rofessional Faculty Development - Facilitating Learning in the V

Challenges and opportunities

Clinical teachers are readily able to identify the challenges to workplace-based learning. Typically they will list issues such as:

- available time/resources
- changing expectations (of students, patients, employers, medical schools, colleges)
- competing demands and competing priorities (treating or teaching)
- opportunistic nature of clinical work
- knowing what to teach, when to teach and how to teach it
- increased training paperwork and assessment load
- issues around consent
- concerns about risks involved in student/trainee practice.

Thinking points

- Review the list above and note those you share and those you would add.
- Which one(s) cause you greatest difficulty as a teacher-trainer?

Students and trainees also face similar challenges. Students in particular often report concerns about:

- lacking a clear role or responsibilities
- knowing what is expected of them
- competing demands on time (studying for exams versus taking part in workplace activity or having to 'do the job' rather than learning 'on the job')
- limited opportunities to be observed and receive feedback on performance
- being unclear about the immediate relevance of workplace-based learning elements.

Thinking points

- How could you address the above student/trainee concerns?
- What strategies do you currently use to support workplace-based learning?

If workplace-based learning creates so many challenges for both trainers and trainees, why do we persist in placing this type of activity so centrally in undergraduate and postgraduate curriculum? Some key reasons include:

- familiarisation with healthcare contexts
- development of professional knowledge, e.g. case knowledge and clinical reasoning
- development of professional skills, e.g. history taking, physical examination, procedural skills, etc.
- development of professional socialisation, e.g. behaving and acting like a doctor/healthcare professional
- continuing professional development.

Workplace-based learning is clearly highly valued, but is not without its challenges. For students there is the dual agenda described by Griffiths and Guile in 1999.

'Learning in work-based contexts involves students having to come to terms with a dual agenda. They not only have to learn how to draw upon their formal learning and use it to interrogate workplace practices; they also have to learn how to participate within workplace activities and cultures' (Griffiths and Guile, 1999, p

170).

Our students and trainees are clearly very knowledgeable individuals, having demonstrated this knowledge in formal assessments and examinations, be it at medical school or via College exams. One of the difficulties for students and trainees, however, is learning how to draw on that knowledge purposefully in order to understand the patients and situations they meet in the clinical environment. This is one type of challenge. The other, which we will explore further later in this module, is the need to understand the ways in which teams operate in each particular context they encounter and find ways to fit in and work effectively.

For clinical teachers there is one further challenge: trying to fit teaching methods designed for the classroom to the workplace. In the next section we will explore some theoretical perspectives on workplace-based learning and consider the ways in which they can help us in developing approaches to the support and facilitation of workplace-based learning.

Social models of workplace learning

In more recent years, attention has turned to a relatively under-explored school of educational theories (in medical education) which can loosely be described as ‘socio-cultural’ theories.

What makes these models different from those described so far is that they essentially see the distinction between learning and working (or practice) as being artificial. They start from the premise that learning is part and parcel of our everyday experience and practice. When we gather round the bedside with our colleagues, to talk to our patients and to discuss their progress or management, we are engaged in both a working activity and a learning activity. Our understanding of one other, our patients and their illnesses is influenced by the conversations around the bed and by the notes made, and this becomes part of the learning in the workplace. When we encounter a complex patient or a complex situation, we draw on the ‘learning resources’ around us (our peers, our seniors, other members of the healthcare team) to consider how to move forward. We might consult other types of resource (for example NICE guidelines, the BNF or internet search engines), but seldom do we immediately rush off to be ‘taught’. As we develop our clinical practice, we are learning at the same time. One of the challenges for clinical teachers therefore, is to make this learning more explicit to trainees, to help them recognise that they are learning ‘how to do the job’ by ‘doing the job’.

The extent to which we learn through our work activity is influenced by our ability to recognise the learning to be had, by the ways in which we invite our learners to be part of the work activity and by the decisions they make about whether or not to accept (and value) such invitations.

Thinking point

Think about your last couple of weeks at work.

- What have you learnt ‘on the job’, how did you learn it and who else was involved in this working–learning process?

Theoretical perspectives on workplace-based learning

Traditional models of education have tended to focus on formal teaching, with the focus being on the ‘transmission’ of knowledge from teacher to learner.

Transmission models are characterised by:

- their emphasis on ‘teaching’ (not learning)
- their focus on the individual teacher–learner relationship
- an emphasis on ‘knowing’ rather than ‘doing’ or ‘behaving’.

While such models have relevance in the classroom, they have significant limitations if transferred to the workplace, with all its dynamic complexity. No doubt every clinician has suffered the frustrations of late-running clinics or theatre lists because they have attempted to ‘teach and treat’ at the same time. And equally, every student or trainee has probably had the experience of sitting passively in the corner of a room, observing their supervisor get on with the work.

Thinking points

- What other examples can you come up with that illustrate how difficult it is to ‘teach’ in the workplace?
- Can you identify ways in which your students/trainees learn without you having to formally ‘teach’ them?

In the 1990s there was a noticeable shift in learning theory, with conceptions of experiential learning becoming increasingly popular, based on Kolb’s now familiar learning cycle of ‘concrete experience’, ‘reflective observation’, ‘abstract conceptualisation’ and ‘active experimentation’. This move prompted clinical teachers to consider how students and trainees might learn through taking part in workplace-based activity.

Kolb's learning cycle

Kolb's cycle provides a framework to consider what needs to happen beyond the actual 'doing something' for learning to take place. While there is much to commend this model, the greatest danger is that it implies that somehow the provision of appropriate 'experience' is sufficient to ensure learning takes place. This model underplays the complexity of learning in and through experience, and the role played by the clinical teaching in supporting this type of learning.

Thinking points

- What types of learning experience do you offer to students and trainees?
- What opportunities do you provide for them to think and talk about the experiences they have had?
- How do you help them develop their knowledge/skills/attitudes in readiness for the next learning experience offered?

Some key concepts and their implications

If we look at the writing of socio-cultural theorists like Wenger (1997), Lave and Wenger (2003), Billett (2002) and those who have argued for greater attention to these models of learning (such as Bleakley, 2002 and 2005; and Swanwick, 2005) it is possible to draw out some key ideas and their implications for those who support workplace-based learning.

1 Learning is part of everyday social practice.

Implication: we need to make learning opportunities more explicit to ourselves and to our learners. We also need to make explicit specific workplace cultures and practices to help students and trainees 'make sense' of what they see, hear, sense and do.

2 Teams are 'communities of practice' (Lave and Wenger, 2003) identified and defined by their shared expertise, e.g. in managing patients or teaching students.

Implication: we need to involve the whole team in supporting student/trainee learning.

3 Novices become experts through participation in these communities of practice.

Implication: we need to consider the ways in which we can meaningfully involve our students and trainees in workplace activity.

4 Workplaces don't always readily invite learners in and don't always offer equal opportunities to all learners (Billett, 2002).

Implication: we need to consider how we create the right conditions for learning to take place in our workplace and to ensure certain students or groups of students/trainees are not inadvertently disadvantaged.

5 Horizontal learning is as important as vertical learning in the workplace (Griffiths and Guile, 1999).

Implication: we need to help trainees take what they know already and use it to make sense of what they see, hear, sense and do.

6 'Talk' is a central part of practice – learners need to 'learn to talk their way into expertise' rather than just learn from the talk of an expert (Lave and Wenger, 2003).

Implication: we need to find strategies to help our students and trainees talk themselves into the expertise, by using techniques such as 'thinking aloud' and case-based discussion.

Making the most of workplace-based learning

In these next sections we will explore further the implications arising from these ideas and consider how they can help you develop your approaches to supporting workplace-based learning.

Creating the right conditions for workplace-based learning

Students and trainees who are made to feel welcome are more likely to actively engage in the full range of learning opportunities provided and to seek to play an active role in the team. Billet (2002) suggests that the 'invitational qualities of the workplace' can be seen as the ways in which the workplace provides and supports learning from work activity. Billett argues that these invitational qualities or 'affordances' are far from benign, as they shape all opportunities to engage and are unequally distributed. Affordances can be shaped, for example, by student or trainee prior experience, stage in training, gender, ethnicity, socio-economic background and apparent differences in motivation, enthusiasm or interest. For example, male students on obstetric and gynaecology attachments may be afforded fewer opportunities to participate than their female colleagues, affecting examination performance and career choices made (see Higham and Steer, 2004).

Consider your own workplace and how 'newcomers' are made to feel welcome. Do you always know their preferred form of address and do you use it? Do they have somewhere to store their personal effects? Are they invited to join you for coffee or lunch? Are they given opportunities to get to know all members of the team – medical, nursing, healthcare and support staff – and to appreciate the role they play in patient management and care? Are you confident that your workplace affordances are equally distributed? Do you need to encourage more women into your profession? Do you need to find ways to engage less confident or vocal students or trainees?

Thinking points

- How can you make your workplace more 'invitational' from a learning perspective?
- Are certain groups or types of student/trainee potentially disadvantaged?
- What strategies can you use to ensure equal opportunities to participate and learn from workplace activity

Involving the whole team in your workplace-based learning

Medical students and trainees readily identify colleagues, team members and indeed patients and their carers who have enabled them to ‘fit in’ to new settings and who have made positive contributions to their learning. In many cases these individuals are not those with a formally recognised teaching role. For example, consider how powerful patient feedback (be it direct or indirect) can be on reinforcing your practice or seeking new ways to do things. Consider the ways in which students and trainees learn from each other (‘I find it helpful to hold it this way’) and share experiences (‘saw a great case in theatre yesterday’). Consider the ways in which junior medical staff guide less experienced colleagues in ways of examining patients, interpreting charts or test results and prioritising workloads. Consider the role played by nursing colleagues in helping ‘newcomers’ get to grips with ward procedures and protocols or in identifying ways to effectively work with particular team members. Acknowledge the role played by all members of your community and value it explicitly. Encourage your colleagues to be involved in the multi-source feedback to trainees. Invite them to be involved in medical education and training. Identify the ways in which they can support learning and make them explicit to students and trainees.

See the Workplace-based assessment and Giving effective feedback modules in this series for further ideas and information.

Thinking points

- Consider who could potentially be involved in supporting student or trainee learning in your workplace.
- Who could be more involved and how?
- What contributions can be made by people other than yourself?

Making workplace-based learning opportunities explicit

While the workplace is a great place to learn, the primary focus is on working, and opportunities to learn may go unrecognised. How often have you been frustrated by a student's reluctance to attend a ward round or clinic or theatre list because they prefer to go and study in the library for a forthcoming exam? How often have you been frustrated by a student's reluctance to come into clinic or theatre more than once, because they have 'seen it already'. In both these situations it may well be that the student's reluctance is because they can't 'see' the learning opportunities that are part and parcel of the experience and nobody has made them explicit. There are a number of ways in which you can help students and trainees recognise the learning value of everyday working activity.

Label the learning opportunity e.g. 'We have a theatre list this afternoon and we need to consent patients this morning. It would be a great opportunity for you to learn more about how to explain procedures and gaining patient consent.'

Establish prior experience and negotiate a learning goal e.g. 'So, you have experience of consenting patients for routine procedures, so why don't we work together this morning to consent patients about to undergo more complex procedures, with the aim being that you will do two without my needing to intervene by the end of the morning?'

Prime them for learning through observing e.g. 'In clinic this morning we are likely to see patients who are booked in for caesarean section or who will raise the question of elective section. While you observe I want you to notice the reasons given for requesting section and consider the ways in which they might influence your decision making if it was your decision to make.'

Use assessment for learning purposes e.g. the new workplace-based assessment tools provide repeated opportunities to identify opportunities for development that can be addressed through workplace-based activity. For example, directly observing procedural skills and observing a brief clinical examination provides you with first-hand information about trainee strengths and weaknesses. Use this as a way to identify ways to enhance performance, be it through more opportunities to do something, purposeful observation of peers doing something or shadowing members of the team who are particularly skilled in something of relevance. 'One of the aspects you found difficult this morning was taking the history from a slightly confused patient. Why don't you find out if you can sit in on the next memory clinic and watch how the team do their initial consultations with patients?' or 'I noticed you were struggling with putting in that line, why don't you arrange to work with one of the anaesthetists for the day and get some extra experience in theatre?'

See the Workplace-based assessment module in this series for further ideas and information.

Thinking points

- What opportunities for learning does your workplace offer on a day-to-day basis?
- How can you make them more explicit to students and trainees?

Helping student to talk their way into workplace-based learning

One of the challenges of learning in the workplace is that much of the complexity of practice goes unseen. Many aspects of medical practice take place in the minds of practitioners, who engage in an internal dialogue based around differential diagnosis, clinical reasoning, management planning and exploring prognosis. A key challenge for the clinical teacher is to find ways to make this thinking accessible to the trainee and to find ways to access the trainee's 'thinking' as a way of ensuring they are 'on track'.

Some of the ways in which you can do this include the following.

'Thinking aloud' – providing a narrative as we teach a skill or procedure is commonplace in clinical teaching. Providing a narrative along the lines of 'What I am considering with this patient because…' or 'What I am struggling with here is…' or 'I am weighing up the options of X versus Y because…' are equally powerful.

Purposeful observation – by priming a trainee to observe purposefully, we are making explicit the ways in which we look at patients or situations. For example, rather than asking a trainee to just observe a consultation with a distressed patient, you might ask them to note aspects of the patient's verbal or non-verbal behaviour that indicate distress. Alternatively, you might ask them to note down specific strategies you use to calm the patient and to address fears or anxieties.

See 'Teaching and learning through active observation' in Explore around this topic.

'Talk the talk' – many clinical teachers have 'set ways' they like trainees to present patients. These set ways often reflect the ways in which practitioners organise their thoughts about patients, as a way of ensuring a systematic approach to diagnosis, etc. By being clear with trainees that this talking prompts a way of thinking, you are labelling it as a teaching strategy rather than a personal 'quirk'. These ways of talking about patients are often the ways in which particular 'cultural practices' are made evident. For example, the way a patient is presented in surgery is different from medicine, which is different from psychiatry, etc. By being explicit about this, trainees again gain insight into the ways in which medicine is practised in that context.

Use case-based discussion – this is another example of the ways in which workplace-based assessment tools can be powerful workplace-based learning tools. Case-based discussion is designed to explore the thinking behind practice, for example to consider why the trainee made a particular diagnostic or management decision. It provides an opportunity for the trainee to make their thinking explicit and to develop their ideas. Clinical teachers can make the most of these opportunities by changing the types of question that check out the knowledge base (e.g. what are the diagnostic indicators for…) to those that require the trainee to provide a rationale for decisions made or not made. For example, 'You made the decision to admit this patient, can you tell me more about the factors that you took into account… how might you justify sending this same patient home… who else in the team did you involve/could you involve in that decision-making process', etc.

See also the Workplace-based assessment module in this series.

Creating and supporting opportunities to learn through work participation

We know that learning is most effective when students/trainees are given opportunities to engage actively in real workplace activity. These opportunities are obviously bounded by competing demands, concerns and priorities, which will include the complexity of the activity, the potential risks involved, the competence and confidence of the student/trainee, the time available and the willingness (and consent) of patients to be involved in training activity.

There will be times when, with adequate preparation and 'safety netting', you will delegate tasks to students/trainees in their entirety. However, there are many other opportunities in which you can work with students and trainees in parallel, to delegate aspects of work to enhance their learning or to provide participatory opportunities that will increase their confidence and readiness to undertake aspects of work activity.

One of the ways in which you can prepare and safety net is by ensuring you start with learning needs analysis. A brief yet really focused conversation with a trainee can inform your decision making about what to delegate and the support strategies you need to put in place. This will usually include finding out what they 'know', what they have 'done' before that is of relevance, any concerns or anxieties they have about what is proposed and how you can offer back-up support (or rescue) if things don't go according to plan.

See the Assessing educational needs and Setting educational objectives modules in this series for further ideas and information.

For example, a trainee might not yet be ready to perform a complete surgical procedure. They may, however, be ready to take the history, perform the examination, consent the patient, prep the patient and perform one part of the procedure, monitor in recovery and write up the charts. This gives them a sense of taking responsibility for the patient's management and time to focus their attention fully on the aspects they are not yet doing, but might do next time.

See 'Integrating teaching and learning in clinical practice' and 'Teaching and learning through active observation' in Explore around this topic.

This is another situation where you can use assessments for learning purposes. By looking at the trainee's profile, you can spot patterns of competence and obvious gaps in either experience or competence. By focusing on these, you can ensure that you guide the trainee to the types of experience that are best aligned with their development needs.

Fostering 'horizontal' learning

Medical students and trainees move rapidly from one workplace to another and are expected to somehow identify and absorb the nuanced differences between one setting or team and another, and adapt their own behaviour to fit accordingly. For example, all doctors routinely take a history from their patients – but consider the differences between those taken in acute hospital settings from those in general practice. And all doctors establish professional relationships with patients – again think about the differences in relationship between doctors and patients in palliative care from those in paediatrics, obstetrics or psychiatry.

How do you help newcomers ‘see’ such differences and find ways of working with you, your team and your patients, that are appropriate and congruent? One way is to provide clear ‘joining’ instructions that outline preferred styles of dress, ways of addressing colleagues and patients, format for writing in notes or constructing letters, for example. Another is to invite newcomers to actively seek and articulate differences between observed practice in your workplace and those experienced elsewhere, and to discuss these where it would appear to be helpful. This is another situation where purposeful observation can be very powerful.

See ‘Teaching and learning through active observation’ in Explore around this topic.

Another important aspect of horizontal learning is around helping student/trainees to draw on their formal learning (gained in the classroom) to understand what they see in practice. One of the ways we can do this really effectively is through questioning, rather than telling. You might start with some Socratic questions, designed to explore what they know already, in order to make sense of what they see. For example, when they meet a patient for whom they are unable to come up with a differential diagnosis, you might start by asking them to identify observed signs and symptoms, then go on to explore what might be the cause and elaborate why they think it is or isn’t likely to be that. This might lead to another set of unanswered questions, which you might address through some heuristic-type questions, designed to help the trainee identify the ways in which they might develop their understanding or come up with the diagnosis. ‘Where might you go to find out more about this condition? What investigations might be relevant at this point in order to rule out X or Y?’

For more ideas, see the Supervision and Small group teaching modules in this series.

To sum up

Workplace-based learning might be under threat yet it has never been more important. By drawing on the sound traditions of apprenticeship and making the most of the opportunities to learn that arise in our day-to-day practice, we can ensure that trainees learn how to do the job by doing the job. You can do this by:

- making sure your workplace is invitational for all students and trainees
- involving all members of your team (including patients) in the training process
- making opportunities for learning explicit
- creating and supporting opportunities for learning
- providing opportunities for participation in workplace-based activity
- helping trainees to learn from your talk and by learning ‘to talk’
- fostering horizontal learning.

Congratulations

You have now reached the end of the module. Provided you have entered something into your log you can now print your certificate. To generate your certificate please go to ‘my area’ and click on ‘complete’ in the course status column. Please note, you will not be able to print your certificate unless you have entered something in your ‘reflections area’.

Please now take a moment to evaluate the course and enter your comments below.

Further Information

This module was written by Clare Morris, Associate Dean, Bedfordshire and Hertfordshire Postgraduate Medical School, Programme Lead MA in Medical Education, University of Bedfordshire, and Educational Lead, East of England Trainer Development Programme. The module relates to areas 2 and 3 of the Professional Development Framework for Supervisors in the London Deanery.

Teachers tookit

Lesson planning checklist

References

Billett S (2002) Toward a workplace pedagogy: guidance, participation and engagement. Adult Education Quarterly. 53: 2743.

Billet S (2004) Workplace participatory practices: conceptualising workplaces as learning environments. Journal of Workplace Learning. 16: 31224.

Bleakley A (2002) Pre-registration House Officers and ward-based learning: a new apprenticeship model. Medical Education. 36: 915.

Bleakley A (2006) Broadening conceptions of learning in medical education: the message from team-working. Medical Education. 40: 1507.

Griffiths T and Guile D (1999) Pedagogy in workbased contexts. In: Mortimore P. Understanding Pedagogy and its Impact on Learning. Sage, London.

Higham J and Steer P (2004) Gender gap in undergraduate experience and performance in obstetrics and gynaecology: analysis of clinical experience logs. *British Medical Journal*. 328: 1423.

Kolb D (1984) Experiential Learning. Prentice Hall, Englewood Cliffs, NJ.

Lave J and Wenger E (2003) *Situated Learning: legitimate peripheral participation*. Cambridge University Press, Cambridge.

Seagraves L, Osborne M, Neal P, Dockrell R, Hartshorn C and Boyd A (1996) Learning in Smaller Companies (LISC), Final Report. University of Stirling Educational Policy and Development.

Swanwick T (2005) Informal Learning in Postgraduate Medical Education: from cognitivism to culturism. *Medical Education*. 39: 85965.

Wenger E (1998) *Communities of Practice: learning, meaning and Identity*. Cambridge University Press, Cambridge.

Further reading

Evans K, Hodkinson P, Rainbird H and Unwin L (2006) *Improving Workplace Learning*. Routledge, London.

Gordon J (2003) ABC of learning and teaching in medicine: one-to-one teaching and feedback. *British Medical Journal*. 326: 5435.

Irby D and Wilkerson L (2008) Teaching when time is limited. *British Medical Journal*. 336: 3847.

Lake F and Hamdorf J (2004) Teaching on the run tip no. 5: teaching a skill. Medical Journal of Australia. 181: 3278.

Lake F and Ryan G (2004) Teaching on the run tip no 4: teaching with patients. Medical Journal of Australia. 181: 1589.

Lake F and Vickery A (2006) Teaching on the run tip no 14: teaching in ambulatory care. Medical Journal of Australia. 185: 1667.

Spencer J (2003) ABC of learning and teaching in medicine: learning and teaching in the clinical environment. *British Medical Journal*. 326: 5914.

Course Glossary

Self-Assessment Activities

Select one or more of the activities below to develop your skills in supporting workplace-based learning.

If you are registered on the site, you can write up your reflections in the reflections area . Click on the my area link at the top of the page to access your personal pages. Please note that you must be logged in to do this.

1 Get involved in peer observation of clinical teaching

Ask a colleague if they will observe you and give feedback, but seek opportunities to do the same for them. It is a really powerful way to learn more about your teaching and to get good ideas for ways to develop your approach.

2 Ask students and trainees for explicit feedback on the learning opportunities provided

- What makes the attachment or post one that is good for learning?
- What seems to get in the way of their learning?
- What would they like more of?
- What would they like less of?
- Whose approach to teaching do they like and why?