

# Using assessment to drive learning by linkage to foundation year 2 appointment

*The premise of this study is that engagement with assessment, and doing well in it, will drive education itself. Engagement and success with assessment during foundation year 1 training was therefore used to allocate foundation year 2 posts to 440 trainees. A web-based system was used, with all contacts being on-line only.*

## Introduction

It is known that engagement with educational assessment will drive education itself. Assessment is a motivating factor to learn and learners will do what the examination system tells them to do (Van Der Vleuten et al, 2000; Shumway and Harden, 2003). If a subject is a hurdle to pass then trainees will study it even if it is not entirely relevant (Chambers and Wall, 2000). It is therefore reasonable to assume that the requirement for regular assessments to be undertaken during the first foundation year (F1), using the foundation learning portfolio (Modernising Medical Careers and Department of Health, 2005), will help increase the standard of education of the trainees, provided the chosen assessments are relevant to foundation programme outcomes. To increase motivation for undertaking and doing well in assessments, and to enhance this education further, the degree of engagement with assessments and where possible their outcome during F1 was used to develop a score that has been used in the allocation of foundation year 2 (F2) posts.

All F1 trainees in the West Midlands postgraduate deanery are guaranteed an F2 post within the West Midlands. An internet-based application process was developed to allocate posts to these trainees based upon their preferences. The order of

allocation was determined by a score that reflected the degree of engagement with assessment and, in part, its outcome.

## Methods

### Outline of process

All communication between the deanery and candidates, clinical tutors and trusts was electronic using a specially designed website. In February 2006, 449 trainees gained access to the website via PIN to completed an application form. Trainees from three foundation areas could apply for posts in their own area only, the PIN automatically restricting the application to that area. The three areas were:

1. Shropshire and Staffordshire
2. Coventry and Warwickshire
3. Birmingham South and North, Black Country, and Hereford and Worcester.

Areas 1 and 2 were single foundation schools and 3 included four foundation schools. Posts were grouped in this way to ensure that there was a spread of urban and rural locations.

Details of F2 posts were given on the website and candidates chose twenty, in order of preference. All posts were 3 x 4 months rotations and were approved for foundation training.

### Scoring

F1 trainees submitted to their local clinical tutors their educational portfolios which contained assessment and appraisal documentation. In addition, they submitted photocopies of assessments as completed for the national foundation learning portfolio (Modernising Medical Careers and Department of Health, 2005) which covered case-based discussion (CBD), direct observation of practical skills (DOPS) and mini-clinical examinations (mini-CEX). From their own postgraduate centres clinical tutors also had available the results of a 360° assessment and an attendance register at postgraduate meetings.

Seven areas contributed to the final score, covering educational activities for the first 6 months of the F1 training commencing August 2005. The maximum contribution of points in each area is stated in brackets. The highest total score possible was 29. The areas are:

- Appraisals undertaken (5)
- Team assessment of behaviour = 360° assessment (at least ten returns with no concerns = 3, at least ten returns with one concern = 2, at least ten returns with more than one concern = 1, less than ten returns = 0)
- Attendance at education meetings (50–70% = 2, 25–49% = 1, less than 25% = 0)
- Number of workplace assessments completed (CBD, DOPS and mini-CEX) (6)
- Direct involvement in audit (more than one audit = 3, one audit = 2, no audit = 0)
- Reflective diary (completed = 2, not completed = 0)
- Resuscitation Council Advanced Life Support (ALS) (pass or evidence of registration for future course: yes = 1, no = 0)
- Personal statement – the subject was ‘What would you bring to this foundation programme as an F2 trainee?’ using a maximum of 100 words (7).

The inclusion of audit, reflective diary and the personal statement were considered to be of added value, to supplement the scores of the more direct assessments.

## Results

Four hundred and forty allocations were made for 449 applicants. Nine candidates did not receive a post in the first round because all their choices were taken by other candidates with higher scores; these candidates were allocated posts in a second round. Forty one per cent gained their first preference, and 80% gained one of their

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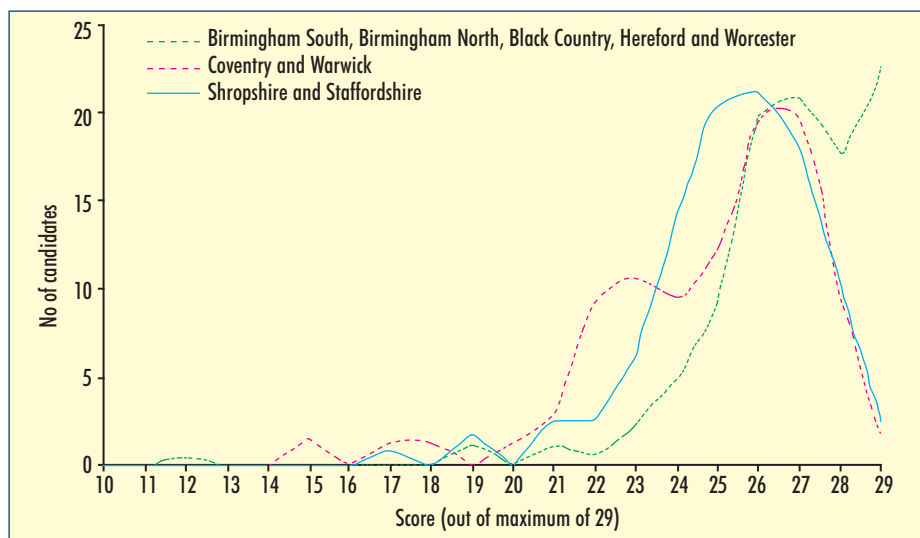


Figure 1. The numbers of candidates with each score in the three foundation areas.

first five preferences. The total scores of applicants from the three foundation areas are shown in *Figure 1*.

Several important observations could be made:

- Appraisals: 422 (94%) had had all appropriate appraisals.
- Team assessment of behaviour (360° assessment): 391 (87%) had passed a valid assessment, i.e. ten or more returns with no concerns. It is important to note that 58 either received 'concern' ratings or had less than ten returns, and so were required to have a further 360° assessment later in their F1 training.
- Attendance at meetings: 443 (99%) attended more than 50% of educational sessions.
- Number of assessments completed (CBD, DOPS and mini-CEX): 444 (99%) had completed six or more formal assessments.
- Audit: one or more audit had been completed by 367 (82%) trainees.
- Reflective diary: 442 (98%) had completed a diary.
- ALS: 438 (98%) had registered for, or passed ALS.
- Personal statements: numbers with each score were as follows score 1=1, 2=2, 3=18, 4=77, 5=120, 6=136, and 7=95.

## Discussion

This web-based system of allocation to F2 posts, with no interviews, was efficient and effective. If the assessments, as specified in the curriculum, do indeed act to promote learning, as they are intended to do, then

involvement and success in assessment will be beneficial to foundation doctors. Since the trainees knew that enthusiastic engagement in assessment would assist their selection into preferred F2 posts, it is proposed that, unless the assessments are flawed, the F2 allocation process did promote learning.

It could be argued that the outcomes of the assessments would be a more discriminating guide to excellence than simple 'engagement'. The measures used in this study were not really sensitive enough to determine outcomes; many were not graded, being simply marked as pass/fail. The team assessment of behaviour was graded, but was not very discriminatory because most trainees scored full marks. However, it was considered that the assessments were developmental, and, since this process took place at the mid-point of the F1 year, it was decided to accept engagement with assessment as a useful measure for allocation of F2 posts. As success for a candidate has primarily been determined by the degree of engagement with assessment it is proposed that assessment is a strong motivating factor for trainees to improve and embrace medical education.

It is accepted that in all subsections of the scores a large number of trainees gained full marks and that subsequent development of the scheme should try to set higher standards for full marks to ensure a greater spread of results. The personal statement gave the greatest discrimination between candidates. Nevertheless, as shown in *Figure 1*, the total scores fell over a broad range, enabling a fair system of allocation to take place.

It is possible that for subsequent years the motivation for engagement with and success in assessment will be so high that the range of scores becomes narrow again. The anticipated benefit is that educational standards will also be higher. It may then be necessary to increase the impact of areas such as the personal statement, or to incorporate other criteria such as evidence of additional academic activity (e.g. presentations, publications and critical event analysis) to help discriminate between candidates.

The results of 360° assessment deserve special attention because 58 trainees (13%) received an invalid or a 'concern' assessment. The benefits of this assessment for trainees are well recognized (Whitehouse et al, 2005). Counselling and repeat assessment has taken place to ensure that these trainees develop acceptable professional behaviours.

## Conclusions

An efficient and effective web-based system has been used to appoint F1 trainees to F2 posts. Success for a candidate was mostly determined by degree of engagement with assessment. There is now a strong motivating factor for trainees to improve and further embrace medical education. **BJHM**

*Conflict of interest: none.*

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## KEY POINTS

- On-line application for foundation year 2 posts by foundation year 1 trainees is straightforward.
- Engagement with educational activities and success can be scored.
- It is proposed that the use of scores in allocation to foundation year 2 posts will drive learning.
- Of foundation year 1 trainees in this study, 99% had appropriate formal clinical assessments.