Whatever happened to apprenticeship learning?

Dr Gordon Caldwell, FRCP, Clinical Tutor, Worthing Hospital, Western Sussex Hospitals NHS Trust, Worthing, UK

SUMMARY

Background: I have been a clinical tutor for 10 years in Worthing Hospital, UK. During this time I have seen an increased emphasis on classroom teaching, assessments in controlled situations and simulation, rather than on apprenticeship learning during well-supervised clinical working.

Context: At the educational conference on ‘Learning without Leaving the Workplace’ hosted by my hospital, I had an opportunity to present my reflections on apprenticeship or situated learning. This article is a summary of that talk.

Implications: The relatively new model of ‘situated learning’ offers an opportunity for academics and clinicians to revitalise the apprenticeship model of learning in, and being stimulated by, the clinical workplace.
INTRODUCTION

Is Apprenticeship Dead and Buried as a Useful Model for Learning to Master Medical Practice?

In September 2009 our UK National Health Service (NHS) trust ran an Educational Conference on the theme of ‘Learning without Leaving the Workplace’. I had to deliver the keynote address on ‘Whatever happened to apprenticeship learning?’, when the main speaker had to cancel at short notice. I have rewritten my talk to distil my thinking about apprenticeship learning.

THE SUPPOSED DEATH OF APPRENTICESHIP LEARNING

Apprenticeship learning has a long history, dating back to at least Greek and Roman times. Apprenticeship is concerned with learning to simultaneously think, act and review, often in complex, uncertain and time-limited processes. The apprentice master supervises the apprentice by explaining the work in hand, talking the apprentice through the processes and allowing the apprentice to take on ever more complex work, as he moves from ‘novice’ to ‘expert’. Eventually the apprentice becomes a master, and is admitted to a community of practice such as the Goldsmiths, or in the world of medical practice becomes a member of a Royal College. The apprentice has then become a master of his art, fully conversant with the behaviours and ethics of his professional community.

Yet, I feel that many educationalists in health care believe that apprenticeship is dead and buried as a useful model to master medical practice. When hospitals are inspected as local educational providers (LEPs), the inspection teams seem to focus on how much classroom teaching is delivered or how many standardised assessments have been performed. The emphasis is all on ‘protected teaching time’, and not on ‘protected supervised working time’ and expertise gained through experience.

How did this come about? Is the apprenticeship model a flawed model or a valuable model that was poorly executed? I qualified in 1980 from King’s College Hospital Medical School, where apprenticeship was the learning model. Students were expected to work up to 6 hours a day, in a ‘firm’, on the wards with patients, and attended just one lecture at 5 PM. When I started work as a doctor, we were expected to clerk and manage large numbers of acutely ill patients and to work long hours. The supervision was rather distant, and I am sure that the learning could have been accelerated by closer contact with the ‘apprentice masters’. I think during the last two decades of the twentieth century and the first decade of the twenty-first century, the pressures of clinical targets and working time limitations has reduced the level of close supervision of trainees by master clinicians. The success of the apprenticeship model was undermined by a failure to preserve the close professional relationship between the master and the apprentice.

In addition, educationalists and managers of education love to measure outcomes and produce valid statistics of success. It is almost as if some medical educationalists believe that all medical practice can become standardised, reproducible and measurable. Yet medical practice is undertaken in the midst of uncertainty, in rapidly changing conditions, with limited data, and always in the context of trying to provide evidence-based medical advice and treatment to a uniquely individual patient. Medical practitioners need to be trained to act in uncertainty and in the best interest of the individual human being presenting with an illness. Objective standardised clinical examinations (OSCEs), and even the new simulation suites, imply that there is one way to act in a given situation, that medical practice is merely following a set of instructions or evidence-based guidelines in a reproducible environment. Combined together classroom teaching, knowledge exams, OSCEs and performance assessments in simulation suites are all reproducible, measurable and taken as valid indicators of clinical expertise. Of course they all have a place in learning to
Simulation suites should mimic reality

become a doctor. Simulation is useful for the rehearsal of uncommon events. However, our simulation suites often seem to be ‘idealisation suites’, with a perfect environment and a plethora of fully qualified staff with all the kit to hand. Our simulation suites should mimic reality and prepare staff for the complex unpredictable world of the realities of medical practice, where the outcome is never known until after the event.

Apprenticeship is in a critical condition because of the breakdown of the professional relationship between apprentice and master, and because of the emphasis on reliable measurements rather than the assessment of expertise in the face of uncertainty.

IS THERE ANY HOPE FOR APPRENTICESHIP?

In the early 1990s two ethnographers, Jean Lave and Etienne Wenger, described a learning model called ‘situated learning’ and published ‘Situated Learning, Legitimate Peripheral Participation’. Like many controversial and radical documents, it is very short. The closest it comes to health care practice is a description of hereditary midwifery practice in South America. Their book contains radical thinking, even suggesting that all we learn at school is ‘how to do school’.

Lave and Wenger describe how novices or apprentices are first given small tasks with limited responsibility, and then tasks of increasing complexity and responsibility until they become full members of a ‘community of practice’. The daughters of the midwives are given small and then increasingly complex tasks to eventually become full ‘participant’ members of the ‘community of practice’ of midwifery. The community has its rules, customs, culture and ethics, which are learned through experience. Much of the learning comes from storytelling, observation and being immersed in supervised experience, with increasing responsibility. Storytelling has been a strong tradition in medical learning, but these days the educationalists tell us that a good story, well told, is not enough: they say that every learning experience must have a set learning objective, and evaluation is only measured against that objective. Imagine how dull stories in films, novels and plays would be if the author had to have a learning objective for every story! Yet films, books and plays teach us of the ambiguity, complexity and oddity of human behaviours, which are reflected in the ambiguity, complexity and oddity of clinical practice.

This model of situated learning has interested me, because in it I recognise much of the way that I learned medical practice. In Oxford University my first lesson was not academic concepts, it was dissection of the cadaver. The message in retrospect was clear, medical practice is ‘hands on’, complicated, confusing, dirty, to an extent smelly and challenging. This is the stuff that life and death are made of. It was this ‘hands-on’ experience that drove my search, guided by my tutors, for understanding and attempts to master medical practice. Much of my learning has been stimulated by the patients that I have met, and my need to understand their illnesses and treatments. I was also given small tasks with responsibility, like taking blood, and then increasingly complex tasks. My learning was driven by my lack of understanding of what I saw in front of me. Eventually I became a doctor – a member of the ‘community of practice’ of medicine, and later a member and fellow of the community of the Royal College of Physicians. I am a participant member of the community of practice of health care, with all its complexity, errors, ambiguities and oddities, codes of behaviour, culture, ethics and achievements.

As a clinical teacher, I can now see that I am not just teaching individuals to pass exams, I am contributing to developing the next generation of a community of practice of doctors.

This model of situated learning is apprenticeship learning, and can draw clinicians and educationalists together again.

My only concern about situated learning is that it is described as a rather passive process, of learning by listening to stories, by observation and by experience: i.e. learning by ‘osmosis’. It could be a very slow process. What we need to develop in medicine is ‘activated’ or ‘accelerated’ situated learning, where the apprentice master can speed up the learning process.

For example, no one ever taught me how to do a ward round. I observed good and bad rounds, and slowly developed my rounds. In the last 18 months I have developed an active process that can teach a foundation doctor, or even a medical student, how to do a comprehensive systematic ward round by the process of legitimate peripheral participation. I allow the junior to ‘lead’ the round under my supervision and guidance, and provide ‘assessment for learning’ with formative feedback. The process also improves the reliability, quality and safety of my rounds to the benefit of the patients. Junior doctors start to learn in 8 weeks what took me many years of learning by osmosis.

Whatever happened to apprenticeship learning in medicine? We allowed an erosion of the professional learning
relationship between the apprentice and the master. We were seduced by the measurable and reproducible. We allowed apprenticeship to slip into a critical state. Lave and Wenger’s model for ‘situated learning’ offers us a lifeline to join clinicians, educationalists and our apprentices together, so that they will become fully participating professional members of the community of practice of medicine.

REFERENCES


Corresponding author’s contact details: Dr Gordon Caldwell, Diabetes Centre, Worthing Hospital, Worthing, BN11 2DH, UK. E-mail: gordon.caldwell@wsht.nhs.uk

Funding: None.

Conflict of interest: None.

Ethical approval: Not required.