Title: The New Professional? A case analysis exploring the teacher-student dynamic during an informal learning opportunity in global health

Short title: The New Professional?

Authors: Jonathan Currie[1] & Liz Anderson[2]

Institutional affiliation(s): [1]University of Bristol [2]The Higher Education Academy

Corresponding author: Jonathan Currie, Department of Social and Community Medicine, Canynge Hall, 39 Whatley Road, Bristol BS8 2PS. Tel.: +44(0)791 756 43 43. Fax.: +44 (0)117 928 7325. E-mail: jonathan.currie@bristol.ac.uk

Abstract

Medical education is under growing scrutiny to deliver a cadre of professional and competent doctors. Rising healthcare expectations from patients, professionals and the general public alongside contemporary forces at global and national levels have garnered a new era of discussion of the sort of doctors that society would like; many are beginning to question whether the social contract between doctors and society is requiring rewritten. While educationalists debate what curricular structures can address these challenges, the opportunity of utilising flexibilities already available in the present curriculum may yield value to developing conscientious and proficient medical practitioners. In this article we describe an educational experience between a student and mentor in which via regular planning, reflection and critical analysis the student was able to achieve educational outcomes in Tomorrow's Doctors whilst pursuing a year out of undergraduate medical training. In the student positioning himself in a new philosophical framework outside of medicine the opportunity to integrate wider systems of thinking was presented. We reflect on the implications this may have for medical education and practice, arguing for an engaged conversation between educationalists, practitioners and the public on how medicine can reposition itself in a 21st century context.

Introduction

> *Although it will be difficult, medical educators must progress beyond tinkering with the contents of the current medical curriculum and re-imagine it entirely based on the kinds of bioscientific, social scientific and humanities-mediated knowledges that doctors need to truly enact all of their roles in the specific social, political and cultural contexts in which they work." Kuper and D'Eon (2011) p. 42*

The question of what a doctor should be and do in the 21st century is one that taxes policy developers, who tell us what to teach, and educators who devise and deliver curricula. While we acknowledge that curriculum reform as suggested by Kuper and D'Eon takes time, it has already taken significant time to reach a point at which the medical education community is fairly consistently arguing for contributions from other disciplines. Yet, on a large scale the medical education community is resistant to wholesale revision; we remain at the "tinkering phase".

Biomedicine is proving hard to shift out of centre stage in our curricula. The introduction of prescribing powers and the elevation of doctors to *prima facie* clinicians by legal statute gave great influence to the medical profession in contrast to disciplines whose health practices were perhaps informed by more holistic principles (Roberts, 2009). This was coupled with biomedicine's success as a scientific discipline and a significant move into public health (Quirke and Gaudillière 2008). In the twentieth century, social models of health and illness did not seem that relevant to the preparation of doctors. If they could make a diagnosis and prescribe the right medication that was good enough(Porter 2002).

The definition of what a doctor is and does though has always been determined by social context and what society expects of its healers; it has thus before been described as a social contract (Cruess and Cruess 2006). If we are to believe that what doctors need to know is what society itself equates with competence (Kuper and D'Eon 2011), so might we expect then that rising interest for the social and economic determinants health (RCP 2010) would make such a health paradigm better reflected in medical curricula (Harden 2006).

Introducing an understanding of the wider determinants of health to doctors however will not be easy (Martin and Whitehead 2013), and for medical educationalists will present a number of pedagogical challenges. Firstly, we shall need to review our programmes and examine ways of extending it whilst retaining the scientific base. Secondly, we must ask questions about who teaches our doctors, the methods they use and turn our gaze away from traditionalist paradigms (Monrouxe and Rees 2009). We shall have to invest more interest in ways of learning that focus on the learner experience and the application of multi-dimensional pedagogies (Bleakley 2010). This must include a positive move towards embracing practices informed by socio-cultural theory where developmental learning "space" is valued (van der Zweet et al 2011). Furthermore, we ought to become more aware of how to manage those parts of the curriculum that are informal and unpredictable, for example in the workplace (Dornan 2012) as well as learner activity outside the curriculum, for example sabbaticals, internships or electives. These are all learning opportunities that are all too often missed and can be more easily developed than the formal curriculum because there is relative freedom for both learner and educator.

Our example below considers how student internships may represent an opportunity to facilitate many of the above processes, while demonstrating progress towards conventional medical education competencies, in this case achieving learning outcomes that were in line with those set out by the UK regulatory body, the General Medical Council (2009). In this paper we propose that in such cases the roles of the teacher that relate to facilitation are important (Harden and Crosby 2000) and require a different skill-set to the formal and structured teaching practices with which many clinical educators may feel more comfortable. We argue for the prioritisation of guiding learners and stress the importance of creating a relationship that is learner-centred, goal-orientated and empowering and suggest a practical model for medical educators to consider. This approach is illustrated with a case study that follows a student during a sabbatical year from his medical studies.

Learning is more than being taught

Guiding learners through complex curricula to achieve learning outcomes is what medical educationalists do. Formal teaching and assessment are usually rehearsed, predictable and planned. There are also those aspects of teaching that occur informally and are formative rather than summative. In each case, the teacher must understand which position to adopt in relation to the learner; the pedagogical pose. In this paper our focus is on the interactions that might occur outside the formal curriculum.

Etienne Wenger (1998)describes learning that occurs within communities of practice that arise out of a collective production of understanding generated through shared practice. It is a concept that was arrived at whilst studying apprentices and realising that they learn in and from and about a community to which they will eventually belong. Within this construct there is no hierarchy and all parties gain. Wenger goes on to describe different ways of learning [Figure 1]. The model describes a social theory of learning and offers an overview that seems to "fit" with learning to be a doctor (Mann 2011). Because it embraces learning as a continuous and social activity, it also sits easily with our intent to explore and articulate the role of the educator in informal spaces

These informal spaces make it more difficult for the educator to determine how to engage with the student. Whilst we might understand the nuances and the potentially harmful impact of the "hidden curriculum" there is very little literature that explores the positive use of informal spaces in undergraduate medical education. Kalen et al (2012) goes as far as to note that we must

> "…create conditions for medical students to start to develop some parts of the professional competences that are more elusive in medical education programmes, such as reflective capacity, emotional competence and the feeling of belonging to a community." p. 400

Talbot (2009)describes a case study of a trainee and educational supervisor relationship, where conversations were recorded and analysed. In this paper the position that the supervisor adopted defined the relationship: it was reflective, enabling, challenging and supportive. Talbot notes how this approach to supervision is almost impossible to distinguish from mentoring, is humanist and informed by models associated with counselling.

Egan's three stage model often informs the counselling process and sets out a framework that helps people to manage problems and develop opportunities through increased self awareness (Egan 1986). In an interesting paper Klaber et al (2010) report on a formal scheme for educational

supervisors in paediatrics that incorporates Egan's work and demonstrates it applicability to a medical education setting. The three stages offer a systematic approach to helping. The first encourages reflection on what is happening now, moving to the second, a period of creative thinking to identify opportunity before engaging with the final more concrete planning stage. The pedagogical pose of the supervisor is to act as a guide or what Egan terms a "skilled helper". This fits well within social learning theory and the concept of a community of practice that is lateral, multi-faceted and philosophically grounded in social learning. Whilst Egan's model is not unique, it resonates with the literature exploring the processes of mentoring and guidance in undergraduate medical education and defines the pedagogical pose that we are advocating. We demonstrate its application following a description of its employment in a case study below.

Case Study : A year out or a year in?

In 2009, JC took a sabbatical year from medical school to become the national coordinator of a student global health charity. As part of an organisation focussed on reducing health inequalities, JC was keen to use his new role to gain knowledge, skills and advocacy experience which were not addressed in depth in the formal medical curriculum.   JC sought the guidance of LA on how at the same time the year could remain beneficial for his academic medical training. Drawing from models in community service learning (Butin 2013) and mentorship (Taherian and Shekarchian, 2008) LA and JC developed a framework (figure 2) to stimulate reflective practice and meaningful learning throughout the academic year.

The sabbatical year entailed a full-time commitment to managing a student charity and therefore initially seemed poorly structured for academic learning. LA gave structure to the new educational environment by recommending an evaluation of what educational learning outcomes the sabbatical year could address from the General Medical Council Tomorrow's Doctors (GMC, 2009) curriculum for medical students. JC identified three set of educational objectives for academic development that could be realistically achieved during the sabbatical post in communication, wider determinants of health and leadership. From these educational objectives a programme for learning was constructed which involved literature reviews, reflective practice, external training sessions and practical experience. In parallel to JC's work as national coordinator of a global health charity both supervisor and student met regularly to discuss progress, remaining opportunities and how JC's experiences could be relevant for his future work as a doctor. Such reflective exercises provided grounding for experiences in the year, translating reflections into meaningful lessons for future practice and carefully provided the opportunity for JC to critique new subjects and ideas. The year culminated in the creation of a reflective report exploring the impact of disciplines other than medicine on health, reflections on the year and potential lessons for the future of medical education. An example of the learning objectives and educational programme constructed for the year is presented in box 1 with the relevantly mapped GMC Tomorrow's Doctors outcomes included.

Analysis

JC sought out LA because of a perceived need. Learners often seek advice and support from someone they deliberately choose for that purpose and more often than we are aware of (Talbot 2009). How that relationship develops requires the educator to have a degree of self-awareness in order to be able to define their role in response to learner need (Stenfors-Hayes et al. 2011) Of

course, counselling has a strong tradition of self-awareness and we are not arguing here for the same level of reflexive scrutiny. However, the ability to adapt your pedagogical pose is important.

In the case study described, the shape of the relationship was defined by the imperative for JC to gain from the experience, in this case to enhance his sense of identity with and belonging to the medical community whilst in effect stepping away from it. It was also important that JC's diverse experiences were explored within the context of his future as a medical practitioner. Making meaning of such diversity was captured in the portfolio. JC's skills in leadership and communication for example were played out in a completely different environment to medicine. Again, the reflexive encounters, the focus on the GMC learning requirements and the portfolio returned these skills to a medical context, thus retaining resonance with the community of practice JC was to join. LA guided JC though this complex terrain using a pedagogical pose that was both supportive and challenging. Each encounter followed the principals of the skilled helper framework described previously (Klaber et al 2010) with slight amendment to reflect the focus on GMC requirements.

Wenger (1998) imagines learners engaging with a community as "tourists" visiting experiences some of which they might return to, others not and the notion of having a guide resides neatly in this pedagogical construct and also aligns with Vygotsky's "more knowing other" (Van Huizen et al 2005). The notion of a "skilled helper" suited this relationship and adequately described the balance of support and challenge that sustained the momentum that constituted the pedagogical pose in this example. Other models offer different detail and emphasis but equally define the act of guidance as opposed to teaching and learning through engagement with the world and one's thoughts as part of learning.

Wenger (1998) would make no claim that his model of communities of practice is stable, in fact he would suggest that all elements are interchangeable and that it's a dynamic concept. However, the concept of endeavouring to align with a defined community provided the overarching pedagogical position. Thus, the combination of Wenger's articulation of a social theory of learning and Egan's description of the processes involved provided a robust description of the context in which this learning took place and the relative roles of the learner and educator.

The encounters and conversations between LA and JC were creative and focussed, using the portfolio to curate JC's activities, reflect on progress and define new goals. For JC, this learning opportunity that had occurred quite by chance proved beneficial in a situation where important attributes in his journey might have been lost. Reflecting on the outcomes that emerged from the year, we believe a number of achievements were made by the educational experience described.

Firstly, engaging in the politics of global health while considering wider systems of thinking to medicine provided JC an opportunity to criticise his values and ethics in a way authors have called crucial to developing self-aware medical practitioners (Novack et al, 1999). Secondly, in exploring the ways in which social sciences and wider disciplines characterise health JC was challenged to rebuke the positivist and biological model of illness usually characterised by conventional medical curricula. Finally, as a result of the sabbatical year JC was afforded the opportunity to experience and define a new paradigm to influencing health: rather than the clinical approach to health improvement, the student charity integrated voluntary service and political advocacy in its own version of leadership in health. The student charity with which J worked extended the Knowledge, Skills, Attitudes framework in its own paradigm of Education, Action and Advocacy as a framework

for developing healthcare students' understanding of global health inequalities (see figure 2) – one which perhaps resonates more with the broader vision for health improvement that doctors shall increasingly be required to assume in their role as leaders in health. Diverting from the traditional pathway to medical education stood as no disadvantage on return to medical school with J proceeding to qualify and begin his career as a junior doctor in August of 2011.

Discussion

We believe a number of revealing lessons can be drawn from our experience. While we do not wish to advance the notion that years spent out-of training should become the *status quo* of undergraduate medical courses – or that sabbatical years should be spent as described above – there may be benefits to medical educators to integrating some of the methods used above in order to allow students undertaking periods out of the formal curriculum to remain engaged with the relevant regulatory bodies' principles. We feel that it is practical and beneficial to offer this to students even if it is periodically. In addition we believe that this will allow students to explore some of the curriculum components that relate to social science, as well as other complimentary disciplines, without provoking a complete curriculum revision. We do not believe that this is in any way "tinkering" but is a structured enhancement of what is already there. There are a number of issues to consider.

Firstly, from the perspective of an educator, the practice of reflection for a learner is not easy and requires guidance (Mann et al 2009). It is also the case that providing a reflective environment requires the tutor to have the necessary skills (Aronson 2010) We recognise that this is not always easy but we have suggested that conceptualising the educator role as one of a "skilled helper" might prove an effective pedagogy in stimulating reflection especially in informal learning. We would also advocate medical educators thinking about their own identity carefully and recognising that the community of practice to which they belong will extend beyond the boundaries of bioscience.

Secondly, from the viewpoint of curriculum developers, if wider perspectives are to be tangibly incorporated into medical practice, we must ask how and where this shall be possible. With escalating interest in Global Health, Public Health and International Health (Rowson et al 2012), both in academic degrees and student initiatives in the UK and overseas, students seem to attach importance to complementing their own undergraduate training with what they identify as needed knowledge and skills to practising medicine in a globalised world. As noted above, synergy between medicine and allied disciplines has proved challenging. While the student here was afforded a sabbatical year from formal studies, we suggest that similar learning opportunities might be assimilated into a standard curriculum, signposted clearly as learning opportunities and linked to specific learning outcomes that are assessed within the formal programme. We acknowledge that this happens but we do not think it happens systematically.

Finally, as health is produced or damaged increasingly at the global level, so might we expect engagement from the medical profession in the conditions that determine health outside of the clinical sphere. Investment in knowledge of global health and its determinants was seen as key in the charity network, as was voluntary service to disadvantaged communities often neglected by the formal health and welfare system. Distinct from medical curricula however was the opportunity to debate and criticise each other's positions on issues of global justice and ethics; democratic debate resulted in resolutions and pressure on health policy-makers. Perhaps undergraduate medical

training could integrate similar opportunities for debate, in doing so enhancing the leadership and advocacy skills of future doctors, as well as helping them more readily adopt professional attitudes versus typically top-down pronouncements of professional values. Structured experiences outside the sphere of formal undergraduate medical training may be one key avenue to providing such opportunities.

Current frameworks for medical education have made positive developments in adjusting education goals towards some of the modern challenges placed on the doctors of today. Future curricular developments shall require further investment and insight from wider disciplines, innovative teaching methods and a culture of learning that encourages professional criticism if we are to see a cadre of doctors with the fitness to practice in addressing the complex social challenges of the world today. We call upon all doctors with an interest in addressing this deficit in joining us to explore new frontiers in medical education that narrow this gap and deliver positive change to patients and communities across the world.

Practice Points

- Extracurricular opportunities during undergraduate medical training may represent a new frontier for professional development towards GMC competencies

- Successful use of such opportunities may rely on appropriate support and mentoring from a trusted colleague with agreed roles, objectives and timelines

- Opportunities that allow students to experience differing epistemiological frameworks may develop their self-awareness and ability to critically analyse medical theories and practice

- Wider discussion is required between educationalists, medical practitioners and society on the ways in which undergraduate medical training can evolve to meet global contemporary health challenges

Notes on contributors

Jonathan Currie (BSc MBChB MAcadMed) is a Core Medical Trainee in the Mersey Deanery and has an interest in health inequalities and health advocacy.

Liz Anderson (RGN BSC MSc) is Discipline Lead for Medicne & Dentistry, Higher Education Authority, York UK.

Declaration of Interest

The authors report no declarations of interest.

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FIGURE ONE: COMPONENTS OF A SOCIAL THEORY OF LEARNING:
AN INITIAL INVENTORY. SOURCE: ETIENNE WENGER.
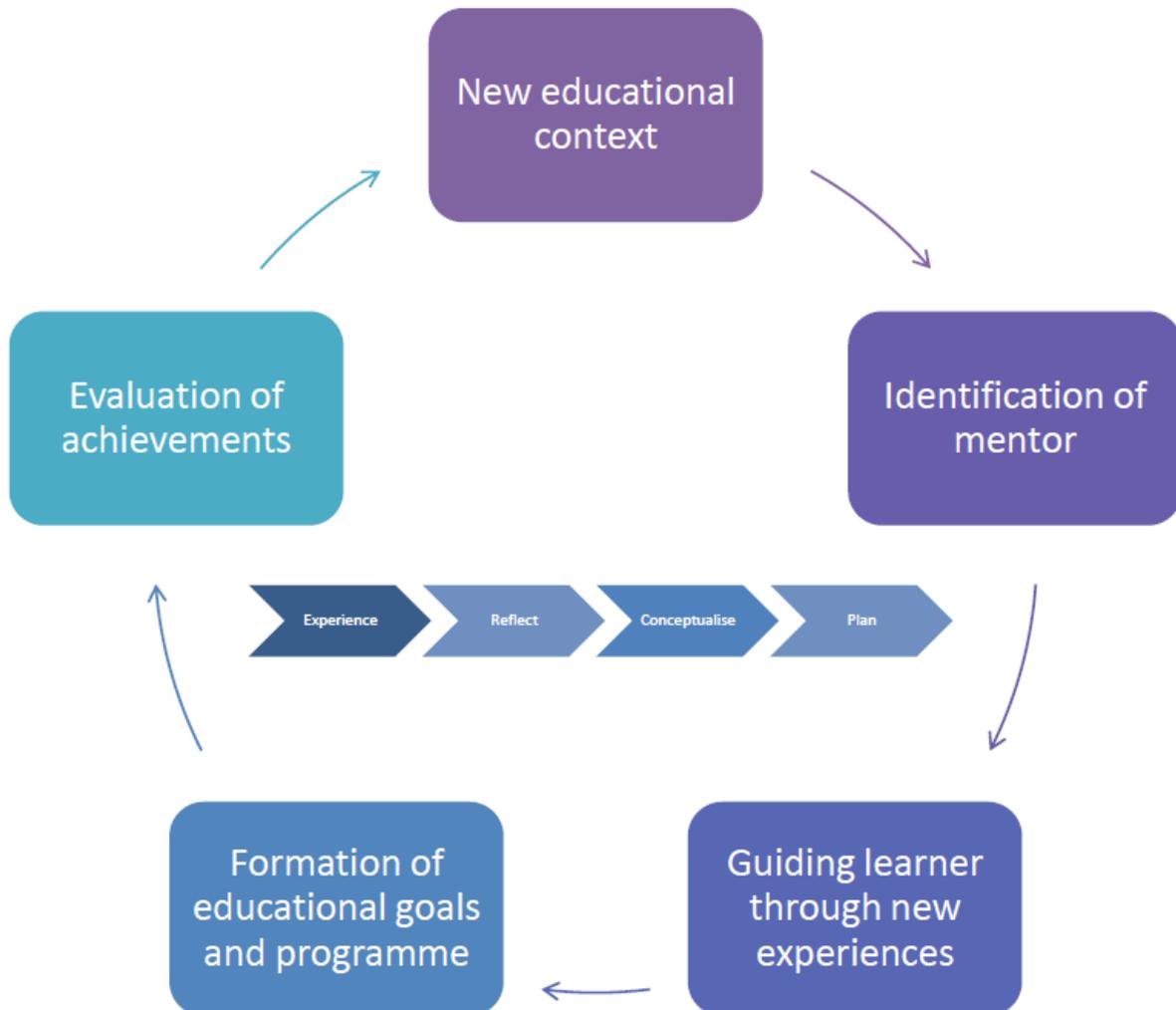
Figure 1 (Wenger 1998 p. 5)

Figure 2 - Framework of learning

Examples of educational programme

To begin with I identified competencies from the GMC Tomorrow's Doctors guidance that I felt appropriate. I developed a thematic statement based upon these competencies and constructed learning objectives of realistic and specific aims that I would progress towards during the year. From these aims I created an educational programme that I could evaluate throughout the year to measure my progress. An example of this process it outlined below:

Performance statement: *I will develop my capabilities in leadership as National Coordinator of a student global health charity in order that I can successfully prepare for a career in international and UK-based medical advocacy.*

GMC Competencies:

Demonstrate ability to build team capacity and positive working relationships and undertake various team roles including leadership and the ability to accept leadership by others (Outcome 22)

Demonstrate awareness of the role of doctors as managers, including seeking ways to continually improve the use and prioritisation of resources. (Outcome 23)

Learning objectives: *I will improve my capacity to lead in groups, networks and beyond my convention circle of influence, learning how motivational leadership can assist in a commitment to change.*

Educational programme:

I attended a formal leadership training course. I undertook a literature review of leadership theory and practice. I created an organisational change strategy in collaboration with a student charity network. I used this experience, reading and material to plan and run a student leadership course.

Box 1 – Examples of educational programme for reflective portfolio

Knowledge	Education
The cognitive domain including recall or recognition, procedural patterns and concepts	The provision of knowledge, training opportunities and accredited courses in the social determinants of health, international health policy and political discourse on health
Skills The psychomotor domain involving the use of motor-skill areas	**Action** Opportunities for students to volunteer with and reflect on the health experience of marginalised communities
Attitudes The affective domain including the manner in which we engage emotionally and make value judgements on our surrounding environment	**Advocacy** Creating an environment in which students can critically engage with varying views; developing students' confidence in democratic debate, negotiation, lobbying and awareness of their own values, ideas and attitudes

Box 1 - Comparison of KSA to EAA educational approach. Adapted from Bloom (1956) and Medsin (2013).

Stage 1: What is going on currently?	Stage 2: Where do I want to be?	Stage 3: How am I going to achieve this?
Expansive part (What is going on?) A frank discussion of what's been happening since the previous meeting Active listening; open questions	Creative part Facilitating imaginative thinking In an ideal world ... what do you want to do with this idea?	Another creative part What/who might help? What has worked before? What are the likely barriers?
Challenging part ("Blind Spots") Review against previous objectives What was most/least challenging experience?	Reality testing How does this fit with GMC requirements? How will it make me a better doctor? Check feasibility	Selecting appropriate strategies Which of these ideas appeals to you? Which of these ideas might work best/has the least barriers?
Focussing and moving forward Prioritising an area to work on (this may be continued work on a previous objective or something new)	Moving further forward Check commitment. Costs/benefits? Final check against GMC requirements	Moving on to action … Setting SMART objectives/goals against GMC learning outcomes Facilitating an action plan What will you do first … when?

Box 3 Adaptation of Egan's Skilled Helper Model (from Klaber et al 2010 p. 125)