WHEN I SAY

When I say ... pedagogy

Tim Dornan1 | Martina Kelly2

1Centre for Medical Education, Queen's University Belfast, Belfast, UK
2Department of Family Medicine, University of Calgary, Calgary, AB, Canada

Correspondence: Tim Dornan, Centre for Medical Education, Queen's University Belfast, Whitla Medical Building, 97 Lisburn Road, Belfast BT9 7BL, UK.
Email: timothy.doran@gmail.com

Saying the word pedagogy invites the reply: ‘If you mean teaching, why use a word I can’t pronounce?’. If we were to respond ‘when you sit down with a bunch of learners, what happens next?’ it’s likely that 10 teachers would give 11 mutually contradictory answers. This article explains how an explicit pedagogy can formalise the art of educating others, make educational programmes coherent and increase their impact without compromising any educator’s or student’s individuality. It says a lot about the zeitgeist that just seven pages of the Oxford Textbook of Medical Education refer to pedagogy whilst 194 pages refer to assessment.1 If we are to stand any chance of countering pupils’ tendency to ‘learn what you inspect, not what you expect’, it should be the other way round: educators should be 28 times as interested in helping students learn—pedagogy—as in testing them—assessment.

Pedagogy, derived from the Greek words paidos (child) and agogos (leader), originally described the task of leading children to school. With time, the term transferred to teachers. Then, leadership consisted of deciding what and how pupils should be taught. So, history embedded a hierarchical relationship between powerful teacher and subordinate child in the word pedagogy. During the twentieth century, influential scholars developed theories of mind whose purpose was to make learners less subordinate and, therefore, able to exercise more agency in their own education. Vygotsky showed how an adult, within a social relationship, could stimulate a child to expand their capabilities: the adult created a ‘zone of proximal development’. Dewey gave learners greater agency by championing a democratic approach to education. Knowles encouraged teachers to behave warmly so that learners felt able to take charge of their learning.

This pedagogic revolution came of age in the 1990s with, for example, the visionary first edition of the UK General Medical Council’s recommendations for medical student education, ‘Tomorrow’s Doctors’.2 This document drew on the work of Henk Schmidt, a Dutch cognitive psychologist, who had systematically researched ways of motivating students to learn the theory of medicine actively rather than by rote. In group settings, pedagogues did this by: (a) cueing students to articulate their prior knowledge; (b) helping students activate that knowledge in group discussions; (c) helping them restructure their existing knowledge so that new knowledge could be integrated with it; and (d) stimulating analytical discussion to improve students’ information storage and retrieval.3 Social interaction, when coupled with intellectual engagement, could increase students’ curiosity, motivation and therefore learning.4 Schmidt’s use of leading-edge science to formalise the art of education epitomises pedagogic development. This stream of work also produced the ‘Progress Test’, which rewarded progressive growth of knowledge rather than ‘cramming’. Assessment could now proceed alongside pedagogy rather than subvert it.

Subsequent events showed, however, that pedagogic principles cannot be applied in a ‘one size fits all’ fashion. Schmidt’s pedagogy helped students learn preclinical theory but it was less successful when applied to clinical workplace learning.5 Whilst the principles remained applicable, the procedures assumed that students learned in psychologically safe places: discussion groups, libraries and at home. Clinical workplaces, though, are less psychologically safe because of the hierarchical organisation and social complexity of clinical work, the emotional labour of caring for sick people, conflicting priorities and the inevitability of death. Pedagogic principles based purely on the self-directed acquisition of theoretical knowledge cannot teach students the capabilities needed to navigate complex social spaces, just as they cannot train students to perform motor skills reliably. For a curriculum to be coherent, its underpinning values—for example, more democratic relationships between teachers and learners—need to be expressed in as many different pedagogic
variants as different learning contexts and intended learning outcomes require.

The word ‘apprenticeship’, whose origins were in medieval craft guilds, is often used to describe how students learn in workplaces. Lave and Wenger explained that this term assumes long-term, one-to-one, task-focused relationships. They coined the terms ‘communities of practice’ and ‘legitimate peripheral participation’ to reflect the twentieth century situation, where workers learn in short-term, many-to-many, identity-focused relationships. Their notion that educative relationships in distributed workgroups provide zones of proximal development for today’s professional learners has had great appeal in medical education, but the devil is in the detail of implementation. Our research in hospital and general practice settings showed that, whilst self-directed learning is a reasonable description of how students learn theory in groups, ‘supported participation’ describes how they learn in workplaces.

Billett, a guru of workplace learning, tells us that pedagogues can help students of any trade or profession be active and intentional workplace learners by providing situationally embedded experiences, which contextualise the abstract knowledge and skills students gained earlier in seminar rooms, libraries and simulation laboratories. Pedagogues augment and extend learning by coaching students, sharing informal learning, telling stories, listening, asking questions, familiarising students with work activities and allowing them to practise these. Pedagogues seize ‘teachable moments’ and model work practices. The outcomes of this are adaptive behaviour and a personal type of knowledge that allows them to practise, which is far removed from the codified knowledge tested in traditional assessments. Clinical pedagogues help medical students learn nuances, discourses, codes of behaviour, cultural practices, and knowledge of practice; they acquaint students with all-important documents, procedures, roles and tasks.

What we mean by pedagogy is, admittedly, an ideal: for any teacher in a medical undergraduate programme to be able to sit down with learners and apply principles that are morally, theoretically and empirically sound, clearly articulated, tailored to the different needs of different components of the curriculum, well operationalised and promulgated by faculty development. We mean neither cook-book recipes nor vague statements of intent that are open to different interpretations. Neither pedagogues nor learners should be pure adults or pure children, slaves or slave masters. In curricula that have stated, understood and shared principles, 10 teachers’ 11 different answers can be mutually reinforcing rather than chaotic. When we say pedagogy, we mean teachers forming educative relationships that create zones of proximal development in which students can learn to the best of their abilities.

ORCID
Tim Dornan https://orcid.org/0000-0001-7830-0183
Martina Kelly https://orcid.org/0000-0002-8763-7092

REFERENCES
1. Walsh K, ed. Oxford Textbook of Medical Education. Oxford: Oxford University Press; 2013.
2. Tomorrow’s Doctors. London: General Medical Council; 1993.
3. Schmidt HG. Foundations of problem-based learning: some explanatory notes. Med Educ. 1993;27:422-432.
4. Schmidt HG, Moust JH. What makes a tutor effective? A structural-equations modelling approach to learning in problem-based curricula. Acad Med. 1995;70:708-714.
5. Dornan T, Scherpbier A, King N, Boshuizen H. Clinical teachers and problem-based learning: a phenomenological study. Med Educ. 2005;39(2):163-170.
6. Lave J, Wenger E. Situated Learning. Legitimate Peripheral Participation. Cambridge: Cambridge University Press; 1991.
7. Dornan T, Conn R, Monaghan H, Kearney G, Gillespie H, Bennett D. Experience based learning (ExBL): clinical teaching for the twenty-first century. AMEE Theories in Medical Education Guide. 2019.
8. Billett S, Choy S. Integrating professional learning experiences across university and practice settings. In: Billett S, Harteis C, Gruber H, eds. International Handbook of Research in Professional and Practice-based Learning. Dordrecht: Springer; 2014:485-512.