The Use of Feedback to Enhance Learning

CETL Project: ‘Developing Materials for Tutors and Students to Enhance Feedback’

CETL theme: enhancing assessment for learning clinical and communication skills

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September 2008
ISBN 978-0-9560721-0-8
Published by CETL – Centre for Excellence in Teaching and Learning,
Clinical and Communication Skills
# Table of contents

ACKNOWLEDGEMENTS..................................................................................................................4
EXECUTIVE SUMMARY ..................................................................................................................5
INTRODUCTION ..................................................................................................................................8
LITERATURE REVIEW .......................................................................................................................9
  Literature search ............................................................................................................................9
  Summary of literature review .......................................................................................................10
  *The nature and purpose of feedback* .........................................................................................10
  *Guidance for tutors on how to give feedback* ...........................................................................10
  *Factors that influence the effectiveness of feedback* ................................................................12
  *Feedback from summative assessment* .....................................................................................13
  *Feedback in the context of gaining clinical competencies* .......................................................13
  *Barriers to effective feedback* ..................................................................................................14
  Conclusion ....................................................................................................................................15
DISCUSSION GROUPS ....................................................................................................................16
  Introduction ....................................................................................................................................16
  Method ..........................................................................................................................................16
  Findings .........................................................................................................................................17
  *Speech and language therapy*: ...............................................................................................17
  *Radiography*: .............................................................................................................................24
  *Nursing*: ....................................................................................................................................30
  Common themes identified as problematic to effective feedback identified from the discussion groups .33
  *Clinical skills* .............................................................................................................................34
  *Communication skills* ...............................................................................................................35
  *Written assignments* .................................................................................................................35
  *Examinations* .............................................................................................................................35
  *Conclusions* ................................................................................................................................35
  Summary ........................................................................................................................................37
DEVELOPMENT OF FEEDBACK GUIDELINES (dissemination artefacts) ...........................................39
  Staff Development workshops......................................................................................................40
RECOMMENDATIONS ....................................................................................................................41
  Useful websites..............................................................................................................................41
Appendix 1: LITERATURE REVIEW ................................................................................................42
  Literature search ............................................................................................................................42
  Literature review ...........................................................................................................................43
  *The nature and purpose of feedback* .........................................................................................44
### Guidance for tutors on how to give feedback ................................................................. 45
### Factors that influence the effectiveness of feedback ....................................................... 47
### Feedback from summative assessment ........................................................................... 53
### Feedback in the context of gaining clinical competencies ............................................. 53
### Preparing students for feedback .................................................................................... 55
### Examples of effective feedback to enhance clinical skills learning ............................... 55
### Barriers to effective feedback ....................................................................................... 56
### Discussion ...................................................................................................................... 57
### References .................................................................................................................... 58

#### Appendix 2: REPORT OF DISCUSSION GROUPS .......................................................... 61
- **Introduction** .................................................................................................................. 61
- **Method** ........................................................................................................................ 61
- **Findings** ....................................................................................................................... 63
  - **Speech and language therapy** .................................................................................. 63
  - **Radiography** ............................................................................................................. 71
  - **Nursing** ..................................................................................................................... 78

- **Common themes identified as problematic to effective feedback identified from the discussion groups** 81
  - **Clinical skills** ........................................................................................................... 81
  - **Communication skills** ............................................................................................ 82
  - **Written assignments** ............................................................................................... 82
  - **Examinations** ........................................................................................................... 83
  - **Conclusions** ............................................................................................................. 83
  - **Summary** ................................................................................................................. 88

#### Appendix 3: SCHOOL OF MEDICINE AND DENTISTRY GUIDELINES ..................... 90
ACKNOWLEDGEMENTS

Thanks are due to the following staff of City University who took time from their extremely busy schedules to organise the discussion groups:

- Dr. Madeline Cruice, Senior Lecturer (Aphasiology), Department of Language and Communication Science, City University.
- Professor Jennifer Edie, Head of the Department of Radiography and Acting Dean of Community and Health Sciences, City University.
- Celia Goreham, Programme Director, Pre-Registration Nursing Programmes, Community and Health Sciences, City University.

We are grateful to Professor Della Freeth for her guidance and encouragement in this project.

Thanks are also due to those staff members and students of the respective health professions that volunteered to take part in the discussion groups.

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EXECUTIVE SUMMARY

A literature review of research into the effectiveness of feedback practice in conjunction with information gathered from discussion groups held with students and teachers in the CETL professions to identify the effectiveness of feedback systems currently in place were conducted. The aim was to use the findings to inform the development of materials for effective feedback to enhance learning.

Literature Review

It was evident from the literature review that there is confusion in definition between feedback and evaluation. Implicit in giving feedback to enhance learning is some form of judgement by the feedback giver on the knowledge and performance of the recipient. Here, feedback is the communication to students about the difference in standard between their performance and the desired standard of performance; the aim being to enhance learning by:

- giving guidance (direction, corrective),
- encouraging reflection,
- increasing motivation to learn, and
- clarifying understanding.

A distinction is also made between formative and summative models of feedback.

Publications on the principles of feedback in clinical learning and guidelines for good practice date back to 1983, where there is consistency in the formulation of principles and guidance. The first was Ende’s ‘Feedback in Clinical Medical Practice’, which was subsequently validated in a series of studies. Feedback is characterised as communication, whether verbal or written, in a relationship between the recipient and giver.

Whether and how feedback is utilised by learners to enhance learning depends upon the quality of feedback intervention, the learning context and diversity in the characteristics of the recipient and giver of feedback information. The nature of professional knowledge and competence in clinical and communication skills is particularly dependent on how learning takes place, and how these skills are applied in the particular professional context. The course structure, assessment strategies, culture and learning environment, and institutional factors all have influence on the quality and practice of feedback. Feedback practices, particularly formative feedback to enhance learning and performance, need to be developed within the specific subject context of professional disciplines.

Some factors that hinder good feedback intervention were identified:

1. Modularity: students don’t benefit from feedback that only relates to specific piece of work or module: cannot transfer the skill (use of feedback).
2. One type of feedback does not fit all. Learning needs a diverse approach
3. Anonymous marking. Current institutional approaches to quality may be detrimental to learning, as there is no opportunity to give feedback on work in progress.

4. Misappropriation of learning outcomes as devices for monitoring and audit: detrimental to effective feedback.

Other recurring issues that are barriers to the development of effective feedback include:
- Higher teaching workload (implications for teacher training for feedback)
- Increased class sizes and resource constraints
- Technological change
- Use of feedback procedures for audit and monitoring (e.g. QAA)

**Discussion groups**

Information from the discussion groups demonstrated that among the departments studied during this project, robust feedback systems were already in place and embedded in Speech and Language Therapy and Radiography pedagogy. Systems were also in place for Nursing. Many examples of good practice were identified, conforming to the general principles for effective feedback and guidelines for good practice in the literature. Some problematic themes were identified, shared by the three professional disciplines:
- The over-preoccupation with structure and procedure that hinders true reflection.
- The under-valuation of ‘personal knowing’ in clinical competence, and therefore difficulties with assessment (i.e. the lack of distinction between implicit and explicit knowledge within educational principles).
- The linguistic and expectation mismatch between the giver and recipient of written feedback, giving rise to inconsistency in interpretation of learning objectives and assessment criteria, and incomprehension in the learner.
- Insufficient attention to resource constraints for assessment and feedback.
- Attention to staff training and student coaching for giving and receiving feedback.
- Insufficient attention to the subject context for the variety of assessment purposes.
- A culture of formative feedback that fulfils the aims for student development and enhanced learning needs to be fostered and developed over time, and is related to the specific learning environment of particular clinical disciplines.

These problems echo those identified in the literature review. Given that the feedback systems currently in place in the CETL professions are constantly evolving, these issues could be reflected upon when constructing guidelines for good feedback practice within each professional discipline. Such guidelines may be useful for new tutors, and for experienced tutors when reflecting upon their
feedback practice. They may also be informative for designing workshops for coaching learners and tutor training.

Tutors generally viewed the Guidelines for Feedback developed for the School of Medicine favourably as general guidance. Although some aspects are not appropriate, they would be useful for general guidance and as a stimulus to reflection when constructing discipline specific feedback material.

**Recommendations**

1. Each Professional School should **review their own feedback systems** in the light of the literature review and the discussion group outcomes reported in this document

2. **Profession-specific guidelines should be developed**, based on generic principles, to address the specific teaching and assessment programmes in each Professional School

3. **Staff Development Workshops** should be devised within each professional school, to raise awareness of the principles of effective feedback and to develop the skills of the tutors in giving feedback to their students
INTRODUCTION

While it is widely recognised that assessment is an important driver of student learning, the impact of feedback on the learning process has been less extensively acknowledged in formal systems. It has come more into focus in recent years as it is reported as one of the main areas of dissatisfaction in UK National Student Surveys.

There is increasing interest in feedback processes, both in the published literature and in national and individual institutional assessment programmes. However, feedback is still not universally part of all assessment processes, and where it does exist it is often informal and inconsistently delivered. For feedback to be of best use to students, much more attention needs to be addressed to the evidence relating to best practice in feedback processes. Even the definition of feedback is still a contested area, as is the language used to describe the processes involved. There is no doubt however that feedback can powerfully affect the learning process and the student-teacher relationship.

As one of the main themes of the Queen Mary University of London and City University London Centre for Excellence in Teaching and Learning (CETL) Clinical and Communication Skills is ‘enhancing assessment for learning clinical and communication skills’, this project was designed to extend earlier work on providing feedback to students and contribute to the production of learning materials for tutors and students from a range of health disciplines.

In order to provide up-to-date and relevant information, the project encompassed a literature review of feedback and discussion groups with the health profession schools involved in the CETL. There had already been some work done within the School of Medicine and Dentistry, which resulted in the production of Guidelines for Teachers and Students. One of the aims of this project was to evaluate whether such guidelines would be useful for the other CETL health professions, as the assessment processes and clinical contexts were variable across the different professional groups.
LITERATURE REVIEW

The purpose of this literature review was to build upon the Feedback Project within Barts and The London School of Medicine and Dentistry. The aims were to ascertain:

- How students in the clinical disciplines respond to feedback in the context of assessment;
- whether and how they use received feedback to enhance learning and performance, and
- what tutors, the givers of feedback, perceive to be effective feedback.

The ultimate aim is to use this information to inform the development of feedback materials in the context of learning in clinical disciplines.

Literature search

The literature review for the CETL feedback project was based on a citation search, extending the review for the Barts and The London Feedback Project. A citation search was performed, based on the extensive review by Black and Wiliam (1998), and the SENLEF (2004) report. This was supplemented by an electronic search of relevant journals (e.g. Assessment in Higher Education, Medical Education, Medical Teacher) using the Queen Mary, University of London e-journal database (please see appendix 1).

Published English language papers dating from 1983 to 2006 were reviewed. These publications (a total of 27 reports so far considered relevant) were a mixture of recommendations for how to give feedback, observations of teachers’ and students’ perceptions of feedback, and some experimental studies. The studies reviewed were categorised into eight main sections:

1. The nature and purpose of feedback
2. Guidance for tutors on how to give feedback
3. Factors that influence the effectiveness of feedback
4. Feedback from summative assessment
5. Feedback in the context of gaining clinical competencies
6. Preparing students for feedback
7. Examples of effective feedback to enhance clinical skills learning
8. Barriers to effective feedback

Although there were publications on guidance for giving feedback and studies on how to give feedback in learning and teaching clinical and communication skills, very few focused on the effectiveness of feedback in the sense that it enabled students to take action for improving performance, engage in reflective learning and for enhancing learning. There were no publications of studies on specific student behaviours in response to feedback. There was also a paucity of literature on the apprenticeship aspect of learning in the clinical context; learning through observation, imitation, dialogue and practice.
Summary of literature review

The full report of the literature review is in appendix 1.

The nature and purpose of feedback

There is some confusion in terms between feedback and evaluation. For clarity in this review, these terms will be used in the following way:

- Assessment is a core function of higher education institutions alleged to drive student learning, but is also influential for teaching. It can therefore be a process that mediates teaching and learning relationship (Nicol 2007, the Re-engineering Assessment Practices (REAP) project). The purposes of formative and summative assessment are different.
- Feedback is an integral part of formative assessment, providing information to students about performance to enhance learning.
- Evaluation refers to student evaluation or appraisal of a course or teaching.

The information for feedback is of necessity obtained from some form of assessment or evaluation by the giver, where a judgement on knowledge or performance is necessary. A distinction between formative and summative models or assessment is made here.

In this review, feedback is the communication to students about the difference in standard between their performance and the desired standard of performance; the aim being to enhance learning; give guidance (direction, corrective), encourage reflection, and increase motivation to learn.

Guidance for tutors on how to give feedback

An early published guidance for feedback in clinical practice was by Ende (1983), which was adapted from guidelines for giving feedback in business administration, psychology and education. The effectiveness of these guidelines were subsequently verified in a number of studies that also identified similar principles for effective feedback (Hewson and Little 1998, Wood 2000, Rust 2002, Orsmond et al 2002, Nicol 2004, Collins 2007). Ende recommended that feedback for learning clinical skills should be:

- Undertaken with the teacher and trainee working together as allies, with common goals (mutual).
- Well timed and expected (soon after learning).
- Based on first hand data (observed behaviour by teacher, not from rating lists by someone else).
- Regulated in quantity (not too much all at once) and limited to behaviours that are remediable.
- Phrased in descriptive, non-evaluative language (descriptive).
- Deal with specific performance, not generalisations.
- Should offer subjective data and offered as such ("I see", “I think” etc)
- Deal with decisions and actions, rather than assumed intentions or interpretations.

The experimental study on giving feedback for students’ communication skills by Hewson and Little (1998) found that there were significantly more feedback incidents that were perceived as helpful when the tutors used recommended techniques.

In a study of giving effective feedback on students’ performance of clinical skills, Brukner et al (1999) formulated a structured approach where the giver of feedback could formulate feedback techniques for different types of learners (see below student characteristics). This study demonstrated that giving effective feedback is a skill that can be learned through training and practice.

In a randomised controlled trial of the use of structured feedback on learning to tie a two-handed surgical square knot where compliments was the placebo, Boehler (2006) found that the compliment group had a significantly lower average performance score after intervention, but a higher global satisfaction score. It was concluded that student satisfaction was not a good measure of feedback quality, whereas learning was promoted by feedback.

The feedback techniques described in the literature were very similar, and may be summarised using Wood’s (2000) formulation:
1. Feedback comments should be based on information about observable, and observed, behaviour.
2. In order to give the learner confidence, positive comments may be given first. This information should focus on specific behaviours and situations, rather than general statements or value judgments.
3. Feedback information should be a dialogue, with both the teacher and learning contributing, emphasising the sharing of information.
4. Feedback should be given close to the observation, at an appropriate time and place. (The closer to the event, the more useful)
5. Feedback information should not be too detailed or broad as to overload the learner, but should include specific, subjective data.
6. Feedback should deal with behaviours; decisions and actions that the learner can control and modify.
7. Learners should be asked to verify feedback: to understand and agree with the information.
8. Giving and receiving formative feedback requires preparation: both the giver and recipient need to cultivate the ability to heed and give information, and to tolerate criticism and discomfort.
Factors that influence the effectiveness of feedback

The effectiveness of feedback for improving performance and learning is determined by both the giver and the recipient. The quality of feedback intervention is also affected by the communication of feedback information.

Students' reception of and response to feedback from formative assessment appears to be variable, related to self perception, and may be influenced by culture (Black and Wiliam 1998, Higgins et al 2001, Rust 2002, Rushton 2005). The relationship between the characteristics of the student and their response to feedback is a complex one. Self concept is important, but providing a challenging assignment with extensive feedback can lead to greater student engagement and higher achievement. This is confirmed by the findings of the discussion groups held with Speech and Language Therapy, Radiography and Nursing students (see appendix 2).

With respect to the characteristics of the giver, feedback is not effective if the learner lacks trust and respect for the teacher, perceives that the giver is lacking in knowledge and expertise, has poor interpersonal skills or is uneasy when giving feedback, and believes that the feedback information is not the result of direct observation (Bing-You et al 1997). This is consistent with more recent findings, where the tutor's perceived expertise, experience and skills in giving feedback are salient factors in the feedback process (Higgins et al 2001, Orsmond et al 2002). These findings were once again borne out by the outcomes of the discussion groups (appendix 2).

In order for feedback to have an impact on student learning,
- The learner has to perceive that there is a gap in their knowledge, and/or understanding and/or skill
- The learner needs to take action to close the gap.

Rushton (2005) defined feedback as information about the gap between the actual and desired levels of student performance, where there is a diversity of student perception of feedback, which depends on self esteem. Utilisation of feedback is thus dependent upon:
- Student perception of the gap
- Motivation to take action
- Student interpretation of feedback. Students need preparation for interpreting feedback in the context of their work.

Four broad classes of action that students take in response to feedback were identified if a ‘gap’ between actual level of knowledge and desired level is acknowledged (Kluger & DeNisi 1996 cited in Black and Wiliam):

1. If the goal is clear, an attempt is made to reach the standard or reference level of knowledge. There is motivation and commitment to reaching the goal, and confidence in eventual success.
2. The student abandons the standard completely when belief in success low (learned helplessness).
3. The student attempts to negotiate a change in the standard (culturally determined?)
4. The student denies that there is a feedback-standard gap.

Once again, these types of responses were reported in the discussion groups.

Bing-You et al (1998), in a quasi-experimental, intervention study, demonstrated that coaching improved student perceptions of feedback through:
- Knowing how they are progressing
- Having enough information to improve their performance
- Being effective in soliciting feedback
- Knowing how to develop personal learning goals

Taken together with Brukner’s (1999) structured approach, where the feedback giver adapts the feedback technique to suit the characteristics of the recipient, it would seem that structured training for tutors and coaching for learners would be desirable to ensure the effectiveness of feedback.

Communicating feedback is another factor that could affect effectiveness. Higgins et al (2001) describe communicating assessment feedback as an essentially problematic form of communication, where tutors formulate and students understand feedback in qualitatively different ways, and particular, social relationships shape the process. This confirms the findings by Lea and Street (2000) (see below p 15). Furthermore, written feedback could be very problematic, where students do not interpret written comments as the tutors intended (Charnock 2000), and some did not understand the written comments, being unsure about what the tutor was getting at (Weaver 2006). In most of the surveys of student perception of feedback, students reported that individual, verbal feedback, with the opportunity for a dialogue with the tutor was the most useful from of communication. The findings from the discussion groups are entirely consistent with these conclusions (appendix 2).

**Feedback from summative assessment**

There is some confusion between summative and formative feedback, both in their purpose and impact on student learning. Summative assessment appears to have greater importance in many higher education institutions. The surveys of student perception of feedback, however, found that summative feedback (e.g. giving exam marks) is not so helpful for learning, being after the fact. This is borne out by the comments in the discussion groups.

**Feedback in the context of gaining clinical competencies**

This aspect of learning clinical skills was explored during the discussion groups.
Learning is a complex phenomenon. Polanyi (1958) postulated that the transfer of useful knowledge involves the transmission of both explicit and tacit knowledge, where tacit knowledge is ‘personal knowing’.

Eraut (1994) proposes that owing to the nature of professional knowledge and competency, important aspects of professional competence and expertise cannot be represented in a publicly accessible knowledge base. Professional knowledge is acquired through experience; its nature depends on the accumulation, selection and interpretation of that experience, which cannot be characterised in a manner that is independent of learning and application in the professional context.

There is also the notion of a distinction between the knowledge portrayed in curriculum documents and evidence from directly observed practice and discussion with learners. Practical knowledge integrates complex understanding and skills into a partly routinised performance, and here, competency in a clinical skill becomes a stage in professional development. Because there are (at least) two dimensions to competence:

- scope: meeting a certain standard of performance, and
- the quality of this performance on a continuum from novice to expert; binary scales are inappropriate for judging competency (certainly for formative assessment).

Rust (2003) formulated tacit knowledge as being rooted in action and often in an individual’s commitment to a profession, consisting partly of:

- Ingrained mental models, beliefs and perspectives (cognitive); and
- Technical skills based on professional experience.

Tacit knowledge is revealed through the sharing of experience-socialisation processes involving

- observation
- imitation
- dialogue and practice

This concept of tacit knowledge is familiar to health professionals, particularly for learning clinical skills. Daelmans et al (2005) in a limited study on the effects of assessment and feedback on clinical competencies found that the focus of the effectiveness of apprenticeship is on adequate supervision, feedback and assessment. Whether tacit knowledge and explicit knowledge can be assessed using the same, or similar, principles and whether the same models for feedback apply needs exploration. At present, the value of tacit knowledge and its role in learning has not been fully acknowledged (Rust et al 2003)

**Barriers to effective feedback**

Whilst the general principles for giving effective feedback have validity and may be helpful as general guidance, generic ‘rules’ may not be appropriate. Academic
institutions are made up of a variety of disciplines, each with its own ‘culture’ and language. Students have to learn and interpret new linguistic practices, conflicting and contrasting assessment requirements, assumptions about the nature of knowledge, social meanings and learning tasks (Lea and Street 2000). Generic feedback guidelines pay little attention to task characteristics (Black and Wiliam 1998), where the way that feedback relates to the task in question affects the quality of feedback intervention. Here, the nature of ‘knowing’ be it explicit or tacit, affects the task learning process (Polanyi 1948, Rust et al 2003). If feedback is about the development and enhancement of learning, it needs to be part of a developmental process within the particular discipline and built into module design (Mutch 2003). This is echoed in the discussion groups with tutors and students.

Orsmond et al (2002) formulated some institutional barriers to effective feedback, echoing Higgins’ (2001) barriers to effective communication/student utilisation of feedback:

1. modularity: students don’t benefit from feedback that only relates to a specific piece of work or module: cannot transfer the skill (use of feedback).
2. one type of feedback does not fit all. Learning needs a diverse approach (e.g. no writing in the margins!)
3. anonymous marking. Current institutional approaches to quality may be detrimental to learning, as there is no opportunity to give feedback on work in progress.
4. misappropriation of learning outcomes as devices for monitoring and audit: detrimental to effective feedback.

Recurring issues for developing effective feedback practice include:
- Higher teaching workload (implications for teacher training for feedback)
- Increased class sizes and resource constraints
- Technological change
- Use of feedback procedures for audit and monitoring (e.g. QAA)

**Conclusion**

From this review, it appears that feedback from summative assessment has limited value for enhancing learning, whereas the primary purpose of formative assessment is to provide feedback to students with the aim of enhancing learning. A recurring theme in the literature is how summative assessment is emphasised in higher education. The practice of formative assessment and feedback, however, needs to be considered in the subject context. The course structure, content and desired learning outcomes vary enormously between clinical disciplines, and between and within departments. Furthermore, the practice of feedback could be inconsistent, depending on the subject and course structure, with variable influence on effectiveness for developing student learning behaviour. Whilst QAA General Principle 12 requires that institutions provide
appropriate and timely feedback to students on assessed work, institutional policies for feedback can only be for general guidance. The practice of feedback needs to be developed within departments based on subject specific learning tasks and course structure in order to fulfill the purpose of enhancing learning. Attention also needs to be paid to the function of different forms of assessment.

DISCUSSION GROUPS

Introduction

With an overall aim to gather information to inform the development of feedback materials in the context of learning in clinical disciplines, discussion groups were held with students and tutors from CETL health professions. The purpose was to identify:

- Systems for feedback to students learning clinical and communication skills currently in place.
- What students think about current feedback practice, and how they might use this?
- What tutors understand about feedback, how feedback is given, and their views of what might be useful?
- Barriers, if any, to giving and receiving effective feedback.
- Tutors’ views on the Guidelines for Feedback developed within Barts and the London School of medicine and Dentistry.

Method

The CETL professional programmes for Speech and Language, Radiography, Nursing, Midwifery and Dentistry were invited to take part in this project, and three: Speech and Language, Radiography and Nursing were able to contribute to the discussion groups.

Initial interviews were held with programme Directors of the participating CETL health professions to discuss feedback systems in place, any issues of interest relating to feedback and to plan the discussion groups with students and tutors. The discussion groups were held in the Departments of Speech and Language Therapy, Radiography and Nursing, each lasting about 1 to 1.5 hours. It was not possible to convene a discussion group with Nursing Tutors, so a total of 5 groups were held.

An information sheet and invitation to take part in the discussion groups were circulated to staff and students. Verbal permission to tape record and transcribe the discussions was obtained at the beginning of each group. Notes were also taken during the discussions (JN), although an observer was not available to do
this. Data from the transcripts were analysed by JN following the Social Sciences and Policy Research ‘Framework’ approach¹.

A topic guide was constructed, based on the information from interviews with the three teaching leads and the literature review (JN). See appendix 2 for the themes used in the topic guide.

For the staff, additional topics were included:
1. Potential barriers to giving effective feedback.

Owing to time constraints, some themes were not explored as thoroughly as might be desired.

The analysed data and reports of discussions with each professional discipline were distributed to the individual teaching leads for verification. It was agreed that the overall issues identified during the discussion groups were reasonable, and reflect the views of some staff and students.

Findings

This is a summary of the findings from the discussion groups; the full report is in appendix 2.

Speech and language therapy:

Feedback is embedded as a core part of pedagogy for Speech and Language Therapy, and is part of the culture of training. Systems are already in place, and are also evolving. The framework for feedback is regularly discussed at programme management meetings, although there has been no prior systematic planning for construction of a feedback framework. There is on-going development of feedback systems. Issues are debated in Professional Study Teams; different types of assessment are needed depending on subject area. Table 1 sets out the feedback systems in place.

The purpose of feedback to students is to:
• provide guidance,
• focus understanding, and
• enhance learning.

These aims conform to the recommended aims for formative feedback in the literature (Orsmond 2000)².

Feedback systems in place and perceptions of current practice

Table 1 sets out the systems in place for feedback and the students’ and tutors’ perceptions of current feedback practice. Information from the speech and language staff discussion group largely corroborates the students’ reports.

There does not appear to be a distinction between clinical and communication skills during the discussions. Tutors and students in Language and Communication appear to consider that learning to communicate is an essential part of clinical skills, therefore assessment and feedback for communication skills is embedded in the assessment of clinical skills. Students value the formative feedback they receive. There are some problems with certain types of assessment, which may warrant modification. The burden of assessment, however, needs to be taken into consideration.

Whether students make use of feedback depends on their understanding of the clinical task, their general learning and attitude to learning (see Black and Wiliam 1998, Higgins et al 2001, Rust 2002, Rushton 2005)\(^2\). One reason for students not taking action on feedback may be a mismatch of expectations between the tutor and students (see Kluger & De Nisi 1996 cited in Black & Wiliam, Orsmond et al 2002)\(^3\). The national policy of widening participation which led to a diversity in student expectations and learning skills may be a contributing factor; for example some students may not have the time for re-doing assignments owing to family commitments.

As students progress through their training, their responses to feedback information develop so that they become more thoughtful and take action to improve learning and performance. These findings suggest that the notion of ‘implied development’ is indeed contained in the feedback process, so that receiving and using feedback to enhance learning are skills that students have to learn (Mutch 2003)\(^5\).

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Table 1: Feedback systems in place in the School of Speech and Language Therapy, and students’ and Tutors’ perceptions of these systems

<table>
<thead>
<tr>
<th>Feedback system in place</th>
<th>Student perceptions</th>
<th>Tutor perceptions</th>
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<tbody>
<tr>
<td><strong>Clinical Placements</strong></td>
<td>The continuous supervision on clinical placement is much valued by students. They would like more, and sometimes ask for feedback even with good performance. Some concerns about the variability of clinical experience on placements, when expectations of feedback may not be fulfilled because of time constraints and supervisors’ unfamiliarity with the feedback form were voiced. Students sometimes resort to asking peers or another speech therapist for feedback. Feedback is clearly part of the culture of speech and language therapy training. Informal opportunities for self-evaluation are also present, when discussing performance with the supervisor, perceived to increase insight.</td>
<td>Very few students do not want or use feedback. Possible reasons for not taking note of feedback may be the student’s ability, motivation and effort, their understanding of the clinical task and attitude to learning. The University policy of widening participation may be a contributing factor; for example some students may not have the time for it owing to family commitments. The more mature students are more likely to utilise feedback to improve performance, e.g. postgraduate students. Recent school leavers are less likely to engage with feedback as a means to enhance learning, but they get better as they progress through the course. Some students ask for feedback; even for exams, and even if they get 80%.</td>
</tr>
<tr>
<td><strong>Clinical Portfolio (Reflective Log)</strong></td>
<td>The reflective log carries a grade for the placement, and is discussed at weekly tutorials with formal feedback, when students are encouraged to reflect upon their own performance. Learning objectives are set out on the cover sheet. Students feel inexperienced at first, but learn to use the log as they progress through their course.</td>
<td>There is no specific tutor training for giving feedback using the reflective logs, but issues are discussed at programme management meetings, using feedback from students. There is some evidence on how students use feedback from reflective logs; at least 50% of first year students use feedback comments to improve their performance.</td>
</tr>
</tbody>
</table>

6 Bing-You R G, Patterson J, Levine M A. Feedback falling on deaf ears: residents’ receptivity to feedback tempered by sender credibility. Medical Teacher 1997: 19 (1); 40-44.
(1:1). Students are encouraged to be reflective, and to evaluate their own performance.

The compulsory nature, the mark and the format of tick boxes and rating scales are thought to be restricting and detract from true reflection. Forcing a rating prevents reflection. Supervisors occasionally have to feedback on unobserved performance, which students mistrust (Bing-You et al 1997).

There are too many components to the reflective log relating to the performance of a clinical task, behaviour and professionalism. The assessment purpose for each component is different, which causes confusion.

Variation in interpretation of marking criteria/standards by tutors may be related to the quality of the placement and differences in therapeutic approach. This causes some student concern, and makes using the portfolio for monitoring progress difficult.

With respect to corrective feedback, students feel that recommending corrective action is very important, and enhances learning.

Sessions in the Skills Lab
During structured sessions in the skills lab, students perform skills related tasks; such as phonetics, aphasic training. A log book is used to record the tasks performed and the results of diagnostic tests done. There are some reflective questions.

Not discussed owing to lack of time.

Not discussed owing to lack of time.
in the log for students to think about later. These logs are marked. 

**Phonetics training:**
Exercises on the theory of phonetics training are performed as a class; public response system handsets are used. The students answer questions, then receive feedback by being shown answers; then discuss *why* the answer is right or wrong. The feedback is informal, immediate and directly observed.

**Aphasic training:**
Students design a training manual (for clients) and receive written feedback on the design of the manual.

| Video | Students feel that feedback using the video is an excellent source of personalised, targeted feedback, and is much valued. Much of the discussion about feedback on the video relates to *tacit* learning of diagnostic and therapeutic skills, and students want feedback on everything related to the task and their role as a therapist.

Students are, however, uneasy about inconsistencies in the assessment of clinical skills, acknowledging that tacit knowledge is personal, so that differences in tutors’ approaches to a particular therapy are inevitable. Students also need to learn to develop their own approach.

The opportunity to submit only one video per year raised concern about representativeness. The fact that the feedback is verbal; the tutor appraises strengths and weaknesses, then writes a report, countersigned by the supervising clinician in the relevant practice placement. The tutor also recommends action: 3 positive points and 3 negative areas for development. The video does not carry a grade.

We were unable to discuss feedback using the video owing to lack of time. However, the students’ report is very detailed. |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Video</td>
<td>Once a year, students bring a video of a patient encounter to a 1:1 tutorial. The feedback is verbal; the tutor appraises strengths and weaknesses, then writes a report, countersigned by the supervising clinician in the relevant practice placement. The tutor also recommends action: 3 positive points and 3 negative areas for development. The video does not carry a grade.</td>
</tr>
<tr>
<td>Peer Evaluation and Feedback</td>
<td>The practice of peer evaluation and feedback appears to be embedded in the learning culture of speech and language therapy. There are formal and informal systems for peer feedback, although students do not have any specific training for this, there are guidelines.</td>
</tr>
<tr>
<td>Written Assignments relating to clinical and communication skills</td>
<td>Students submit 5 pieces of clinical work that are written, representing a huge workload for assessment. A cover sheet/form for assessment contains: broad categories e.g. referencing; discussion: tick boxes PLUS written comments in free text. The assessments are moderated.</td>
</tr>
<tr>
<td>Feedback for Examinations</td>
<td>Students are given marking criteria and guidance on writing exam beforehand. A mark is given, but no other feedback. There are no OSCEs in speech and language therapy.</td>
</tr>
</tbody>
</table>

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Tutor characteristics that affect feedback information

Students reported that they respect and trust feedback from tutors with knowledge and expertise, and are interested in student learning. Tutors need to have confidence in their own clinical skills and experience, and to give feedback on directly observed performance. They need to be approachable and easy to talk to, focusing on the student. These responses support the findings from the literature review. Time set aside for feedback to students is also important, but may not be possible depending on the type of placement and time constraints in a busy NHS placement. With respect to clinical supervisors’ training in the use of the reflective log, students do not believe that tutors are trained specifically, but are given written guidance. This guidance may to too long and complex.

Like the students, staff feel that tutors should have expertise and know their students, as effective feedback is a relationship. Students in the early years need more encouragement. Tutors have to tailor feedback information to meet learners’ needs.

With respect to tacit learning of clinical skills

From the students’ viewpoint, tacit learning relates mainly to clinical skills, such as assessing clients (i.e. diagnosis, identifying a problem), acknowledging that these skills are best learned through practice. Staff and students agreed that with regard to tacit knowledge, apprenticeship and learning clinical skills, standard setting may be difficult. In addition, the range and different levels of skill make it spurious to dichotomise it to good/bad, (or pass/fail) (Eraut 1994)\(^8\).

Speech and language therapy staff perceptions of barriers to effective feedback

The bureaucratic aspect of feedback is thought to be least helpful, where box ticking is not real feedback. With respect to the QAA major review, it would not be sensible or practical to change already effective feedback systems in place.

A centrally imposed feedback system is inappropriate. General principles would be helpful, but specific guidance should be subject specific. There are a large variety of different clinical tasks, methods of assessment and feedback specific to language and communication. This reflects the research findings that the characteristics of learning tasks for different professional disciplines vary, but generic feedback guidelines pay little attention to task characteristics (Black and Wiliam 1998)\(^9\), where the way that feedback is given to the task in question affects the quality of feedback intervention. Feedback needs to be part of a

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developmental process and built into module design in order to fulfil the aims of development and enhancement of learning (Mutch 2003).10

**Speech and language therapy staff evaluation of BL Guidelines for Feedback**

The speech and language staff generally liked the guidelines developed for the School of Medicine. They would be a useful stimulus for working up their own system for feedback. This type of guidance must not be rules and regulations (i.e. imposed). They are acceptable as a general statement (see above).

**Radiography:**

Feedback is part of radiography pedagogy, present in all radiography courses with similar set-ups in all radiography schools. The emphasis is on continuous assessment and feedback. There are both formal and informal systems in place, and the whole process is still evolving. Most teaching staff undertake training, although this is not mandatory. All staff are trained for giving written feedback. Staff and students appear to consider that communication is a part of clinical skills. The respondents in the discussion groups refer to communication as part of clinical skills in their current assessment and feedback systems.

Table 2 sets out the feedback systems in place and the students’ and tutors’ perceptions of current practice.

The way that feedback is given on clinical radiography placements fits in with the guidance that Ende (1983)11 first proposed as a model for clinical feedback, in being:

- Undertaken with the teacher and trainee working together as allies, with common goals (mutual)
- Well timed and expected (soon after learning)
- Based on first hand data (observed behaviour by teacher, not from rating lists by someone else)
- Deal with specific performance, not generalisations

The continuing relationship of the link lecturer that follows the student throughout the three year course with the students was considered a great advantage to effective feedback

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Table 2: Feedback systems in place in the School Radiography, and students’ and Tutors’ perceptions of these systems

<table>
<thead>
<tr>
<th>Feedback systems in place</th>
<th>Student Perceptions</th>
<th>Tutor Perceptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical Placements</strong></td>
<td>Students are happy about the amount of feedback they receive on clinical placement, will use feedback to enhance learning and to improve their performance, providing that the feedback is specific to the task performed, and suggestions of how to improve are given.</td>
<td>Radiography staff reported that students find it hard to deal with corrective feedback, and may feel undermined. How they deal with this depends on prior experience, maturity and confidence in ability. They may not acknowledge, or deny, the gap between the observed and desired standard for their knowledge or skills, and are therefore unable to take positive action to enhance learning and improve their skills. Particularly with recent school leavers, where the student was a high achiever, and had never been told that they might not meet a desired standard for a particular task, the student may deny the gap in performance, and cannot see far enough ahead to act upon suggestions for improvement. Tutors recognise the need to tailor feedback to the level of student knowledge, skills, experience and maturity, acknowledging the advantage of being able to know the student well because of the practice of having the same link lecturer following a student throughout the three year course. As the student progresses through the course, there is a change in response with maturity when students grow to understand the purpose of feedback to enhance learning. The same link lecturer following through...</td>
</tr>
<tr>
<td></td>
<td>Individual, one to one feedback is preferred, and not in the presence of a patient or a lot of other people. With corrective, or negative, feedback, students may feel their confidence undermined, but will still use the feedback to improve performance.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time constraints in a busy NHS radiography department, however, may be a barrier to constructive feedback. Students feel that there is inconsistent and insufficient feedback information from link lecturers about how the supervising radiographers evaluate there performance, and are, on the whole, reluctant to ask the link lecturers for this. This may be something worth exploring to develop a more effective system.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>These characteristics bear a remarkable similarity to the various forms of guidance in the literature.</td>
<td></td>
</tr>
</tbody>
</table>
| **Clinical Portfolio (Reflective Log)** | A written clinical portfolio is used by the students on placements, containing a checklist/core assessment form, which is compulsory and carries a grade for the module. This is a three way assessment by:
- **Student self evaluation/reflection**
- **Agreement with 'named radiographer'**
- **Link lecturer**

Students set objectives with a named radiographer (clinical supervisor), and can comment on progress. The radiographer also comments on progress. The assessment forms are moderated by link lecturers, and academic assessment by link lecturers is externally moderated.

The portfolio is used record the tasks performed on placement, and also to assess performance. The aims and objectives for the placement are given to the students, and they are expected to set their own learning objectives for each week. Progress is monitored by the clinical supervisor.

Students may not be able to meet their objectives owing to the variability of clinical experiences available on placement. Whether the portfolios are consistently completed with the clinical supervisor is also uncertain. | The students find that discussing the portfolio with their placement supervisor and the supervisor’s written comments very useful, but are uncertain about the purpose of the clinical portfolio because it is designed to be a record of tasks performed, monitoring the student’s performance of the task and to enable self-evaluation and reflection as well as assessment by the supervisor. Service pressures in a busy radiography department sometimes make the discussion and assessment of the students’ performance inconsistent. Students find difficulty with self-evaluation and reflection. This may be because they find setting a standard for themselves difficult. The compulsory nature of completing the portfolio and the fact that it carries a grade for the module may also discourage reflection. | Staff find that what Students write vague comments in their portfolios that are not truly reflective. The comments are all related to communication, and not to clinical tasks such as radiography techniques. The comments tend to be general, e.g. ‘I’m a team player’, and repetitive. It appears that students feel obliged to write something, probably because completion of the portfolio is compulsory and carries a grade for the module. This confirms the students’ perceptions.

Staff report that some students do not take action on feedback or identify specific aspects of communication that need improvement. It may be that they do not have the skills to do this and expect staff to do it for them. They don’t take responsibility for own learning, and this can happen at postgraduate level as well. It is also possible that the bureaucratic nature of the portfolio is a barrier to student utilisation of feedback, when the ‘mark’ is the item of interest. It may also be that the clinical portfolio has too many functions, which may be confusing for the students. |
**Formative Workshops at City University**

Students return to the university for 1 week after 4 weeks in placement for formative clinical sessions in the skills suite using a simulator. They work in small groups of 8-10. The students are in the same group as on clinical placement, thus known to each other. Issues not noted on clinical placement are identified and fed back to the student(s). The workshops are facilitated by the link lecturer, who directly observes and gives verbal feedback on the students’ performance (e.g. positioning a patient for a diagnostic procedure) followed by discussion in the group. There are opportunities for peer feedback during these sessions.

Students consider learning in formative workshops the best learning opportunity. They value the opportunity for dialogue during the workshops. The relaxed atmosphere in a familiar small group is conducive to active engagement with the learning process.

There was insufficient time to fully explore how students respond to feedback in formative workshops, but staff confirm that students do use feedback from formative workshops to improve performance.

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**Peer Evaluation and Feedback**

This a not a formal procedure, but takes place during the formative workshops.

Students find that the opportunities for peer evaluation and feedback during the formative workshops could be unproductive and unconstructive, and are resistant to the idea. Students are also unhappy about group feedback because students are of variable ability, some students may not know how to give feedback.

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**Written Assignments (clinical and communication skills)**

Students have one written assignment per academic year, marked anonymously so that the feedback is also anonymous. A structure is in place for feedback on written work. Students are given assessment criteria, and feedback is given within 2-3 weeks. There are, however, acknowledged problems and a new form is being piloted.

Owing to time constraints, the issues relating to feedback on written work was not fully explored. However, students were critical of the feedback for written assignments; they are too general and brief and need to be more specific to be of use. Students are also opposed to peer evaluation of written work.

There are acknowledged problems with the increased workload related to feedback on written assignments. Marking the written assignments and giving good feedback is time consuming, and efforts are being made to address this issue. A new form is being piloted, but also has problems, being perceived as being too rigid. Very few students, if any, re-submit written work after getting feedback, sometimes even if they fail. This could be because the students fail to understand the comments, or the comments may be too general. This
| Feedback for Examinations | Students are given their mark only. Verbal feedback is only given for those who fail (very small numbers), not for those who pass, but could do better. | Students learn to be strategic during exams, and transfer what they learn to other exams. However, despite not taking up offers of feedback for failure in exams, students would like feedback on key points as well as the ‘mark’. There is also some concern about inconsistency in marking exams; applying/interpreting criteria. | Staff report that the size of the task for providing feedback on examinations for the whole cohort is daunting. Students tend not to ask for feedback on exams and do not take action on feedback received for exams. Feedback is only given for students who fail. The usual practice is to hold remediation tutorials for students that have to re-sit exams. It would be too difficult if the numbers extended to the whole cohort. However, contrary to expectation, one cohort has asked for feedback in order to improve future performance on examinations. |
| Feedback for OSCEs | There is a feedback sheet for OSCEs with boxes that the assessor ticks. There are no comments. | Students would prefer comments and need a range for levels of competence rather than ticking boxes for a dichomised pass/fail. |  

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Tutor characteristics that affect feedback information

The students reported that the tutor’s personality makes a difference, particularly for tacit knowledge, and tutor’s manner and behaviour affects how effective feedback is. The students said that they know who is good and whom not so good. The tutor’s expertise in the subject affects students’ trust/belief in feedback. Furthermore, students would not trust feedback from someone who is trained for giving feedback, but is not a trained radiographer. This is confirmed by the tutors, reporting that students choose to work with a respected radiographer. Some (minority) have to be avoided. Staff also felt that trying to be too kind; ego-building can be counterproductive.

Radiography staff perceptions of barriers to effective feedback

A number of factors were perceived as barriers to effective feedback. These factors very much concur with the barriers to effective feedback formulated by Higgins (2001)\(^{13}\).

Time constraints
Clinical placements are in busy NHS radiography departments so that service demands and time constraints mean the supervisors sometimes cannot give effective feedback, which is not considered a priority. There is also a reluctance of ‘pressed men’ to give feedback.

Institutional factors
Ownership of teaching is an important factor in the performance of feedback; recent organisational change gave the clinical placements more ownership for teaching. NHS radiographers are now much more engaged with teaching, when previously was perceived to be the responsibility of the academic lecturer associated with the University. The changes have led to better communication between University and clinical placements.

Professional body reviews (e.g. QAA)
The number and variety of reviews take up a lot of time, and may detract from good practice. Particularly as the information required for these reviews are repetitive.

Radiography staff evaluation of BL Guidelines for Feedback

The guidance on clinical skills learning is fine; they are sensible and have real relevance. The radiography staff felt that there is already a system in place for giving students feedback to enhance learning. If no feedback process is in place, then guidance would be helpful (especially if it is mandatory).

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Having minimum standards is good practice, and a good idea to separate different types of feedback (different types of assessment). Having some guidelines would be helpful for new staff. They would also stimulate reflection about what we are doing now, and consider what is feasible and what not.

These findings echo those of the Speech and Language Therapy staff, and also fit in with the published research. The characteristics of learning tasks for different professional disciplines vary, but generic feedback guidelines pay little attention to task characteristics (Black and Wiliam 1998)\textsuperscript{14}, and feedback needs built into module design in order to fulfill the aims of development and enhancement of learning (Mutch 2003)\textsuperscript{15}.

**Nursing:**

It was not possible to organise a discussion group with tutors, so the students' responses could not be verified by tutors' comments. It was also difficult to identify a clear system for feedback, particularly as the literature suggests that students are sometimes not aware that they are being given feedback (Greenberg 2004)\textsuperscript{16}.

The students felt that they are well taught on basic patient observation skills in the first year, and were confident when they went to work on the wards. There are feedback opportunities during practical sessions (in skills lab) and they practise on each other.

Table 3 sets out the feedback systems in place and Nursing students' perceptions of feedback practice.

Table 3: Feedback systems in place for Nursing students, and students’ and tutors’ perceptions of these systems

<table>
<thead>
<tr>
<th>Feedback Systems in place</th>
<th>Student Perceptions</th>
<th>Tutor Perceptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Placements</td>
<td>Feedback on placement is given by the student’s mentor verbally, when the performance is directly observed. This is the feedback that students value most. However, the quality and amount of feedback could be variable owing to the variability in clinical placements. There are also limitations on the opportunities to practise clinical skills, possibly related to the nature and variety of NHS hospital placements. Students are sometimes confused by the variation in techniques for performing clinical tasks, and this may be related to the application of explicit knowledge to practical skills. Feedback might be individual to the giver, but inevitable if tacit knowing is personal. Although negative, corrective feedback might be upsetting, students acknowledge that acceptance of corrective feedback is necessary for improving performance of clinical skills. Students sometimes try to identify mistakes before the mentor mentions it: ‘owning up to Mum’ Students are also unhappy about receiving negative feedback in front of patients. Difficulties arise when there is too much negative feedback in a poor relationship; students note the importance of the relationship with the feedback giver in the effectiveness of feedback. The question of how much corrective feedback is appropriate may vary between individuals. The focus of feedback should be on the task, not personalities. There appears to be a lack of continuity with mentoring on some clinical placements, when the student is supposed to have the same mentor and an</td>
<td>It was not possible to convene a discussion group with Nurse tutors. The mentor system in place was confirmed by the programme Director during the initial interview, and 50% of the course is on clinical placement.</td>
</tr>
</tbody>
</table>

Each nurse works with a mentor and an associate on the wards, where they practise their clinical skills, and are observed by and receive feedback from mentors. However, the placements are variable, in different wards and hospitals, so that the learning opportunities are different depending on the specialty and the ward.
associate mentor. Here, having two mentors is sometimes an advantage. This is probably related to nursing resource issues in the NHS, when students may have to work with agency nurses. Students sometimes mistrust the feedback they receive.

| Lab Based Communication Skills | There are simulated sessions for communication skills where the students have an opportunity to work with an actor as a simulated patient | Students taking part in the discussion group found the simulated lab based communications teaching of limited value, but good to have done it. The experience was artificial, contrived and applied to communication skills only. The experience would have been more useful if something had gone wrong. The value of the scenario on communication with parents was very limited. (Children’s nurse), and feedback from the simulated patient (actor) was unconvincing. |
| Written Assignments (for clinical and communication skills) | Feedback for written work is always written, with no opportunity for a dialogue except when having to re-submit | Students taking part in the discussion group did not appear to value feedback on written work. They report that they are discouraged from asking for feedback on ‘pass’ essays, but would in fact welcome the opportunity to discuss their written work with tutors [for improvement and re-submission]. The students did not understand the purpose of their written assignments, and could not understand the tutors’ written comments. The variability of how tutors interpret marking criteria for written assignments made the feedback confusing and unhelpful, despite the marking criteria being apparently ‘clear’. The comments were too general, so that it becomes impossible to transfer feedback to improve other work. Students had particular difficulty with ‘reflective writing’; some of the ‘educational’ language used in the feedback communication was perceived to be incomprehensible. Information from the initial interview with the Programme director showed that assessment of written assignments is summative, and always written. The marking criteria concern whether the work is logical and if the referencing is adequate. |
| OSCEs | Feedback for objective Structure Clinical Examinations (OSCEs) consist of a checklist with space for written comments | There is a feedback form with tick boxes and space for written comments. However, some comments are not helpful by not focusing on the task. There is also inconsistency in marking and feedback. The Programme Director reported that the feedback is mainly on clinical skills. External examiners consider that the feedback practice is very good. |
What student nurses perceive to be effective feedback

The students trust the feedback given by a skilled nurse who is respected as a good nurse. A nurse who is approachable, unthreatened, and confident of her/his own expertise, and is committed to teaching. They perceive feedback as a relationship in which the learner has to be proactive to achieve their own learning objectives. Time is needed to develop the relationship between teacher and learner in which the learner can be confident about the feedback they receive. This confirms the findings from the study of communicating feedback by Higgins (2001)\(^\text{17}\).

Feedback that meets the needs of the student and is specific to the task, rather than general comments is more effective. ‘Little and often’ rather than feedback at the end of a placement would be more effective for taking action to improve performance, but students acknowledge that there may be time constraints for this. Feedback at the end of a placement is too late to enhance learning.

Feedback comments that are too general are not helpful, and students most value individual, one to one, feedback on performance that had been observed by the mentor. However, students are reluctant to ask for feedback, even when they feel overwhelmed by their workload.

With respect to tacit learning

Students are sometimes confused by the variation in techniques for performing clinical tasks. If this is related to differences in approach to performance of a particular technique, the feedback might be individual to the giver, but inevitable if competence is personal (Eraut 1994).

Reflective writing

Students have real difficulty with reflection in written work. Owing to time constraints, this was not fully explored.

Common themes identified as problematic to effective feedback identified from the discussion groups

The common themes identified as problematic to effective feedback during the 5 discussion groups are set out in table 4, appendix 2. These are summarised as follows:

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**Clinical skills**

The problems identified for effective feedback on clinical placement and the use of the clinical portfolio are separate. Whereas students were universally positive about the feedback systems for the video (Speech and Language Therapy) and the formative workshops (Radiography), and the potentially problematic issues are acknowledged as being related to the personal nature of learning and developing clinical skills.

**Clinical placements**

- Clinical skills are best learned in practice, with at least sufficient opportunities for practising these skills for developing competency (Eraut 1994).
- The process of learning to use feedback information to enhance learning and to improve the performance of clinical skills is developmental. Learners begin by not understanding the purpose and being undermined by corrective feedback, but learn to do so during their training.
- Differences in tutors’ interpretation of the standards for performing clinical skills and procedures are acknowledged to be related to the personal nature of knowing with inevitable variation in interpretation of assessment criteria. Learners need to develop their own approach (Eraut 1994).
- Feedback to enhance learning is a relationship between the giver and recipient, which needs continuity and develops over time. This also enables learners to monitor their own progress Higgins (2001).18
- Peer evaluation and feedback can be problematic, where some training on feedback techniques could be helpful.
- Time constraints in busy NHS facilities can prevent effective feedback.

**Clinical portfolio**

The School of Speech and Language Therapy and Radiography both use a clinical portfolio, which also serves as a reflective learning log.
- The compulsory nature of the clinical portfolio that carries a ‘mark’ hinders self-evaluation and true reflection.
- The bureaucratic nature of the clinical portfolio with check lists and rating scales is too restricting. The ‘statements’ are too general, when the range of tasks and level of the learners’ skills are diverse and varied (Eraut 1994).19
- There may be too many components to the clinical portfolios, each with a different purpose, needing a different assessment format (e.g. clinical tasks, professionalism, communication). This is confusing for students.

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The nature of personal knowledge makes standard setting difficult, especially for students.

Students mistrust feedback on performance that is not directly observed by the feedback giver. (Bing-You et al 1997)\textsuperscript{20}.

**Communication skills**

Students and teachers in Speech and language Therapy and Radiography consider that communication is part of clinical skills, and assessed as such. Nursing and midwifery students have teaching on simulated patients in the laboratory setting, where they find the experience interesting, but of limited value.

**Written assignments**

Students and teachers agree that written feedback for written assignments are sometimes not understood by students, so that the students do not utilise the feedback to improve performance (Charnock 2000, Lea and Street 2000, Weaver 2006)\textsuperscript{21}. The Nursing and Midwifery students had some difficulty with understanding the purpose of written assignments, having particular difficulty with ‘reflective writing’; some of the ‘educational’ language used in the feedback communication was perceived to be incomprehensible. Time constraints are also problematic for tutors to give effective written feedback.

**Examinations**

The size of the task for giving feedback on written examinations to all students is not feasible. The Schools of Radiography and Nursing and Midwifery use the Objective Structure Clinical Examination for summative assessment. Students report that they would like feedback comments on their level of performance of clinical tasks that they could use to improve performance, rather than a checklist of processes that are dichotomised to pass/fail (Eraut 1994).

**Conclusions**

The findings from the discussion groups largely confirm the research findings in the literature reviewed.

\textsuperscript{20} Bing-You R G, Patterson J, Levine M A. Feedback falling on deaf ears: residents’ receptivity to feedback tempered by sender credibility. Medical Teacher 1997: 19 (1); 40-44.


Students prefer, and are more likely to utilise feedback on clinical skills that comply with Ende (1983)\textsuperscript{22}, and others, proposed model for clinical feedback, in being:

- Undertaken with the teacher and trainee working together as allies, with common goals (mutual)
- Well timed and expected (soon after learning)
- Based on first hand data (observed behaviour by teacher, not from rating lists by someone else)
- Deal with specific performance, not generalisations

The tutors’ perception of why students do not always make use of feedback information fits in with the research findings that action depends on the learner’s understanding of the clinical task, their general learning and attitude to learning. Another reason could be a mismatch of expectations between the tutor and students. This confirms some of the findings from the research literature (Kluger & De Nisi 1996 cited in Black & Wiliam, Orsmond et al 2002)\textsuperscript{23}. Furthermore, students improve on their use of feedback as they progress through their training, suggesting that that the notion of ‘implied development’ is indeed contained in the feedback process, so that receiving and using feedback to enhance learning are skills that students have to learn (Mutch 2003)\textsuperscript{24}.

Feedback is also perceived to be communication within a relationship, where time and continuity are needed for the relationship to develop, in which the learner can be confident about the feedback they receive, confirming the findings from the study of communicating feedback by Higgins (2001).

With regard to the clinical portfolio, the bureaucratic and compulsory nature of the portfolio and the fact that it carries a grade may discourage reflection, supporting Higgins (2001)\textsuperscript{25} finding that that an over emphasis of structure and procedure could be a barrier to effective communication and student utilisation of feedback.

Feedback on written assignments appears problematic for students and staff alike, for all the professions. This could be because students fail to understand written comments or find them too general, which fits in with the findings of Lea

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\textsuperscript{22} Ende J. (1983) Feedback in clinical medical practice. JAMA 250(6); 777-81.
\textsuperscript{23} Black P and Wiliam D. Assessment and classroom learning. (1998) Assessment in Education 5(1) pp 7-74

and Street (2000)\textsuperscript{26} that tutors’ comments may reflect a complex academic dialogue which is only partially understood by students, so that there may be no shared understanding of feedback comments between the student and tutor. Students also have difficulty with ‘reflective’ writing, where the ‘educational’ language used in the written comments was incomprehensible, reflecting the conclusions from published research (Charnock 2000, Weaver 2006)\textsuperscript{27}.

Apart from the ‘mark’, feedback for examinations, whether written or practical, did not appear to be so important for the students in the discussion groups. This supports the notion that feedback from summative assessment is not so useful for enhancing learning or improving performance of clinical skills, being after the fact. Tutors would also find it daunting to feedback on written exams for all students.

**Summary**

The findings from the discussion groups suggest that the practice of formative feedback is well embedded in the clinical pedagogy of Speech and Language therapy, Radiography and Nursing. Although the model for feedback in nursing is not as clear, robust systems and good practice are already in place. Students value the formative assessment feedback that they receive on clinical placements as essential to their attainment of clinical competence. They also value the complementary formative assessment and feedback based on various strategies, such as the video in Speech Therapy and the formative workshops in Radiography, as excellent opportunities for learning.

The most effective form of feedback in the clinical context, and preferred, as the most useful form of communication, by students is:

- Directly observed
- Individual
- Verbal, with the opportunity for a dialogue
- And immediate

There are, however, some issues that detract from the main purpose of formative feedback to enhance student learning, which is:

- To give guidance, which may be to give direction for learning, or be corrective.
- To enhance motivation.

\textsuperscript{26} Lea MR and Street BV. (2000) Student writing and staff feedback in higher education: an academic literacies approach, in: M. Lea and B. Stierer (Eds) Student writing in higher education: new contexts (Buckingham, Open University Press)


To facilitate and encourage reflection.
To clarify understanding.

These issues are not unique to the CETL health professions, but are problems that are common to feedback related to different assessment strategies identified in the published research literature. These issues concern:

- The over-preoccupation with structure and procedure that hinders true reflection.
- The under-valuation of ‘personal knowing’ in clinical competence, and therefore difficulties with assessment (i.e. the lack of distinction between implicit and explicit knowledge within educational principles).
- The linguistic and expectation mismatch between the giver and recipient of written feedback, giving rise to inconsistency in interpretation of learning objectives and assessment criteria, and incomprehension in the learner.
- Insufficient attention to resource constraints for assessment and feedback.
- Attention to staff training and student coaching for giving and receiving feedback.
- Insufficient attention to the subject context for the variety of assessment purposes.
- A culture of formative feedback that fulfils the aims for student development and enhanced learning needs to be fostered and developed over time, and is related to the specific culture and learning environment of particular clinical disciplines.

Much of the feedback practices in place in the CETL professions are implicit rather than explicit. Despite the limitations of this study, it should be possible to use these findings to review current feedback practice and formulate procedures within the individual subject context, with due attention to institutional and resource constraints, for good practice.
DEVELOPMENT OF FEEDBACK GUIDELINES
(dissemination artefacts)

- The Guidelines developed by the School of Medicine and Dentistry (SMD) were used in the discussion groups with the tutors to stimulate participants to think about whether similar documentation would be helpful within their own professional schools.

- It became clear that the development of guidelines for each professional school needed to be developed by each institution, to address the specific needs of the students and to conform to the different course and institutional structures.

- From the literature review and the SMD Guidelines, there are generic principles on which specific guidelines could be developed.

  Nicol & MacFarlane (2004) suggest 7 key principles which define the approach taken in these guidelines, the minimum standards set and the further pointers for good practice. They propose that effective feedback -

  2. Encourages teacher and peer dialogue around learning.
  3. Helps clarify what good performance is (goals, criteria, expected standards).
  4. Provides opportunities to close the gap between current and desired performance.
  5. Delivers high quality information to students about their learning.
  7. Provides information to teachers that can be used to help shape the teaching.

  We can add a further principle which states that:

  8. Feedback must be delivered by a member of staff whom the learners acknowledge has a sufficient familiarity with their work to make a reliable assessment.

  For clinical skills, Ende recommended that feedback should be:
  1. Undertaken with the teacher and trainee working together as allies, with common goals (mutual)
  2. Well timed and expected (soon after learning)
3. Based on first hand data (observed behaviour by teacher, not from rating lists by someone else)
4. Regulated in quantity (not too much all at once) and limited to behaviors that are remediable.
5. Phrased in descriptive, non-evaluative language (descriptive).
6. Deal with specific performance, not generalisations.
7. Should offer subjective data and offered as such (I see, think etc)
8. Deal with decisions and actions, rather than assumed intentions or interpretations.

- The SMD Guidelines (Tutor version) are attached as Appendix 3

**Staff Development workshops**

- Staff Development Workshops can be designed using the generic principles above and informed by the literature review, and the outcomes of the discussion groups with the various professional groups involved in this project

- Workshops will need to be profession-specific, in order to make them most useful to the staff in each school and its clinical context

- Suggestions for workshop content
  - Introduction to the purpose of the workshop
  - Review of the principles of effective feedback and the role of effective feedback in the learning process
  - Have a framework for giving feedback about performance
  - Role play scenarios to practice giving feedback in profession-specific situations
RECOMMENDATIONS

1. Each Professional School should **review their own feedback systems** in the light of the literature review and the discussion group outcomes reported in this document.

2. **Profession-specific guidelines should be developed**, based on generic principles, to address the specific teaching and assessment programmes in each Professional School.

3. **Staff Development Workshops** should be devised within each professional school, to raise awareness of the principles of effective feedback and to develop the skills of the tutors in giving feedback to their students.

**Useful websites**

- www.heacademy.ac.uk/ourwork/research
- www.heacademy.ac.uk/ourwork/learning/assessment/senlef
- www.reap.ac.uk
Appendix 1: LITERATURE REVIEW

The purpose of this literature review was to build upon the Feedback Project within Barts and The London School of Medicine and Dentistry. The aims were to ascertain the process of feedback in the context of learning clinical and communication skills and what constitutes effective feedback that is utilised by learners to improve performance:

- How students in the clinical disciplines respond to feedback in the context of assessment;
- whether and how they use received feedback to enhance learning and performance, and
- what tutors, the givers of feedback, perceive to be effective feedback.

The ultimate aim is to use this information to inform the development of feedback materials in the context of learning in clinical disciplines.

**Literature search**

The literature search for the CETL feedback project extended the review for the Barts and the London Feedback Project, which was based on the report of the Student Enhanced Learning through Effective Feedback (SENLEF) project (Juwah C et al 2004). The SENLEF authors used the theoretical model for formative assessment and feedback first proposed by Black and William (1998), where formative assessment is formulated as all those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify teaching and learning activities in which they are engaged. It was also assumed that formative assessment addresses direction (guidance) and motivation to learn.

A briefing paper from the project (Nicol & MacFarlane, 2004) sets out seven principles of good feedback practice, which:

2. Encourages teacher and peer dialogue around learning.
3. Helps clarify what good performance is (goals, criteria, expected standards).
4. Provides opportunities to close the gap between current and desired performance.
5. Delivers high quality information to students about their learning.
6. Encourages positive motivational beliefs and self esteem.
7. Provides information to teachers that can be used to help shape teaching.
These principles were supplemented by an eighth principle for the Barts and The London Feedback Project:

8. Feedback must be delivered by a member of staff whom the learners acknowledge has a sufficient familiarity with their work to make a reliable assessment.

Following a questionnaire survey of students and teachers about current feedback practice, the eight principles were then used to inform the development of guidelines for good feedback practice for the School of Medicine (appendix 3).

For this project, English language published papers dating from 1983 to 2006 were reviewed. A citation search was performed, based on the extensive review by Black and Wiliam (1998), and the SENLEF (2004) report. This was supplemented by an electronic search of relevant journals (e.g. *Assessment in Higher Education, Medical Education, Medical Teacher*) using the Queen Mary, University of London e-journal database. The publications (a total of 26 reports) considered relevant were a mixture of recommendations for how to give feedback, observations of teachers’ and students’ perceptions of feedback, and some experimental studies.

Although there were publications on guidance for giving feedback and studies on how to give feedback in learning and teaching clinical and communication skills, very few focused on the effectiveness of feedback in the sense that it enabled students to take action for improving performance, engage in reflective learning and for enhancing learning. There were no publications of studies on specific student behaviours in response to feedback. There was also a paucity of literature on the apprenticeship aspect of learning in the clinical context; learning through observation, imitation, dialogue and practise.

**Literature review**

The studies reviewed were categorised into eight main sections:

1. The nature and purpose of feedback
2. Guidance for tutors on how to give feedback
3. Factors that influence the effectiveness of feedback
4. Feedback from summative assessment
5. Feedback in the context of gaining clinical competencies
6. Preparing students for feedback
7. Examples of effective feedback to enhance clinical skills learning
8. Barriers to effective feedback
The nature and purpose of feedback

In a discussion about feedback to students, attention to assessment is unavoidable, as the information given during feedback has to be obtained through some form of assessment. In this context, the purpose for assessment is also relevant, since assessment practice varies according to the subject studied, and the way that the course is structured. There is also a lack of clarity about the terms ‘feedback’ and ‘evaluation’, which are sometimes used in an interchangeable way.

For clarity in this review, these terms will be used in the following way:

- **Assessment** is a core function of higher education institutions alleged to drive student learning, but is also influential for teaching. It can therefore be a process that mediates teaching and learning relationship (Nicol 2007, the Re-engineering Assessment Practices (REAP) project). The purposes of formative and summative assessment are different.
- **Feedback** is an integral part of formative assessment, providing information to students about performance to enhance learning.
- **Evaluation** refers to student evaluation/appraisal of a course/teaching

**Purpose of feedback**

The information for feedback is of necessity obtained from some form of assessment or evaluation by the giver, where a judgment on knowledge or performance is necessary. In this review, feedback is the communication to students about their performance with the aim to enhancing learning; guidance (direction, corrective), encourage reflection, increase motivation to learn.

**Nature of feedback**

Feedback may be part of formative assessment, or to provide information about performance in summative assessment.

In formative models of feedback, Black and Wiliam (1998), in their extensive review of assessment and classroom learning, define formative assessment as a process in which information is provided by teachers to students, or students to each other, with the aim of modifying learning or teaching activities. Feedback is an integral part of this process. Other researchers have also tried to define the aims of formative feedback, notably Orsmond et al (2002). The purpose of formative feedback could therefore be to enhance learning:

- To give guidance, which may be to give direction for learning, or be corrective.
- To enhance motivation.
- To facilitate and encourage reflection
- To clarify understanding

Summative exam models: the formative-summative relationship is not always well thought through. Summative feedback usually does not help to improve
learning, being perceived as given too late. Frequent summative tests cannot take the place of formative assessment. The functions of assessment are also different:

- Summative functions of assessment are concerned with consistency of decisions across relatively large numbers of students.
- Formative assessments aim at desirable consequences of relatively small groups of students (e.g. tutorial groups) or individuals.

In a critical review of feedback practice to students, Mutch (2003) proposes the notion of ‘implied development’ contained in feedback. Feedback practices need to be set in the context of course design. Receiving and using feedback to enhance learning are skills that students have to learn.

**Guidance for tutors on how to give feedback**

Ende (1983) first proposed a model for feedback in clinical practice, adapted from guidelines for giving feedback in business administration, psychology and education. Attention was given to the stage of student learning, where students may be uncertain (especially the younger ones, just out of school, or first time onwards), when responses to internal and external cues, and written evaluation (exams) gain inflated importance in feedback. In summary, the effective feedback on the performance of clinical skills is characterised by the following:

- The importance of feedback stems from the nature of the clinical method of teaching.
- Feedback has instructional qualities, being a useful technique if given without delay, explicit and clear (i.e. not by course director using other people’s forms!)
- Feedback is best done as ongoing sessions between Faculty member and student in which the student’s progress is discussed.
- Feedback confirms the student’s strengths and allows the student to learn about mistakes and consider alternative behaviours.

Ende recommended that feedback (for clinical skills) should be:

- Undertaken with the teacher and trainee working together as allies, with common goals (mutual)
- Well timed and expected (soon after learning)
- Based on first hand data (observed behaviour by teacher, not from rating lists completed by someone else)
- Regulated in quantity (not too much all at once) and limited to behaviours that are remediable.
- Phrased in descriptive, non-evaluative language (descriptive).
- Deal with specific performance, not generalisations.
- Should offer subjective data and offered as such (I see, think etc)
- Deal with decisions and actions, rather than assumed intentions or interpretations.
Furthermore, student’s performance of clinical skills should be measured against well-defined goals, which need to be formally stated as written learning objectives, but must be meaningful for both parties and shared. Feedback may be formal or informal.

In a study of faculty and student perceptions of clinical clerkship feedback, Gil et al (1984) found consistency in the feedback categories that teachers and learners found important and useful. These categories were similar to the feedback characteristics outlined elsewhere (Ende 1983, Nadler 1977, cited in Gil et al 1984), and consist of:

- Sufficiency
- Specificity
- Timeliness
- Regularity
- Relevancy
- Encouragement
- Recommendation for improvement
- Reciprocity (enhances a two-way communication between feedback giver and recipient)

Hewson and Little (1998) verified Ende’s guidelines with clinical teachers, finding a significant increase in the number of helpful incidences between the group that followed recommended guidelines and the group that did not.

Subsequently, Brukner et al (1999) found a clear correlation between recommended feedback techniques and feedback experiences that participants find useful (Bing-You and Stratos 1995, Bing-You et al 1997, Hewson & Little 1998 cited in Brukner et al 1999). The study was an intervention study with clinical teachers training for giving feedback (see below p 51), demonstrating that giving effective feedback is a skill that can be learned through training and practice. The authors noted that there was a paucity of published approaches to specific student behaviours.

A review of more recent, selected papers with advice on how to give feedback (Hewson and Little 1998, Wood 2000, Rust 2002, Orsmond et al 2002, Nicol 2004, Collins 2007) found similarities in the type of principles for effective feedback. What was considered important and useful for promoting student learning was also consistent with previous findings.

The feedback techniques described in the literature were very similar, and may be summarised using Wood’s (2000) formulation:

1. Feedback comments should be based on information about observable, and observed, behaviour.
2. In order to give the learner confidence, positive comments may be given first. This information should focus on specific behaviours and situations, rather than general statements or value judgments.

3. Feedback information should be a dialogue, with both the teacher and learning contributing, emphasising the sharing of information.

4. Feedback should be given close to the observation, at an appropriate time and place. (The closer to the event, the more useful)

5. Feedback information should not be too detailed or broad as to overload the learner, but should include specific, subjective data.

6. Feedback should deal with behaviours; decisions and actions that the learner can control and modify.

7. Learners should be asked to verify feedback: to understand and agree with the information.

8. Giving and receiving formative feedback requires preparation: both the giver and recipient need to cultivate the ability to heed and give information, and to tolerate criticism and discomfort.

Factors that influence the effectiveness of feedback

The effectiveness of feedback for improving performance and learning is determined by both the giver and the recipient. The quality of communication of feedback information, whether verbally or in writing is also essential to the effectiveness of feedback.

Student reception and response to feedback

Students' reception of and response to feedback from formative assessment appears to be variable, related to self perception, and may be influenced by culture (Black and Wiliam 1998, Higgins et al 2001, Rust 2002, Rushton 2005). Student use of feedback is influenced by:

- Assumptions about the nature of learning: student engagement with formative assessment depends on student attitude to learning e.g. ‘getting by with minimum effort’.
- Insecurity about risk of failure if extra commitment is made.
- Student belief in their own performance capacities (self-efficacy).
- Student belief in locus of control (self attribution).
- Not understanding that feedback is meant to be developmental.
- Response could be culturally determined (Purdie and Hattie 1996, cited in Black and Wiliam).
- Student reluctance to seek help, seeing this as a sign of low ability (self attribution/ self concept).
- Nature of feedback guidance: whether the focus is on learning or on performance (i.e. grade/mark)

How feedback is given and classroom culture (environment) affects personal features (above), and can enhance self concept (be positive) or be undermining
(negative). Whether the feedback focuses on the task in hand or on the student’s ego also affects the way that feedback is received: feedback that draws attention away from the task towards self esteem has a negative effect on attitudes and performance in learning (Cameron and Pierce 1994, Kluger and DeNisi 1996 cited in Black and Wiliam 1998). Praise not linked to objective feedback about work can have a bad effect. Also, focus on process goals rather than product goals (mark) supplemented by progress to overall aim for learning gave the best results.

The relationship between the characteristics of the student and their response to feedback is a complex one. Self concept is important, but providing a challenging assignment with extensive feedback can lead to greater student engagement and higher achievement.

**Student perception of feedback**

Orsmond (2002) used semi-structured interviews with third year biology students to explore how students perceive and use feedback. It was implicit that students found feedback from tutors on course work useful. Interestingly, none of the respondents discussed feedback on examinations. Some reservations were expressed, summarised as:

- Unhappiness about tutors’ use of language: there is a lack of understanding. Previous research by Lea and Street (2000) identified a gap between academic staff expectations and student interpretation of what is involved with student writing in higher education. It was also evident that the understandings of staff and students varied with the discipline. This is confirmed by Charnock’s (2000) survey of humanities students in Melbourne, where almost half the students responding to the survey did not interpret tutors’ written comments as they were intended. From the tutors’ viewpoint, Mutch (2003) explored academics’ perception of the extent to which students understand a conversational style of feedback, concluding that knowledge and understanding were different for students and tutors.
- The balance of positive and negative feedback may be overwhelming so that the student is unable to assimilate the information.
- Students prefer a dialogue about their work rather than written feedback.

**Student response to feedback: how students use feedback.**

In order for feedback to have an impact on student learning,

- The learner has to perceive that there is a gap in their knowledge, and/or understanding and/or skill
- The learner needs to take action to close the gap

Four broad classes of action that students take in response to feedback were identified if a ‘gap’ between actual levels of knowledge and desired level is perceived (Kluger & DeNisi 1996 cited in Black and Wiliam):
1. If the goal is clear, an attempt is made to reach the standard or reference level of knowledge. There is motivation and commitment to reaching the goal, and confidence in eventual success.
2. The student abandons the standard completely when belief in success is low (learned helplessness).
3. The student attempts to negotiate a change in the standard (culturally determined?)
4. The student denies that there is a feedback-standard gap.

In their study of how students use formative feedback, Orsmond et al (2002) characterised the way the students processed and used formative feedback as
1. Increasing student motivation: better understanding, achieved higher level of understanding
2. Increasing learning: students used feedback as guidance to improve the assignment(s) in the context of the assignment, but also generalising the feedback for other modules/exams i.e. transferable skill.
3. Increasing reflection: students were enabled to view the assignment from a different perspective; enabled self-assessment; peer assessment/discussion.
4. Clarification of understanding: mainly of performance indicator i.e. expected standard (assessment/marking criteria).

Students appeared to use feedback out with a particular assignment, but which nevertheless could make the feedback more meaningful and/or focused.

Summary

In summary, Orsmond et al found that:
- Formative feedback makes learning more efficient i.e. reduces trial and error learning.
- Summative feedback may be too late
- Distinction between the two may be blurred: summative feedback has a formative role.

Further research evidence is provided by Rushton (2005) in a review of literature on formative assessment, where feedback is central to formative assessment and links to deep learning. Feedback is defined as information about the gap between the actual and desired levels of student performance. There is a diversity of student perception of feedback, which depends on self esteem. Utilisation of feedback is dependent upon:
- Student perception of the gap
- Motivation to take action
- Student interpretation of feedback. Students need preparation for interpreting feedback in the context of their work.

It becomes evident that receiving and effectively using feedback is a skill that students need to learn. An intervention study (Bing-You et al 1998) to coach
medical students for receiving effective feedback reported improvement in student perceptions in:

- knowing how they are progressing
- acquiring enough information to improve their performance
- being effective in soliciting feedback
- knowing how to develop personal learning goals

The influence of the tutor on the effectiveness of feedback

Giving feedback by tutors implies a measure of assessment. In this review, there is an assumption that feedback is an integral part of formative assessment. Surveys by Crooks (1988) and Black (1993b) cited in Black and Wiliam (1998) show that teachers’ practice of formative assessment was weak overall. The findings identified the following characteristics:

- Encourages superficial learning (rote learning, recall of isolated facts soon forgotten)
- Teachers don’t review assessment questions, or talk to peers (no critical reflection)
- Grading over-emphasised
- Tendency to use normative approach - competitive rather than individual progress - can be de-motivating.

“Formative and diagnostic assessment needs serious development.” There is a tension between summative and formative assessment. Formative assessment is not simply frequent summative tests! There is a diversity of practice, and the pace of change towards effective feedback for enhancing learning is slow, where innovations take time and resources to implement.

Tutor characteristics

In a qualitative study of feedback in medical practice, Bing-You et al (1997) asked the question, that despite numerous guidelines on effective feedback, why is it not embedded in (clinical) pedagogy? Does it reflect inadequacies of sender or inability of recipient to receive and/or respond appropriately? Among the conclusions, the characteristics of the giver of feedback had a significant impact on how the recipient responded to the information. With respect to the characteristics of the giver, feedback is not effective if the learner

- lacked trust and respect for the teacher
- perceived the teacher as lacking in knowledge and/or experience/expertise
- perceived the teacher as having poor interpersonal skills or exhibits uneasiness when giving feedback
- believes that the information given is not the result of direct observation

More recent studies (Higgins et al 2001, Orsmond et al 2002) confirm that the tutor’s perceived expertise in the subject, experience and skills in giving feedback
are salient factors in the feedback process. Orsmond summarises the tutor’s role in feedback as:

1. The tutor is important to how the student responds to feedback (i.e. trust, detail, explanation, openness to discussion/alternative view).
2. The characteristics of the tutor have a significant impact on learning: approachability; personality. Tutor’s knowledge and expertise (also reported in Higgins 2001) are also important. However, formative feedback makes anonymous marking less anonymous.
3. The learner’s perception of the tutor influenced learning.
4. Learning is different if there was no tutor feedback. Feedback increased confidence, changes direction of learning, gives guidance.

A structured approach to training tutors and practice also improved feedback strategies and the ability to give feedback (Brukner et al 1999). Training using different case scenarios of varying student characteristics enabled tutors to adapt their approach to giving feedback information according to the student’s behaviour.

In Weaver’s (2006) survey of student perception of tutors’ feedback, the practice of giving helpful and detailed feedback was found to be inconsistent. Some tutors appeared to lack the skills and knowledge for providing feedback, others were overloaded and lacked time.

**Communicating feedback**

An essential part of the feedback process is communication. Lea and Street (2000) found that reading and writing within academic disciplines varied according to the subject matter. This may seem self evident, but in the context of feedback in higher education, there is an assumption that the academy has a homogenous culture, where contextual factors are not fully addressed. Depending on the specialty and what the student needs to learn, learning in HE involves adapting to new ways of knowing; new ways of understanding, interpreting and organising (synthesising) knowledge. In giving and receiving written feedback, there is a gap between academic staff expectations and student interpretation of what is involved.

Charnock (2000) surveyed students in Humanities about whether they understood tutors’ written comments on essays, finding that almost half of the students responding to the survey did not interpret the comments as the tutors intended. The variability of meaning depended on the discipline. About a quarter of the students said that would like more detailed comments to explain what they should have done.

With respect to written feedback content, a study of student perspective on the value and effectiveness of feedback (business and design students) involving both quantitative and qualitative data by Weaver (2006) reported that some students were not sure about what the tutor was getting at, and that 50% of the
sample had no guidance about feedback. The study concluded that students recognise the value of feedback and that feedback can improve learning. Feedback is helpful if it is appropriate and timely, i.e. not summative at the end of the module (too late for enhancing learning), but the information is sometimes not effective if:

- Too vague or general to be of use
- Criticism needs to be constructive, suggestions for improvement valued
- Not enough positive comments – which encourage students to improve
- Negative comments sometimes destructive of self esteem, but necessary to have a balance between positive and negative. (no evidence in the survey that students’ self esteem is damaged by negative feedback, suggests that these were students with medium to high self esteem anyway)
- Feedback unrelated to assessment criteria is unhelpful

Higgins et al (2001) describes communicating assessment feedback as an essentially problematic form of communication, where tutors formulate and students understand feedback in qualitatively different ways, and particular, social relationships shape the process. Students are sometimes indifferent to feedback comments, being only interested in the ‘mark’, and don’t take action on the information. Barriers to effective communication and student utilisation of feedback reflect an overemphasis of bureaucratic (structural and procedural) issues, summarised as:

- Consumerism mediates student receptiveness to feedback; students are only interested in obtaining a ‘good’ degree, adopting a surface approach to learning.
- Structure of institution or assessment system; timeliness of feedback, heavy tutor/student workload, modularisation affects feedback by disrupting the flow of communication.
- Tutors’ evaluation (audit, subject reviews). For example, QAA advice on feedback implies that addressing the procedural issues would ensure effective feedback, focusing on:
  - The timeliness of feedback
  - Specifying the nature and extent of feedback
  - Relating feedback to published assessment criteria (as opposed to the requirements of the course)
  - How the language of assessment and study should normally be the same.

Whereas from the students’ perspective, the learning context is complex, and important factors in the feedback communication process include:

- emotion, student emotional investment in completing work,
- identity, student perceptions of self and self esteem, (see above student behaviour)
- power, the tutor also occupies the dual role of assisting and passing judgment on the student,
• authority of the tutor, based on experience and institutional context.
• subjectivity and discourse: feedback comments convey a message based on an implicit understanding of particular academic terms, which in turn reflect a much more complex academic discourse, which in turn may be only partially understood by students. There may be no shared understanding, or understanding is not confirmed. There are also differences in tacit understanding between and within disciplines (Lea and Street 2000).

In most of the surveys, students reported that individual, verbal feedback, with the opportunity for a dialogue with the tutor was the most useful from of communication. In a study of oral versus written feedback, however, Einicki et al (1998) reported no difference in the responses from students randomised to either written or oral feedback in a medical clinic.

**Feedback from summative assessment**

Interestingly, most of the surveys of student perception of feedback do not report perceptions of summative feedback in any detail. The confusion between summative and formative feedback, both in their purpose and impact on student learning is noted. Summative assessment appears to have greater importance in many higher education institutions. The surveys, however, found that summative feedback (e.g. giving exam marks) is not so helpful for learning, being after the fact. This is borne out by the comments in the discussion groups.

**Feedback in the context of gaining clinical competencies**

The Code of Practice for the Assurance of Academic Quality and Standards in Higher Education (QAA 2006) recommends the general principal for assessment and feedback:

“Institutions provide appropriate and timely feedback to students on assessed work in a way that promotes learning and facilitates improvement but does not increase the burden of assessment.” (QAA, General Principle 12)

There may be an assumption that assessment and effective feedback messages are well received and used will enhance learning (Bing-you et al 1997), yet the variability of student responses and the factors that influence these responses are well documented (see above, student behaviour). Merely giving feedback comments is of little use unless students make use of them for learning. Rust (2002) cites research evidence to suggest that the investment in producing a piece of work for assessment has a greater effect on student learning than the passive reception of feedback. This may be further complicated by ‘widening participation and increasing retention’, when the greater variability of student characteristics, including basic study skills, would affect responses to assessment and feedback.
Learning, however, is complex. There is much discussion of how students learn in educational publications. Polanyi (1958) postulated that the transfer of useful knowledge involves the transmission of both explicit and tacit knowledge. Tacit knowledge is what we know but cannot express easily i.e. knowing in the bones. This form of ‘knowing’ is personal and hard to formalise.

Eraut (1994), in his characterisation of the nature of professional knowledge and competence proposes that “there is a difference between propositional knowledge that underpins or enables professional action and practical know-how, which is inherent in the action itself and cannot be separated from it”, noting that important aspects of professional competence and expertise cannot be represented in a publicly accessible knowledge base. Professional knowledge is acquired through experience, and its nature depends on the accumulation, selection and interpretation of that experience, which cannot be characterised in a manner that is independent of how it is learned and how it is used, i.e. in the professional context.

The notion of different types of professional knowledge; where there is a distinction between the knowledge portrayed in curriculum documents and evidence from directly observed practice and discussion with learners is also proposed. Practical knowledge integrates complex understanding and skills into a partly routinised performance, and here, competency in a clinical skill becomes a stage in professional development.

Because there are two dimensions (at least) to competence:

- scope: meeting a certain standard of performance, and
- the quality of this performance on a continuum from novice to expert,

binary scales are inappropriate for judging competency (certainly for formative assessment).

Tacit knowledge is rooted in action and often in an individual's commitment to a profession, consisting partly of (Rust et al 2003):

- Technical skills based on professional experience concerns tacit knowledge, revealed through the sharing of experience-socialisation processes involving
  - observation
  - imitation
  - dialogue and practice
- Ingrained mental models, beliefs and perspectives (cognitive)

This concept of tacit knowledge is familiar to health professionals, particularly for learning clinical skills. Daelmans et al (2005) in a limited study on the effects of assessment and feedback on clinical competencies found that the focus of the effectiveness of apprenticeship is on adequate supervision, feedback and assessment. Whether tacit knowledge and explicit knowledge can be assessed using the same, or similar, principles and whether the same models for feedback
apply needs exploration. At present, the value of tacit knowledge and its role in learning has not been fully acknowledged (Rust et al 2003)

**Preparing students for feedback**

As mentioned previously, coaching enabled students to use feedback more effectively (Bing-You et al 1998).

Citing QAA: assessment of students-general principles

1. Institutions publicise and implement principles and procedures for, and processes of, assessment that are explicit, valid and reliable.

Received wisdom states that assessment drives student learning, it would therefore be tempting to believe that learning can be enhance by giving students explicit assessment criteria. Research evidence, however, does not bear this out (Rust 2000).

In relation to enhancing learning, students need to identify and acknowledge the ‘gap’ between actual performance and the desired standard– the assessment criterion – in order to be able to take action to bridge the gap. It is possible that students’ understanding or the lack of understanding, of assessment criteria prevents them from either identifying this gap or taking any action. In a case control, intervention study to see if developing student understanding of assessment criteria improves student learning, Rust et al (2003) found that students were more confident in applying some criteria, such as structure, presentation and referencing, than in more tacit criteria, such as analysis, evaluation. This was so even after training. Weaver (2006) also found that there were inconsistencies in clarity and tutors’ use of assessment criteria.

This begs the question of whether students should be prepared for actively engaging with formative assessment and feedback at the beginning of their course of study. Orsmond et al (2002) advocates the concept of ‘feed forward’ where assessment criteria are explicated at the beginning of an assignment to indicate expectation and to encourage understanding, so that students don’t copy things without understanding. Rust (2002) suggests that as a minimum, time should be spent with students to discuss assessment criteria, and training should be available for students to practice marking pieces of work, applying the criteria.

**Examples of effective feedback to enhance clinical skills learning**

Parikh et al (2001) surveyed final year students in five Ontario medical schools about the feedback they received form problem based learning (PBL) assignments. The students rated individual feedback from their tutor as most helpful. Peer and group feedback were also valued, but apparently not a common form of feedback. Students from the schools that used peer feedback extensively listed this as their preferred form. Self-assessment skills were not
taught. Students never reported that marks, grades and written feedback were helpful.

An intervention study using a clinical encounter card (CEC) in ambulatory settings to prompt faculty to give feedback to students (Greenberg 2004) found that the CEC was an effective tool for facilitating feedback in a busy ambulatory paediatric setting. It was also notable that students did not always recognise that faculty are giving feedback. It was also important to establish a positive learning environment to enable feedback to take place. Students also reported that the impact of faculty feedback encouraged reflection and often improved their subsequent performance (e.g. case presentations, interaction with patients).

A randomised controlled trial about the impact of effective feedback on learning a fine motor skill: tying a two-handed surgical square knot (Boehler et al 2006), used structured feedback as intervention and compliments as placebo. The average pre-test performance score for the feedback and compliment groups were equivalent. The compliment group had a significantly lower average performance score after intervention, but a higher global satisfaction score. The authors concluded that student satisfaction was not a measure of feedback quality, whereas learning was promoted by feedback.

**Barriers to effective feedback**

Whilst the general principles for giving effective feedback have validity and may be helpful as general guidance, generic ‘rules’ may not be appropriate. Academic institutions are made up of a variety of disciplines, each with its own ‘culture’ and language. Students have to learn and interpret new linguistic practices, conflicting and contrasting assessment requirements, assumptions about the nature of knowledge, social meanings and learning tasks (Lea and Street 2000). Particularly in multidisciplinary and modular courses in higher education, assessment criteria for one course may not apply in another. Students unfamiliar with the disciplinary basis of faculty feedback may become confused by feedback that is not perceived to be helpful, to be misunderstood and therefore ignored. Weaver (2006) also found evidence to justify concerns of modularisation when feedback comments may be misinterpreted, thus affecting usefulness.

The characteristics of learning tasks for different academic disciplines also vary. Generic feedback guidelines pay little attention to task characteristics (Black and Wiliam 1998), where the way that feedback relates to the task in question affects the quality of feedback intervention. Here, the nature of ‘knowing’ be it explicit or tacit, affects the task learning process (Polanyi 1948, Eraut 1994, Rust et al 2003). If feedback is about the development and enhancement of learning, it needs to be part of a developmental process and built into module design (Mutch 2003).
Orsmond et al (2002) formulated some institutional barriers to effective feedback, echoing Higgins' (2001) barriers to effective communication/student utilisation of feedback:

1. modularity: students don’t benefit from feedback that only relates to specific piece of work or module: cannot transfer the skill (use of feedback).
2. one type of feedback does not fit all. Learning needs a diverse approach (e.g. no writing in the margins!)
3. anonymous marking. Current institutional approaches to quality may be detrimental to learning, as there is no opportunity to give feedback on work in progress.
4. misappropriation of learning outcomes as devices for monitoring and audit: detrimental to effective feedback.

Recurring issues for developing effective feedback practice include:
- Higher teaching workload (implications for teacher training for feedback)
- Increased class sizes and resource constraints
- Technological change
- Use of feedback procedures for audit and monitoring (e.g. QAA)

**Discussion**

From this (arguably limited) review, it appears that feedback from summative assessment has limited value for enhancing learning, whereas the primary purpose of formative assessment is to provide feedback to students with the aim of enhancing learning. A recurring theme in the literature is how summative assessment is emphasised in higher education. The practice of formative assessment and feedback, however, needs to be considered in the subject context. The course structure, content and desired learning outcomes vary enormously between subjects, and between and within higher learning institutions. Furthermore, the practice of feedback could be inconsistent, depending on the subject and course structure, with variable influence on effectiveness for developing student learning behaviour. Whilst QAA General Principle 12 requires that institutions provide appropriate and timely feedback to students on assessed work, institutional policies for feedback can only be for general guidance. The practice of feedback needs to be developed within departments based on subject specific learning tasks and course structure in order to fulfil the purpose of enhancing learning. Attention also needs to be paid to the function of different forms of assessment.

With respect to how and what feedback could be given and used to enhance learning, a number of factors need to be taken into account, including:
- Student characteristics that affect receipt and response to feedback. Here, preparation for receiving and using feedback may be desirable.
- Tutor characteristics that affect the content of feedback and how students respond and engage with feedback. Training for understanding the purpose of specific forms of assessment and feedback may be necessary.
• Issues specific to professional development, which has special salience to the CETL project.
• Institutional issues that affect the learning environment (including resources) and the nature and purpose of learning tasks.

There are also areas that require further research, particularly in the context of clinical skills, where ‘clinical skills’ covers a variety of knowledge, skills and attitudes depending on the purpose, such as:
• Enquiry
• Observation
• Performance of clinical procedures (where tacit knowledge has importance)
• Diagnostic decisions (includes investigation and screening) where the importance of tacit knowledge needs to be emphasised.
• Therapeutic decisions
• Communication of information and negotiating management plans

Examples of research questions that could be explored:
• Can the same models of assessment and feedback be used for tacit and explicit knowledge?
• Does preparation for feedback improve student utilisation of feedback to enhance performance?
• What difference does tutor’s subject specific knowledge and expertise make to student utilisation of formal and informal feedback?

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Appendix 2: REPORT OF DISCUSSION GROUPS

Introduction

As part of the developmental process to create a complementary set of materials to enhance students’ ability to make the most of feedback, discussions were held with tutors and students from CETL health professions. The aims of the discussions were to identify:

- Systems for feedback to students learning clinical and communication skills currently in place.
- What students think about current feedback practice, and how they might use this?
- What tutors understand about feedback, how feedback is given, and their views of what might be useful?
- Barriers, if any, to giving and receiving effective feedback.
- Tutors’ views on the Guidelines for Feedback developed within Barts and the London School of medicine and Dentistry.

Method

The CETL professional programmes for Speech and Language, Radiography, Nursing, Midwifery and Dentistry were invited to take part in this project, and three, Speech and Language, Radiography and Nursing were able to contribute to the discussion groups. The discussion groups were held in the Schools of Speech and Language Therapy, Radiography and Nursing and Midwifery, each lasting between 1 to 1.5 hours.

Initial interviews were held with the Programme Directors, Dr Madeline Cruice, Professor Jennifer Edie and Celia Goreham to identify:

- Known systems for feedback in place
- Any issues of interest in relation to feedback
- A plan for organizing discussion groups with students and tutors.

Two discussion groups were held at the City University, Department of Speech and Language Therapy:

- 20 November 2007 with 4 members of staff:
- 17 January 2008 with about 35 students from BSc year 3 and post-graduate year 2.

Two discussion groups were held at the School of Radiography in Goswell Road.

- 1 November 2007 with 5 second year students.
- 8 November 2007 with 4 members of staff

We were unable to convene a discussion group with Nursing Tutors, so
• One discussion group was held on 11 December 2007 in the School of Nursing and Midwifery, with about 20 pre-registration graduate nurses; the majority of whom were in adult nursing with some mental health and children’s nurses.

An information sheet and invitation to take part in the discussion groups were circulated to staff and students via Madeline, Jennifer and Celia. Verbal permission to tape record and transcribe the discussions was obtained at the beginning of each group. Notes were also taken during the discussions (JN), although an observer was not available to do this. Data from the transcripts were analysed by JN following the Social Sciences and Policy Research ‘Framework’ approach.28

A topic guide was constructed, based on the information from teaching leads of the three professions (Madeline, Jennifer and Celia), and the literature review (JN). The following themes were used:

1. Opportunities for feedback currently in place to include:
   • Learning context for feedback, e.g. clinical practice, communication skills, written assignments, examinations (including OSCEs)
   • Whether formal or informal opportunities are in place.
   • Is a checklist/core form used?

2. Staff and student perceptions of feedback practice under each of the headings for feedback systems in place:
   • Perceptions of verbal feedback.
   • What participants feel about written feedback?
   • What participants feel about self evaluation?
   • Are there opportunities for group or peer feedback, and what the participants feel about them?
   • Are tutors trained, and students coached for feedback?

3. Perceptions of tutor characteristics that affect feedback information.

For the staff, additional topics were included:
4. Potential barriers to giving effective feedback.

Owing to time constraints, some themes were not explored as thoroughly as might be desired.

The analysed data and reports of discussions with each professional discipline were distributed to the individual teaching leads for verification. It was agreed

that the overall issues identified during the discussion groups were reasonable, and reflect the views of some staff and students.

Findings

The findings from each discussion group are summarised here. The more detailed data for each discipline will be disseminated to the relevant professions. Please see tables 1, 2 and 3 for a summary of the findings.

Speech and language therapy

Feedback is embedded as a core part of pedagogy for Speech and Language Therapy, and is part of the culture of training. Systems are already in place, and are also evolving. The framework for feedback is regularly discussed at programme management meetings, although there has been no prior systematic planning for construction of a feedback framework. There is on-going development of feedback systems. Issues are debated in Professional Study Teams; different types of assessment are needed depending on subject area.

The purpose of feedback to students is to:
• provide guidance,
• focus understanding, and
• enhance learning.

These aims conform with the recommended aims for formative feedback in the literature (Orsmond 2000)29.

Clinical placements

Feedback on clinical placements is structured by the University in collaboration with practitioners on the placements. On clinical placements, students are placed in pairs to do therapy (clinical task) under supervision. A clinical portfolio (log) is kept. Supervisors give feedback on the clinical tasks, and this is continuous. There is a weekly student led tutorial on clinical tasks, facilitated by the clinical tutor, with feedback on clinical performance.

Clinical portfolio

A reflective log is in place, sent to students on-line, with feedback on-line. These carry a grade for the module, so that completion is compulsory. Weekly clinical tutorial groups are held, sometimes facilitated by students. The clinical tutor gives feedback in the groups, or confidentially to individual students (1:1). Students are encouraged to be reflective, and to evaluate their own performance.

**Skills lab**

During structured session in the skills lab, students perform skills related tasks; such as phonetics, aphasic training. A log book is used to record the tasks performed and the results of diagnostic tests done. There are some reflective questions in the log for students to think about later. These logs are marked.

**Phonetics training in which students do exercises on theory:**

Exercises on the theory of phonetics training are performed as a class, public response system handsets are used. The students answer questions, then receive feedback by being shown answers; then discuss why the answer is right or wrong etc. The feedback is informal, immediate and directly observed.

**Aphasic training:**

Students design a training manual (for clients) and receive written feedback on the design of the manual.

**Video**

This is a big piece of feedback, when the student meets with their clinical tutor once per year. The student brings a video of a patient encounter to a 1:1 tutorial (at City University). The feedback is verbal, the tutor appraises strengths and weaknesses, then writes a report, countersigned by the supervising clinician in the relevant practice placement. The tutor also recommends action: 3 positive points and 3 negative areas for development.

**Peer evaluation and feedback**

The practice of peer evaluation and feedback appears to be embedded in the learning culture of speech and language therapy. There are formal and informal systems for peer feedback, although students do not have any specific training for this, there are guidelines.

**Written assignments**

Students submit 5 pieces of clinical work that are written, representing a huge workload for assessment. A cover sheet/form for assessment contains: broad categories e.g. referencing; discussion: tick boxes PLUS written comments in free text. The assessments are moderated.

**Feedback for examinations**

Students are given marking criteria and guidance on writing exam beforehand. A mark is given, but no other feedback. There are no OSCEs in speech and language therapy.
Student perceptions of feedback systems

On the whole, students value the formative feedback they receive. There are some problems with certain types of assessment, which may warrant modification. The burden of assessment, however, needs to be taken into consideration.

Clinical placements

Students value the continuous supervision on clinical placement, and would like more feedback. However, there are some concerns about the variability of clinical experience on placements. Expectations of feedback may not be fulfilled because of time constraints on tutors, and some supervisors are not familiar with the feedback form. Students sometimes resort to asking peers or another speech therapist for feedback. Even if their performance is good, students ask for feedback, demonstrating that feedback is part of the culture of speech and language therapy training.

There are also informal opportunities for self evaluation on placement, when discussing performance with the clinical supervisor, which is much appreciated and valued by the students, making them more insightful.

Clinical portfolio

The reflective log encourages students to think about and evaluate their own performance. The evaluation cover sheet used during tutorials sets out learning objectives. This feedback is formal, and the portfolio carries a grade for the placement. Students feel that they are inexperienced at the beginning of the course, but learn how to do this as they progress through the course.

There are, however, some concerns about the reflective log. The compulsory nature of the log that carries a mark for the module detracts from true reflection. The format of tick boxes and rating scales is also restricting (Eraut 1994)\(^ {30} \). The statements used for rating may be too general, open to interpretation and might give misleading results if the pre-occupation is with the mark. There also appears to be confusion over the purpose of different types of learning objective; whether this relates to performance of a clinical task or to behaviour related to personality or professionalism. It may be that there are too many components to the reflective log, where the purpose for each component is different; using concrete examples may be better.

Forcing a rating also prevents reflection. Moreover, occasions may arise when a scenario is evaluated when the supervisor gives feedback on unobserved student performance; students mistrust feedback on unobserved performance. This finding echoes those from the literature review.

Students are also unhappy about how the marking criteria/standards are interpreted and applied by tutors. However, the inconsistencies are not all related to tutor training or standard setting (c.f. tacit learning), and may be related to the quality of the placement and variability in the therapeutic approach of the therapist.

The clinical portfolio could be used to monitor progress, but inconsistencies in assessment by tutors make this difficult. It was acknowledge that having the same tutor assessing everybody would be impossible. The idea for a modified checklist was explored. To overcome the problem of variation in standards of assessment, some students proposed the idea of expanding personal tutor’s role to mentor so that progress throughout student’s career at university and even later during the early years as a therapist. However, this proposal was not universally acceptable.

This difficulty may relate to the nature of learning by apprenticeship, where most of the learning is personal and tacit. This theme is further explored below.

With respect to corrective feedback, students feel that recommending corrective action is very important, and enhances learning.

**The video**

Students feel that feedback using the video could be wide ranging, but is an excellent source of personalised, targeted feedback, which is much valued. Much of the discussion about feedback on the video relates to tacit learning of diagnostic and therapeutic skills, and students want feedback on everything related to the task and about their role as a therapist.

However, the evaluation of clinical skills is inconsistent between teachers, and students are uneasy about this. Students acknowledge that tacit knowledge is personal, so that a difference in tutors’ approaches to a particular therapy is inevitable. Students also need to learn to develop their own approach.

Only one video is submitted for evaluation each year, so that the students are concerned about the representativeness of their particular video. Evaluation of the video does not carry a summative ‘mark’, and the students feel that this enables an open and honest discussion, encourages self-evaluation and reflection, and is a really good learning opportunity.

**Peer evaluation and feedback**

The students confirmed that there are formal and informal systems in place for peer evaluation and feedback, and that they do not receive specific training for this. However, informal training does take place on clinical placements. Students
find peer evaluation of clinical skills of variable value, particularly if this is reduced to a ‘mark’. Comparing each other’s skills is useful.

Although there is no formal preparation for giving peer feedback, the practice is highly informative and enhances learning the skill of giving feedback, which is a skill needed for interacting with clients (tacit learning again!). The opportunity for learning through observing a peer is also valued.

Written assignments

Feedback from tutors on written assignments is of variable quality and students sometimes find it difficult to understand the feedback. This confirms Charnock (2000) and Weaver’s (2006) findings on written feedback.

Tutor characteristics that affect feedback information

The reports from the students in the discussion group support the general principles for effective feedback and findings from the literature review. Students respect and trust feedback from tutors with knowledge and expertise, and are interested in student learning. The givers of feedback need to have confidence in their own clinical skills and experience, and to give feedback on directly observed performance. Tutors need to be approachable and easy to talk to (tutor behaviour), focusing on the student. Time set aside for feedback to students is also important, but may not be possible depending on the type of placement and time constraints in a busy NHS placement.

With respect to clinical supervisors’ training in the use of the reflective log (clinical portfolio), students do not believe that tutors are trained specifically, but are given written guidance. This guidance may to too long and complex so that clinical supervisors haven’t time to read it all.

Speech and language staff perceptions of student responses to feedback

Information from the speech and language staff discussion group largely corroborates the students’ reports. Very few students do not want or use feedback (majority do). 50% re-submit work after feedback. Possible reasons for not taking note of feedback may be the student’s ability, motivation and effort. Whether students make use of feedback depends on their understanding of the clinical task, their general learning and attitude to learning (see Black and Wiliam 1998, Higgins et al 2001, Rust 2002, Rushton 2005).

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Not all students take action on feedback. One reason for students not taking action on feedback may be a *mismatch of expectations between the tutor and students*. This confirms some of the findings from the research literature (Kluger & De Nisi 1996 cited in Black & Wiliam, Orsmond et al 2002).33

The national policy of widening participation leading to a diversity in student expectations and learning skills may be a contributing factor to some students not taking action on feedback information; for example some students may not have the time for it owing to family commitments. However, the more mature students are more likely to take advantage of feedback to improve performance, e.g. postgraduate students. Recent school leavers are less likely to engage with feedback communication as a means to enhance learning. About 60% behave more maturely, and they get better at taking action on feedback as they progress through the course. Some students *ask* for feedback; even for exams, and even if they get 80%.

These findings suggest that the notion of ‘implied development’ is indeed contained in the feedback process, so that receiving and using feedback to enhance learning are skills that students have to learn (Mutch 2003).34

**Clinical portfolio**

There is no specific training for giving feedback using the reflective logs, but issues are discussed at programme management meetings, and staff receive feedback from students. There is some evidence on how students use feedback from reflective logs; at least 50% of first year students use feedback comments to improve performance.

However, not all students take action to improve performance in response to feedback. The bureaucratic nature of the form that goes with the portfolio, using tick boxes, may not be helpful because the categories are too general and also too restricting (Eraut 1994).35 The quality of the discussion (feedback dialogue) may be more useful. This reflects the students’ perceptions of the form.

The video

We were unable to discuss feedback using the video owing to lack of time. However, the students’ report is very detailed.

Peer evaluation and feedback

Tutors reported that peer feedback improves with practice; students tend to be uncritical at the beginning of the course, but learn to appreciate how feedback enhances learning.

Written assignments

The tutors reported that students do not look at feedback comments, only the mark. However, for those students that do read feedback comments, they are sometimes unable to transfer what they learn to later work (i.e. use it). This may be because students sometimes find it difficult to understand the written comments.

Staff perception of tutor characteristics that affect feedback information

Like the students’ perceptions, staff feel that tutors should have expertise, but also need to know their students, because effective feedback is a relationship. Students in the early years need more encouragement. However, few lecturers teach across several year groups. Tutors have to focus on learner’s needs, then tailor the feedback to meet these needs.

With respect to tacit learning of clinical skills

Both the student and staff groups discussed the issue of learning skills where the knowledge is not explicit, and experience has an important influence on the performance of skills.

From the students’ viewpoint, tacit learning relates mainly to clinical skills, such as assessing clients (i.e. diagnosis, identifying a problem), acknowledging that these skills are best learned through practice. Staff and students agreed that with regard to tacit knowledge, apprenticeship and learning clinical skills, standard setting may be difficult for students. In addition, different levels of skill make it spurious to dichotomise it to good/bad, (or pass/fail) (Eraut 1994)36.

Speech and language therapy staff perceptions of barriers to effective feedback

The bureaucratic aspect of feedback is thought to be least helpful. Ticking a set of boxes is not real feedback. With respect to the QAA major review, there are already effective feedback systems in place, which would not be sensible nor practical to change.

With respect to systems for feedback, a centrally imposed system would not be appropriate. General principles would be helpful, but specific guidance should be subject specific. There are a large variety of different clinical tasks, methods of assessment and feedback specific to language and communication. This reflects the research findings that the characteristics of learning tasks for different professional disciplines vary, but generic feedback guidelines pay little attention to task characteristics (Black and Wiliam 1998) where the way that feedback relates to the task in question affects the quality of feedback intervention. Feedback needs to be part of a developmental process and built into module design in order to fulfil the aims of development and enhancement of learning (Mutch 2003).

Speech and language therapy staff evaluation of BL Guidelines for Feedback

The speech and language staff taking part in the discussion generally liked the guidelines developed for the School of Medicine. The issues raised include:
- The idea of minimum standards is very good. However, there are too many minimum standards; the minimum standards don’t need to change depending on the assessment.
- Exam results: a good idea to let the students have the distribution of marks and the mean.
- With respect to learner self appraisal of communication skills, this will not always be possible owing to time constraints (very time consuming). However, students should be made aware of their strengths across all clinical areas.
- Although there are mark sheets, there is no guidance for what to write for written feedback.
- Some items are impracticable because of student numbers.
- It would be a useful stimulus for working up your own system for feedback.
- Workload and student numbers could affect timeliness of feedback.
- This type of guidelines must not be rules and regulations (i.e. imposed), they are ok as a general statement (see above).
- The missing link in this set of guidelines is their impact on student learning.

**Radiography**

Feedback is part of radiography pedagogy, present in all radiography courses with similar set-ups in all radiography schools. The emphasis is on continuous assessment and feedback. There are both formal and informal systems in place, and the whole process is still evolving. Most teaching staff undertake training, although this is not mandatory. All staff are trained for giving written feedback.

*Clinical placements:*

Students learn clinical skills for diagnostic radiography in clinical practice placements in NHS radiography facilities. Each student has a supervising radiographer (‘named radiographer’). The radiographer directly observes individual student’s performance of clinical skills and gives feedback immediately. Feedback to students from supervising radiographers on skills and techniques (particularly diagnostic skills) on clinical placement is characterised by being:

• Directly observed  
• Immediate  
• Informal  
• Verbal  
• Continuous

A link lecturer follows each cohort of students throughout the three year course. They visit each placement every week or fortnight, liaising with the named radiographer that supervises the students at each placement, and meet the students as a group or individually to discuss any outstanding issues and give feedback.

These characteristics bear a remarkable similarity to the various forms of guidance in the literature.

*Clinical portfolio*

A written clinical portfolio is used by the students on placements, containing a checklist/core assessment form, which is compulsory and carries a grade for the module. This is a three way assessment by:

• **Student self evaluation/reflection**  
• **Agreement with ‘named radiographer’**  
• **Link lecturer**

Students set objectives with a named radiographer (clinical supervisor), and can comment on progress. The radiographer also comments on progress. The assessment forms are moderated by link lecturers, and academic assessment by link lecturers is externally moderated.

While on clinical placement, a portfolio is kept by the student that records tasks performed, and also used to assess performance. The aims and objectives for
the placement are given to the students, and they are expected to set their own learning objectives for each week. Progress is monitored by the clinical supervisor.

Owing to the variability of clinical experiences that the students may encounter on placement, there may be difficulties related to whether the students are able to meet their objectives, as reported by staff. Some objectives may not be attainable. Whether the portfolios are consistently completed with the clinical supervisor is also uncertain.

**Formative workshops at City University**

Students return to the university for 1 week after 4 weeks in placement for formative clinical sessions in the skills suite using a simulator. They work in small groups of 8-10 students. The students are known to each other, having been in the same group on clinical placement. Issues not noted on clinical placement are identified and fed back to the student(s).

The workshops are facilitated by the link lecturer, who directly observes and gives verbal feedback on the students’ performance (e.g. positioning a patient for a diagnostic procedure) followed by discussion in the group. There are opportunities for peer feedback during these sessions.

**Written assignments**

Students have one written assignment per academic year, marked anonymously so that the feedback is also anonymous. A structure is in place for feedback on written work. Students are given assessment criteria, and feedback is given within 2-3 weeks. There are, however, acknowledged problems and a new form is being piloted.

**Feedback on exams**

Students are given their mark only. Verbal feedback is only given for those who fail (very small numbers), not for those who pass, but could do better.

**Objective Structured Clinical Examinations (OSCE)**

There is a feedback sheet for OCSEs with boxes that the assessor ticks. There are no comments.

**Student perceptions of feedback systems**

The feedback received from supervising radiographers is much valued by students. They appreciate that the learning of clinical skills has to be done through practice and from the experience of supervising radiographers. They will ask for feedback when uncertain about the performance of a procedure.

**Clinical placements**
On the whole, students are happy about the amount of feedback they receive on clinical placement. Students are quite clear that they will use feedback to enhance learning and to improve their performance, providing that the feedback is specific to the task performed, and suggestions of how to improve are given. This supports the research finding that when the learner perceives that there is a gap in their knowledge, understanding and skills, s/he will take action to close the gap (Kluger & DeNisi 1996, cited in Black and Wiliam, Orsmond et al 2002). Individual, one to one feedback is preferred, and not in the presence of a patient or a lot of other people. With corrective, or negative, feedback, students may feel their confidence undermined, but will still use the feedback to improve performance.

The way that feedback is given on clinical placements fits in with the guidance that Ende (1983) first proposed as a model for clinical feedback, in being:

- Undertaken with the teacher and trainee working together as allies, with common goals (mutual)
- Well timed and expected (soon after learning)
- Based on first hand data (observed behaviour by teacher, not from rating lists by someone else)
- Deal with specific performance, not generalisations

Time constraints in a busy NHS radiography department, however, may be a barrier to constructive feedback.

There are, however, some issues related to the feedback of the supervising radiographers’ evaluation via the link lecturer. Students feel that there is inconsistent and insufficient feedback by link lecturers about how the supervising radiographers evaluate their performance, and are, on the whole, reluctant to ask the link lecturers for this. This may be something worth exploring to develop a more effective system.

Clinical portfolio

The students find that discussing the portfolio with their placement supervisor and the supervisor’s written comments very useful, but are uncertain about the purpose of the clinical portfolio because it is designed to be a record of tasks performed, monitoring the student’s performance of the task and to enable self-evaluation and reflection as well as assessment by the supervisor.

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However, service pressures in a busy radiography department sometimes make the discussion and assessment of the students' performance inconsistent. Students find difficulty with self-evaluation and reflection. This may be because they find setting a standard for themselves difficult. The compulsory nature of completing the portfolio and the fact that it carries a grade for the module may also discourage reflection, and supports Higgins (2001)\textsuperscript{41} finding that that an over emphasis of structure and procedure could be a barrier to effective communication and student utilisation of feedback.

**Formative workshops at City University**

Students consider learning in formative workshops the best learning opportunity. They value the opportunity for dialogue during the workshops. The relaxed atmosphere in a familiar small group is conducive to active engagement with the learning process.

**Peer evaluation and feedback**

Students find that the opportunities for peer evaluation and feedback during the formative workshops could be unproductive and unconstructive, and are resistant to the idea. Students are also unhappy about group feedback because students are of variable ability, some students may not know how to give feedback.

**Written assignments**

Owing to time constraints, the issues relating to feedback on written work was not fully explored. However, students are not impressed with feedback for written assignments; they are too general and brief and need to be more specific to be of use. Students are also opposed to peer evaluation of written work.

**Feedback from examinations**

Students learn to be strategic during exams, and transfer what they learn to other exams. However, despite not taking up offers of feedback for failure in exams, students would like feedback on key points as well as the 'mark'. There is also some concern about inconsistency in marking exams; applying/interpreting criteria.

**Feedback for OSCEs**

Students would prefer comments and need a range for levels of competence rather than ticking boxes for a dichomised pass/fail (Eraut 1994)\textsuperscript{42}. This may well relate to tacit learning.


Tutor characteristics that affect feedback information

The tutor’s personality makes a difference, particularly for tacit knowledge, and tutor’s manner and behaviour affects how effective feedback is. Students know who is good and whom not so good. The tutor’s expertise in the subject affects students’ trust/belief in feedback. Furthermore, students would not trust feedback from someone who is trained for giving feedback, but is not a trained radiographer.

Radiography staff perceptions of student responses to feedback

Radiography staff reported that students find it hard to deal with corrective feedback, and may feel undermined. How they deal with this depends on prior experience, maturity and confidence in ability (see Black & William 1996)\(^43\). They may not acknowledge, or deny, the gap between the observed and desired standard for their knowledge or skills, and thus unable to take positive action to enhance learning and improve their skills.

These observations by teaching staff of how students perceive and respond to corrective feedback concur with research findings on the types of student responses to feedback (Kluger & DeNisi 1996 cited in Black and William, Orsmond et al 2002).

Particularly with recent school leavers, where the student was a high achiever, and had never been told that they might not meet a desired standard for a particular task, the student may deny the gap in performance, and cannot see far enough ahead to act upon suggestions for improvement. Tutors recognise the need to tailor feedback to the level of student knowledge, skills, experience and maturity, acknowledging the advantage of being able to know the student well because of the practice of having the same link lecturer following a student throughout the three year course (see Mutch 2003, 'implied development')\(^44\). As the student progresses through the course, there is a change in response with maturity when students grow to understand the purpose of feedback to enhance learning. The same link lecturer following through gives the opportunity to see if student makes use of feedback to enhance learning, and to observe progress. The link lecturer gets to know the students well, and takes on some of the role of personal tutor.

Clinical portfolio

Staff find that what students write in their portfolios are vague comments that are not truly reflective. The comments are all related to communication, and not to clinical tasks such as radiography techniques. The comments tend to be general,


e.g. ‘I’m a team player’, and repetitive. It appears that students feel obliged to write something, probably because completion of the portfolio is compulsory and carries a grade for the module. This confirms the students’ perceptions.

Some students do not take action on feedback or identify specific aspects of communication that need improvement (some do, others don’t). It may be that they do not have the skills to do this and expect staff to do it for them. They don’t take responsibility for own learning, and this can happen at postgraduate level as well. It is also possible that the bureaucratic nature of the portfolio is a barrier to student utilisation of feedback, when the ‘mark’ is the item of interest (Higgins et al 2001)\(^{45}\). It may also be that the clinical portfolio has too many functions, which may be confusing for the students.

**Formative workshops**

There was insufficient time to fully explore how students respond to feedback in formative workshops, but staff confirm that students do use feedback from formative workshops to improve performance.

**Written assignments**

There are acknowledged problems with the increased workload related to feedback on written assignments. Marking the written assignments and giving good feedback is time consuming, and efforts are being made to address this issue. A new form is being piloted, but also has problems, being perceived as being too rigid. Very few students, if any, re-submit written work after getting feedback, sometimes even if they fail. This could be because the students fail to understand the comments, or the comments may be too general. This observation fits in with the findings of Lea and Street (2000)\(^{46}\) that tutors’ comments may reflect a complex academic dialogue which is only partially understood by students, so that there may be no shared understanding of feedback comments between the student and tutor.

**Feedback on examinations**

Staff report that the size of the task for providing feedback on examinations for the whole cohort is daunting. Students tend not to ask for feedback on exams and do not take action on feedback received for exams. Feedback is only given for students who fail.

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The usual practice is to hold remediation tutorials for students that have to re-sit exams. It would be too difficult if the numbers extended to the whole cohort. However, contrary to expectation, one cohort has asked for feedback in order to improve future performance on examinations.

**Staff perception of tutor characteristics that affect feedback information**

Students know who is good at supervising and teaching. They choose to work with a respected radiographer. Some (minority) have to be avoided. This confirms the students' perceptions. Staff also feel that trying to be too kind; ego-building can be counterproductive.

**Radiography staff perceptions of barriers to effective feedback**

A number of factors were perceived as barriers to effective feedback. These factors very much concur with the barriers to effective feedback formulated by Higgins (2001)\(^{47}\).

**Time constraints**

Clinical placements are in busy NHS radiography departments so that service demands and time constraints mean the supervisors sometimes cannot give effective feedback, which is not considered a priority. There is also a reluctance of ‘pressed’ men to give feedback.

**Institutional factors**

Ownership of teaching is an important factor in the performance of feedback; recent organisational change gave the clinical placements more ownership for teaching. NHS radiographers are now much more engaged with teaching when previously, teaching was previously perceived to be to responsibility of the academic lecturer associated with the University. The changes have led to better communication between University and clinical placements.

**Professional body reviews (e.g. QAA)**

The number and variety of reviews take up a lot of time, and may detract from good practice (!). Particularly as the information required for these reviews are repetitive.

**Radiography staff evaluation of BL Guidelines for Feedback**

The radiography staff felt that there is already a system in place for giving students feedback to enhance learning. If no feedback process is in place, then guidance would be helpful (especially if it is mandatory).

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The guidance on clinical skills learning is fine, they are sensible and has real relevance. However, the School of Radiography are already doing it.

Having minimum standards is good practice, and a good idea to separate different types of feedback (different types of assessment). Having some guidelines would be helpful for new staff. They would also stimulate reflection about what we are doing now, and consider what is feasible and what not.

These findings echo those of the Speech and Language Therapy staff, and also fit in with the published research. The characteristics of learning tasks for different professional disciplines vary, but generic feedback guidelines pay little attention to task characteristics (Black and Wiliam 1998). Feedback also needs to be part of a developmental process and built into module design in order to fulfil the aims of development and enhancement of learning (Mutch 2003).

**Nursing:**

It was not possible to organise a discussion group with tutors, so the students’ responses could not be verified by tutors’ comments. It was also difficult to identify a clear system for feedback, particularly as the literature suggests that students are sometimes not aware that they are being given feedback (Greenberg 2004). The students felt that they are well taught on basic observation skills in the first year, and were confident when they went to work on the wards. There are feedback opportunities during practical sessions (in skills lab) and they practise on each other.

**Clinical placements**

Each nurse works with a mentor and an associate on the wards, where they practise their clinical skills, and are observed by and receive feedback from mentors. However, the placements are variable, in different wards and hospitals, so that the learning opportunities are different depending on the specialty and the ward.

**Lab based communication skills**

There are simulated sessions for communication skills where the students have an opportunity to receive feedback from an actor as a simulated patient.

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Written assignments

Feedback for written work is always written, with no opportunity for a dialogue except when having to re-submit.

OSCEs

Feedback for objective Structure Clinical Examinations (OSCEs) consist of a checklist with space for written comments.

Student perceptions of feedback systems

Clinical placements

Feedback on placement is given by the student’s mentor verbally, when the performance is directly observed by the mentor. This is the feedback that students value most. However, the quality and amount of feedback could be variable owing to the variability in clinical placements. There are also limitations on the opportunities to practise clinical skills. This is possibly related to the nature and variety of NHS hospital placements.

Students are sometimes confused by the variation in techniques for performing clinical tasks, and this may be related to the application of explicit knowledge to tacit learning. Feedback might be individual to the giver (cf tacit knowing again), but inevitable if tacit knowing is personal.

Although negative, corrective feedback might be upsetting, students acknowledge that acceptance of corrective feedback is necessary for improving performance of clinical skills. Students sometimes try to identify mistakes before the mentor mentions it: ‘owning up to Mum’. Students are also unhappy about receiving negative feedback in front of patients.

Difficulties arise when there is too much negative feedback in a poor relationship; students note the importance of the relationship with the feedback giver in the effectiveness of feedback. The question of how much corrective feedback is appropriate may vary between individuals. The focus of feedback should be on the task, not personalities.

There appears to be a lack of continuity with mentoring on some clinical placements, when the student is supposed to have the same mentor and an associate mentor. Here, having two mentors is sometimes an advantage. This is probably related to nursing resource issues in the NHS, when students may have to work with agency nurses. Students sometimes mistrust the feedback they receive.

What student nurses perceive to be effective feedback
The students trust the feedback given by a skilled nurse who is respected as a good nurse. A nurse who is approachable, unthreatened, and confident of her/his own expertise, and is committed to teaching. They perceive feedback as a relationship in which the learner has to be proactive to achieve their own learning objectives. Time is needed to develop the relationship between teacher and learner in which the learner can be confident about the feedback they receive. This is confirms the findings from the study of communicating feedback by Higgins (2001). Feedback that meets the needs of the student and is specific to the task, rather than general comments is more effective. ‘Little and often’ rather than feedback at the end of a placement would be more effective for taking action to improve performance, but students acknowledge that there may be time constraints for this. Feedback at the end of a placement is too late to enhance learning.

Feedback comments that are too general are not helpful, and students most value individual, one to one, feedback on performance that had been observed by the mentor. However, students are reluctant to ask for feedback, even when they feel overwhelmed by their workload.

**With respect to tacit learning**
Students are sometimes confused by the variation in techniques for performing clinical tasks. If this is related to differences in approach to performance of a particular technique, the feedback might be individual to the giver (cf tacit knowing again), but inevitable if tacit knowing is personal (Eraut 1994).

**Simulated lab based communication skills teaching:**
Students found the experience of simulated lab based communications teaching of limited value, but good to have done it. The experience was artificial, contrived and applied to communication skills only. For example, the experience would have been more useful if something had gone wrong. The value of the scenario on communication with parents was very limited (Children’s nurse), and feedback from the simulated patient (actor) was unconvincing.

**Written assignments**
Students do not appear to value feedback on written work. They report that they are discouraged from asking for feedback on ‘pass’ essays, but would in fact welcome the opportunity to discuss their written work with tutors (for improvement and re-submission).

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The students did not understand the purpose of their written assignments, and could not understand the tutors’ written comments. The variability of how tutors interpret marking criteria for written assignments made the feedback confusing and unhelpful, despite the marking criteria being apparently ‘clear’. The comments were too general, so that it becomes impossible to transfer feedback to improve other work. Students had particular difficulty with ‘reflective writing’; some of the ‘educational’ language used in the feedback communication was perceived to be incomprehensible.

These findings reflect the conclusions from published research (Charnock 2000, Weaver 2006).53

**OSCEs**

There is a feedback form with tick boxes and space for written comments that the students value. However, some comments are not helpful by not focusing on the task. There is also inconsistency in marking/feedback.

**Common themes identified as problematic to effective feedback identified from the discussion groups**

The common themes identified as problematic to effective feedback during the 5 discussion groups are set out in table 4. These are summarised as follows:

**Clinical skills**

The problems identified for effective feedback on clinical placement and the use of the clinical portfolio are separate. Whereas students were universally positive about the feedback systems for the video (Speech and Language Therapy) and the formative workshops (Radiography), and the potentially problematic issues are acknowledged as being related to the personal nature of learning and developing clinical skills.

**Clinical placements**

- Clinical skills are best learned in practice, with at least sufficient opportunities for practising these skills for developing competency (Eraut 1994)54.
- The process of learning to use feedback information to enhance learning and to improve the performance of clinical skills is developmental. Learners begin

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by not understanding the purpose and being undermined by corrective feedback.

- Differences in tutors' interpretation of the standards for performing clinical skills and procedures are acknowledged to be related to the personal nature of knowing with inevitable variation in interpretation of assessment criteria. Learners need to develop their own approach.
- Feedback to enhance learning is a relationship between the giver and recipient, which needs continuity and develops over time. This also enables learners to monitor their own progress Higgins (2001)\(^\text{55}\).
- Peer evaluation and feedback can be problematic, where some training on feedback techniques could be helpful.
- Time constraints in busy NHS facilities can prevent effective feedback.

**Clinical portfolio**

The School of Speech and Language Therapy and Radiography both use a clinical portfolio, which also serves as a reflective learning log.

- The compulsory nature of the clinical portfolio that carries a ‘mark’ hinders self-evaluation and true reflection.
- The bureaucratic nature of the clinical portfolio with check lists and rating scales is too restricting. The ‘statements’ are too general, when the range of tasks and level of the learners’ skills are diverse and varied (Eraut 1994).
- There may be too many components to the clinical portfolios, each with a different purpose, needing a different assessment format (e.g. clinical tasks, professionalism, communication). This is confusing for students.
- The nature of personal knowledge makes standard setting difficult, especially for students (Eraut 1994)\(^\text{56}\).
- Students mistrust feedback on performance that is not directly observed by the feedback giver. (Bing-You et al 1997).

**Communication skills**

Students and teachers in Speech and language therapy and Radiography consider that communication is part of clinical skills, and assessed as such. Nursing and midwifery students have teaching on simulated patients in the laboratory setting, where the find the experience interesting, but of limited value.

**Written assignments**

Students and teachers agree that written feedback for written assignments are sometimes not understood by students, so that the students do not utilise the feedback to improve performance. The Nursing and Midwifery students had

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some difficulty with understanding the purpose of written assignments, having particular difficulty with ‘reflective writing’; some of the ‘educational’ language used in the feedback communication was perceived to be incomprehensible. Time constraints are also problematic for tutors to give effective written feedback.

Examinations

The size of the task for giving feedback on written examinations to all students is prohibitive. The Schools of Radiography and Nursing and Midwifery use the Objective Structure Clinical Examination for summative assessment. Students report that they would like feedback comments on their level of performance of clinical tasks that they could use to improve performance, rather than a checklist of processes that are dichotomised to pass/fail.

Conclusions

The findings from the discussion groups largely confirm the research findings in the literature reviewed.

Students prefer, and are more likely to utilise feedback on clinical skills the comply with Ende (1983)\textsuperscript{57}, and others, proposed model for clinical feedback, in being:

- Undertaken with the teacher and trainee working together as allies, with common goals (mutual)
- Well timed and expected (soon after learning)
- Based on first hand data (observed behaviour by teacher, not from rating lists by someone else)
- Deal with specific performance, not generalisations

The tutors’ perception of why students do not always make use of feedback information fits in with the research findings that action depends on the learner’s understanding of the clinical task, their general learning and attitude to learning. Another reason could be a mismatch of expectations between the tutor and students. This confirms some of the findings from the research literature (Kluger & De Nisi 1996 cited in Black & Wiliam, Orsmond et al 2002)\textsuperscript{58}. Further more, students improve on their use of feedback as they progress through their training, suggesting that that the notion of ‘implied development’ is indeed contained in the feedback process, so that receiving and using feedback to enhance learning are skills that students have to learn (Mutch 2003)\textsuperscript{59}.

\textsuperscript{57} Ende J. (1983) Feedback in clinical medical practice. JAMA 250(6); 777-81.
Feedback is also perceived to be communication within a relationship, where time and continuity are needed for the relationship to develop, in which the learner can be confident about the feedback they receive, confirming the findings from the study of communicating feedback by Higgins (2001).

With regard to the clinical portfolio, the bureaucratic and compulsory nature of the portfolio and the fact that it carries a grade may discourage reflection, supporting Higgins (2001) finding that that an over emphasis of structure and procedure could be a barrier to effective communication and student utilisation of feedback.

Feedback on written assignments appears problematic for students and staff alike, for all the professions. This could be because students fail to understand written comments or find them too general, which fits in with the findings of Lea and Street (2000) that tutors’ comments may reflect a complex academic dialogue which is only partially understood by students, so that there may be no shared understanding of feedback comments between the student and tutor. Students also have difficulty with ‘reflective’ writing, where the ‘educational’ language used in the written comments was incomprehensible, reflecting the conclusions from published research (Charnock 2000, Weaver 2006).

Apart from the ‘mark’, feedback for examinations, whether written or practical, did not appear to be so important for the students in the discussion groups. This supports the notion that feedback from summative assessment is not so useful for enhancing learning or improving performance of clinical skills, being after the fact. Tutors would also find it daunting to feedback on written exams for all students.

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Table 4: Common themes identified as problematic to effective feedback

<table>
<thead>
<tr>
<th>Feedback Systems in Place</th>
<th>School of Speech and Language Therapy</th>
<th>School of Radiography</th>
<th>School of Nursing and Midwifery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical Skills</strong></td>
<td></td>
<td></td>
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</tbody>
</table>
| Placements               | Continuous supervision very much valued.  
  - Students learn to utilise feedback to enhance learning and improve performance as they progress through their training (i.e. developmental process).  
  - Inconsistencies in Tutors’ assessment of clinical skills most probably related to the personal nature of diagnostic and therapeutic approach (tacit knowing), and students need to develop their own approach.  
  - Continuity in relationship with tutors is lacking.  
  - Students value the opportunities for to reflect upon knowledge and performance, perceived to increase insight.  
  - Peer evaluation and feedback also valued.  
  - Time constraints in busy NHS facilities can prevent good feedback. |
|                           | Students happy with the amount of feedback received.  
  - Students learn to utilise feedback to enhance learning and improve performance as they progress through their training (i.e. developmental process).  
  - Continuity in the relationship with the link lecturer facilitates good feedback.  
  - Students mistrust peer evaluation and feedback.  
  - Time constraints in busy NHS facilities can prevent good feedback. |
|                           | Students most value the feedback from directly observed performance of clinical skills received from Mentors.  
  - Corrective feedback can be difficult.  
  - Students are sometimes confused by the variation in techniques for performing clinical tasks, and this may be related to the application of explicit knowledge to tacit learning. Feedback might be individual to the giver, but inevitable if tacit knowing is personal.  
  - Lack of continuity in relationship with Mentor can prevent good feedback practice. (Feature of busy NHS placement, sometimes having work with agency nurses.)  
  - Time constraints in busy NHS facilities can prevent good feedback. |
| Clinical Portfolio        | The bureaucratic nature of the portfolio that carries a mark hinders true reflection.  
  - The compulsory nature of the log that carries a mark discourages self-evaluation and reflection. | |

85
<table>
<thead>
<tr>
<th><strong>Video (Speech and Language) Formative Workshops (Radiography)</strong></th>
<th><strong>Communication Skills</strong></th>
<th><strong>Written Assignments (clinical and communication skills)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The individual feedback given and received is personal and target, perceived by students to be an excellent learning opportunity. Feedback is largely concerned with tacit knowing, acknowledged by students to be personal and inevitably leads to differences in therapeutic approach and techniques, and that students need to develop their own, personal approach. Students consider learning in formative workshops the best learning opportunity. They value the opportunity for dialogue during the workshops. The relaxed atmosphere in a familiar small group is conducive to active engagement with the learning process. Opportunities for peer evaluation and feedback during the formative workshops could be unproductive and unconstructive.</td>
<td>Communication was considered part of the clinical skills for Language and Communication, and not taught or assessed separately. Communication was considered part of the clinical skills for Radiography, and not taught or assessed separately. Students found the experience simulated lab based communications teaching of limited value, but good to have done it.</td>
<td>Feedback from tutors on written assignments is of variable quality and students sometimes find it difficult to understand the feedback. Tutors report that students do not look at feedback comments, only the mark, and are unable to transfer what they learn to later work. This may be because students sometimes find it difficult to understand the written comments. Students are critical of feedback for written assignments; they are too general and brief and need to be more specific to be of use. Tutors report that very few students, if any, re-submit written work after getting feedback, sometimes even if they fail. This could be because the students fail to understand the comments, or the comments may be too general. Time constraints also making marking written work problematic. The students did not understand the purpose of their written assignments, and could not understand the tutors’ written comments. The variability of how tutors interpret marking criteria for written assignments made the feedback confusing and unhelpful, despite the marking criteria being apparently ‘clear’. The comments were too general, so that it becomes impossible to transfer feedback to improve other work. Students had particular difficulty with ‘reflective</td>
</tr>
</tbody>
</table>
writing’; some of the ‘educational’ language used in the feedback communication was perceived to be incomprehensible.

| Examinations | Not explored owing to lack of time | Students learn to be strategic during exams, and transfer what they learn of exam technique to other exams. However, despite not taking up offers of feedback for failure in exams, students would like feedback on key points as well as the ‘mark’. There is also some concern about inconsistency in marking exams. Staff report that the size of the task for providing feedback on examinations for the whole cohort is daunting. | Not explored owing to lack of time |
| Written exams | | |
| OSCEs | Not used for Speech and Language Therapy. | Students would prefer comments and need a range for levels of competence rather than ticking boxes for a dichomised pass/fail. | There is a feedback form with tick boxes and space for written comments. However, some comments are not helpful by not focusing on the task. There is also inconsistency in marking and feedback comments. |
Summary

The findings from the discussion groups suggest that the practice of formative feedback is well embedded in the clinical pedagogy of Speech and Language Therapy, Radiography and Nursing. Although the model for feedback in nursing is not as clear, robust systems and good practice are already in place. Students value the formative assessment feedback that they receive on clinical placements as essential to their attainment of clinical competence. They also value the complementary formative assessment and feedback based on various strategies, such as the video in Speech Therapy and the formative workshops in Radiography, as excellent opportunities for learning.

The most effective form of feedback in the clinical context, and preferred, as the most useful form of communication, by students is:
- Directly observed
- Individual
- Verbal, with the opportunity for a dialogue, and
- Immediate

There are, however, some issues that detract from the main purpose of formative feedback to enhance student learning, which is:
- To give guidance, which may be to give direction for learning, or be corrective.
- To enhance motivation.
- To facilitate and encourage reflection.
- To clarify understanding.

These issues are not unique to the CETL health professions, but are problems that are common to feedback related to different assessment strategies identified in the published research literature. These issues concern:
- The over-preoccupation with structure and procedure that hinders true reflection.
- The under-valuation of ‘personal knowing’ in clinical competence, and therefore difficulties with assessment (i.e. the lack of distinction between implicit and explicit knowledge within educational principles).
- The linguistic and expectation mismatch between the giver and recipient of written feedback, giving rise to inconsistency in interpretation of learning objectives and assessment criteria, and incomprehension in the learner.
- Insufficient attention to resource constraints for assessment and feedback.
- Attention to staff training and student coaching for giving and receiving feedback.
- Insufficient attention to the subject context for the variety of assessment purposes.
- A culture of formative feedback that fulfils the aims for student development and enhanced learning needs to be fostered and developed over time, and is related to the specific learning environment of particular clinical disciplines.
Much of the feedback practices in place in the CETL professions are implicit rather than explicit. Despite the limitations of this study, it should be possible to use these findings to review current feedback practice and formulate procedures within the individual subject context, with due attention to institutional and resource constraints, for good practice.
Appendix 3: SCHOOL OF MEDICINE AND DENTISTRY GUIDELINES

Barts and the London
Queen Mary’s School of Medicine and Dentistry

Guidelines for Teachers
Giving Feedback to Supporting Learning and the Development of Competent Medical Practice

Introduction

With the new assessment tools being used to assess competence within Modernising Medical Careers and the Foundation Programmes, it is important that medical undergraduates become familiar with these formats and the educational practice that they entail. Much of the assessment will involve observation by and feedback from other colleagues (e.g. mini-PAT, mini-CEX, CbD). Increasingly at all levels students and trainee doctors need to be skilled in using feedback if they are to be successful, competent doctors. Equally, faculty need to be effective in the manner in which they provide feedback.

Therefore to enhance the opportunities for students to use feedback for personal and professional development, we have developed these guidelines for faculty. They are intended to place student learning at the centre of the assessment process and as such, offer both guiding principles and suggested examples of practice for delivering effective feedback.

The students have a complementary set of guidelines entitled Acting on Feedback to Supporting Learning and the Development of Competent Medical Practice
Guidelines for Teachers

Giving Feedback to Supporting Learning and the Development of Competent Medical Practice

Feedback to students is an essential part of the learning process\textsuperscript{1,2}. For feedback to be most effective it needs to be based on sound educational principles which place the student and their learning at the heart of the feedback process\textsuperscript{3}.

These guidelines set out the \textbf{general principles for good practice (section 1), required minimum standards to be achieved and further pointers for good practice} across different assessment activities (sections 2-5).

\textbf{Section 1}

\textbf{Principles of good practice}

Nicol & MacFarlane (2004) suggest 7 key principles which define the approach taken in these guidelines, the minimum standards set and the further pointers for good practice. They propose that effective feedback -

\begin{enumerate}
  \item \textit{Facilitates the development of self-assessment (reflection) in learning.}
  \item \textit{Encourages teacher and peer dialogue around learning.}
  \item \textit{Helps clarify what good performance is (goals, criteria, expected standards).}
  \item \textit{Provides opportunities to close the gap between current and desired performance.}
  \item \textit{Delivers high quality information to students about their learning.}
  \item \textit{Encourages positive motivational beliefs and self-esteem.}
  \item \textit{Provides information to teachers that can be used to help shape the teaching.}
\end{enumerate}

We can add a further principle which states that:

\begin{enumerate}
  \item \textit{Feedback must be delivered by a member of staff whom the learners acknowledge has a sufficient familiarity with their work to make a reliable assessment.}\textsuperscript{4}
\end{enumerate}

In summary, students need to be able to understand the learning goals and standards or criteria against which they are being assessed and be able to use the feedback they receive to reflect and improve their own performance towards the achievement of these. In order for students to be able to internalise and use feedback, they need to receive feedback which is of high quality in that it is timely, specific, constructive and personally non judgmental. Additionally, this feedback needs to be received from a member of teaching staff fully familiar with their work.

There are \textbf{four} separate sections relating to different assessment activities:
Section 2

Written Assessments
In-course Assessments
(including PBLs)
End of Year Exams

Section 3

Oral and Visual Assessments
(to include Role Plays, Presentations, Video work)

Section 4

Clinical Teaching

Section 5

OSCEs
Section 2  Written assessments

In-course assessments (including PBLs)

Minimum standards

- Students will always receive written comments in addition to/or without a grade, for extended writing.
- Verbal feedback on written work will be accompanied by written comments.
- Students will receive their individual written feedback within 2-3 weeks from the submission of any extended written assessment.
- The feedback will directly address the assessment criteria and make clear to the student what they need to do in order to improve their performance.
- Suggestions for improvement will be realistic and achievable and related to the stage of the programme.
- Students will be made aware of their strengths as well as areas for development.
- Students will be provided with the opportunity to discuss the feedback they are given individually with their tutor or as a group.

Pointers for further good practice

- Written comments should be presented to the students through the use of a proforma in addition to ‘in text’ comments.
- The number of comments should not be overwhelming. For example 3 clear points on a written essay may be preferable to a long list of criteria and tick boxes.
- General commentaries should be provided to the whole group so that they can see which of their errors that were made by others and where they did particularly well.
- Where possible, students should have the opportunity to resubmit work for which they have received formative comments.
End of Year exams

Minimum standards

- Students will always receive their scores on each paper
- The class mean and distribution of marks will be included
- The total score for each student for that Part of the MBBS will be aggregated and the students will be ranked according to this score

Pointers for further good practice

- Where possible, past papers with questions and model answers should be made available to the students
- Exemplar questions should be made available
Section 3  Oral and Visual Assessments
(to include role plays, video work, presentations)

Role-play and video work:

Minimum standards

- Students should be clear about the goals of the interaction with the feedback then linked to achievement of these goals (outcome based)

- Students should be given the opportunity first to reflect on their interaction and encouraged to identify both positive behaviours and what they could have done differently.

- Feedback should be supportive, constructive behavioural and realistic, recognising that interpersonal skills learning is an ongoing development.

- Order of feedback. The learner reviews how they did first, usually followed by the ‘patient’ feedback, then colleagues and finally the tutor who may add points and summarise.

- Tutors should summarise any feedback comments and ideally provide a written summary

- Video-review should follow the same principles

Pointers for further good practice

- Tutors may want to conduct feedback at the end of the roleplay (reflection on action). It is also possible to pause it and think about what is happening (reflection in action), get some immediate feedback and carry on or try another approach.

- People are usually anxious about roleplay so it is important to create safety and give them control and choice so they can be open to learning. Allow learners to call ‘time out’ if they want help and use feedback guidelines.

- Occasionally a student may have performed a task badly but feel they did well. Group feedback needs to be sensitively given to this student for him/her to remain open to learning.

- Sometimes a student is very anxious. Avoid comments like ‘You should be more confident’ because paradoxically this has the opposite effect. They will
gain more confidence with practice. Positive behaviours can be noted with encouragement to continue practice.

**Presentations:**

**Minimum standards**

- Feedback should include comments on oral presentation skills (e.g. language, pacing, clarity of explanation) as well as content (detail, accuracy, coherence, slides if appropriate)

- Tutors should summarise any feedback comments and ideally provide a written summary
Section 4 Clinical Teaching

Minimum standards

- Students should be informed of when formative and summative feedback on clinical performance will be given at the start of the teaching attachment.

- Feedback on clinical performance needs to be timely and occur as soon after the assessment as possible. Timing is important: students benefit from feedback on their work at a time when they will be able to use it and are most likely to take notice of it, for example, during a module rather than at the end (The Quality Assurance Agency for Higher Education 2006, available on website www.qaa.ac.uk).

- Feedback should be delivered by informed staff who have observed the clinical encounter first hand, have knowledge of the student and are aware of the parameters to be assessed, such as mini-CEX.

- All students should receive individual private feedback on their clinical performance at least once during all clinical attachments. This may include any end of attachment summative assessment.

- Students should receive their feedback following the clinical examination either with or without the patient present if the feedback is formative but privately if summative.

- Students should be advised how to improve in one or two areas at a time and told how this improvement will be measured. Feedback should be balanced in terms of what was well done and what needs to be improved.

- Good performance should be outlined and praised. This improves student self esteem and increases student satisfaction.

Pointers for further good practice

If possible students should have an opportunity of receiving feedback on observed performance at the beginning and end of their attachments so that progress can be measured.

Students should be encouraged to discuss how they felt the examination went and to disclose concerns. This enables the feedback given to be centred on what the student perceives to be most problematic. This fully engages the student and also encourages an atmosphere where constructive feedback can be given on other areas not perceived as being problematic by the student.
When specifically feeding back from mini-CEX or similar assessments consider:
  • Balancing student strengths and weaknesses
  • Enable the learner to react to any feedback and build your response upon this
  • Encourage accurate and appropriate self-assessment
  • Develop an action plan for improvement


Group feedback can be very useful illustrating norms and common pitfalls to avoid but all students should be given individual feedback with an opportunity for discussion at least once and if possible following a summative assessment.

“To ensure that learners recognise the feedback they receive, it should be clearly identified: feedback is best shared in proximity to an event and can be imbedded in teaching. Teachers can point out:

  • What is diagnostically meaningful information in a case,
  • What is redundant or irrelevant information, and
  • What are the discriminating features, including their relative ‘weight’ or importance in drawing conclusions?”

Section 5  OSCES

This section mainly refers to the end of Year OSCEs but anyone running OSCEs should endeavour to meet these standards

Minimum standards

- Students will always receive their scores on each station, as well as their overall score
- The class mean and distribution of marks for each station will be included
- Each student will be informed of the number of stations he/she has passed and failed

Pointers for further good practice

- In a formative OSCE situation, it may be useful to include a minute or two at each station for the examiner to give feedback directly to the student. This time should be allowed for in the station timings
- If a student has failed a station, it is not helpful to go over the checklist with the student; it is more effective practice for the student to re-visit their learning of that skill with a suitable teacher

References


2. Giving Feedback tools of the trade workshop – University of Leicester.

3. Queen Mary’s draft guidelines on feedback (Matthew Williamson’s scoping paper)