May 2010	Self selection: all from Nov 2009 group were invited to participate by email	44	4
Total CCBH top-up students	25					
FdA top-up students (non CCBH)	6	Not tested	n/a	n/a	n/a	n/a
Total FdA top-up students	31					
Total students on 3rd year BA programmes	373					

Table 1: Sample sizes and research methods

'Criteria; evidence-based portfolio; critical self evaluation; extended professional action; analysis; personal reflection; transferable skills; report writing; managing a portfolio; appropriate academic resources; skills; knowledge; appendices; bibliography; professional attitude; on-going learning; valid secondary sources; high level of presentation; deadlines and, finally, Harvard style of referencing'.

Whilst the terms on the levels descriptors are used by lecturers who have a hand in planning courses and assessments, my contention is that these terms may not be understood by learners, especially those who have not attended formal study programmes in the UK. Furthermore, I had little evidence that there was shared understanding of these terms between myself and my teaching colleagues. These terms, therefore, require some explicit explanation or discussion. In discussion with my eight teaching colleagues, a general agreement was reached that some of these terms such as 'report writing' and 'Harvard referencing' would require at least one session of teaching in order to clarify the lecturer's expectations on assessments. For these 'big' topics, such guidance is often given in study skills modules, course handbooks and online tutorials. However, other 'smaller' terms, such as 'critical self-evaluation' and 'analysis', which if misunderstood can lead to module failure, are given less explicit attention.

Theoretical perspectives

Research by Brousseau (1997) suggests that some students plateaux in their learning when encountering epistemological obstacles (in this study a lack of awareness of what is expected when asked to 'analyse, evaluate and synthesise' different theories). Ellsworth (1997) echoes this idea with his 'theory of stuck places'. Artigue (2001) argues for lecturers and learners to try to identify these epistemological obstacles. He maintains that in order for learners to identify themselves as 'higher level' learners they must undergo an ontological shift, whereby their internal sense of self changes as a result of their new understanding.

Most recently, Meyer and Land (2006), Cousin (2009) and Wisker (2009) have investigated this shift through research into threshold concepts in the disciplines and conceptual threshold crossing in research learning. These researchers, amongst others, have endeavoured to identify which concepts are causing learners to get 'stuck' at certain points in their learning. The majority of this research has been based on difficulties of understanding discipline specific concepts (Lucas and Mladenovic 2006; Taylor 2006 and Cousin 2006). However, Edwards (2011:53) suggests that threshold concepts may also be applied to the 'field of generic learning development'.

In this study, my working hypothesis would suggest that a poor understanding of the lexical items on their assessments can inhibit student progress. Whether this is due to a lack of conceptual knowledge of study skills development, or lexical misunderstandings may be a fruitful area for future research.

Part two of the investigation

Discussions between myself, colleagues at CCBH and the SSM before 2009, suggested that students progressing from FdA Travel, Tourism, Hospitality and Event Management onto third year programmes at the University of Brighton, appeared to find this transition difficult.

Focus groups were held with 20 students progressing onto courses at the SSM between November 2009 and March 2010 (see table 1). The majority of these students said that transition had indeed been difficult for affective, cultural and academic

reasons. One of which, was the difference in use of academic language at the SSM compared to CCBH. One progressing FdA student said of a lecturer:

> *'He just talks in a weird way. It's really academic so it throws me. I think – should I know this?'*

Perhaps this shift from level-5 to level-6 was difficult because these learners were in a 'stuck place' (Cousin 2006), and perhaps they were stuck because of a lack of shared understanding of key terms used by their peers and lecturers? Furthermore, perhaps the experience of FdA students and BA students in the first two years differed in terms of the emphasis placed on academic language?

Part three of the investigation

Between March and May 2010 I interviewed a sample of nine ex FdA students who were joining a third year cohort of existing BA Travel, Tourism, Hospitality and Event Management students. I also interviewed three third year BA students who had studied on the BA courses from the outset.

Findings

Three key terms from assessments appeared to be difficult for learners to define: 'analysis; evaluation and synthesis'. As Meyer and Land (2006) argue, threshold concepts are often counter intuitive, and would therefore, necessarily be difficult to define without explicit discussion. Brousseau (1997) further suggests that adult learners in particular, need to engage in self debate in order to question pre-existing ideas, and establish new norms of understanding of 'difficult' concepts. This process, which he labels 'discursive reconfiguration', enables learners to overcome these plateaux. In discussion with SSM lecturers, first year BA students discuss academic requirements specifically. This was not focused on with FdA students at CCBH until recently, when measures were introduced as a result of continuing liaison with SSM.

At interview, when asked 'to define what they thought they were expected to do if they saw the terms: 'analysis, evaluation or synthesis', neither the progressing FdA students (FdA1-9), nor the progressing BA third year students (Ex1-3) were able to provide clear definitions. Table 2 (below and over) lists some typical examples.

Analysis	Evaluation	Synthesis
Ex1: *'It's like reading between the lines. I would assume that you'd analyse from the beginning to the end what they were actually trying to define or say, and to try to understand from your personal point of view as well. And the critical analysis is critiquing if what they say is actually valid and if somebody asks, you could say if it is right or not'*	**Ex2**: *'To try and go through it and try and put in tables or graphs'*	**FdA 1**: *'I don't even know what that means* (laughs). *Yeah, I'm not sure what synthesise means to be honest with you'* (laughs)
FdA 2: *'Analyse? Just read it and understand it and see what you're getting out of it'*	**FdA 4**: *'That would obviously be like, you know, a broad summary of what was in it and compare and contrast sort of thing'*	**FdA 3**: *'I've never heard of that in our criteria. I haven't seen it'*

| **FdA 3**: *'Not sure, really'* | **FdA 3**: *'It's like the erm, advantages and disadvantages, analysis of all the points kind of thing, the different sides of it and the different areas'* | **FdA 3**: *'Yeah, you know. I swear I haven't had that on my assessments'* |

Table 2: Learner definitions of the cognitive skills of analysis, evaluation and synthesis

Is the problem lexical or conceptual?

When interviewed, seven of my colleagues at CCBH and six colleagues at the SSM were able to provide clear personal definitions of these terms (lexical) and more importantly, how these terms might be evidenced in students' work (application of these terms i.e. conceptual). However, the language they used to define these terms, and the evidence that they were looking for to indicate these concepts often differed. This is not entirely unexpected. Other researchers in this area show that it is difficult for academics and students to reach a consensus of understanding (Eagleton 1983; Perkins 2006). Eagleton (1983:129) argues that:

> 'Language is like a sprawling limitless web where the constant interchange and circulation of elements is absolutely definable and where everything is caught up and traced by everything else'.

Adopting Brousseau's model of 'discursive reconfiguration' as a process for learner development, requires some initial discussion between learners and their teachers to create shared understandings of key concepts, and to enable learners to inter-nalise these concepts through a modification of previous understanding. Perkins (2006:43) highlights the need for this discussion to take place, stating that:

> 'Many teachers play the epistemic games of their disciplines fluently and automatically, and successful students ultimately need to do so as well. The problem is that many students never get the hang of it, or only slowly, because the epistemes themselves receive little direct attention'.

While lecturers are overtly addressing some of these concepts at level-6, for some learners the message is not clear enough. When asked to define 'analysis', FdA 4 said:

> *'Mmm … read it, then compare the two pieces of information and write an overall evaluation of the facts. I don't know. I just do it, I don't really think about it, but I did go to an event the other day and I knew they were saying how to analyse, you know what you're meant to do and I thought 'Oh right!' But nobody is actually saying to you how to do it, you know?'*

Other students were very aware that while they might have a clear idea of what they understood the key terms to mean, their lecturers might not share this view. FdA 1 asked: *'Well is, that my 'analysis' or your 'analysis' or my teachers' 'analysis'? It's hard to know'.* Ex1 was equally unsure: *'The thing is,* (laughs) *I'm not sure if you want to know what I understand as evaluation or my teacher'.*

Learners appear to be unable to define the term 'synthesis' at all accurately:

• **FdA 4**: *'They've never said synthesise. What is it?'*

- **FdA 3**: *'I've only thought of that in my dissertation in my key themes and key points'*

- **FdA 4**: *'Yeah, drawing out key points isn't that the same thing as synthesise?'*

- **FdA 2**: *'They have said talk about the key themes but they've never asked us to synthesise. I don't think I've seen that'*

Whilst they were unable to define the term 'synthesis', learners may have been able to define the term in other words, if they understood the concept of what was required. This needs further research.

A possible reason for these concepts not being addressed and clarified by us as lecturers, could be that the skills of analysis, evaluation and so on, appear at many levels below level-6 on the levels descriptors. Perhaps we as teachers, assume that these terms have been fully assimilated and understood by the learners in previous learning experiences.

Nearly 20 years as an English as a foreign language teacher showed me that intelligent students from abroad, often highly qualified in their native countries, can be rendered incomprehensible and appear to be less intelligent than their peers in the classroom. This is not through lack of intelligence or education, but rather through poor understanding of the language being used by those around them. Furthermore, students may have a conceptual understanding of what is required but lack the vocabulary to define the terms accurately.

The two students (from the original sample of six) who had the most difficulties defining the key concepts, also had real problems when it came to writing their dissertations. One of them dropped it and the other performed poorly. While there are many possible reasons for this, could there be a correlation between poor understanding of academic terminology and poor achievement on assessments? A possible reason for low achievement can always be cited as poor engagement with the course for many and varied reasons (family problems, economic issues, work constraints, language and so on). However, while these issues are unavoidable to a certain extent, surely clarifying our terminology and expectations is something that we can do something about?

Wenger (1998) advocates shared understanding as a means of becoming part of a community of practice. Without sharing and understanding what constitutes academic work, can our learners be said to be a member of the higher education fraternity? Will they undergo the ontological shift which allows them to be part of that fraternity?

Conclusion

There was a clear variance in lexical understanding of the terms used on level descriptors and assessments amongst the progressing FdA students in this study. There appeared to be a positive correlation between achievement of low grades (and non submission of dissertations in the third year) and those students who have a poor lexical understanding of academic language. This could indicate that these students did not have the conceptual understanding of the skills required to be

evidenced at higher education level assessments either. Further research needs to be undertaken to clarify whether this correlation exists. Furthermore, there appears to be a possible ontological 'status' difference between progressing FdA students and BA students, which may in part, be attributable to differences in understanding of the academic language used in the third year.

The first steps have been taken to clarify the lexical understanding of FdA students at CCBH. Some practical approaches that have come out of this research, discussions with colleagues at CCBH and SSM, and the annual Learning and Teaching Conferences (2011 and 2012), are listed below:

1 Unpick our assessments to identify key terminology and
   discuss these in classes. Preferably in small groups

2 Use clearer English to explain what we are looking for in assessments. Primary
   teachers (and UK learners) will recognise the use of WILF (**W**hat **I** am **L**ooking **F**or)

3 Write key terms on cards, and ask groups to work together
   to ensure a consensus of understanding

4 Ask students to write their own learning objectives given the
   criteria used at their level. One colleague recommended the use
   of focus groups to discuss requirements of assessments

5 Taylor (2006) advocates the use of a spiral syllabus to reinforce the application
   of key ideas, but emphasises clear initial definitions of concepts

6 Green (2007) advocates investigating 'learner presage' in order
   to investigate learners' previous understanding

7 Meet with colleagues teaching similar groups/modules
   to ensure shared expectations amongst us

8 Ask students to use the assessment criteria to mark a piece of work in groups, and
   then have a whole class discussion comparing marks given and justifications

9 Investigate the Readability' of our assessments using tools such as a
   'SMOG calculator' (Simplified Measure of Gobbledygook!)(NIACE 2009)

10 Make sure that we, as lecturers, give feedback on assessments at levels-4 and
   5, which specifically addresses the concepts we are purporting to test.

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Poster versus 'PowerPoint', paper versus thesis

Comparative studies based on the form of viva voce examination, which accompanies presentation of a formatted 'manuscript-type' thesis and its impact on M-level (level-7) and level-6 pharmacy and chemistry students, respectively

■ DR DIPAK K SARKER

Abstract

A number of pharmacy and chemistry students (n~7) were evaluated in terms of tracking their appreciation of an improved mode of assessment of their respective degree theses from a cohort of 180 students. Of this cohort about 25 per cent chose 'chemistry or biophysics' projects, and of this number about 15 per cent selected the author as a supervisor. The two classes of student are quite distinct and possess different properties and skills. However, both groups require considerable numeracy, critical understanding and lateral thinking ability in order to undertake physical chemistry or biophysics research projects with the author. These subject areas covered in-depth on their courses are perceived universally as some of the most difficult that they encounter on their degree courses (module evaluation results, not presented). Here, the contrasting of courses and of student expectations and professional preferences is matched against a survey of marks, and compared to the pattern emerging from (2003-09) theses, vivas and oral presentations.

Introduction

University of Brighton School of Pharmacy and Biomolecular Sciences (PABS) has approximately 140 pharmacist trainees (MPharm) each year on the four year course, which is followed by an external year of pre-registration study ('pre-reg'); validated (since late 2010) by the GPhC (General Pharmaceutical Council[1]). The Chemistry (actual name Pharmaceutical and Chemical Sciences (PCS)) BSc is three years (level-6; first year of university is at level-4 (UK)) or four years as a sandwich course with a mid-course industrial placement. Most (c 75 per cent) of the BSc students (n~c 40 each year) choose three years. The chemistry course is validated by the Royal Society of Chemistry (UK). Much of PABS teaching is shared (~35-40 per cent). Most

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1 Until late 2010, the Royal Pharmaceutical Society of Great Britain (RPSGB) was the sole agreed body to certify all pharmacists as 'ready to practice' in the UK (under the law)

pharmacists head for community or clinical pharmacy (Holloway, Jewson and Mason 1986; Williams 2007) with some going into industrial pharmacy and research. Most chemists head for industry (~60 per cent) or alternative careers and higher degrees (Hansmann 2009). The two courses can be viewed as producing professional trainee (pharmacist) or 'raw' diploma-graduates (chemist) with highly skilled technician training (Khan 2007). High scoring chemistry students are allowed to re-apply to join the pharmacy course, which they must attend from the start due to professional placement and records. Each year about 20 per cent of BSc Chemistry students switch to the Pharmacy (MPharm) degree in this manner.

The student profile

To MPharm (M-level or level-7 on completion) and PCS students (level-6 on completion), chemistry and mathematics/physics are usually considered secondary to biological subjects. Approximately 10 per cent of students fail to grasp key concepts in science to the extent of being 'fluent'. Of these, a significant proportion has difficulty with elementary maths like statistics, algebra and calculus. A further 20 per cent are 'uncomfortable' with numerical aspects of science courses, and if given the chance generally opt for 'essay-type' forms of examination questions (Chamorro-Premuzic 2006; Chien 2007; Khan 2007; Archer 2010; Mennin 2010). The top 20 per cent of the student body are very academically able and can apply to transfer to the MB BS Medicine degree (entry at level-4; first year) at the Universities of Brighton and Sussex Medical School (BSMS).
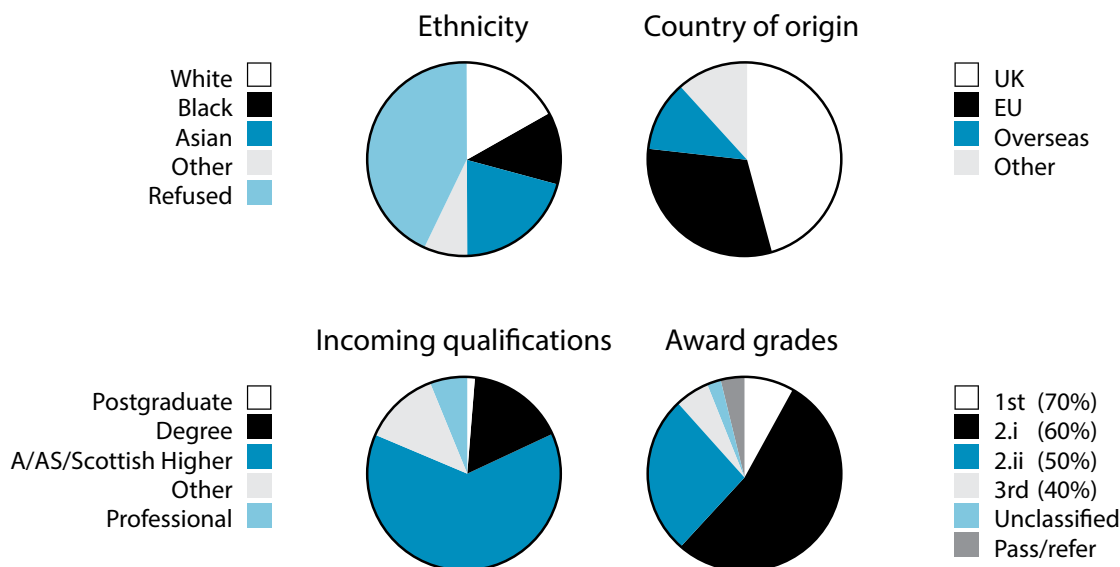
Figure 1: Student profile for Pharmacy (MPharm) and Chemistry (BSc) courses examined from 2006-09. Average data are presented for the purposes of clarity in complex data set, and in doing so, the minor variations year-on-year are removed. The data is presented to illustrate student diversity across an academic, socio-economic and demographic cross-section of the student body

Each of the three core ethnic groups White, Black and Asian (either British or non-British) are well represented (see figure 1). The Asian students represent the majority of ethnic groupings on the pharmacy course. In fact, (in contrast to UK

demographics,) PABS has the most diverse ethnic make-up of students in the university. Most of the students come from the UK, then the EU followed by Overseas (according to contemporary UK classification). This means that the working environment for PABS students is culturally 'enriched' (Holloway, Jewson and Mason 1986; Chien 2007) as is the clinical professions and the academic staff base.

Pharmacists generally have higher pre-university (A-level) entry qualification (ABB) than chemists (BCC). A-levels have come under discussion recently for 'poorly' describing, in some cases, the numeracy and literacy skills of university entrants (see figure 1). For pharmacists and chemistry students, the minimum compulsory chemistry scores are B and C respectively (or the equivalent). Our students come from a range of ethnic and socio-economic groups and enter with diverse qualifications. The South East of England is a relatively affluent area but which, catches students from inner city London and other nearby satellite towns and cities.

The most common exit degree award is an upper second class (2.i) where students need average marks of at least 60 per cent (see figure 1), followed by a lower second class degree (2.ii)(average marks of 50 per cent or more). Approximately 8 per cent of students score 70 per cent or more and are awarded a first class pass (1st). A very small proportion of students either fail or leave the course with an exit award (<4 per cent). All passes allow the pharmacy students to progress to professional (MRPharmS or international equivalent) examination by the professional body in their home country that has an agreement with the GPhC or equivalent body. On an integrated masters such as the MPharm year 4 (level-7), marks must be at 50 per cent rather than 40 per cent for a basic pass. Unlike other masters/postgraduate diploma degrees, the MPharm 'integrated masters' is graded 'First class to fail' rather than the customary UK gradation for masters and postgraduate diplomas of distinction (>69 per cent), merit (>59 per cent) and pass threshold of 50 per cent. Overseas professional conversion pharmacists taking the postgraduate diploma (OSPAPs) undertake coursework (Mennin 2010; Regehr 2010) alongside MPharm pharmacists, who already have a Pharmacy degree and so take 'top-up' modules/exams but not the masters (M-level; level-7) project. Most of these students are extremely high performing (Hansmann 2009) and already possess a non-UK pharmacy degree, but are required to take 'top-up' pharmacy exams in order to practice in the UK (Holloway, Jewson and Mason 1986).

The thesis and the assessment team

The thesis, or a newer scientific paper version co-exists for a range of purposes in the school. Where the student is permitted to submit a thesis (<20,000 words at M-level or level-7 (corresponding to 500 hours effort; 40 per cent in laboratory) or a word scientific paper (at approximately 7,000 words) but without an official count; both are equally warmly received by students. The précis form of submission for the scientific (research-type) paper is more academically challenging (Chamorro-Premuzic et al 2005; Romanelli, Bird and Fink 2009) but has scoring and parity of difficultly (Berthold and Renkl 2009) in that it is a much less time consuming effort from the student, and is considered to be easier to mark by the staff (60 per cent surveyed). This is the mode currently in most widespread use in PABS for 'medical', pharmacology and pharmacy degrees. This duality of form divides the staff-base, since some

teaching staff prefer the traditional thesis (Bors, Vigneau and Kronlund 2006) and yet most research-active and clinically-directed staff (Berthold and Renkl 2009); generally prefer the scientific paper model. On a personal level, it seems that the scientific paper model again, is more in line with the likely careers and job duties (Holloway, Jewson and Mason 1986; Hansmann 2009) of the pharmacy cohort. This practice is certainly less time consuming to grade and mark, since most academics are well suited to reviewing scientific papers and do so routinely (Romanelli, Bird and Fink 2009; Spiby and Munro 2009). The format of the assessment usually comprises one supervisor (two in some cases, for example, where there is part-time work) an examiner (second examiner, where topic matching is difficult) and a chair. A 'medicinal chemist' will mark 'medicinal chemistry' projects and a statistician will mark 'medical statistics' projects for example, and this system works well. Marks are agreed across the team and some secondary (even third) marking is always undertaken. A significant proportion of theses across all tutors are subject to an external examiner review.

Method

In situ key educational diagnostic tools

Traditionally across the university, project assessment was graded via presentation and page by page and thematic dissection of work (Berthold and Renkl 2009). We now use a revised method of assessment for pharmacy students. The traditional 'viva voce (viva) model' is still used for all chemistry project theses (Khan 2007; Spiby and Munro 2009). Scoring parity is needed for forms of assessment to be valid, and we need to question the role of the oral examination in the thesis, which usually accounts for between 42 per cent (MPharm; moved on new programmes to 34 per cent) and 34 per cent (BSc) of the marks of the final year of study and thus, whether the student is considered a trainee, or a graduate ready to undertake a job immediately, both could be true with some differentiation (pharmacy, hospital placement) much of the common theme teaching is shared (35-40 per cent). This also means students can dramatically alter grades if 'hanging around' the borderline by the production of a good project mark and inadequate marking by the examination panel.

The algorithm for the addition of project marks is given by the following formulae:

For the BSc chemistry course (7-8,000 word thesis, 360 hours effort with 44 per cent in the lab) and 'old model' of pharmacy assessment this is constituted from a <20,000 word thesis (A), presentation (B) and viva voce (C) scoring thus:

$$Total = A + B + C \qquad (1)$$

For the new MPharm pharmacy course assessment, this is constituted from a <20,000 word thesis (or submission of a thesis as a scientific research paper), which comprises a research paper/thesis (A) and poster (D) and Q and A session/viva voce (E) scoring thus:

$$Total = A + D + E \qquad (2)$$

Where A is made from introduction, methodology, results and discussion of results (45 per cent), bibliography, presentation and student performance (supervisor only, 20 per cent), B is made from slide quality, presentation quality and content (major component), C is from pro-active discussion, understanding of any hypotheses, project design and methodologies used, clear conclusions, ability to expand fluently on points raised and being conversant with relevant literature and background (Chamorro-Premuzic 2006; Westbrook and Talbot 2009) on 'trawling' through thesis by supervisor and examiner (equal weighting). D is made from the elements contained in B but only relevant to the poster rather than slides, and E is made from the same elements as C, but is entirely marked on queries resulting from the poster without direct reference to thesis. The poster must make a synopsis or précis of the elements contained within the thesis, in a simplified form. The duration of viva is equivalent in all cases. The 'thesis', oral presentation/poster and 'viva' account for approximately 70 per cent, 15 per cent and 15 per cent, respectively on the MPharm and for the BSc Chemistry course the marks are composed of a pre-thesis submission report mark (5 per cent) 'lumped' in with performance termed 'conduct on the project' worth 20 per cent in total, a thesis mark comprising 60 per cent and a 1:1 presentation-viva mark worth 20 per cent. On both degrees the supervisor and an internal reviewer agree marks across all assessments, and typically these are 0-5 per cent at 'odds'. In all cases, following further discussion and sometimes with the watchful eye of the external examiner, marks are agreed (as per general examination and assessment regulations) and occasionally marginally lowered or raised.

Notably the MPharm thesis accounts for more of the course aggregated mark and the students operate at a higher level with greater expectation, where viva and presentation are weighted more that student input (i.e. 20 per cent of 70 per cent) as befitting better communication and presentational experience. This probably arises because of the prerequisite communication elements of the pharmacy course, and the practice at social and public speaking that comes from this.

Results and discussion

Progression (student passes and ratios) through years seems unchanged given variability and sampling, topic and tutor restrictions for research projects (Bors, Vigneau and Kronlund 2006; Khan 2007). Comparison of the 'viva voce model' and the 'poster defence model' (figure 2), clearly show no real difference in the marks obtained when matched against sample (n) number measuring random academically strong and weaker students, and the disparate range of topics encountered. Such topics for the author can range from 'extreme' proficiency in advanced mathematics (difficult) to simple running of spectroscopy equipment and its reportage (easy). The graph (see figure 2) shows three other key salient features. The 'general' student performance is close to the illustrated averages for the seven years data presented.
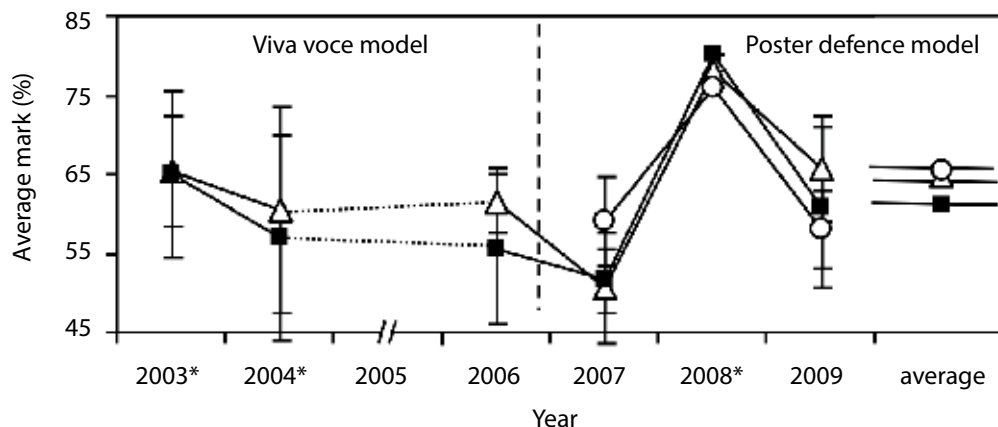
Figure 2: Pharmacy (MPharm) performance over a defined period (years). Academic performance data is presented for (end of) academic year 2008*, which involved only one student, with the second highest degree mark of the entire cohort and additional data for year 2003* (two students) and year 2004* (one student obtaining a first class mark in project and degree). The figure describes the data for the pharmacy thesis (□), the pharmacy viva voce (n) and the degree 'classification' or completion course 'mark' across the students sampled (¡). Sampled sizes vary, there are customarily 5-10 students per research project cohort, 2003 and 2006 data (n=7), 2004 and 2009 (n=5), respectively were larger and 2007 (n=2) and 2008 (n=1) were smaller, respectively. The y-axis scale is magnified so that the data at first glance appear differentiated but are actually similar across the time periods examined. There were no MPharm research students in 2005 and no quality or other inference can be made from the seasonal uptake of projects.

Stochastic variation (Chamorro-Premuzic 2006; Mennin 2010) seems entirely congruous with random fluctuation, the errors bars showing standard deviation (variation) around a point are of the order of 3-8 per cent illustrating similarity in marks obtained, and similarity in the academic skills of the students across the time period. Most students seem to obtain marks in the window from 50 to 65 per cent (2.i), which is entirely congruous with the statistics presented in figure 1. This clearly points at the parity of examination rigour between thesis/viva and coursework/examination assessments, and examination and/or coursework aggregate marks and thesis/viva aggregate marks indicate students' ability in alternative forms of assessment.

Simple interpolated or inferred mathematical and statistical analysis is not congruous with a proof of principle, since the sample size, n examined here, is generally small (<10). Thus, the absolute significance of a null hypothesis, with respect to a small snapshot in time, is difficult to ascertain with relatively, anecdotally, small n-values. Given this, cursory and elementary F-test and t-test (*p>0.05) data do, however, show no significant difference between cohorts, years and format of assessment. Again, the attachment of 'too much weight' to this analysis is slightly flawed because of variable sample sizes and internal variability between the students, corresponding to the data set examined. Due to an inherent 'limitation' in the comparison it is therefore, deemed more appropriate to evaluate graphical data.

A trivial reciprocal correlation (no effective one) between year 2007 and year 2009 data concerning grades (see and compare the graphical data, figure 3) can be seen across the data set and each of the courses. Due to the small (changing skills between cohorts) sampling 'pocket' (the nature of the study) and a variable 'variable quality' or prowess and academic level of students, this further negates the validity

of undertaking numerical comparative statistics. Rather, one can better follow graphical trends and pay attention to student commentaries and academics' attitudes (n >20) based on experience. Here, comparison of the generalist trends in figures 2 and 3 provides a better picture or 'snapshot' of the similarity across differing modes of examination and secondly, student perception and preference (Chamorro-Premuzic et al 2005) when all is taken into account. Finally, one finds that the assessment form possesses both the necessary rigour and discriminatory potential, and the cosmetic presentational and compositional form of the assessment is largely inconsequential when overall equivalency is paramount.
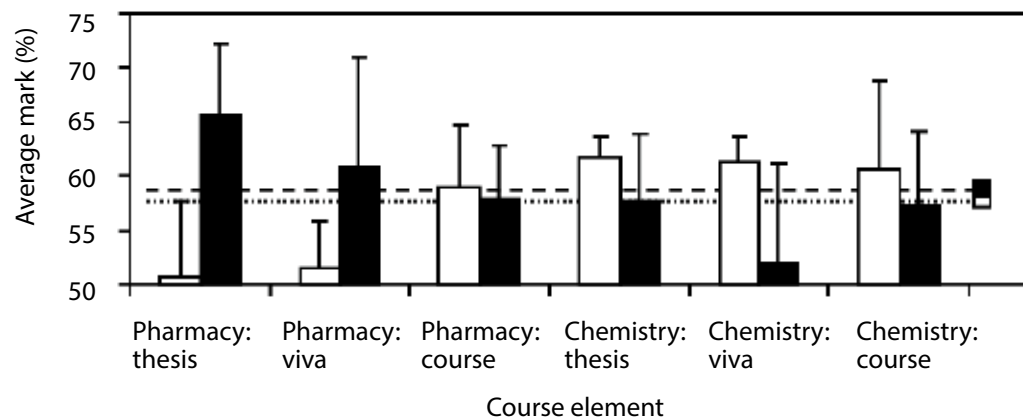

Figure 3: Comparison of Pharmacy (n=2) and Chemistry (n= 4) degree performance for 2007 (□) and 2009 (■) measured (n=5 across all groups) on a personal cohort of the respective courses. Broken lines indicate the average research project mark for 2007 (…) and 2009 (---). The -axis scale is magnified so that the data at first glance appear differentiated but are actually alike across the different elements of assessment examined both pharmacists and chemists, respectively and ensemble

PCS and MPharm classifications from respective methods of oral assessment seem consistent. The 'dip' for Pharmacy students in 2007 represents two students that just passed the course. Likewise the 'spike' in figure 2 in 2008, represents the data from a student that scored 60-80 per cent in all assessments in the years used to calculate the degree classification. The general consensus in the data is that averages for thesis correspond well to overall course marks, which suggest both forms of thesis and viva provide a good diagnostic tool of student's ability. Also, the marks from thesis and viva are not significantly different across the two courses (see figure 3) suggesting that both forms of assessment work equally well (according to the scale of the y-axis). The average marks seem to lie close to 58-59 per cent with a standard deviation of 6 per cent across all forms of assessment. Anecdotally, it can be observed for the same reason as that pertaining to the 'objective structured clinical evaluation' (see later), that thesis marks are quite often better than viva marks (Díaz et al 2001; Chamorro-Premuzic et al 2005; Berthold and Renkl 2009) and thus, are more 'sensitive' for an evaluation that accounts for student 'nerves' and is probably a better idea for fairer assessment.

Student learning and the student experience

As university teachers we find ourselves asking, what is the point of project, viva and degree for pharmacists? Well, in this case it is to obtain a 'pre-reg' place and

consequently to pass the rigorous professional exams (Díaz et al 2001) to meet the criteria of the GPhC or equivalent body in order to practice (Holloway, Jewson and Mason, 1986; Regehr 2010[2]). The BSc chemist perspective is significantly and mindfully different (Khan 2007; Hansmann 2009). In this case the project and degree provide experience in the 'art of laboratory' or experimental/theoretical skills (see comments around figure 2) sufficient to allow them to be trained further in industry, or on a suitable masters degree or PhD (Romanelli, Bird and Fink 2009; Regehr 2010). At the same time, their diploma does not mean much if they are unable to obtain professional and chartered (CChem, or equivalent) status as 'chemical scientists' according to the Royal Society of Chemistry (or equivalent), and thus obtain membership (GRSC, MRSC) or 'CChem' status or entry to another programme or adjunct profession. Many BSc students go on to further study (c 25 per cent; this figure is about 5 per cent for pharmacists, five years after degree) in contrast to pharmacists that may study professional exams or professional (Williams 2007) doctorates eg DPharm as part of continuing professional development (CPD).

At some point it is necessary to ask ourselves about the poster and what it is trying to do. One 'school of thought' suggests that it is a trivialisation of the precise and eloquent form of presentation that takes place around a thesis. This is probably not the case, since many a good student crumbled in front of a harsh supervisor, rival/antagonistic or egotistical examiner (Díaz et al 2001; Bors, Vigneau and Kronlund 2006; Bertold and Renkl 2009) with a particular 'axe to grind'. A poster means the student can reflect on, and select the 'best' aspects of their work, just as an academic at a conference may do. Reserving the uncertainties for follow-up questions (see data in figures 2 and 3), and the notion often cited informally and anecdotally by staff that this is easier is unfounded. The argument goes that this is all very well and good, but has the poster got limited depth (how can an alternative form have limited depth?) Well that in turn, depends on questions, the experience of the examiner and the thorough reading of the poster content. Smart examiners can always find weaknesses in understanding or accuracy to probe students, understanding irrespective of the presentational mode (Díaz et al 2001; Khan 2007; Bertold and Renkl 2009; Spiby and Munro 2009; Mennin 2010). Finally as examiners, it is about being fair to the student and not expecting the knowledge of a '10 year experienced' post-doc from a undergraduate after three or four years of higher study. The author with the assistance of MPharm and Chemistry students (see figures 1-3) and a survey of fellow academics attitudes, concludes that the 'traditional viva' is rather limited to context, questions and how the student is feeling on the day (Chamorro-Premuzic et al 2005; Bors, Vigneau and Kronlund 2006), examiner availability, and is much too focused, unnecessarily hard and stressful. This has been seen routinely across institutions and degrees at various levels. The poster and paper form are easier to access, read, digest and find interesting, and this is now the common thinking among about 50 per cent of lecturers (n>100) in this university and other institutions where the author has undertaken viva's on BSc, MSc, MPharm, MPhil or PhD students (or the overseas equivalents).

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2 ibid

MPharm and medical students already experience a form of 'rotating viva' called an objective structured clinical evaluation (OSCE). These involve role-play in the presence of practicing clinicians or real cases where prospective patients have 'complaints' or 'medications' to be diagnosed and prescribed. OSCE's are 'dreaded' by most students (Chamorro-Premuzic 2006; Westbrook and Talbot 2009; Mennin 2009) on 'clinically-related' courses such as the MB BS, MPharm or BSc in Nursing because of the time constraints (six stations/diagnoses in an hour) and inherent stress (Díaz et al 2001; Bors, Vigneau and Kronlund 2006) of being placed in a 'real-life' scenario. Consequently, the poster (which is practised and undertaken at different levels throughout a course) and new form of viva (as fitting with the OSCE and pharmacy dispensing examinations) fit-in more logically with existing forms of examination. Although the 'stress factor' for students in viva's of their thesis is less than OSCE's.

Student preferences of exam format

Anecdotally, some student quotes serve to indicate the depth of their feelings towards one-to-one viva and older model-type examinations. One student stated categorically:

> '…*in the poster you get to explain your motivation for doing an experimental procedure and the design, execution and meaning of the results in a less hostile environment*'

Whilst another criticises:

> '*the poster format always allows you to be visually prompted, well-prepared and confident in your answers*'

By inference (Holloway, Jewson and Mason 1986; Archer 2010; Mennin 2010) the sit-and-talk-through-the-thesis approach obviously fails to fulfil the student's expectations. Other students have stated:

> '*I like these [scientific] paper formats, it makes me feel like I'm really doing publication worthy research and that's what I was looking forward to in my last year*'

Others have concluded that:

> '*I don't think there is a real difference between the two or else they [the university] wouldn't give us the choice*'

The latter point is obviously quite correct (Chamorro-Premuzic et al 2005) but it is also perhaps about routes to obtaining the same thing, and the benefits of one method over another for the student.

Viva voce form of assessment to project work

	MPharm format	BSc Chem	Other UG/PG	MRes to PhD
A) Academic perspective				
1) Viva feedback	RAPID (65 %)	SLOW (50 %)	SLOW	in situ (usual)
2) Technical provision	GOOD	GOOD	GOOD	GOOD
3) Facilities	GOOD	GOOD	GOOD	GOOD
4) Viva relevant to 'profession'	YES (70 %)	UNCLEAR	UNCLEAR	YES
4) Fuller appreciation of research	YES (80 %)	NO	NO	YES
5) Tuition needed on poster presentation	YES* (20 %)	NO	NO	YES
B) Student perspective				
1) Preferred format	POSTER (>70 %)	POSTER (50 %)	NO DATA‡§	POSTER
2) Fairness	VALUED** (~90%)	STRESSFUL (50 %)	STRESSFUL	STRESSFUL§
3) Opportunities for cross-comparison between students	YES (40 %)	NO§	NO§	NO§

Note * actioned for next academic year

** Both MPharm and BSc Chemistry students (2003-09) commented on the awkwardness of projector presentations, trawling through thesis with supervisor and examiner and a one-to-one viva based form of assessment. This is also true for PhD programmes and a major difference between UK and European PhD assessments. The traditional viva voce still has some clear-cut applications and a role to play.

Key to symbols used: § – closed environment, ‡ – objective structured clinical evaluation (OSCE) format - not part of equivalent assessment mechanism, % indicates the number of respondents (where available).

Table 1: Feedback on modification of the assessment for the MPharm in contrast to the traditional 'present and respond viva'. MPharm students are allowed to submit a dissertation in traditional thesis form or as a scientific paper; only MPharm students are currently permitted to be examined by a poster defence model involving an inter-digitated viva voce

Student appreciation and feedback (Archer 2010; Mennin 2010) as revealed in table 1 (above) provides some interesting 'food-for-thought'. Among the comments routinely fed-back are that a poster informs the student via comparison open session for subordinate year viewings (Westbrook and Talbot, 2009; Archer, 2010; Mennin 2010; Regehr 2010), and through the student 'grapevine' (Mennin 2010) lets the students more easily know what is expected of them. Additionally, supervisors often keep A4 paper versions of 'good' posters for students to see what is expected. The 'traditional viva' can be considered a somewhat fragile (yet intrinsic and well-loved part of academe), which depends on relationships with examiners (friend-or-foe, scenario) and elements of supervisor-examiner rivalry (Bertold and Renkl 2009) and in the case of the harshest of viva's, the student can be caught up in this 'hostility' and competition.

One student dryly commented on the traditional thesis:

> *'well, we don't need to know how to produce a thesis unless we go on*
> *to do a PhD, so for us pharmacists knowing how to write a critical*
> *review or a brief that could be related to a report is a much more*
> *useful tool than knowing about writing an academic thesis'*

The author, along with many other academics[3] and trainers (Bertold and Renkl 2009) tends to be in agreement with students on this. Since professional degrees relate to their profession, surely we should be preparing students with the knowledge and training to do their job (Holloway, Jewson and Mason 1986; Williams, 2007; Spiby and Munro 2009; Westbrook and Talbot 2009) and not to follow in our footsteps (Archer 2010). Trainers of professionals that stick rigidly to the old model for no reason other than 'tradition or paradigmal loyalty', have to 'ask' themselves about the difference (if any) between degrees to do jobs, and degrees for academic subjects. New waves of PhDs and higher degree students are also challenging the place of the thesis, if as researchers and academics it does not allow them to 'flex their muscles' in writing technical reports, scientific papers, conference posters (Romanelli, Bird and Fink 2009) and lectures. The currency of researcher performance in any 'seriously-minded' institution in the physical and life sciences and appropriate conclusion of a body of work still remains the research paper, as highlighted in significant evaluations, such as those needed for the Research Exercise Framework (UK), journal editorships, visiting professorships, international research collaborations, professional referee status, scientific prizes and awards.

Feeling amongst academics

As already indicated, the vast weight of evidence from student polling (Archer 2010) and attitude surveying, is that the viva within the poster and the 'scientific paper' format of thesis over the voluminous version seem better received by the student body. In fact, students to whom this option is not yet available look enviously at the paper writing method and 'lucky' students to whom this applies. It is clear (anecdotally and in presented data) that there is no 'easier' mode of assessment for both students and academics (Chamorro-Premuzic et al 2005; Mennin 2010) but there are some that are perhaps more 'palatable' or 'fitted to purpose'. The author and his students are not convinced that the model should be applied universally (Khan 2007; Archer 2010; Mennin 2010), since the poster format requires more confidence from students. As suggested in table 1, perhaps training and experiential practice would aid students in public speaking and make oral presentation less strenuous. As an aside, the author and surveyed colleagues still feel a significant 'buzz' of 'fight-or-flight' hormones before they lecture to students and certainly in front of peers at a conference. A background level of anxiety is entirely normal and helpful. However, provided with skills this form of information dissemination is made less daunting (Bertold and Renkl 2009).

There is also a time element to any form of assessment. Since wordy and verbose theses take 'a long time' to read and 'digest' (as pointed out by more than a dozen tutors) the tendency can be to 'scan read' to the point where something 'catches your eye', usually a favourite or 'pet' subject area. In this case, the student is forced to answer (ibid) and get side-tracked on a theme which can be marginal. There is probably less scope for this with a viva based solely around the poster. One has to decide the objective of a viva for an experimental–based piece of work and whether it is

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3 University of Brighton, University of Rennes, University of Teramo, University of Sofia, University of Nantes, École Normale Supérieure, University of East Anglia teaching colleagues.

about memory or about reflection, deeper understanding (Bertold and Renkl 2009; Regehr 2010) and thinking on your feet. If the latter is the case, a poster is the better approach given that there is scoring parity (see figures 2 and 3). As already stated, this all relates to the perception of the role of the degree for particular courses and what it is intending to do. Certainly, for the pharmacy and medicine student (Archer 2010; Mennin 2010) the purpose of the degree is as an entry into a profession, and the degree serves only to provide the 'skeleton' of background information to build upon as part of considerable CPD.

Conclusion

There was no real difference (in outcome or marks) between the two forms of oral assessment and understanding (Williams 2007; Romanelli, Bird and Fink 2009; Spiby and Munro 2009; Westbrook and Talbot 2009). Additionally, there was no significant difference between the marks of two course cohorts (see figure 3) in terms of outcomes. There was also no variance or inconsistency in terms of academic assessment and parity of assessment (see figure 2). Any differences seem to be in terms of the perception of students (Bors, Vigneau and Kronlund 2006) and in improved on-job specification for assessment (poster). The poster provides a whole view, is easier for the internal examiner (whose area of research expertise may not exactly match examination/thesis) to grade, and provides no opportunities for 'cue-card' verbatim reading and responses. In practical terms, the paper and poster format constitute a 're-jigging' of viva and viva presentation where MS PowerPoint slides or other live presentation is read.

Motivation for a change (Khan 2007; Archer 2010) is driven by the viva voce climate, poor feedback (see table 1), staff and student 'resentment' of the form and duration of the assessment as a 'hostile exam', and the push for more fair and pleasant forms of rigorous student evaluation (Díaz et al 2001; Bertold and Renkl 2009; Westbrook and Talbot 2009). For a traditional viva to work well, it often means that experience of multi-media presentation is needed and this is not common among students. Consequently, cue-card usage and frequent projector problems (stress for technicians and student) are commonly seen. Where students attempt to be helpful and provide 'lecture-style handouts', these serve exactly the same function as posters, with the poster generally being better received by most academics.

Finally, the poster/paper formats are the method for higher study (eg DSc, PhD, MPhil, MRes) interim assessment or the external examiner's rapid assessment of student ability in some institutions.[4] So this form of assessment is more congruous with post degree and even degree level study (Mennin 2010). Pharmacists enter another league as graduate professionals (in line with doctors and lawyers)(Holloway, Jewson and Mason 1986; Díaz et al 2001; Mennin 2010) and so are expected to be experts at degree level and not just trainees for further education; so in order to do a profession-safeguarded job, they must demonstrate technical eloquence, fluidity of information transfer and an ability to integrate experience and learning. These

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4 University of East Anglia, University of Hull, University of Manchester, University of Bristol, University of Aberdeen, University of Nantes, University of Sofia, London School of Pharmacy, Free University of Berlin, University of Leuven, University of Paris-6

are essential traits and are honed in forms of communication such as the poster and the question and answer type of viva. Of course there is a strong element of CPD (Holloway, Jewson and Mason 1986; Williams 2007) and sustainability of continuing education in all subjects and hence, not all skills needed for the profession can be obtained within the university.

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Researching my practice of undergraduate supervision

■ DR KATE WILLIAMSON

Abstract

Undergraduate dissertations often form the transition from 'student' to 'researcher'. In the current era, when research projects are giving way to more broadly based 'enquiry' approaches, this transition is worthy of greater scrutiny. This paper considers the supervisory process through an ongoing project with undergraduate dissertation students and their tutors. It looks at supervision as a socially constructed product of mutual expectations between student and supervisor occurring over a period of time and subject to negotiation and change. The inter-face is a personal relationship, often one-to-one, and interpersonal skills on both sides are regulatory dimensions.

The project explores the understanding of supervision as a particular form of teaching and learning, and within that, looks at how students move along a developmental pathway.

Introduction

This paper comes out of research into my own practice in teaching research methodology to undergraduates in the School of Education over a ten year period (2001-11). Over this time I came to focus on the nature of the supervisory relationship and the possible link between supervision and critical thinking. The research started with a project in 2007 and was followed up with another in 2011; this paper presents the development of my thinking on the nature of supervision.

The initial project 2007

In the first study in 2007, based on data rooted in the experience of 165 ITE (Initial Teacher Education) full time, final year undergraduate students undertaking a research project, and their associated learning within a supervisory relationship in the academic year 2006-07, data was collected by means of a questionnaire. There were 164 responses, the content focusing on the students' experience of supervision, and results were reviewed under the headings of a) satisfaction with supervision, b)

the characteristics of 'good' or 'bad' supervision and c) an exploration of the contribution of supervision to their learning.

Three-quarters of the respondents (134/164) were very satisfied with tutorials around their dissertation, and enjoyed and valued the one-to-one relationship with a supervisor that this almost invariably implied. They were able to illustrate their understanding of what makes a 'good' supervisor and a 'bad' supervisor, an understanding which depended almost entirely upon supervisor accessibility. Where contacting them was seen to be difficult or impossible, they were invariably characterised as 'bad supervisors'. In five cases poor interpersonal relationships were stated, but the causes of such friction appeared to be rooted in issues outside the supervisory process.

The majority of students wanted more tutorial time. However, none seemed able to conceptualise the supervisory relationship as a learning process, and none was able to articulate any product it might yield. To the question 'Did your tutorials help you learn?' responses were invariably couched in terms of the characteristics of the supervisor. Their supervisor was 'reassuring' , 'encouraging', 'calming', 'provided ideas', 'gave feedback'; the good supervisor was positive, supportive, critical, and always helpful. Not one student articulated their learning in any other way and I was struck by the blandness and flatness of these descriptions. All these words or phrases have a place in the learning process, but one or two on their own do not give much insight into conceptual development. In the context of teacher education, where the articulation of learning is the focus of student development this seemed particularly odd.

Some theoretical considerations

Wisker's work on supervisory relationships (2005) detailed and discussed the two models of supervision presented by Acker et al (1994) which are: a) 'technical rationality' focusing on techniques of supervision, and b) 'negotiated order' which emphasises fluidity and change. Wisker (ibid) developed the negotiated order model against a constructivist background, seeing supervision as a socially constructed product of mutual expectations between student and supervisor, which are subject to ongoing negotiation over a period of time. She, like Carroll (2005), emphasised the interface of personal relationships which were most often one-to-one. Both had worked largely with postgraduates, but my own experience and research had made it plain that this one-to-one is also highly prized in the undergraduate context, and by both partners (Williamson 2007). This contrasts with evidence favouring small group supervision (Akister et al 2009).

Overall there are some gaps in what has been called 'supervision pedagogy' (Manathunga and Goozee 2007), Todd and colleagues (2004) point to the preponderance of postgraduate research over the undergraduate version, whilst Armstrong et al (2004) claimed that supervision is seriously overlooked in higher education research in spite of its complex nature and crucial significance.

There seemed to be a need to develop an understanding of the supervisory relationship in both students and tutors on my modules. I specifically needed to recognise

the role of language in developing this understanding, so that I could manipulate this in the early parts of the students' research preparation process, in taught sessions, module documents and tutor meetings. The data from 2007 showed a curious lack of articulated understanding of 'supervision as learning' by the students.

Wisker, Morris and Cheng (2009), discuss threshold concepts and conceptual threshold crossing as significant elements of the postgraduate research process. Their research raises interesting questions about students' awareness of 'learning moments' and of crossing conceptual thresholds and how these are articulated in words. Of particular interest here, is their description of a change in identity as an all-encompassing threshold concept, which in terms of this study is spoken of as 'becoming a researcher'. This is clearly important in a postgraduate degree but has not been shown to be relevant to the undergraduate.

In 2007, I was concerned about the advent of litigation in the undergraduate world, where supervision seemed to me, to be a prime target for student complaint. My concern has since deepened. For me this indicated a need for greater clarity in articulating the type of learning involved in supervision for both students and supervisors. During 2007, I kept a research journal of field notes based on conversations with tutors, and became aware that supervision was perceived as an 'add-on' to the higher education tutor's role for which there was no specific training or continuing professional development. I also realised that despite this, tutors valued the one-to-one relationship with students. However, they supervised more or less as they themselves were supervised (Carroll 2005) and the interpersonal construction of the tutorial was largely unexamined (Wisker 2005).

In 2010-11, I had the opportunity to carry out a further research project within the context of the undergraduate experience of supervision. The following presents some background ideas, outlines the project, and offers a reflection. The main themes are the nature of the tutorial, research as a form of learning, and researcher identity.

The tutorial as a learning context

From a learning perspective the tutorial is a one-to-one meeting between a student and tutor which involves oral communication; the student's defence of his/her own work, analysis, critique and direct feedback from tutor to student (Shale 2008). At its best it is an engagement in academic discourse which promotes critical thinking (Palfreyman 2008) and attempts to:

- bring the student into contact with a more knowledgeable mind and greater wisdom – an application of the zone of proximal development to the higher education process (Vykotsky 1978)

- direct the student towards useful material and away from the irrelevant or unfruitful

- teach the student to examine other people's claims critically

A tutorial is thus crucially an opportunity for promoting critical thinking. It is not so much a means of conveying information as a process focusing on methodology. In other words it is a tool for learning. But at its core, is a freedom to engage – or not – on both sides. Either tutor or student, and at worst both, may refuse to become involved and thereby reduce the interaction to a boring and frustrating activity (Palfreyman 2008).

In an effective tutorial the student is given the task of articulating his/her ideas and thoughts. Articulation itself is the essential characteristic of that tutorial, not merely the 'opportunity' to articulate. Articulation requires the immediate, even if incomplete, framing of a specific concern in a particular context. In the process of talking, links are made by the speaker; ideas take on a more concrete form; possibilities are created. Imagination and creativity – 'what if' thinking – becomes a part of the way the student is approaching their material. Of course, this talking does not take place in a vacuum as there must be prior reading, writing, thinking, and digesting.

The tutorial as an interpersonal relationship can be seen as a form of 'negotiated order' (Acker et al 1994), where mutual expectations are progressively moulded to create a learning relationship. Although not mentioned in the literature, I wondered if a salient element within this relationship was the student's sense of being listened to, of being taken seriously by another person with greater prestige in the academic world.

An important distinction must be made between 'feedback' given by the tutor and 'assessment' (Palfreyman 2008). Supervision usually involves a commentary on student work which may be a playing around with ideas, making fluid the boundaries of the problem, altering the focus, introducing judgement. This is genuine feedback: summative assessment is better reserved for the final evaluation. The tutorial process may be the only opportunity a student has for repeated academic conversations of an essentially formative nature.

Research as a form of learning

Looking at epistemological development amongst students, Baxter Magolda (1992; 1999; 2008) argues that higher education should help students move from a) 'absolute knowing', where they view knowledge as certain, their task being to extract it from authorities, to b) 'contextual knowing', where students believe that knowledge is constructed in a context based on judgement of evidence and as such, that their role is to compare perspectives, scrutinise problems and apply knowledge. In a sample of undergraduates followed throughout the undergraduate course, Baxter Magolda (1992) found students who graduated with the 'absolutist' approach to learning and knowing. She suggested that higher education curricula should compensate for this tendency by exemplifying three broad principles:

- validating learners' ability to know

- situating learning in the learner's experience

- defining learning as mutually constructed meaning

Hodge (2008) extended Baxter Magolda's work by focusing on the 'student as scholar'. Here the emphasis is on 'the internal value system, maturity and foundational competencies in their discipline and a liberal education in today's complex, ever-changing world'. Hodge sees the complexity of today's world as best confronted by a culture of enquiry-based learning, which moves from an 'instructional' paradigm, through a 'learning' paradigm, culminating in a 'discovery' paradigm.

The project 2010-11

Continuing to research my own practice, I decided in 2010 to work with part-time undergraduate students in the School of Education (programmes BAPSLD and BA RES) to extend my understanding of supervision. Broadly speaking, these part-time students differ from full time students in their age-range (25-45 years approximately), mode of accessing higher education (foundation degrees), generally busier lives (jobs and families) and generally less secure academic skills.

Early in 2010, I began by rewriting the documentation for the honours component of the degrees intended for participating students and tutors on this programme. The revised documentation attempted to set out the learning journey for students completing an educational enquiry and to articulate the various stages of development.

In the academic year 2010-11, I worked on a qualitative research project that aimed to:

- clarify the supervision process as experienced by students

- describe student experience of the supervisory relationship

- present the students' understanding of the learning achieved through supervision

- understand the product of this process

Participants came from a cohort of 39 students of whom 36 returned module evaluations: 18 subsequently returned questionnaires and five were interviewed in-depth. Informed consent was gained at the beginning and midway through the project. All data was collected after the assessment process had taken place when there could be no possible link to grades or awards.

My context for supervision is that of undergraduate research. In terms of the model discussed by Healey (2005) where students are participants in the research: they were collecting data, learning about research techniques, engaged with their supervisors in detailed discussions about their research, and learning about current research in education.

Learning begins with a research methodology module and continues with five hours of supervision. The methodology module is compulsory; supervision is a formal part of the programme structure but it is made clear that it is the student's responsibility to initiate it.

Results

The respondents engaged maximally with the one-to-one process with one exception. All the experiences reported were positive. In contrast with other modes of

learning such as lectures, tutorials were constantly seen as constructive as this student expresses:

'I needed to have the face-to-face to learn. It's the way I learn: to understand I need to talk about it and hear someone else being critical of what I say'

Tutorials represented ring-fenced time just for others and allowed personal expression of ideas:

'In a group of students you have to rein your ideas in … agree with others. On my own with the tutor I felt free to say what I liked … '

Reassurance in the face of a *'scary reality'* was a central theme in describing the interaction with the supervisor. Students feeling *'valued'* and *'listened to'* also figured largely:

'She was interested in me and in what I was doing … tweaking and nurturing'

'She made me feel that it mattered … not just about getting a degree. Fantastic'

This sense was extended where tutors were described as *'taking my work seriously'* and *'treating my work as significant'*. They saw articulation of developing ideas as a crucial element of their learning:

'Because I knew him (tutor) from previous modules, I had already had one-to-one conversations with him and I knew he could deepen my understanding'.

Students saw that articulation also required feedback to bear fruit:

'Talking it through, you can almost hear yourself understanding it. The tutor's almost dragging you through this. I can talk to anyone but here you need constructive feedback'

A few students voiced a sense of collaborative learning with their tutors, where they had a sense of mutually constructed knowledge:

'You enter a discussion and this widens your thinking … a dialogue. Yes, she didn't tell me I was right or wrong … it was something to be discussed … thought about'

Most students indicated a movement from 'student' to 'researcher' as typified by these comments:

'Yes I changed – became a different person. Yes I am a researcher now. At school we now have a big project based on my enquiry'

'Yes I changed – I am more confident and I think I am more sensitive. I can now investigate on quite a big level and come out with something at the end'

'There were surprises too in the data – unexpected. That was great. I am still thinking about it'

Data consistently emphasised the development of confidence, organisation and time management skills, though overall development was many faceted and hard to sum up. When asked 'What sort of skills have you developed'? One student responded:

'Ownership and responsibility – so therefore you have to be organised. I had to set targets and be determined – I had to be hard on myself. I learned about listening to people – accurate listening to people. Negotiating and time management'

There was a clear perception that growth in this context required some vulnerability and risk-taking:

'I think, expected to be told what to do. I found independent learning hard. I felt alone, worried and scared'

Confidence came as a result of recognition of learning:

'I realised that I could learn independently with the right tools. It stretched my brain beyond its previous limits'

The movement from absolute to contextual knowing (Baxter Magolda 2008) is indicated. Students saw the process as validating their ability to know and saw their learning as situated within their own experience. There was less evidence of mutually constructed meaning but clear indications that several students felt that this was happening through tutorials.

Discussion

Compared with the cohort of 2007, this student group had a more developed ability to articulate their learning through supervision. This may be a response to the greater clarity in the documentation, structures and processes resulting from my revision of the programme. The nature of the learning journey was repeatedly discussed with tutors and students throughout 2010-11 and this, of course, may have made all participants more sensitive to the vocabulary of the articulation of student learning. Indeed, this may have been the main learning involved. But my higher expectations of their learning ought also to have been a major stimulant.

Tutorials were acclaimed as a space in which students felt free to speak, which may point to a more generalised lack of confidence in front of fellow students. Since the ability to articulate seems to be linked to conceptual development, barriers to this should be addressed to promote engagement in other learning modes such as small-groups or seminars.

Students applauded their learning in a supervisory relationship where direct feedback was provided without summative assessment. This suggests that summative assessment might usefully be reduced and restricted to a few places in the programme, with individual formative feedback replacing it elsewhere. The data generally supported the idea that the supervisory process stimulates or encourages critical thinking though it is not strong enough to claim causality.

For the responding students, the research supervision process was perceived as a very successful process, particularly in relation to learning. It is clear from the data, that students identified benefits of the supervisory process, especially in recognising and accommodating to the complexities emerging from their work. It must be remembered though, that the data was collected after successful completion of their course, so relief may possibly have affected their responses.

Student experience might not be the best place to consider models of supervisory practice. Here it was not possible to examine the process in terms of the model of technical rationality, since this would require a focus on the tutor experience of supervisors which was not attempted. The data however, does supply a sense of the negotiated order model in the students' perceptions of a process that actively involves and is constructed by both participants.

The data from this small group of students evidences a sense of developed expertise, a graduate quality, achieved through the autonomous learning fundamental to this research-focused part of their degree programme. It is clear from the data that students had a sense that they had achieved the identity of researcher, and so had passed through at least one of the thresholds implicit in academic development. Successfully accomplished, this represents a completed academic apprenticeship which will serve them well if they move to higher professional qualifications like the masters-level element of PGCE, which is a goal for many of them.

Conclusion

The National Student Survey shows that attention, feedback and response are key elements leading to student satisfaction. The tutorial process as described, promotes all of these. We might usefully consider ways in which this could be extended rather than written out of our courses as we face the challenges of recession and commodification. Does our current concept of productivity in higher education allow us the indulgence of one-to-one learning? And will our higher fee-paying students relish the role of would-be critical thinker, and the vulnerability that entails?

This project has allowed me to modify practice in several useful ways. I have been able to inject a greater sense of a learning journey into documentation, professional development for tutors, and the preparation module for students. I have explored ways of disseminating student research, arranging for the previous cohort to take part in the induction of the following. The next stage of my research will explore the manner in which learning is built up over the supervision process, using reflective journals as the main source material.

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Playing the same game

■ KEVIN MORTON

Abstract

Developments in the use of e and blended learning with students need to engage their active interest. 'Playing the same game', aims at those wanting to engage their students more effectively through the use of technology. This paper considers the use and effectiveness of a number of ICT (Information Communication Technology) advances, from handheld devices to vod/podcasting, video conferencing and free internet resources, all of which are used in education and have demonstrated success in classes around the country. The phrase 'Playing the same game' refers to the huge difference between how students interact and learn outside of education and inside their college or university, and here highlights innovative methods of observation, feedback and assessment that would positively support learning.

Introduction

In changing times, educators need to adapt to their environment and address the degree of transformation that student learning has taken. Future employability hangs on the premise of learning credible and essential skills for the workplace, delivered by staff that are equipped with the pedagogic tools, and who appreciate the relevance of such skills. According to Stidder and Capel (2010:183) there is a high level of expectation on educators to be able to use ICT effectively to support learning and teaching across all subjects. The ability to technologically multi-task may offer opportunity for increased occupational mobility, and provides learners with new ways of presenting material, making them a contemporary and fundamental commodity. Conversely, teachers have the power to evaluate their own learning and teaching practises in a manner that can propel the teaching profession into the 21st century.

Some young people are far more technologically advanced than they are given credit for. This article looks at how to meet them a little more on their wavelength.

'Playing the Same Game' was a title devised to link the theme of the presentation at the Learning and Teaching Conference 2011 with my professional background. All puns aside, I have spent the past 12 years training and teaching physical education (PE) at secondary level. I have reached the qualified status of Advanced Skills Teacher (AST) and in the past two years have been lucky enough to be invited to be part of a

national working party, developing high class pedagogy alongside the Youth Sport Trust (YST) and the Specialist Schools and Academies Trust (SSAT). Our focus was to enhance aspects of technology that could be used in the classroom for my subject and across the curriculum.

> 'When used appropriately, different ICTs are said to help expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality by, among others, helping make teaching and learning into an engaging, active process connected to real life' (Tinio 2003).

As highlighted (ibid), it was an important feature of the Learning and Teaching Conference to demonstrate methods of engagement through strong teaching and learning, aimed predominantly at academic staff. It showcased a number of key ideas to allow their teaching of further and higher education to include learners at all levels on an even playing field.

The conference title, 'Transitions: quality, adaptability and sustainablility in times of change', emphasised the need to reach younger people in education, in order to fully support their journey between secondary onto further, and eventually higher educational establishments. By using mostly available and free technology, teachers and lecturers would be able to harness imagination and creativity from the students to its fullest extent within a learning and teaching environment, and enhance their understanding further in a comfortable and accessible manner. Students would not feel that assignment tasks were unrealistic, or that assessment criteria was old-fashioned, as the content delivered in the workshop was based on innovative and current methods to engage learners.

The presentation looked at recent National Student Survey (NSS) results, with particular focus on the lack of student questioning regarding the potentially positive impact ICT has, or can have on their development. This posed the question that there may not be a great deal of ICT available to students and therefore it was not a necessary question on the survey.

Playing the same game derived from three areas of education that can be directly impacted upon by ICT; assessment, feedback, and presentation. Each tool presented was highlighted to have maximum impact on learning and teaching, and fitted nicely into one or more of the three areas.

The use of technologies in assessment

Pachler (2005:135) believed there was an obvious 'strain' on the relationship between assessment and ICT, depending on varied technological sources, owing largely to the assessment style not being conducive to pupils learning. This could be the case in formal examinations; however, students are constantly challenged to produce many items of assessment which are not necessarily delivered through a formal exam. They are also open to expansive resources globally through the use of technology, which questions the examination strategy and their educational skill set.

Audio and video

Within my field of expertise, assessment seems an everyday occurrence. As PE teach-
ers, there is always scope to offer analysis and assessment of particular stimuli to
a given audience. An ICT tool exhibited in Playing the same game that supported
assessment strategies, particularly in PE, was the use of video and audio recorders.
Digital video cameras can be used to enhance subject knowledge and under-
standing for particular content, and act as a method of demonstrating personal
achievement (Stidder 2011:176).

The use of audio and video is a great way to articulate a task in a creative manner,
for example, as a starter activity. The technology behind video cameras and audio
recorders is growing stronger and their capabilities extending, despite the prices
coming down. There are several lower-specification models available to suit basic
functions such as uploading and sharing video content. It is far more popular now
to publish personal video files on websites such as YouTube, and cameras for this
purpose are growing in trend. As a result, the consumer is able to satisfy a basic
video creation need with a smaller budget; however, this does usually result in a
lower quality production.

As leaders in education, it is not essential to have the highest specification video or
audio tool, although this largely depends on the outcomes required and students'
expectations. Most students now have their own personal, high-tech video and
audio equipment installed in their mobile phones. These are as high quality in some
cases, as models discussed at the conference and typically have all the sharing capa-
bilities. In education, mobile technology, such as smart phones (those with internet
capacity) can be used to record information, for example, video footage and audio
sound bites, allowing assessment and recording opportunities to be increased.

Practical sporting examples captured on cameras with a high definition (HD) facil-
ity, such as the Kodak Zi8, illustrated at the conference, can easily be transferred or
shared via its USB connector. This function saves time for the teacher, and makes the
connectivity between the content and the assessment far more instantaneous.

Speaking at the BETT Conference in 2010, Professor Stephen Heppell argued that
schools needed to prepare for the 21st century by embracing mobile technology
more effectively:

> 'Education asks, when faced with most emerging technologies, a traditionally
> simple productivity question: 'How can this new thing usefully improve what we
> are already doing?' Rather than asking, 'What new things might we now do?' The
> learners' question of course has always been that latter one, hence the disso-
> nance that technology often produces' (Heppell 2010).

Education may not necessarily be the best vehicle for the introduction of innovative
technologies, according to Heppell, despite being under great pressure to enhance
the learning and teaching environment to suit learners' advanced skills in an ever-
developing society. Teaching aids, such as HD cameras, available from the students
themselves, are a fantastic (and cheap) way to not only engage them, but also to

share their ideas and skills globally. They can access relevant information that can support assessment strategies from any part of the world, and take their work with them 24/7. As leaders deliver feedback in the form of a vodcast (video podcast), students can self-assess in their own time and space. Digital learning can thus empower the student to a maximal degree and allows them to take greater control over their education, how they access it, and how they develop for the future.

Interactive resources

Two other modes of technology regularly described as 'participant response tools', which allow high levels of interactivity in learning and teaching methods are 'Qwizdom' handsets and 'Poll Everywhere', an internet resource. Each has advantages and disadvantages, although both are incredibly strong tools to engage and enthuse learners in an interactive way, particularly within a classroom presentation.

Quizdom is a set of handheld response systems that can interact with particular presentation software, such as; PowerPoint and Prezi. More recently, with the aid of 'WizTeach' software, it can be used alongside any application or software for PC or Mac, for example, analysing footage through YouTube. Questions can be asked of the audience in a number of ways, including; multiple choice, yes/no, text input and so on, and results can be displayed, correlated, analysed and sent – there and then, or at a later stage. Data can be obtained anonymously if applicable, allowing for the student voice to be effectively delivered with tremendous accuracy. There is also a 'self-paced' function with Qwizdom, which allows participants to answer in their own time within the learning scenario. This tool can be very strong for aspects of differentiation, and is specifically powerful for student engagement and enjoyment. The use of this equipment is however, limited by the imagination of the teacher.

Comparatively, Poll Everywhere is an online interactive tool that has similar functions to Qwizdom. It is easy to set up and interactive questions are straightforward to create. The premise is that the audience will use the tool with their mobile phones by texting answers to a given number. This interacts with the instructors' presentation, and results can be illustrated in a quick and effective way, again through presentation software. Like most online resources, Poll Everywhere has a free package to get the creator started; however, this has a limited number of question styles. For more flexibility and online tools, the creator will need to pay an annual subscription, although for a basic interaction with the audience, this is not strictly necessary.

The use of interactive technology in the classroom, although potentially costly and considered a little gimmicky by some, can be incredibly positive (Guthrie and Carlin 2001). Students are complimentary, and prefer courses with such technology rather than without. Interactive devices captivate and enthuse the audience, allowing for more academic or literature-based material to be taught in an engaging way (Stidder 2011:181).

The use of technologies in feedback

In the same vein, Qwizdom and Poll Everywhere can be valuable as utilities providing strong feedback to students and educators. The instant access and interactivity

provided from both can motivate any audience. Playing the same game focused on the use of Quick Response (QR) codes as an innovative method of offering feedback.

A QR code is simply a square barcode formulating a web link. These are appearing more regularly in common text, including magazines, bill-boards, commercial branding and even government reminders, such as the DVLA tax disc renewal form and British Gas statements. Smart phones and other internet-based devices can link to the website via a QR code reader application. Although the codes were not demonstrated practically at the conference, there was discussion time for when delegates felt they may wish to use such a tool. A practical example offered, was one where learners might access video information (for example, performance) from a website to support their learning within the teaching scenario. In this case, the students could observe the correct technique for a particular skill, then evaluate and improve on their own and others' performance using the video as support material.

A QR code could be used as a feedback device in students' work. For example, the instructor could create feedback for individual assignments via a podcast (audio recording that can be downloaded). This file could be accessed on the student's educational website (studentcentral); however, the code could be presented on their work to allow them a quick link to the feedback online. If they have a smart phone, they can download the file for free and listen to their feedback on their phones, thus reducing their need to turn on, login and potentially waste time. This is arguably a stress-free way to encourage students to utilise the website and to reach them on a technological level.

QR codes are easily created through a 'QR Code Generator', which can be found online and is relatively simple to use. The creator pastes a website address (url) into the box provided and selects the size before pressing 'generate'.

http://qrcode.kaywa.com

This is a promising use of mobile technology, as it is available in many everyday situations (Rohs and Gfeller 2004). There is however, a danger in that the obvious assumption is that all students own a smart phone, which is not always the case, and members of staff need to be diligent when advertising the style of feedback offered, particularly if it is not accessible to all.

The use of technologies in presentation

The conference theme required innovative methods to engage learners; therefore, there was only one suitable presentation tool effective for this session: Prezi.

Prezi was introduced to me by a colleague, Paul Hynes in 2010, as 'PowerPoint on speed'. Ultimately, it is an online presentation tool which is engaging, exciting, fun to learn and present with, and most importantly, free to use. Delegates at the conference received the workshop via a Prezi presentation, and there was some concern to not race through the information too fast, as it can make the audience a little

nauseous if not controlled. The audience members are actively alerted to what might happen next in the presentation, and when delivered well, it is not too distracting.

Prezi has several unique functions that make it far less conventional than other presentation software like PowerPoint. It allows for greater freedom of movement and is not dictated by a very linear pathway. Similarly, the presenter can orchestrate their own route in a type of 'mind map' fashion and guide learners on more of an educational journey. The zooming tools are captivating, and due to massive expansion of the company over the past three years, Prezi is always adding new features and additional support on the website. Like any new thing, it can take a little while to get used to the functionality of Prezi, although once the basic skills are mastered, it is a tough instrument to put down.

Some of the Prezi site's other features include the ability to create, edit and even display presentations online with peers or colleagues around the world. This facet can take learning well away from the classroom and increase student interactivity enormously. This style of approach can have a hugely positive impact on pupil-centred and independent learning, giving the student constant access to their education. This is supported through the theory of 'Distance learning', where students can study in their own time and space, without the necessity of specific face-to-face teacher contact (Bates 2005:5).

As a form of assessment, students can be offered a title, which exists online; they retrieve it and create their own presentation from it. The educator can view the work via the internet, increasing accessibility and potentially benefitting both parties from personal educational growth. In a similar fashion to YouTube, Prezi allows for access to a worldwide resource bank of previously created presentations. Editors can post their work online for everyone to see if they wish, and receive comments through sharing alongside social networking sites. Prezi has great capacity for assessment, feedback and presentation as illustrated previously.

Conclusion

'And that changes everything as we struggle to keep education up with the progress of post-appropriation technology, rather than to drag technology back to where education is. Gaps will widen, schools that realise where we are will, and in many, many cases already are, listening to children who have suddenly moved from being 'the learners' voice' to being reconnaissance scouts spying out possible new futures. Smart schools will send their scouts ahead, with wise teachers, to spy out future possibilities' (Heppell 2010).

Using e and blended learning techniques offers a valuable opportunity to actively engage learners. Practical examples are rich and various depending on the learning outcomes and the discipline context. This paper builds on a conference presentation and is essentially practical and useful in nature. It has explored a range of hands on active learning opportunities using learning technology to engage students. Each theme covered within the presentation focused on the ability of the educator to reach the individual student on their level, through technological means. The means do not have to be time-consuming or costly, however, it is imperative that the

teacher uses their own creativity fully to deliver the same content in a more engaging and inspirational way.

Some critics believe that ICT developments could take over the learning environment and have a detrimental effect on educational progress. ICT is not, and never will be, a replacement for strong, effective pedagogy; however, it will connect, engage and inspire the next generation of learners, effectively initialising the pupils to lead the way into our new era of learning and teaching.

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Towards assessment as learning

Making the transition from spoon-fed expectant students to self-regulating learners

■ EMERITUS PROFESSOR PHIL RACE

Abstract

This article starts from the premise that 'assessment is broken' in higher education at present. It will explore how assessment has become broken, review 'what the gurus tell us' about assessment and feedback, and discuss what we can do to make assessment more fit for purpose and a better driver for students' learning. It will look at the pros and cons of some of the most often used processes and instruments in our traditional approaches to assessment, and explore what else we can do to improve assessment. It will also explore how best we can make assessment better for students by involving them in self and peer-assessment, use student self-assessment to initiate student-tutor dialogues, and make our feedback more useful to students.

Editor's introduction

Phil has chosen to take a vibrant, lively approach to exploring issues of assessment, histories of how and why we assess as we do, and what else we might do more effectively. He makes suggestions to manage and help the broken links between learning and assessment, and in so doing, maintains the underlying argument of the importance of student self regulation in learning, so that assessment can be seen as a crucial part of the learning process, and the process of owning and understating, and then using that learning.

He begins by setting out intended learning outcomes for us as readers, so that we can see what we need to think about, engage with and develop awareness of, during the course of reading his innovative piece. Here we have prompts, problems, histories, theories and suggested practices. The piece moves into a wide variety of views and theories about assessment, and then onto more of Phil's own theories views and practices on assessment for learning. We can pick and choose and develop an argument through the examples offered here.

– Professor Gina Wisker, Chair, Conference Organising Committee

Context: the changing roles of higher education institutions

'Now is the decade of our dis-content!' Never mind the content – feel the learning. We need to help students make the transition from spoon-fed, expectant learners, to self regulating learners. Sally Brown and I predict a move of higher education institutions away from being the guardians of content (where everything was about delivery), towards the two major functions of:

• recognising and accrediting achievement, wherever learning
  has taken place – getting the assessment right

• supporting student learning and engagement – getting the feedback right

So now, it's time to re-think:

• how students really learn, and how we can help make learning happen for them

• how to make feedback really work for students

• how best to measure and accredit students' achievement
  (not just more of the same old tired methods)

One of my main worries is that we still tend to try to measure what's in students' heads, and what they can do with what's there in terms of the (unsatisfactory) prox-ies that come out of students' pens in exams, and out of their keyboards in essays and reports. I argue that assessment and feedback are broken in higher education. We desperately need to make assessment and feedback work better. In the UK we know from the National Student Survey, that since 2005 the evidence suggests that students nationally find assessment and feedback among the least satisfactory elements of their experience of higher education. We also know that assessment and feedback take up ever more of our time and energy. How have assessment and feedback come to be broken?

• Student numbers have grown: we can't use the same processes and instruments
  for a system where nearly 50 per cent of the 18-30 year old population study in
  post-compulsory education, compared to 5 per cent a couple of decades ago.

• The world has opened up, so that our feedback and assessment
  processes and practices need to be more compatible with
  those in quite different cultures and traditions.

• It is widely accepted now that assessment is the major driver for student
  learning, and if assessment is not working as a *good* driver for learning, the
  effectiveness of our entire higher education provision is jeopardised.

• We need to continue to diversify the assessment processes and
  instruments we use, so that no students are repeatedly disadvantaged
  by the predominance of particular assessment formats.

In short, we assess far too much, using the same old ways far too often, and assess-ment takes far too much of our time and far too much of our students' time, and we drive down the quality of learning by our assessment. And what's wrong with

feedback? Students get it too late. Too often, it's just words on paper. They tell us it doesn't help them enough. And we reply that they often don't take enough notice of it. But what's really wrong with feedback? It's too often one-way – monologic, from us to them. What students want is dialogue. They want to talk to us about their work. But they're scared to talk to us, in case it leads to lower marks; in case they're 'found out'; and in case they feel stupid.

Using the experts to inform our thoughts, arguments and practices

What students think about assessment

Student evaluations (Flint and Johnson 2011: 2) frequently reveal poor assessment practices that:

1   lack authenticity and relevance to real world tasks

2   make unreasonable demands on students

3   are narrow in scope

4   have little long-term benefit

5   fail to reward genuine effort

6   have unclear expectations and assessment criteria

7   fail to provide adequate feedback to students

8   rely heavily on factual recall rather than on higher-
    order thinking and problem-solving skills

Can any of us look at 1-8 above, without any guilt?

What the gurus tell us on assessment, feedback and learning

It is simply madness to keep doing the same thing, and expect different results, as Einstein said 'The definition of insanity is doing the same thing over and over again expecting different results' (Albert Einstein). In other words, we won't mend assessment and feedback just by trying harder to do what we've always done. Having established that 'assessment is broken', what can we do to mend it? Those researching the area are in agreement, and are telling us the same things. The extracts below by no means cover all of the messages they give, but are sufficient to give us some key themes to address in our efforts to make assessment and feedback fit for purpose, and to help students develop themselves into learners who are much more autonomous and successful.

Sally Brown: 'Concentrating on giving students detailed and developmental formative feedback is the single most useful thing we can do for our students, particularly those who have had a struggle to achieve entry to higher education. Assessment and feedback are two of the best tools available to us, to support student achievement, progression and retention.

Assessment is a far more complex, nuanced and intricate activity than universities recognise. To make it fit-for-purpose we need to take account of context, level, learning environment, students' background, and learning content to ensure that standards of outcomes are assured. Most universities design assessments which respond to only a subset of those, and additionally fail to take account of students' own individual differences' (Brown 2012).

Phil Race: Assessment is broken in higher education today. We spend far too long not measuring the right things. Therefore, it has never been more urgent to look analytically and calmly at how we can make assessment, as Brown says, 'fit for purpose'. We need to use assessment as learning, so that it addresses seven main factors which underpin successful learning:

1   strive to enhance our students' desire to learn

2   help students to develop ownership of the need to learn

3   keep students learning by doing: practice, trial-and-error, repetition

4   ensure that students get quick and useful feedback – from us and from each other.

5   help students to make sense of what they learn

6   get students to deepen their learning by coaching
    other students, explaining things to them

7   allow students to further deepen their learning by assessing their own learning,
    and assessing the learning of others – making informed judgements

Life is too short to spend time and energy writing feedback which won't actually be used by students (sometimes not even collected by them). We are wasting our energy when we write feedback just for external examiners to see, and when we approach giving feedback only in the 'read-write' dimension, when many students gain more from it through auditory, visual or kinaesthetic channels (see Neil Fleming's excellent (and free) 'VARK' work on: www.vark-learn.com). We have dug ourselves deep into a 'read-write problem' in fact. Higher education has become a read-write industry. Yet only since 1791, when the first written exam was set at the University of Cambridge have we been using written exams and written feedback. I argue that feedback on paper is probably the most time-wasting, least effective and dangerous way to give students feedback (for more details, please see Race 2010). There is still a lot going for oral assessment and feedback as seen in Joughin (2010).

Graham Gibbs (2010): recommends the following tactics to improve student learning:

1   capture student time and effort, distributing that effort
    appropriately across topics and weeks

2   generate high-quality learning effort, oriented towards clear and high standards

3   provide sufficient feedback, often enough, and in enough detail

4   focus feedback on students' performance, on actions under their control,
    rather than on the students themselves, or their characteristics

5   make feedback timely, while it still matters to students, in time for them
    to use it towards further learning, or to receive further assistance

6   link feedback to what students believe they are supposed to be doing

7   ensure that feedback is not only received, but is attended to, so that
    students act on it to change their future learning and performance

David Boud et al: Perhaps the most important thing about the seven propositions below, is that the large group which agreed upon them, contains representatives from every university in Australia, and many more, Boud et al (2010) propose that assessment has most effect when:

1   it is used to engage students in learning that is productive

2   feedback is used to actively improve student learning

3   students and teachers become responsible partners in learning and assessment

4   students are inducted into the assessment practices
    and cultures of higher education

5   assessment for learning is placed at the centre of subject and program design

6   assessment for learning is a focus for staff and institutional development

7   assessment provides inclusive and trustworthy
    representation of student achievement

David Nicol and Deborah Macfarland-Dick (2006): sum up good feedback practice by saying that it:

1   helps clarify what good performance is (goals, criteria, and expected standards)

2   facilitates the development of self-assessment (reflection) in learning

3   delivers high quality information to students about their learning

4   encourages teacher and peer dialogue around learning

5   encourages positive motivational beliefs and self esteem

6   provides opportunities to close the gap between current and desired performance

7   provides information to teachers that can be used to help shape the teaching

Royce Sadler: Way back in 1989, Sadler wrote: 'The indispensable conditions for improvement are that the student comes to hold a concept of quality roughly similar to that held by the teacher, is able to monitor continuously the quality of what is being produced *during the act of production itself*, and has a repertoire of alternative moves or strategies from which to draw at any given point. In other words, students have to be able to judge the quality of what they are producing and be able to regulate what they are doing *during the doing of it'* (Sadler 1989, my italics). Since then, he has become the most cited author on formative feedback; this bibliography contains just some of his more recent works. In 2010, Sadler began his paper on 'Beyond feedback: developing student capability in complex appraisal' as follows:

'Giving students detailed feedback about the strengths and weaknesses of their work, with suggestions for improvement, is becoming common practice in higher education. However, for many students, feedback seems to have little or no impact, despite the considerable time and effort put into its production. With a view to increasing its effectiveness, extensive theoretical and empirical research has been carried out into its structure, timing and other parameters. For students to be able to apply feedback, they need to understand the meaning of the feedback statements. They also need to identify, with near certainty, the particular aspects of their work that need attention. For these to occur, students must possess critical background knowledge. This article sets out the nature of that knowledge and how students can acquire it. They must appropriate for themselves three fundamental concepts – task compliance, quality and criteria – and also develop a cache of relevant tacit knowledge'.

The Weston Manor Group, convened by the ASKe CETL of Oxford Brookes University, produced an 'Assessment Manifesto for Change' (2007), containing the following recommendations:

1   The debate on standards needs to focus on how high standards of learning can be achieved through assessment. This requires a greater emphasis on assessment *for* learning rather than assessment *of* learning.

2   When it comes to the assessment *of* learning, we need to move beyond systems focused on marks and grades towards the valid assessment of the achievement of intended programme outcomes.

3   Limits to the extent that standards can be articulated explicitly must be recognised, since ever more detailed specificity and striving for reliability, all too frequently, diminish the learning experience and threaten its validity. There are important benefits of higher education which are not amenable either to the precise specification of standards or to objective assessment.

4   Assessment standards are socially constructed, so there must be a greater emphasis on assessment and feedback processes that actively engage both staff and students in dialogue about standards. It is when learners share an understanding of academic and professional standards in an atmosphere of mutual trust that learning works best.

5   Active engagement with assessment standards needs to be an integral and seamless part of course design and the learning process, in order to allow students to develop their own, internalised conceptions of standards, and to monitor and supervise their own learning.

6   Assessment is largely dependent upon professional judgement, and confidence in such judgement requires the establishment of appropriate forums for the development and sharing of standards within, and between disciplinary and professional communities.

Assessment as learning: ways forward

Towards assessment as learning

Last century, we had lots of assessment of learning. We still need to do some of this, for example, for fitness to practice. Some institutions have moved a long way towards assessment for learning. I believe we need to make the final jump straightaway – assessment as learning.

Why do we need to think again about assessment methods? Not least, because 'normal' ones like exams, essays and reports too often fall short regarding validity, reliability, authenticity, inclusivity, manageability and transparency, and sometimes have precious little bearing on employability. I invite you to challenge the status quo of assessment, and identify with the need to change how we go about it, as part of making learners self-regulating and not expectant of spoon-feeding. Chapter 4 of Making Learning Happen (Race 2010) contains an exercise to help you interrogate an assessment element of your own choice against how well it links to learning, and against reliability, validity and so on.

The power of face-to-face communication

When explaining assessment criteria to students, and when linking these to evidence of achievement of the intended learning outcomes, we need to make the most of face-to-face whole group contexts and actively employ:

- tone of voice

- body language

- facial expression

- eye contact

- the chance to repeat things

- the chance to respond to puzzled looks

Assessment criteria, the real meaning of learning outcomes, and details of evidence of achievement just don't work nearly so well just on paper (for example, module handbooks) or on screens (course web-pages). Therefore, every time you see your students in whole-class contexts, talk assessment. Let students see your lips and hear your voice so they know what the targets are and what standards to aim towards. Make the whole group context the only place where you answer their questions about assessment, to be fair to everyone.

Ten practical steps towards making assessment faster and better

1   Reduce the total amount of assessment by a factor of three, but make it much higher in 'quality'

2   Pay much more attention to validity, reliability, transparency, authenticity, and inclusivity with what assessment is left

3   Assess more 'need to know' and less 'nice to know'
    (and stop assessing 'nuts to know'!)

4   Let students right into assessment criteria – talk
    assessment every time you see them

5   Use much shorter (but better) assessments

6   Make most assessment formative, use much less summative assessment

7   Don't keep assessing the same things repeatedly

8   Use technology for what technology does well

9   Get away from too much 'read-write' assessment (cf VARK)

10 Get students making informed judgements, in self- and peer-assessment

Assessment as learning: getting students to self-assess their work

At the point of handing it in to us, we can use student self-assessment to deepen their learning, and to make tutor-marking more effective and efficient – and to start to initiate tutor-student dialogues. This is a way to getting students to really reflect. It allows us to evidence good feedback practice for inspection purposes. It can help us to avoid wasting our time and students' time, and makes sure students actually read our feedback. Moreover, we can give our students the feedback they want as well as the feedback they need, for example:

Here are five questions to consider for self-assessment tutor dialogues now think of better ones:

1   What do you honestly consider will be a fair score or
    grade for the work you are handing in?

2   What do you think was the thing you did best in this assignment?

3   If you had the chance to do the assignment again from scratch,
    how (if at all) might you decide to go about it differently?

4   What did you find the hardest aspect of this assignment?

5   Please jot down three short questions you would like me
    to answer about this example of your work:

These five questions are just meant to indicate a starting point towards helping students make informed judgements on their work as they are doing it (as Sadler suggests), and open up a real feedback dialogue with them as Nicol and Macfarlane-Dick suggest (2006).

Conclusion

There is abundant evidence that assessment and feedback are broken as practised in higher education today. Yet the people who have researched assessment and feedback are in complete agreement about what can be done to make assessment

and feedback work well, and take their rightful places as important steps in making learning happen for our students. Our task is to take due notice of all the research that has been done, and change our ways.

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Phil started as a scientist, but gradually became an educational developer. He now spends most of his time running workshops for teaching staff in universities and colleges across the UK and beyond. Phil received a Higher Education Academy National Teaching Fellowship in 2007, and the status of 'Senior Fellow' of the Academy.

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