

# Formal, structured teaching in postgraduate training: a learner-centred educational programme

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**Medical education focuses on a learner-centred approach, but postgraduate training programmes have struggled to embrace this practice. In the West Midlands Deanery, a 2-year rolling postgraduate educational programme in obstetrics and gynaecology has been developed to equip trainees with the knowledge, skills and attitudes necessary to promote self-directed learning, via independent learning, interactive large-group presentations and small-group, peer-led activities.**

### INTRODUCTION

Postgraduate education has been the subject of intense critical scrutiny. It is undergoing a metamorphosis of the educational concepts on which it is based and what it is expected to deliver. For example, the Standing Committee on Postgraduate Medical and Dental Education (1994) recommended that the use of formal education opportunities should be maximized in order to promote learner-centred postgraduate education. It proposed that formal educational opportunities:

**‘...have a primary educational purpose, are discrete, run at a set time and duration and have planning, feedback and evaluation of the learners’ needs.’**

The Royal College of Obstetricians and Gynaecologists’ (RCOG) Working Party on Structured Training (2000) also recommended that formal teaching should consist of a rolling rota that assessed the learners’ needs, defined objectives and learning outcomes, implemented varied teaching/learning strategies and assessed the learning outcomes.

The postgraduate training programme has undergone revolutionary changes. With the introduction of Calman’s training programme (Department of Health, 1993), the

length of time spent in postgraduate training has reduced. The reduction in junior doctors’ working hours has resulted in changing to the shift pattern of work (Department of Health, 1991). These changes have had a knock-on effect on postgraduate training. Any teaching programmes purporting to address these issues would need to reduce the dependence on teachers and equip trainees with the qualities required for lifelong learning. This concept inevitably challenges the traditional format of delivering postgraduate teaching, with its emphasis on faculty and on recall of information (Ellington et al, 1993).

### FORMAL, STRUCTURED TEACHING IN POSTGRADUATE TRAINING

In the West Midlands Deanery, an attempt has been made to combine the traditional format with the newer concepts in medical education and apply this to postgraduate education. A formal, regional, centralized, monthly postgraduate educational programme has been put together at Birmingham Women’s Hospital for senior specialist registrars in obstetrics and gynaecology.

This article describes a pragmatic approach to making teaching and learning exciting for both teachers and trainees, while making it compatible with the recommendations of the various regulatory bodies described above.

The curriculum was modelled on the recommendations of the RCOG Working Party on Structured Training (2000) (Figure 1). It incorporates the

use of varied teaching/learning methods appropriate to the defined objectives, along with feedback, assessment, evaluation and reflection in order to maximize its effectiveness. It is a 2-year rolling rota that consists of two topics covered on the first Tuesday of every month (40 topics in 2 years). Nurturing factual, reasoning and behavioural skills requires time (Kenneth, 2000). The 2-year rota enables coverage of a wide variety of topics and gives the trainees sufficient time and opportunity to explore different facets of the skill of self-directed learning.

### TRAINEES’ LEARNING NEEDS

The participation of trainees in outlining the curriculum is vital for its acceptance and success. The trainees are involved in drawing up the list of topics. This gives them an opportunity to identify gaps in their knowledge, set goals and implement activities based on their priorities, needs and abilities (Huppatz, 1996). Thus, the teaching programme acts as an aid to self-directed learning.

### DEFINING LEARNING OUTCOMES

The learning outcomes (Table 1) have been defined while understanding that trainees require more than just a vast knowledge base to adapt to their future role as consultants. It is important for them to develop appraisal skills and to learn to apply the appraised knowledge at their workplace. In addition, the learning outcomes also focus on the

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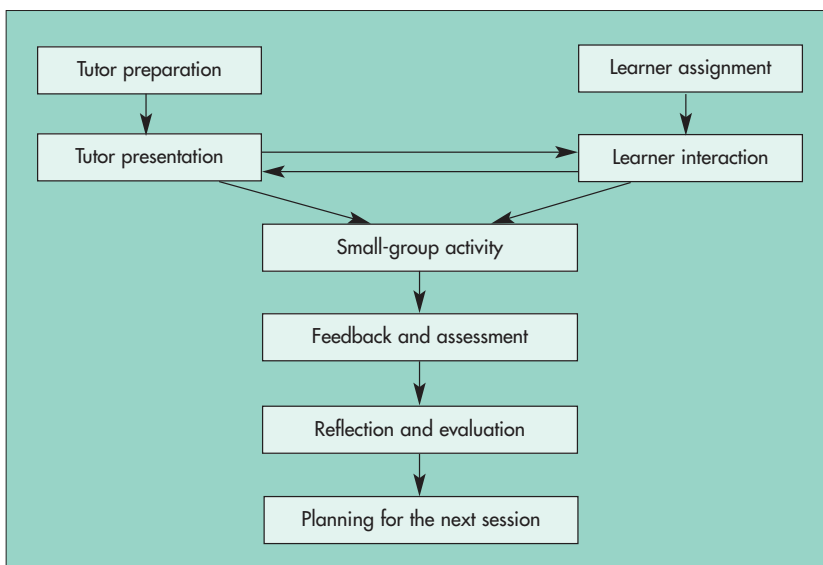


Figure 1. Teaching and learning strategy of the postgraduate educational programme in obstetrics and gynaecology in the West Midlands' Deanery.

**TABLE 1.**  
Curriculum design of the postgraduate educational programme in obstetrics and gynaecology in the West Midlands' Deanery

Venue	Education Resource Centre, Birmingham Women's Hospital	
Aim	To foster lifelong, practice-based, professional learning among senior (post-MRCOG) specialist registrars	
Objectives	To develop among senior specialist registrars, the knowledge, skills and attitudes necessary for active, lifelong, practice-based, independent professional learning, through a process of reflective medical education, covering relevant clinical content in a 2-year rolling programme of monthly educational sessions	
Learning outcomes	At the end of 2 years the senior specialist registrar educational sessions, each including an interactive tutor-led session and a participant-led, small-group session will be able to:	Acquire, refine and integrate new knowledge in a wide range of relevant clinical topics covered through specialist registrar educational sessions, each including an interactive tutor-led session and a participant-led, small-group session  Acquire lifelong learning skills and attitudes, including:  Identification and definition of learning needs  Acquisition and appraisal of information for its strengths and weaknesses  Refinement and integration of the appraised information to satisfy the learning needs through mastery of effective independent learning and participant-led, small-group activity
Learning/teaching methods	Independent study: preparing for the educational session  Tutor-led session: understanding the principles and application of the educational content relevant to the clinical topic (e.g. lecture, video, knowledge testing)  Small-group session: meeting the learning outcomes of the educational session through effective small-group activity (problem-solving, critical case analysis, research appraisal, presentation, interaction, discussion, reflection and giving and receiving feedback)	
Contact time	The full day consists of two sessions each. Each session consists of a didactic presentation for 45 minutes followed by a small-group interaction for 45 minutes (Figure 1). The two sessions are separated by a 1-hour break for lunch. At the end of the day, time is allocated for oral and written feedback (15 minutes)	
Assessment	Oral and written feedback of the tutor-led presentation and small-group activity Peer assessment against set assessment criteria (Figure 2)  The assessment and a certificate of completion form part of trainees' personal development file and can be used for summative in-training assessment	

acquisition or improvement of presentation, on communication and on interactive and time management skills, all of which would be useful to trainees in their role as consultants.

### PRIOR PREPARATION FOR ASSIGNMENT

Learning begins with the activation of existing knowledge. Post-membership (post-MRCOG) registrars already have a considerable knowledge base. Trainees' existing knowledge is stimulated through personal reading undertaken for the preparation of assignments. The assignments consist of carefully structured questions, which are formulated by the trainees, tutors and the course coordinator. Given the wide geographical distribution of the trainees, electronic technology is relied upon to reach them. The assignment is electronically mailed to the trainees well in advance, in addition to being posted to them. Preparation for these assignments paves the way for deep learning and helps trainees identify problem areas that they might wish to discuss in the session.

### VARIED TEACHING/LEARNING METHODS

A typical day's programme consists of a talk on the subject by a distinguished tutor speaker, followed by a peer-led, small-group interaction on the assignment. The 'learning for understanding' philosophy is supported by the process of guided discovery, which combines the traditional format of lectures with innovative methods such as peer interaction (Spencer and Jordan, 1999). Creativity is vital to sustaining interest in any educational model. The organizers have tried to be innovative by handing over the running of the small-group activity to the trainees themselves. Two of the trainees volunteer to act as facilitators. The role of the facilitator is to:

- Determine if participants know what they are meant to be doing and what they should achieve by doing it
- Develop a timetable for the small-group activities that will help meet objectives (allowing time for feedback at the end of the session)

- Facilitate interaction between participants, encouraging those who are quiet
- Help participants identify and resolve their conflicts
- Seek input from tutors if appropriate.

This enables the trainees to develop their interactive and time-management skills, and gives them a useful insight into the changing trends in medical education. The course coordinator ensures the smooth running of the peer interaction without taking over the session.

The process of critical analysis and reflection stimulated during the didactic presentations and learner-centred, intensive small-group interaction serves to reinforce existing knowledge with new knowledge. The 'structured

spontaneity' and confidentiality of the latter allows for personal and professional development, while the former gives direction to this process of self-evolution.

### FEEDBACK

The day's session concludes with feedback from the trainees. The uneasiness associated with giving and receiving feedback is an important deterrent to education (Ende, 1983). Providing opportunities to get conversant with feedback prepares trainees for their future role as teachers. The feedback is oral as well as written. In addition, the trainees have the freedom to electronically mail any feedback and concerns to the course coordinator.

### ASSESSMENT

Assessment is an important component of learning (Fowell et al, 1999). The existing format introduces a peer-assessment system. This enables trainees to judge for themselves whether they have achieved the learning outcomes. While the small-group activity is going on, the presenters and facilitators are assessed independently by each of the trainees, according to predetermined assessment criteria (Figure 2). Each term, every trainee would have at least one of his or her small-group presentations assessed. In addition, they would have their facilitation of one of the small groups assessed. Trainees would be free to select presentations and small-group activity of their choice for assessment. These assessments can be filed in trainees' personal development files.

In line with the recommendation of the RCOG for the education of senior specialist registrars (RCOG Working Party on Structured Training, 2000), a 75% attendance should be expected.

Successful completion of the training programme consists of:

- Attendance in 12 half-days
- Assessment of three presentations
- Assessment of facilitation of three small groups.

Upon successful completion of the training schedule according to the above criteria, a certificate would be awarded. This record would form part of a trainee's personal development file, and the Higher Training Committee would be able to draw on this information at the trainee's annual assessment. A year after its implementation this criterion-referenced, peer-assessment system has been evaluated to identify its strengths and weaknesses.

### EVALUATION

An evaluation of the educational programme was undertaken. Trainees provided written feedback about the relevance of topics, the quality of content taught and the effectiveness of teaching. They rated their evaluation of these three aspects of the curriculum for each educational session

Figure 2. Peer-assessment criteria used in the postgraduate educational programme in obstetrics and gynaecology in the West Midlands Deanery.

Name:	Trainee year: 1 2 3 4 5	Date:
Attendance: Year: 1/2 Term: 1/2/3 (Circle as appropriate)	Session: 1/2/3	Topic: 1/2
<b>Topics</b>		
<b>Knowledge assessment</b>		
1. Contents relevant (e.g. identification of problem)	4 3 2 1	Contents irrelevant
2. Evidence of planning and preparation (e.g. search strategy, appraisal checklist)	4 3 2 1	No mention of planning and preparation
3. Critical appraisal/reflection (i.e. comprehensive/indepth appraisal)	4 3 2 1	Inadequate/superficial appraisal (e.g. abstract presentation)
Comment:		
<b>Presentation skills</b>		
4. Media easy to follow	4 3 2 1	Presentation difficult to follow
5. Clearly audible	4 3 2 1	Mumbles
6. Time schedule adhered to	4 3 2 1	Overran time schedule
7. Answered questions clearly	4 3 2 1	Vague in answering questions
Comment:		
Signature of assessor: Name of assessor:		
<b>Facilitation skills</b>		
8. He/she outlined the structure and purpose of the session	4 3 2 1	Did not outline the purpose and structure of the session
9. Avoided fragmentation of the group	4 3 2 1	Could not avoid fragmentation
10. Summarized the activity	4 3 2 1	Did not summarize the group activity
11. Encouraged feedback	4 3 2 1	No feedback
12. Time schedule kept	4 3 2 1	Overran time schedule
Comment:		
Signature of assessor: Name of assessor:		

using the five-point Likert scale. The extremities of the scale represented excellent relevance, quality and effectiveness at one end, and poor relevance, quality and effectiveness at the other.

Between January 2001 and June 2002 a total of 30 educational sessions were held. A total of 217 feedback forms were collected, of which two had missing data on effectiveness of teaching. Free comments were also collected and used to inform decisions regarding the curriculum and subsequent educational sessions.

A summary of the evaluation of relevance, quality and effectiveness is provided in *Figure 3*. Of the trainees who evaluated the educational sessions, 97% thought the relevance of topics was excellent or very good, 92% thought the quality of content was excellent or very good, and 92% thought that the effectiveness of teaching was excellent or very good.

## CONCLUSION

The curriculum of the postgraduate educational programme in obstetrics and gynaecology in the West Midlands' Deanery provides a flexible, structured educational model that is in a constant state of evolution in response to trainees' needs. The learning outcomes define the minimum standards of quality that the trainees are expected to attain. It acknowledges the need for ownership and incentives to motivate trainees. The inherent feedback and assessment systems enhance its educational value. By encouraging trainees to take charge of their own learning and assessment processes it is hoped that they will be better equipped to become competent doctors. **HM**

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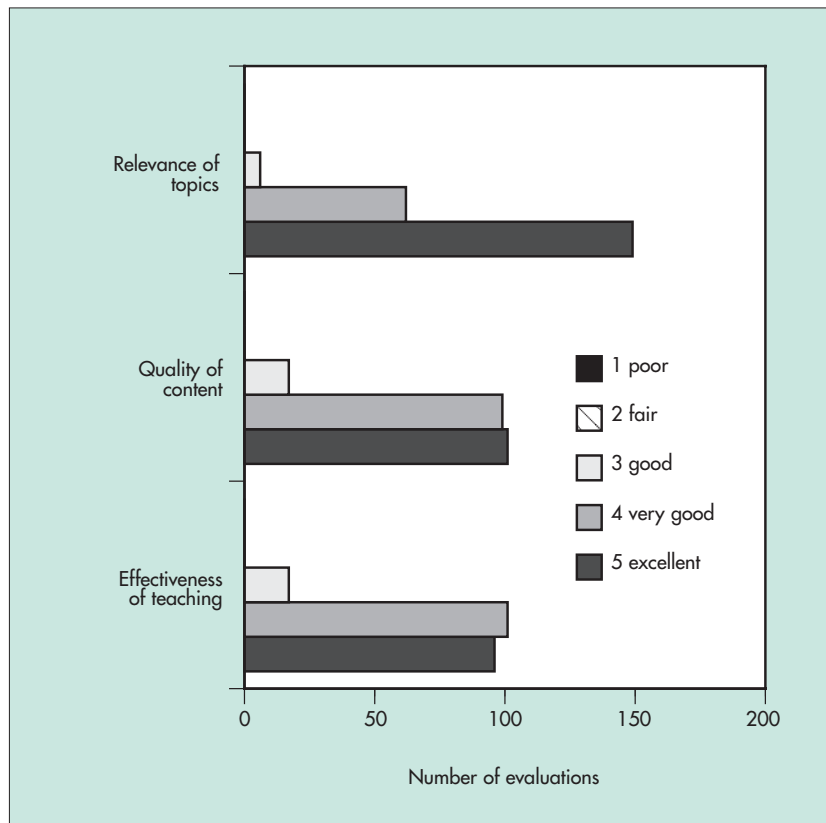
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**Figure 3.** Evaluation of the postgraduate educational programme in obstetrics and gynaecology in the West Midlands' Deanery (2001-2002).

## KEY POINTS

- The West Midlands' postgraduate educational programme in obstetrics and gynaecology is based on a learner-centred approach.
- The aims, objectives and learning outcomes are defined in terms of their applicability to the future role of trainees as consultants.
- Varied teaching methods are used to make the sessions creative and enjoyable without compromising their educational value.
- Trainees play an active role in drawing up the curriculum and in peer-led, small-group activity and peer-led assessment.
- A vast majority (over 90%) of the trainees participating in the educational programme find the relevance of topics, quality of content and effectiveness of teaching to be excellent or very good.