

Facilitating learning in the workplace

Workplace-based learning has been at the heart of medical education and training for centuries. However, radical reform of the NHS means we have to re-think traditional approaches to apprenticeship and find new ways to ensure that students and trainees can learn 'on-the-job' while doing the job.

This article explores contemporary perspectives on workplace-based learning and considers how they guide learning in medical workplaces. Ways to create an environment where learning happens in parallel with working, are explored. In addition, strategies to maximize workplace-based learning are identified.

Learning in the workplace Challenges and opportunities

Clinical teachers identify the following challenges to workplace-based learning:

- Available time and resources
- Competing demands and priorities
- Increased paperwork for training and assessment
- Changing expectations
- Concerns about the risks involved in delegating clinical work.

Students and trainees report concerns about lacking a clear role, knowing what is expected of them, limited opportunities to be observed and receive feedback on performance and, increasingly, being unclear about the inherent learning value of daily work activity.

The workplace offers rich opportunities for learning, enabling learners to develop professional knowledge, skills, behaviours and attitudes and work collaboratively to deliver patient care. Critically, it is the site of professional socialization, where professional identity is shaped. Finding ways to support such development while meeting patient needs is a challenge for clinical teachers. One way to address this is to put aside the types of teaching developed for the classroom and provide learning opportunities that are compatible with the workplace.

Learning as participation

It is helpful to distinguish conceptions of learning as 'acquisition' (of knowledge or

skills) from those that see learning as 'participation' in workplace practices and cultures (Bleakley, 2002; Swanwick, 2005). Learning as acquisition drives learners from the workplace into classrooms and leads to clinics and theatre lists over-running as clinicians attempt to 'teach' students between patients or procedures. Learning as participation opens up new opportunities for learning while working. In the 1980s, Kolb represented this type of learning as a cycle (Figure 1) which focussed on the types of experiences learners had and how they made sense of these experiences (Koln, 1984). The influence of this type of thinking can be seen in the increasing use of case-based discussion as an assessment tool and in the wholesale adoption of 'reflective portfolios' in training.

Kolb's cycle provides a framework to consider what needs to happen beyond 'doing something' for learning to take place. This model poses two risks: implying that experiential learning is an individual pursuit divorced from context and downplaying the complexity of learning in and through experience and the role played by the clinical teacher.

Sociocultural learning theories

More recently, attention has turned to sociocultural theories of learning and concepts such as 'communities of practice' and 'situated learning' (Wenger, 1998; Lave

and Wenger, 2003). These theories see learning not as an individual pursuit but as something that happens through engagement in shared activities and practices.

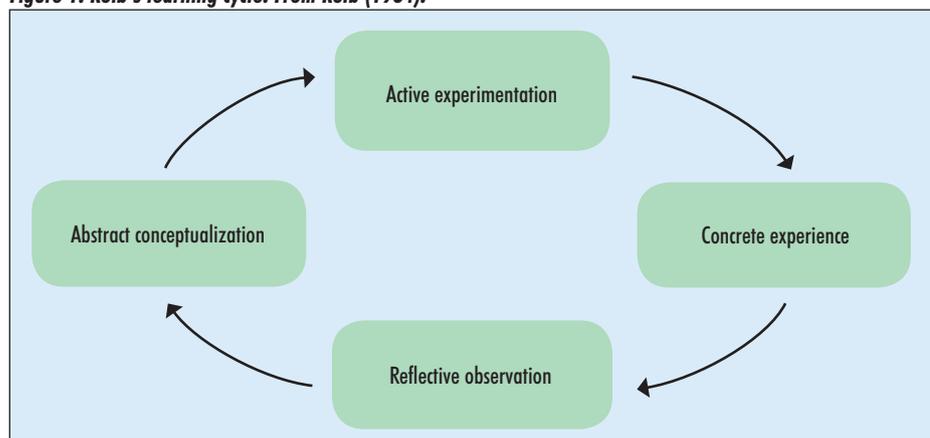
Drawing on this viewpoint, distinctions between medical learning and working are artificial creating implications for those who support learning in the workplace (Bleakley, 2002, 2006; Swanwick, 2005). So, for example, when clinicians gather round the bedside to talk to patients and discuss their progress and management with members of the team, they are engaged in both a working and learning activity. Their understandings of one another, their patients and their illnesses are influenced by the conversations around the bed and by the notes made, which become part of workplace-based learning.

Clinical teachers therefore need to make this learning more explicit to trainees, to help them recognize that they are learning 'how to do the job' by 'doing the job'. The extent to which it is possible to learn through work activity is influenced by recognizing and making explicit the learning embedded in everyday practice.

Facilitating learning in the workplace

In the following sections, key ideas arising from these theories are identified and the implications for practice explored.

Figure 1. Kolb's learning cycle. From Kolb (1984).



Mrs Clare Morris is Associate Dean, Bedfordshire and Hertfordshire Postgraduate Medical School, University of Bedfordshire, Luton LU2 8LE

Learning is part of everyday life

If learning is seen as an integral part of working, clinical teachers need to make the learning more explicit by identifying specific workplace cultures and practices and helping learners 'make sense' of what they see, hear, sense and do. Strategies include:

- 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 be able to do this independently next time?'
- Prime for learning through observing, e.g. 'in clinic this morning we are likely to see patients who are booked in for caesarean section. While you observe, notice the reasons given for requesting elective section and consider how you would respond if in my shoes.'
- Workplace-based assessment tools can be used to identify opportunities for learning and development through workplace-based activity, e.g. '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?'

Workplaces need to be made invitational for all learners

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. Simple strategies like ensuring students are introduced by name, have a period of orientation to the workplace and the roles of other team members can make a big difference. Billett (2002, 2004) suggests that workplaces are not necessarily 'invitational' to all learners, and may be shaped, for example, by students' prior experiences, their gender, socioeconomic background or apparent differences in motivation, enthusiasm or interest.

Clinical teachers need to create the right conditions for learning and ensure certain types of learners are not disadvantaged. For example, trainees who seem to lack interest, confidence or capability for a particular specialty need just as much opportunity to participate (if not more) than those who have a natural flair or interest.

Learning happens in a community of practice

Teams can be seen as potential 'communities of practice' (Lave and Wenger, 2003), identified by common interests and shared expertise. To make the most of that expertise, all members of the community should be engaged in supporting learning. Learners readily identify colleagues, team members, patients and carers who help them 'fit in' to new settings and who make positive contributions to their learning. These individuals may not have a formally recognized teaching role, for example:

- Patient feedback is very powerful in reinforcing practice or seeking new ways to do things
- Students and trainees learn from each other ('I find it helpful to hold it this way') and share experiences ('I saw a great case in theatre yesterday')
- Junior medical staff guide less experienced colleagues in ways of examining patients, interpreting charts or test results and prioritizing workloads
- Nursing colleagues help newcomers get to grips with ward procedures and protocols and identify ways to effectively work with particular team members.

By acknowledging the role played by all members of your community and valuing it explicitly, learners are encouraged to look beyond their immediate supervisor for guidance.

Learning happens through participation

Learning is most effective when learners are given opportunities to engage actively in real workplace activity. Such opportunities are bounded by competing demands, concerns and priorities, the complexity of the activity, the potential risks involved, the competence and confidence of the learner, the time available and the willingness (and consent) of patients to be involved. With adequate preparation and

'safety netting', clinical teachers can delegate some complete tasks to learners whereas other opportunities require teachers to work in parallel with learners, delegating appropriate aspects of work in order to increase confidence and competence.

One of the ways in which teachers can 'safety net' is through learning needs analysis (McKimm and Swanwick, 2009). A brief yet really focussed conversation with a trainee can inform decision making about what to delegate and appropriate support strategies. This will usually include finding out what the trainee knows, what he/she has done before that is of relevance, any concerns or anxieties he/she has about what is proposed and an offer of back-up support (a rescue strategy) to be used if things don't go according to plan.

For example, a trainee might not yet be ready to perform a complete surgical procedure. He/she 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 the trainee a sense of taking responsibility for the patient's management and time to focus his/her attention fully on the aspects he/she is not yet doing, but might do next time.

Workplace-based assessments provide a profile of trainee performance, enabling the clinical teacher to spot obvious gaps in either experience or competence. These gaps can become the focus on clinical teaching, with the trainee being guided to experiences that help meet their development needs.

Fostering 'horizontal' learning

'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 in workplace activities and cultures' (Griffiths and Guile, 1999).

Formal education tends to focus on 'vertical' learning, the accumulation of knowledge. In the workplace, 'horizontal' learning, taking what you know to make sense of the situations you encounter or adapting what you can already do to fit an unexpected presentation is just as impor-

tant. Medical students and trainees move rapidly from one workplace to another and need to identify and respond to the nuanced differences between one setting or team and another. For example, all doctors routinely take a history from their patients, but there are significant differences in approach across specialties and settings. Clinical teachers can help this process by making expectations explicit (e.g. preferred styles of dress, ways of addressing colleagues and patients, format for writing in notes or constructing letters).

Horizontal learning also needs to help learners activate their formal learning (gained in the classroom) to make sense of clinical encounters. Viewing teaching as a dialogue (rather than a monologue) and using appropriate questioning strategies is particularly effective. Socratic questions can be used to explore what learners know and help them make connections to what they see. Heuristic-type questions, designed to promote the student's own self-directed learning, are also important.

Learning through talking

Social learning theorists suggest that '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).

Many aspects of medical practice are unseen, taking place in the minds of practitioners, engaged in an internal dialogue

based around differential diagnosis, clinical reasoning, management planning and exploring prognosis. Clinical teachers need to find ways to make their thinking accessible to the trainee and access the trainee's thinking as a way of ensuring he/she is on track. Strategies include:

'Thinking aloud'

Narratives can be provided as we teach a skill or procedure, or along the lines of 'what I am struggling with here is...' or 'I am weighing up the options of x vs y because...'

Trainee talk

Many clinical teachers have set ways they like trainees to present patients, reflecting ways in which thoughts are organized in order to formulate a diagnosis or management plan. 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 and helping learners to gain insight into how medicine is practised in specific contexts. These ways of talking about patients reveal cultural practices. For example, the way a patient is presented in surgery is different from medicine which is different from psychiatry.

Case-based discussion

This is designed to explore the thinking behind practice. It provides an opportunity for learners to make their thinking explicit

and develop ideas. Clinical teachers can make the most of these opportunities by using questions that require the trainee to provide a rationale for decision-making. For example, 'you decided 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 or could you involve in that decision-making process?'

Conclusions

Workplace-based learning might be under threat, but it has never been more important. By drawing upon contemporary views on workplace-based learning, clinicians can build upon the sound traditions of apprenticeship and value the workplace as a key site for medical learning and practice. **BJHM**

Conflict of interest: none.

- Billett S (2002) Toward a workplace pedagogy: guidance, participation and engagement. *Adult Education Quarterly* 53(1): 27–43
- Billett S (2004) Workplace participatory practices: conceptualising workplaces as learning environments. *Journal of Workplace Learning* 16(6): 312–24
- Bleakley A (2002) Pre-registration house officers and ward based learning: a new apprenticeship model. *Med Educ* 36: 9–15
- Bleakley A (2006) Broadening conceptions of learning in medical education: the message from team-working. *Med Educ* 40(2): 150–7
- Griffiths T, Guile D (1999) Pedagogy in workbased contexts. In: Mortimore P, ed. *Understanding Pedagogy and its impact on learning*. Sage, London: 155–74
- Kolb D (1984) *Experiential Learning*. Prentice Hall, Englewood Cliffs, NJ
- Lave J, Wenger E (2003) *Situated Learning: Legitimate Peripheral Participation*. Cambridge University Press, Cambridge
- McKimm J, Swanwick T (2009) Assessing learning needs. *Br J Hosp Med* 70(6): 290–3
- Swanwick T (2005) Informal learning in postgraduate medical education: from cognitivism to 'culturism'. *Med Educ* 39(8): 859–65
- Wenger E (1998) *Communities of Practice: Learning, Meaning and Identity*. Cambridge University Press, Cambridge

KEY POINTS

- Make sure your workplace is invitational for all students and trainees.
- Make opportunities for learning from everyday work explicit.
- Provide opportunities for learners to be actively involved in all aspects of patient care.
- Value and make use of the expertise of all members of your community, including patients.
- Help trainees to learn from your talk and to learn to talk medicine.

London Deanery

This series of articles for clinical teachers was originally commissioned as a suite of e-learning modules for the London Deanery. Both the series and e-learning modules were designed and edited by Judy McKimm and Tim Swanwick. The London Deanery e-learning modules for clinical teachers are open access and available at www.londondeanery.ac.uk/facultydevelopment

Each module takes 30–60 minutes to complete and proof of completion is available in the form of a printed certificate. Forthcoming articles in this series include:

Teaching clinical skills
Interprofessional education

Simulation
Managing poor performance
Diversity, equal opportunities and human rights

Involving patients in clinical teaching
Introduction to educational research