Twelve tips for educating tomorrow's clinical educators today: A proactive approach to clinical education (PACE)

K. Moore & L. Horstmanshof

Abstract:

Teaching the next generation of health workers is considered a core role for all clinicians, yet in practice it is often regarded as an optional activity. While health professionals are expected to teach, many are reluctant to attend faculty development initiatives that provide the training. There are many and varied reasons for this: lack of personal motivation or support from managers to undertake additional education in clinical education, staff shortages and, perhaps, a misunderstanding of the expectations of today's professionals. Moreover, position descriptions of clinicians seldom include a role and responsibility to educate. Thus clinicians who do undertake additional formal education to provide clinical education may have limited opportunities for promotion after making such an effort. An adjustment to pre-registration clinical curricula that highlights the importance of and focuses on developing competence, capacity and capability in clinical education may be the key.

This paper presents a "12 tips" framework to embed a proactive approach to learning clinical education skills (PACE) into a program of study. The 12 tips of PACE propose how, from the beginning of their undergraduate practicum experiences, pre-registration learners can be prepared to take up their professional responsibilities as clinical educators. The PACE framework can also be applied to the post-registration curriculum. The PACE model has the potential to both strengthen the skill base and increase the size of the clinical education workforce by including clinical education skills as an integral part of all clinical training.

Keywords: clinical educators; future workforce; work-based learning; clinical supervision; agency.

School of Health and Human Sciences, Southern Cross University

Correspondence
Dr Keri Moore, PhD
School of Health and Human Sciences
Southern Cross University
Gold Coast, Queensland
Australia
Tel: +61 7 5589 3150
Email: Keri.Moore@scu.edu.au

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Introduction

An increasing number of universities are offering courses in health professional programs that require clinical educators. Typically, the life cycle of clinical educators begins well after the award ceremony for their professional degrees. At some point, clinicians may consider their options and show an interest in clinical education, as shown in Figure 1. We challenge the wisdom of starting to prepare clinical educators at this late stage. Preparation for the role of clinical educator should begin earlier. We argue this because, as the literature reminds us, it is unlikely, for various reasons, that health graduates will undertake professional development related to clinical education unless specifically encouraged to do so (Dahlstrom et al., 2005). We know that intrinsic factors such as altruism, intellectual satisfaction, personal skills and truth-seeking motivate medical clinicians to teach (Dahlstrom et al., 2005), but many, across all disciplines, do not take up the challenge.

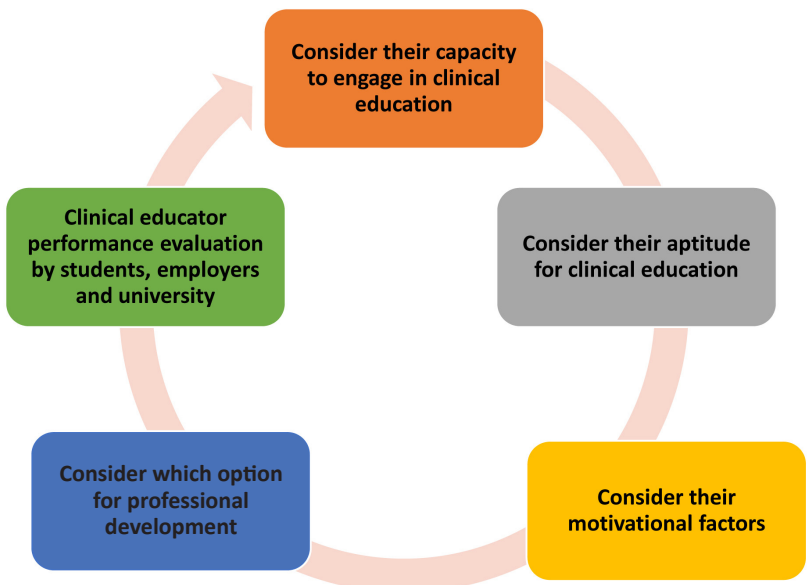

Figure 1. The life cycle of a clinical educator.

The concept of training tomorrow's educators today, to solve the problems of undersupply, is not new and has been talked about for several years (Amorosa, Mellman, & Graham, 2011; Bannard-Smith, Bishop, Gawne, & Halder, 2012; Smith, Petersen, Soriano, Friedman, & Bensinger, 2007). In support of that notion, we present 12 tips for implementing a proactive approach to clinical education (PACE). We propose an adjustment to the clinical curriculum to include the integration of learning objectives

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that include developing the foundation level competencies expected of clincial educators (HWA, 2014) so that learners simultaneously learn these alongside the clinical skills of their discipline.

The 12 tips of the PACE framework for developing competence, capacity and capability for clinical education are presented in Figure 2 and elaborated below. These are not discrete issues to be regarded as linear thinking or actions, rather they are interrelated. Together, they suggest a way of bringing about a cultural shift today, a shift in thinking about preparing the clinical educators we need in the future.

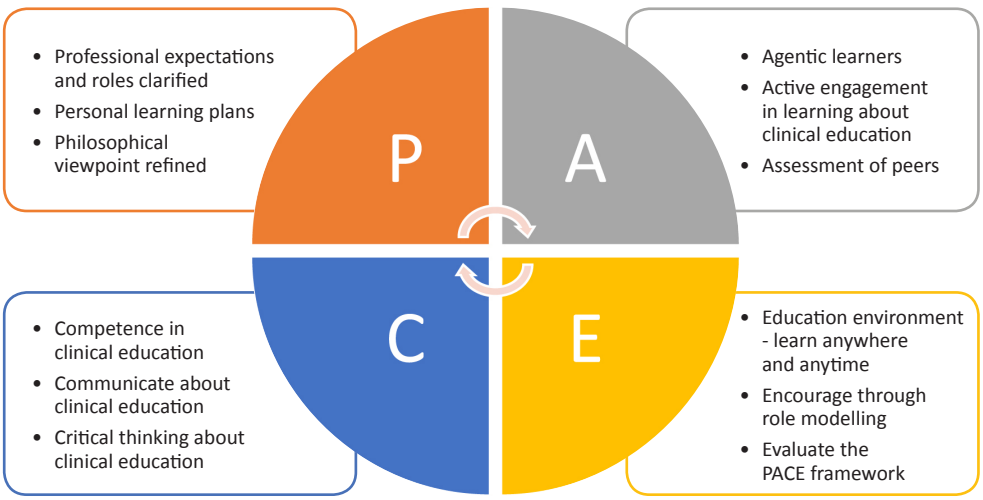

Figure 2. The PACE framework.

Tip 1: Ensure professional expectations and roles are clarified

In the Australian context, code(s) of conduct for registered health professionals often address this role. For example, the Nursing and Midwifery Board of Australia (Australian Health Practitioner Regulation Agency, 2014) stated:

> *It is part of good practice to contribute to these activities and provide support, assessment, feedback and supervision for colleagues, practitioners in training and learners.*

Further, the Australian Medical Association Code of Ethics (Australian Medical Association, 2004/2006) instructed:

> *Medical practitioners "have an obligation to pass on their professional knowledge and skills to colleagues and learners."*

In addition to the need for learners to be able to identify gaps in knowledge and to direct their own learning journeys is the need for faculty to confirm to learners that, nowadays, health professionals are *expected* to participate in clinical education.

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Tip 2: Align personal learning plans (PLPs)

We know that wherever they are implemented, personal learning plans (PLPs) put learners at the centre of the learning process; help them focus, develop their autonomy and identify skills needed as professionals; enhance motivation (Challis, 2000); and encourage habits for a lifetime and, hopefully, a deep approach to learning. We also know that PLPs typically result from learners' reflections on their own skills. Against these PLPs, they negotiate with their clinical supervisors how they will approach their learning objectives and goals, and how their success will be measured (Shepard, Sastre, Davidson, & Fleming, 2012).

It is at this point of negotiation that the appropriate curriculum adjustment, to include learning objectives for developing competence in clinical education, should be incorporated into learners' PLPs. This will serve to encourage both clinical educators and learners to reflect on why a particular teaching/learning event or strategy has been successful or not and to plan together what might be done similarly or differently in the future. In other words, it presents an opportunity for the learners to suggest how this particular skill might be taught. An example of how a PLP to develop clinical skills can simultaneously incorporate the development of learners' clinical education competencies is offered below.

Table 1
Example Personal Learning Plan

Learning Goal	Learning Strategies	Evidence	Date Achieved and Signatures	Future Goals
What do you want to achieve?	*How are you going to develop this?*	*How do you know you have achieved?*		
Improve clinical skills: Be more proficient in taking blood pressure and understand the significance of the findings as they relate to a clinical scenario.	Take blood pressure on two people every day. Try and mix gender and age.	Record findings in case notes and show supervisor.	1 week	Understand the significance of the reading in each of the cases.
Improve clinical teaching: Learn to teach how to take blood pressure readings and understand their significance.	Observe/teach peer taking blood pressure on two people every day. Try and mix gender and age.	Record findings in case notes and show supervisor.	1 week	Provide peer with feedback on his/her performance and discuss together. How to learn/teach this skill and what characteristics determine the significance of the readings in different clinical scenarios.

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Tip 3: Refine the learner's philosophical viewpoint

One method and practice for the teaching of adult learners is androgogy: learners are expected to be independent, autonomous and self-directed, and to collaborate with others when approaching tasks or problem solving (Hase & Kenyon, 2000; Merriam, 2001). Another approach, heutagogy, infers that learners are able to manage their own learning from all experiences and to negotiate their learning journey based on identification of gaps in knowledge (Blaschke, 2012). In this approach, the clinical educator relinquishes control of the responsibility for learning and this responsibility is shifted to the learner (Eberle, 2009; Hase & Kenyon, 2000). This philosophical approach strengthens learners' understanding of the role of a health professional. Heutagogy (Hase & Kenyon, 2000) is in line with the approach to learning we expect in health professional programs towards the final years—in preparation for life as a professional. In our view, this approach takes into consideration that learners' accumulated experience, in a variety of clinical settings, can be used to simultaneously connect knowledge of clinical practice with experience as educators in those settings. Hence, this is the underpinning concept of the PACE framework.

Tip 4: Cultivate agentic learners

We know that self-regulation and metacognition are underpinning principles that support health professional education (Cutting & Saks, 2012). These are the personal abilities that cultivate one's sense of "agency". Learners with these abilities are thought to have the capacity for:

- understanding how to use and extend their personal epistemologies (how they acquire knowledge)
- maximising opportunities in self-directed learning environments
- developing a positive sense of self
- employing assertive communication
- developing resilience through peer collaboration (Richards, Sweet, & Billett, 2013).

We contend that by adjusting the curricula to include learning objectives and assessment practice that include learning how others think about teaching will enable today's learners to become effective future agents for and of improvements in clinical education procedures and processes. Thus, they will become proactive *agents* in the learning experiences of others.

Tip 5: Inspire active engagement in learning about clinical education

Building on Tip 4, we assert that agentic learners are those who actively look for learning opportunities to address the gaps in their knowledge. This is opposed to the methodology of passive learners, who only partake of educational opportunities "provided" for them. Active learning is supported by teaching strategies that promote learner "activity". It follows, then, that it will be necessary to adjust clinical curricula learning objectives and assessment practices in order to motivate learners to proactively

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seek out opportunities to develop their clinical education competencies. Importantly, learners need to be able to recognise when these opportunities occur so they can create teaching and learning moments anywhere, anytime.

Tip 6: Implement assessment of peers

It is widely accepted that regardless of teaching strategies, assessment drives learning. On the other hand, we know that clinical educators often report feeling uncomfortable with assessment because they lack the formal training to assess and also because of the nature of the relationships that are formed as learners and clinical educators work side by side (Hays, 2006). In particular, clinical educators find that assessment of the affective domain poses the greatest challenge (Miller, 2010). The affective domain encompasses emotional aspects such as feelings, values, appreciation, enthusiasms, motivations and attitudes (Bloom, Mesia, & Krathwohl, 1964). It is important, then, to normalise assessment of others as part of day-to-day professional behaviour by providing appropriate training and creating a culture where it is accepted as normal practice.

Adjusting the curricula to include peer and near-peer teaching and assessment of others will create opportunities for learners to engage in scholarly dialogue about assessment procedures and processes. Therefore, it follows from Tips 5 and 6 that this requires an adjustment to the curriculum to fashion learning objectives, teaching strategies and assessment practices of learners' peer and near-peer teaching and assessment during the practicum to support such scholarly practice.

Tip 7: Scaffold learning to develop competence in clinical education

Competency based education is the "new normal" (Frank et al., 2010; Gruppen, Mangrulkar, & Kolars, 2012). Epstein and Hundert (2002) defined competence as "the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values and reflection in daily practice for the benefit of the individual and community being served" (p. 226). As outlined in Tip 2, today's learners—tomorrow's graduates—are expected to have competence as clinical educators.

What is asked of today's clinical educators is that they are competent in applying education theory to education practice and are able to engage in scholarly discussion, undertake research and consult on educational matters (Irby, 2014; Sherbino, Frank, & Snell, 2014). These skills and competencies, together with the added interest in health learners learning to work in multi-professional and interprofessional teams (WHO, 2011) and to learn through simulated clinical activities, create a substantial need for future clincial educators to have a more complex and comprehensive skill set for clinical education than their predecessors possessed.

Taking an example from medicine, medical deans, directors of medical education and academic chairs stated that they expect clinical educators to be competent in assessment, communication, curriculum development, education theory, leadership, scholarship and teaching (Sherbino et al., 2014). Furthermore, the recently decommissioned Health Workforce Australia stated that clinical supervisors ought to be competent in three

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domains: clinical supervision, safety and quality in clinical supervision, and organisation in relation to the integration of supervision and learning activities in clinical practice and organisational skills/time management (HWA, 2014). By imbedding appropriate learning objectives and scaffolding, the assessment of competency in clinical education through the clinical curriculum and the capacity of each pre-registration learner to teach the skills and knowledge of the profession can be strengthened.

Tip 8: Communicate about clinical education

Effective communication is a key competency and underpins the foundations of productive critical thinking in clinical education, in particular the quality of learning about patient care. Without effective communication, there is no guarantee that appropriate knowledge and skill is being used to address the patient's health issue or concern (Asnani, 2009). Further, without good communication, there is no guarantee that the clinical educator's knowledge and skills are effective in teaching a learner anything.

Effective communication involves the sharing of information by two or more people (Higgs, Ajjawi, McAllister, & Trede, 2008), and there is a great deal of "information" in any clinical teaching and learning situation. This type of conversation is termed interpersonal communication. But communication is also intrapersonal, as in reflection on practice. Effective intrapersonal communication is the hallmark of the reflective clinician and is something educators of future health professionals strive to model and teach.

Effective communication is a complex interplay of reflecting on, analysing and understanding the self in order to communicate effectively with others (Glass, 2010). Reflection on one's learning and teaching includes the purposeful consideration of information, events and activities, and the analysis of the consequences of these with plans for future action. This is the basis of critical thinking. It is different from problem solving because it challenges one to consider several alternatives rather than one possible right answer (Smith-Stoner, 1999). It is the foundational skill for learning.

Tip 9: Develop critical thinking about clinical education

Following on from the notion of intrapersonal communication, critical thinking is regarded as one of the core skills in clinical practice. The learner's development of critical thinking lies at the centre of all educational activities. Irrespective of the focus, critical thinkers are valued as "well-informed, inquisitive, open-minded and orderly in complex matters" (Wangensteen, Johansson, Björkström, & Nordström, 2010, p. 2170)—hallmark abilities expected of professionals today and into the future.

The California Critical Thinking Disposition Inventory (CCTDI) (Facione, Giancarlo, Facione, & Gainen, 1995) described seven aspects of overall disposition towards critical thinking: truth-seeking, open-mindedness, analyticity, systematic approaches, critical thinking confidence, inquisitiveness and cognitive maturity. The development of critical thinking, analysis and reflection is an important and central aim of any teaching

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stratagem in any setting, albeit hard to teach and learn. Brown (1971) asserted, "The fatal pedagogical error is to throw answers, like stones, at the heads of those who have not yet asked the questions" (p. 15–16).

Adjusting curricula to develop today's learners' critical thinking skills about both the clinical practice of the discipline and of clinical education procedures and processes is the aim of the PACE framework, a framework that supports learners' evolving epistemology through critical thinking. It follows that learners will then be in a better position to participate in and critically appraise clinical education.

Tip 10: Review the concept of education environment—learn anywhere and anytime

With regard to evaluating the learning environment, we are advised that we must not direct our gaze exclusively on the clinical educator or their pedagogical actions in isolation from the context within which their actions take place; rather, "we must recognise the power of context as the cultural arena within which [learner] engagement is invited and supported, or denied" (Pratt, Harris, & Collins, 2009, p. 136). Creating a positive, inviting clinical learning environment can be difficult at times. Yet, we often say that every moment is a teaching and a learning moment! Furthermore, introducing learners to relevant people in the clinical setting will promote the notion of a multidisciplinary faculty (Kirkham & Baker, 2012) and a multidimensional education team—a healthcare and clinical education team they have already joined.

By adjusting curricula to include learning outcomes to teach and assess others, we face the challenge of having learners understand the impact of the environment on education. Learners cannot be expected to know what it is possible to teach at any given moment. They will not know all the environmental factors, nor all of the contexts in which these occur. For these reasons, setting learning objectives and developing PLPs for clinical education need to reflect a learner's limited capacity for awareness of these matters but also provide scaffolding for the development of this understanding.

Tip 11: Encourage through role modelling

Cutting and Sakes (2012) advocated that faculty should support the learners' development and understanding by modelling the process of thinking aloud when reasoning through clinical problems and making clinical decisions. We contend that the same can be undertaken when the clincial educator is making decisions about clinical teaching, supervison and assessment.

Beckman and Lee (2009) and Dennick (2012) encouraged a collaborative approach to clinical teaching founded on a positive clinical educator and learner relationship, underpinned by effective communication. This typically evokes images of understanding, respect and goodwill. Role modelling such characteristics is an important attribute of clinical educators (Abdool & Bradley, 2013; Sibbald, De Bruin, & Van Merrienboer, 2014) because it provides future clinical educators with a sound template for their behaviour.

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Therefore, it follows that the clinical educator's personal approach and attitude to involvement in clinical education and the scholarship of teaching and learning will be noticed and in most cases emulated. What is "encouraged," what any educator "models," has a powerful impact on learners. Raising awareness of the importance of role modelling a professional approach to participating in clinical education is essential.

Tip 12: Evaluate the PACE framework

The saying "The unexamined life is not worth living" has been attributed to Socrates (470–399 BC). In the same way, the unexamined teaching approach is not worth teaching.

Although based on sound educational and developmental principles, PACE is an untried process. We look to our colleagues to provide the evidence of its utility through careful and systematic evaluation. We fully expect that it will be applied differently in each circumstance. We suggest an action research approach be taken to the implementation of the PACE framework in any curriculum. Each element of the PACE framework should be evaluated as it intersects with the clinical curriculum in each discipline.

Conclusion

The complex competencies expected of clincial educators are often taught through faculty development short courses and 1-day workshops. Few pre-registration programs develop and assess learner's competence to teach in a clinical setting, to formally assess the work of others or to provide feedback on the work they do. Yet, in order to be "fit for purpose" in their practice, all health professionals need to have these skills.

The PACE framework proposes curricula changes to enable today's learners to review their epistemology, develop agency and cultivate their competence as clinical educators. We contend that using the PACE framework, i.e. integrating knowledge, making links and practising being an educator from the beginning of clinical training programs, provides the key. With appropriate curriculum adjustment and embarking on a continuum of learning, implementation of the PACE framework could make a substantial contribution to improving an individual's competence to be a clinical educator in the future.

In each facet of PACE, we have brought together the current literature that supports the model. In our view, if the notion of developing competence as a clinical educator throughout the pre-registration clinical curriculum is widely adopted, it will be a monumental step towards ensuring today's learners are fit for purpose as tomorrow's professionals in all that the term encompasses.

Implications for practice

Adjusting curricula to prepare students as clinical educators may:

- improve the quality and quantity of the health education workforce
- improve education outcomes
- prepare students to be fit for purpose in line with the stated code of conduct or practice for that professional group.

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Future research

Longitudinal research is needed to explore the development of assessment strategies and tools to support modifications in the clinical curricula that seek to develop today's learners' understanding of and skills in clinical teaching and learning as they progress through each level of their professional education.

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