THE UNIVERSITY of EDINBURGH

Training doctors and medical students to teach

Dr Michael T Ross

4th April 2014

centre for medical education

Graz Conference, Austria

Overview

Common (mis)conceptions about teaching

‘Brief intervention’ faculty development

Building a programme of faculty development

Training medical students to teach

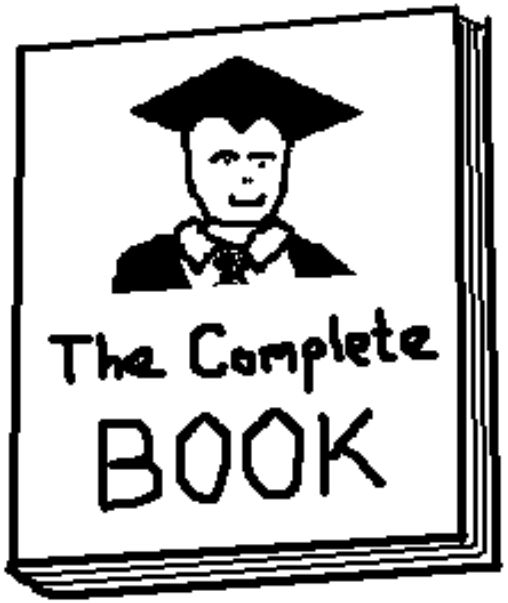
What does the term

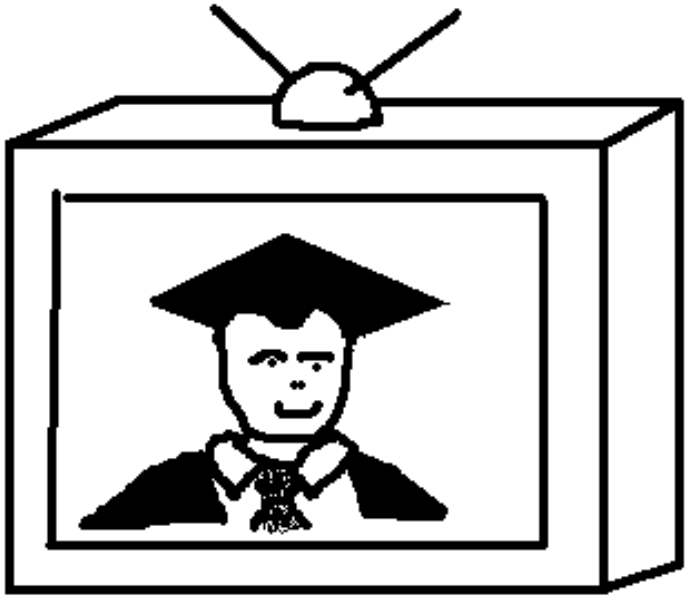
‘teaching’ mean to you?

"You don't need to learn how to teach, it's just common sense"

"Teaching is an art, you are either born to be a teacher or you aren't"

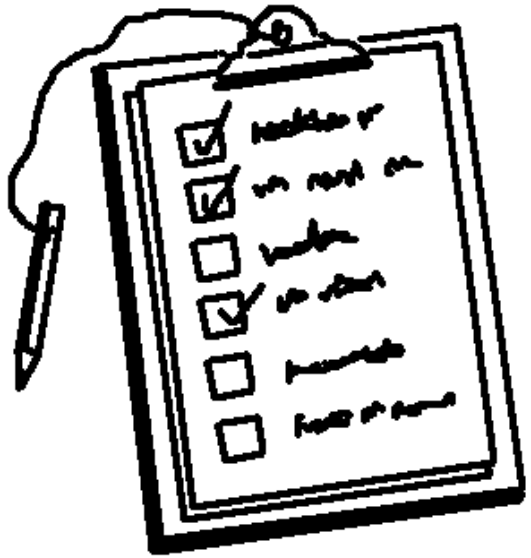
"Teaching is mainly about presenting complete and structured information to learners"





"Teaching is mainly about managing learner activities and timetables"

"All teaching should be evidence based, with predictable and measurable outcomes"



What does the term ‘teaching’ mean to you?

Ross MT (2012) Learning to teach as part of the undergraduate medical curriculum: perspectives and outcomes. EdD thesis.
The University of Edinburgh

‘Brief intervention’ faculty development

Induction of new faculty

Preparation for particular roles

Update presentations, leaflets and posters

Contributing to faculty meetings or ‘grand rounds’

Common scenarios…

½ hour with 20 GP tutors

½ hour with 5 junior doctors

1 hour with local clinical teachers

20 minutes with 10 new consultants at induction

1 hour with 250 Y4 medical students

½ hour with 20 Y4 PAL tutors

How would you approach a half-hour training session for new clinical teachers?

Typically I want to …

Discuss and challenge conceptions of teaching

Discuss course learning outcomes and methods

Explain principle of constructive alignment

Discuss academic feedback & feedback models

Address any specific concerns or questions

Promote other opportunities for faculty development

Simple training based on 5 questions

What does the term ‘teaching’ mean to you?

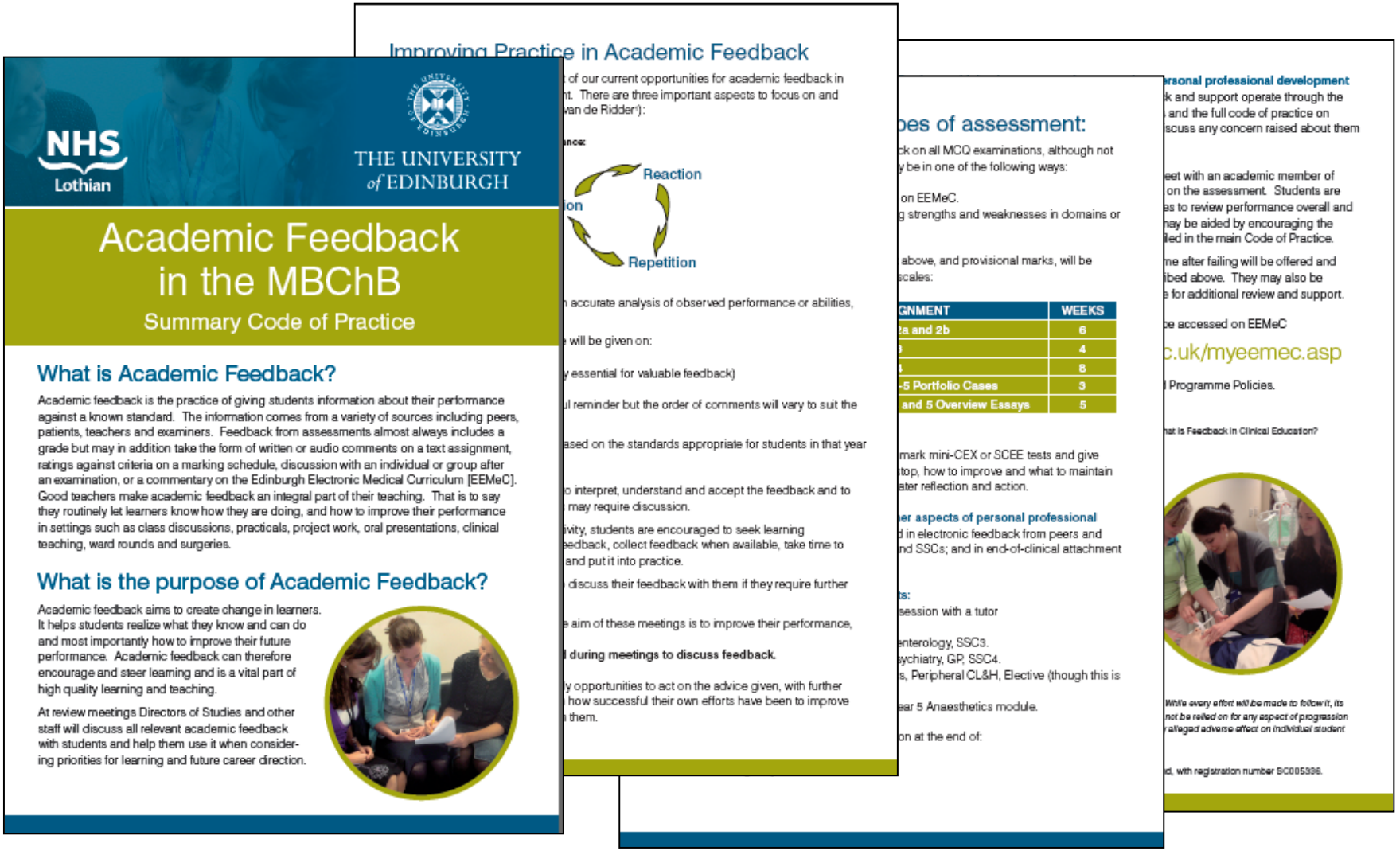
What do you hope to achieve in this teaching?

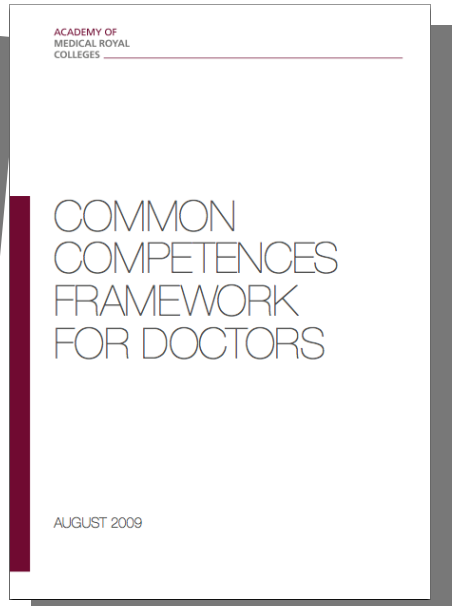
How are you going to do this?

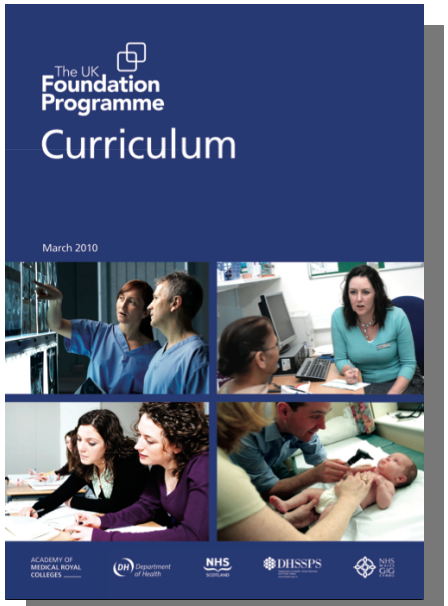
What is the worst thing that could happen?

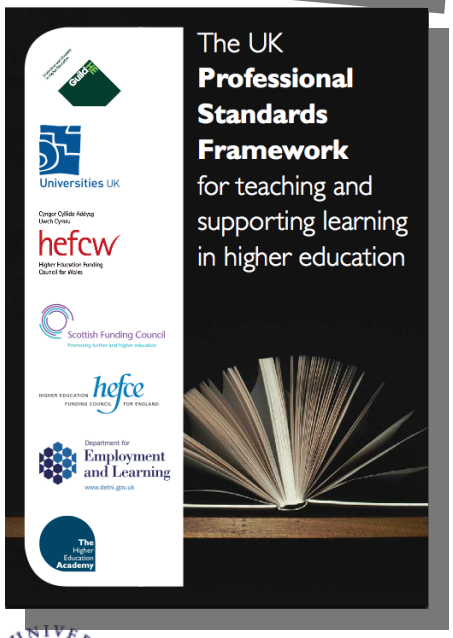
How are you going to prepare for the teaching?

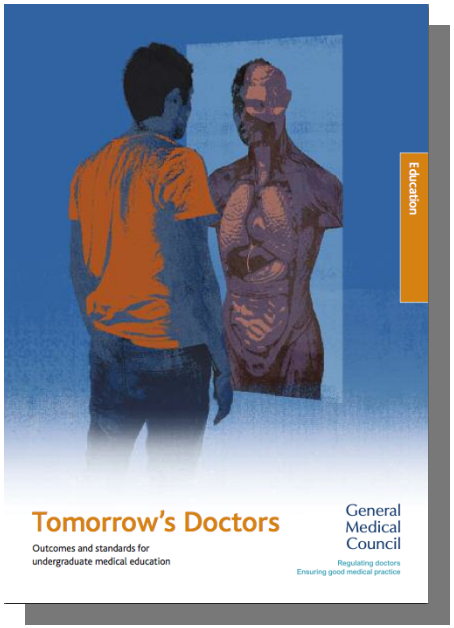
Supporting resources

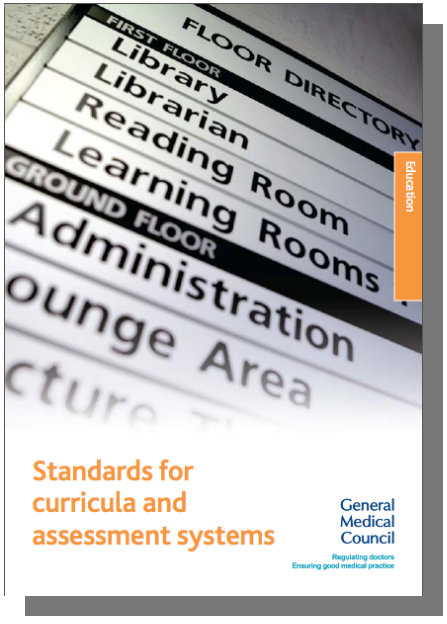


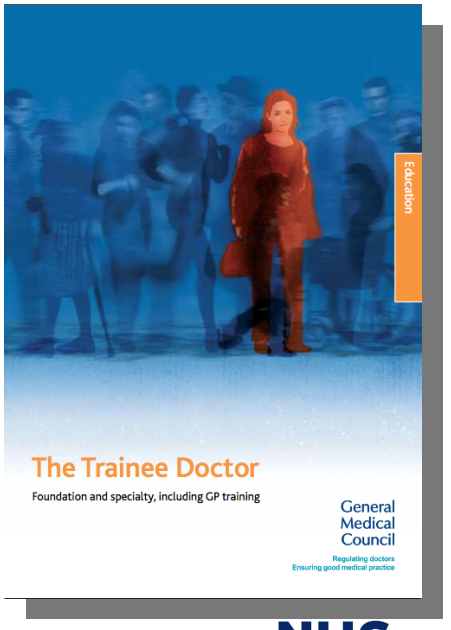












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NHS Education for Scotland

A faculty development programme

Identify competencies needed for teaching roles

Develop system to record training

Collect online resources & facilitate interaction

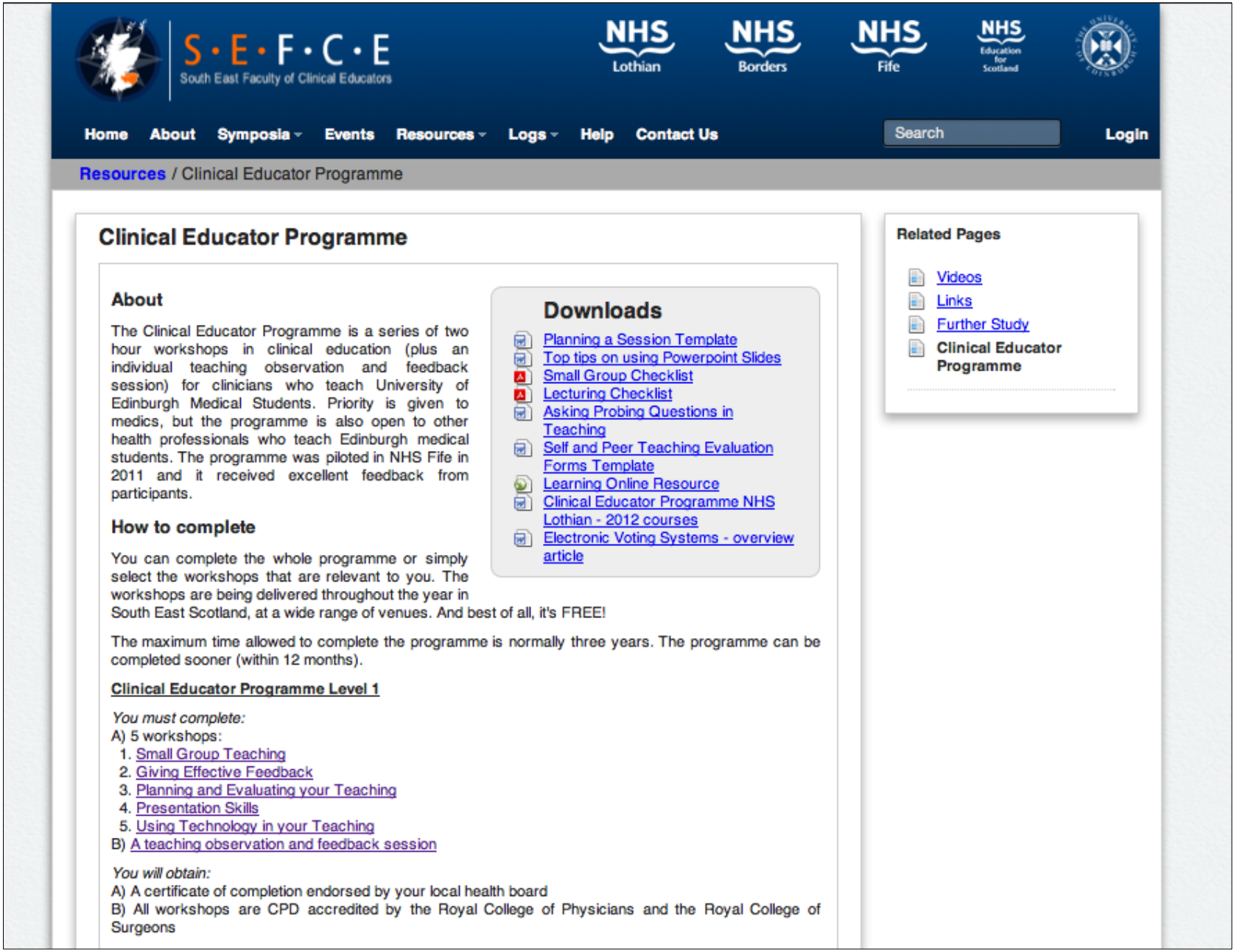
Develop a menu of workshops and training

Clinical Educator Programme and Summer School

PG Cert / Dip / MSc / PhD in Clinical Education

Faculty Development for Scotland project

WG-1	Review literature and existing teaching competencies
	Design and undertake stakeholder survey
	Analyse findings and present competency framework
WG-2	Review existing teacher training programmes
	Identify gaps in existing training & accreditation
WG-3	Implementation plan, led by DMEs and considering
	finances, roles and job plans, appraisal and revalidation
WG-4	Develop and launch electronic recording system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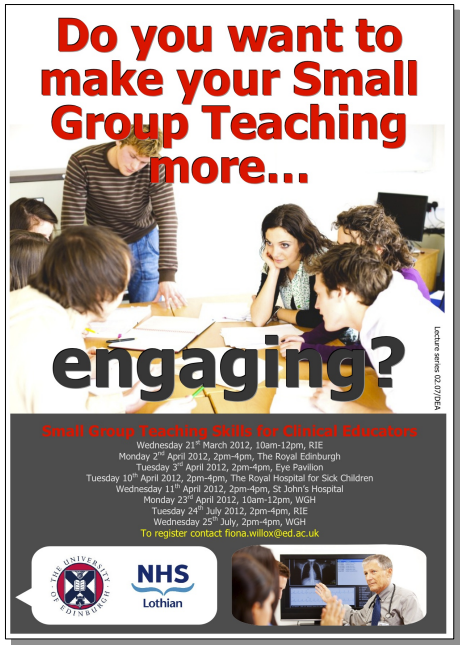
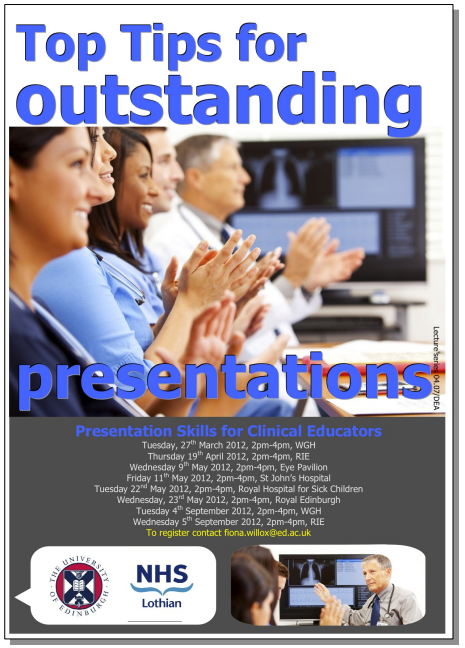
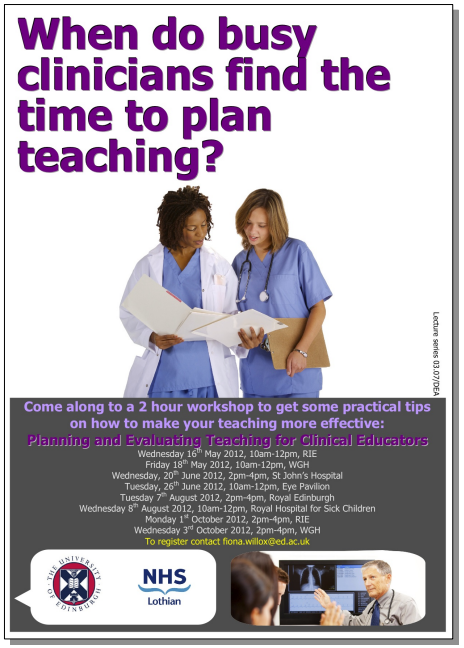
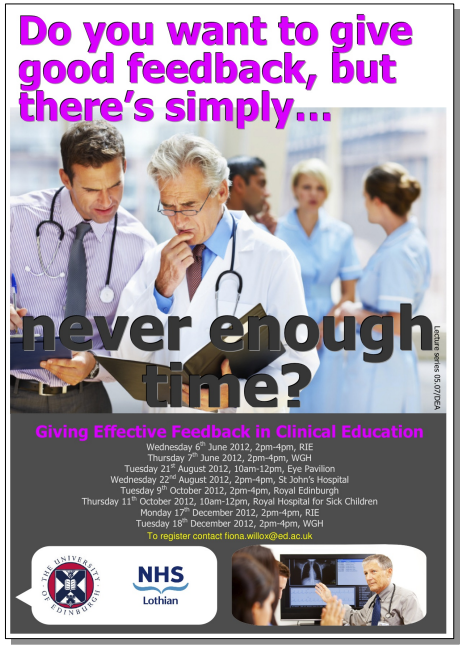
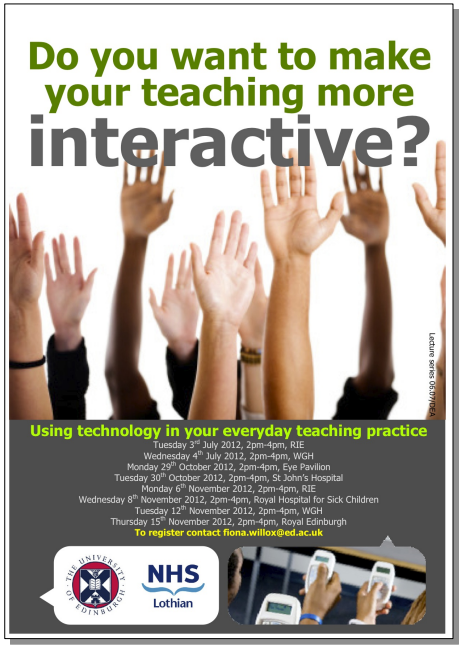
Resources / Clinical Educator Programme
Clinical Educator Programme
About
The Clinical Educator Programme is a series of two hour workshops in clinical education (plus an individual teaching observation and feedback session) for clinicians who teach University of Edinburgh Medical Students. Priority is given to medics, but the programme is also open to other health professionals who teach Edinburgh medical students. The programme was piloted in NHS Fife in 2011 and it received excellent feedback from participants.
How to complete
You can complete the whole programme or simply select the workshops that are relevant to you. The workshops are being delivered throughout the year in South East Scotland, at a wide range of venues. And best of all, it's FREE!
Downloads
Planning a Session Template
Top tips on using Powerpoint Slides
Small Group Checklist
Lecturing Checklist
Asking Probing Questions in Teaching
Self and Peer Teaching Evaluation Forms Template
Learning Online Resource
Clinical Educator Programme NHS Lothian - 2012 courses
Electronic Voting Systems - overview article
The maximum time allowed to complete the programme is normally three years. The programme can be completed sooner (within 12 months).
Clinical Educator Programme Level 1
You must complete:
A) 5 workshops:
1. Small Group Teaching
2. Giving Effective Feedback
3. Planning and Evaluating your Teaching
4. Presentation Skills
5. Using Technology in your Teaching
B) A teaching observation and feedback session
You will obtain:
A) A certificate of completion endorsed by your local health board
B) All workshops are CPD accredited by the Royal College of Physicians and the Royal College of Surgeons
Related Pages
Videos
Links
Further Study
Clinical Educator Programme











www.sefce.com/en-gb/page/clinical-educator-programme

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Edinburgh Summer School in Clinical Education 2014

'State of the Art' workshops at Festival time

Are you enthusiastic about helping clinical students learn? Do you see yourself leading quality improvements in education, for the benefit of students and patient care? If so, this is the course for you. The Edinburgh Summer School is packed with workshops to develop your skills around teaching, learning and assessment – with enough theory to give you the tools and the confidence to lead change, evaluate developments and ensure excellence in your future practice.

The social programme includes a welcome reception and a course dinner, and in the evenings you may wish to explore the wide variety of events in the internationally famous Edinburgh Festival Fringe.

Previous participants have said

> *An excellent opportunity to meet leaders in education from around Europe and exchange ideas.*

> *An enjoyable and valuable grounding in the basics of clinical education, which provided structure for many of the forms of teaching we use regularly. Thank you*

Monday 11 August - The Learner
Morning: Learning needs and professional development
Afternoon: Mentoring and appraisal

Tuesday 12 August - Teaching methods
Morning: Large group teaching
Afternoon: Small group teaching

Wednesday 13 August - Assessment
Morning: Writing and evaluating questions
Lunchtime Keynote Address: To be announced.
Afternoon: Principles and practice of assessment

Thursday 14 August - The clinical setting
Morning: Clinical teaching
Afternoon: Objective structured clinical examinations

Friday 15 August - Aligning learning, teaching and assessment
Morning: Workplace based assessment
Afternoon: Designing and evaluating courses

Registration for the full week is £725 (early bird £675) and covers all tutoring, receptions and the Course Dinner. Registration for individual sessions subject to availability. Sequence of sessions may vary. Accommodation available - best to book early by visiting: http://edin.ac/13rMJnO

Early bird closing date 30th April 2014. Final closing date 31st May 2014.
Online registration available from December 2013:
www.ed.ac.uk/schools-departments/medicine-vet-medicine/summer-school
Further information: Tel 0131 242 6536 or essce@ed.ac.uk

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Medicine and Veterinary Medicine

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NHS Education for Scotland

Postgraduate Opportunities

Clinical Education

MSc/Dip/Cert by online distance learning

This part-time flexible programme is delivered entirely online, and the majority of students continue to practise as full-time clinicians and clinical educators at the same time. It is modular, so students can study for one, two or three years for a Postgraduate Certificate, Postgraduate Diploma or Masters in Clinical Education respectively. The programme aims to provide a thorough grounding in education for those involved in the education of healthcare professionals at all levels, including undergraduate and postgraduate education and continuing professional development.

The programme is aimed at individuals involved in healthcare education such as doctors, nurses, physiotherapists, occupational therapists, pharmacists, dental practitioners, other allied health professionals, veterinary educators, and biomedical or social scientists who teach in medical, veterinary, dental or other healthcare education.

Entry requirements are a first degree, such as an MBChB, BVS, BDS, Bachelor of Nursing, Bachelor of Science, or similar equivalent primary qualification.

For further information contact:
Gillian Aitken (Programme Co-ordinator)
Centre for Medical Education
The Chancellor's Building
49 Little France Crescent
Edinburgh
EH16 4SB

Email: clinicaleducation@ed.ac.uk
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Key programme outcomes:

After completing the MSc in Clinical Education, graduates will understand how to:

- Plan, deliver and evaluate teaching for undergraduate and postgraduate students at the levels of programme, course and individual session
- Apply educational principles and theory to their teaching practice
- Teach and learn in online and blended environments
- Assess students formatively and summatively (including written, practical and oral and electronic formats)
- Critically evaluate their own teaching practice and appraise others
- Access and critically evaluate the educational literature
- Plan, conduct and critique a research project in clinical education

www.clinicaleducation.mvm.ed.ac.uk

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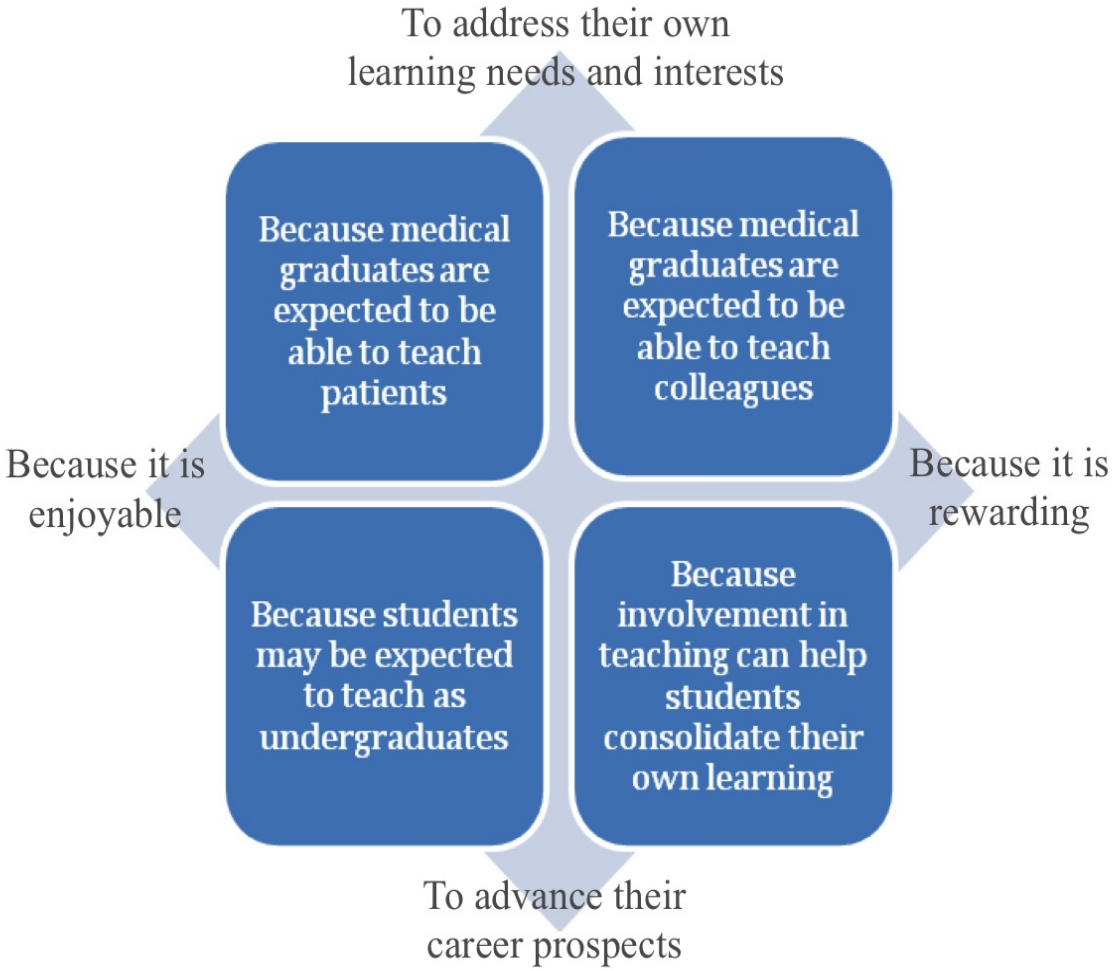
Do you think all medical students should learn to teach?

Why are students learning to teach?

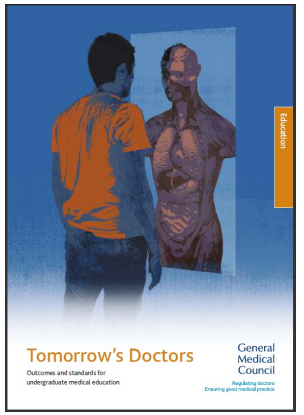


UK graduates must be able to teach

21. Reflect learn and teach others

f) Function effectively as a mentor and teacher including contributing to the appraisal, assessment and review of colleagues, giving effective feedback, and taking advantage of opportunities

to develop these skills.



GMC (2009) Tomorrow's doctors: recommendations on undergraduate medical education. London: General Medical Council.

Examples beyond the UK …

"Graduates in medicine will have the ability to teach others"

Cumming & Ross (2008) The Tuning Project (Medicine), p17. Online: www.tuning-medicine.com

"Facilitate the learning of others as part of professional responsibility (patients, health professionals, society"

Medical Council of Canada (2009)

Physician as Scholar, Objective 3

Teaching helps consolidate learning

Learning content with intention of teaching it is more effective than learning for an exam (Bargh & Schul 1980)

Teaching content can lead to measurable improvements in practical and theoretical assessments (Knobe et al 2010)

Medical students and trainees who learn to teach seem likely to start thinking differently and approaching their clinical practice differently (Weiss & Needlman 1998)

What does it mean to learn to teach?

Identify with a teaching role

Consider purpose and LO for your teaching

Learn specific techniques and content

Continuously seek to improve your teaching

Identifying with a teaching role

Teaching is an intentional activity

Can improve with deliberate practice

Most juniors do not see themselves as teachers

Many seniors who teach don’t either

Medical education is as much about developing a professional identity as learning content

Considering the purpose of teaching

Extensive literature on conceptions of teaching

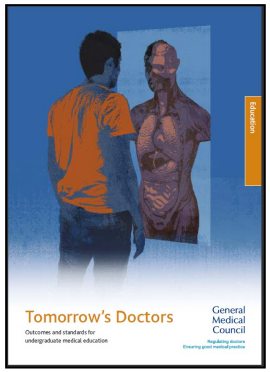
Conceptions impact on approaches to teaching

Also impact on the learning of those taught

Faculty development now often focuses on these

"*Fundamental changes to the quality of teaching and learning are unlikely to happen without changes to lecturer's conception of teaching*" (Kember & Kwan 2000, p469)

Constructive alignment with LO



Define LO → **Student-centred Teaching & Learning** → **Appropriate assessment**

Evaluation

Biggs J (1996) Enhancing teaching through constructive alignment. HE 32:347

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How can students learn to teach?

1. Learning to teach patients
   - Patient-centeredness
   - Professional relationships
   - Communication skills

2. Making links with other undergrad content
   - Ethical principles
   - Team-working
   - Time management
   - Reflective practice
   - Literature searching & critique
   - Preparing presentations
   - Peer assessment & feedback
   - Professional development

How can students learn to teach?

3. Learning from experience of being taught
   - Importance of role-modeling
   - Positive and negative experiences
   - Medical and non-medical teachers

4. Practical experience of teaching
   - Complex skills requiring experience & deliberate practice
   - Development of *phronesis* (practical wisdom)
   - Develop sense of identity as a teacher
   - Typically some form of Peer Assisted Learning (PAL)

How can students learn to teach?

5. Specific training in teaching
   - Shift from training in techniques to student-centeredness
   - Include workshops, role-playing, learner & peer feedback, observation of teaching, mentoring, critical incident analysis & many others
   - Often some general teaching-related content
   - Also specific training for any teaching they are doing

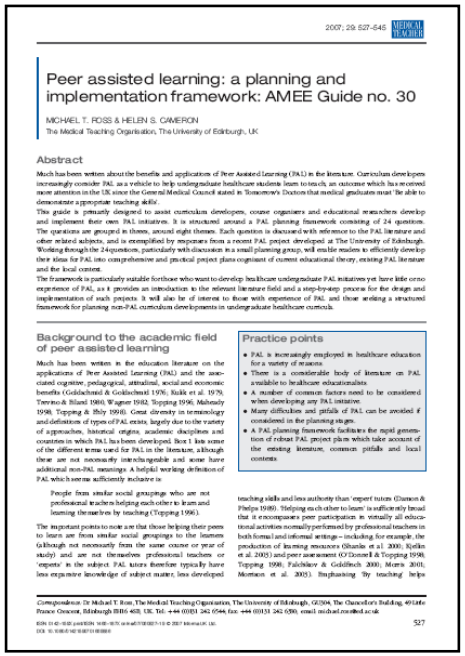
Peer Assisted Learning (PAL)

"People from similar social groupings
who are not professional teachers
helping each other to learn
and learning themselves by teaching"

Topping K 1996 The effectiveness of peer tutoring in further and higher education: a typology and review of the literature Higher Education 32(2):321-345

Fluid Shifts/Intakes

Planning a new PAL



2007; 29: 527–545

Peer assisted learning: a planning and implementation framework: AMEE Guide no. 30

MICHAEL T. ROSS & HELEN S. CAMERON
The Medical Teaching Organisation, The University of Edinburgh, UK

Abstract

Much has been written about the benefits and applications of Peer Assisted Learning (PAL) in the literature. Curriculum developers increasingly consider PAL as a vehicle to help undergraduate healthcare students learn to teach, an outcome which has received more attention in the UK since the General Medical Council stated in 'Tomorrow's Doctors that medical graduates must 'Be able to demonstrate appropriate teaching skills'.

This guide is primarily designed to assist curriculum developers, course organisers and educational researchers develop and implement their own PAL initiatives. It is structured around a PAL planning framework consisting of 24 questions. The questions are grouped in threes, around eight themes. Each question is discussed with reference to the PAL literature and other related subjects, and is exemplified by responses from a recent PAL project developed at The University of Edinburgh. Working through the 24 questions, particularly with discussion in a small planning group, will enable readers to efficiently develop their ideas for PAL into comprehensive and practical project plans cognisant of current educational theory, existing PAL literature and the local context.

The framework is particularly suitable for those who want to develop healthcare undergraduate PAL initiatives yet have little or no experience of PAL, as it provides an introduction to the relevant literature field and a step-by-step process for the design and implementation of such projects. It will also be of interest to those with experience of PAL and those seeking a structured framework for planning non-PAL curriculum developments in undergraduate healthcare curricula.

Background to the academic field of peer assisted learning

Much has been written in the education literature on the applications of Peer Assisted Learning (PAL) and the associated cognitive, pedagogical, attitudinal, social and economic benefits (Goldschmid & Goldschmid 1976; Ralik et al. 1979; Trevino & Bland 1980; Wagner 1982; Topping 1996; Mahendy 1998; Topping & Ehly 1998). Great diversity in terminology and definitions of types of PAL exists, largely due to the variety of approaches, historical origins, academic disciplines and countries in which PAL has been developed. Box 1 lists some of the different terms used for PAL in the literature, although these are not necessarily interchangeable and some have additional non-PAL meanings. A helpful working definition of PAL which seems sufficiently inclusive is:

> People from similar social groupings who are not professional teachers helping each other to learn and learning themselves by teaching (Topping 1996).

The important points to note are that those helping their peers to learn are from similar social groupings to the learners (although not necessarily from the same course or year of study) and are not themselves professional teachers or 'experts' in the subject. PAL tutors therefore typically have less expansive knowledge of subject matter, less developed teaching skills and less authority than 'expert' tutors (Damon & Phelps 1989). 'Helping each other to learn' is sufficiently broad that it encompasses peer participation in virtually all educational activities normally performed by professional teachers in both formal and informal settings – including, for example, the production of learning resources (Shanks et al. 2000; Kjellin et al. 2005) and peer assessment (O'Donnell & Topping 1998; Topping 1998; Falchikov & Goldfinch 2000; Morris 2001; Morrison et al. 2005). Emphasising 'By teaching' helps

Practice points

- PAL is increasingly employed in healthcare education for a variety of reasons.
- There is a considerable body of literature on PAL available to healthcare educationalists.
- A number of common factors need to be considered when developing any PAL initiative.
- Many difficulties and pitfalls of PAL can be avoided if considered in the planning stages.
- A PAL planning framework facilitates the rapid generation of robust PAL project plans which take account of the existing literature, common pitfalls and local contexts.

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Box 3. PAL project framework.

Background

Q1. What is the current situation and context in the curriculum?

Q2. Why is this PAL project being considered now?

Q3. Who is responsible for the project and who will lead it?

Aims

Q4. What are the aims and objectives of the project for tutors?

Q5. What are the aims and objectives of the project for tutees?

Q6. What are the aims and objectives of the project for the institution?

Tutors

Q7. Who will be tutors and how will they be recruited?

Q8. What training will tutors require and how will this be provided?

Q9. How else will tutors prepare themselves and reflect afterwards?

Tutees

Q10. Who will be tutees and how will they be recruited?

Q11. What related prior knowledge and experience will tutees have already?

Q12. What information and preparation will tutees require before the interaction?

Interaction

Q13. What will be the format of the interaction, and what resources are required?

Q14. What would be a typical plan of activities during the PAL interaction?

Q15. When and where will PAL interactions occur, and how will they be arranged?

Evaluation

Q16. What feedback will be collected from participants and how will it be used?

Q17. How else will the project be piloted and evaluated?

Q18. What are the academic hypotheses and how will they be tested?

Institution

Q19. Who are potential stakeholders in the project?

Q20. What are the staff time and funding implications of the project?

Q21. How could the project be developed, and how might it affect the curriculum?

Realisation

Q22. What are the potential pitfalls or barriers to the success of this project?

Q23. What are key points on the timeline for this project?

Q24. What actions need to be taken to develop the project, and by whom?

Ross MT, Cameron HS (2007) Peer assisted learning: a planning and implementation framework: AMEE guide no.30. Medical Teacher 29:527-545

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Challenges of students learning to teach

Need to ensure equality for all students

Need to ensure adequate training & support

Teaching practice can be difficult to schedule

Assessment, credits and progression

Further reading

Steinert Y, Mann K, Centeno A, Dolmans D, Spencer J et al. (2006) A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. Medical Teacher 28(6): 497-526.

Ross MT, Stenfors-Hayes T (2013) Students learning to teach. In: Walsh K; The Oxford Textbook of Medical Education. Oxford, OUP

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Thank you!

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