Learning needs & professional development
Academic feedback

Michael Ross & Tim Fawns
Monday AM
Overview

Learner
Learning activities
Content
Teacher
Learning & teaching situations
Teaching activities

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Academic feedback
Think about one (or a group) of your learners. How much do you really know about them?
Learner – every one is different

Prior learning
Experience
Memory and association
Motivational factors
   Intrinsic (e.g. interest, will to succeed…)
   Extrinsic (e.g. assessment, approval…)
Commitments (e.g. family, part-time job)
Learning styles / preferences…
Learner style / preference / approach

Deep, Superficial, Strategic (Marton & Säljö)

Diverging, Assimilating, Converging, Accomodating… (Kolb)

Visual, Auditory, Kinesthetic +/- Read/write (Barbe, Fleming)

‘Multiple Intelligences’ - Linguistic, Mathematical, Musical, Kinaesthetic, Visiospatial, Inter- & Intra-personal (Gardner)

Myers-Briggs Inventory

Honey & Mumford Learning Styles Questionnaire
The appeal of learning styles

Simple solution to complex problems
Plausible explanation for failure of some students
Opportunity to explore nature of teaching and learning
Help focus attention on needs of learners
Emphasise individual rather than organisational responsibilities
Problems with learning styles

Theoretical incoherence and conceptual confusion
Variable quality of learning style models
No clear implications for pedagogy
Decontextualised and depoliticised view of learning and learners
Neglect of knowledge
Learning Styles reference


www.LSRC.ac.uk
What sorts of things can (your) learners do to help them learn?
Learner – learning theories

Behavioural learning theories (Pavlov, Skinner)

Cognitive learning theories (Piaget, Bruner, Gagne, Ausubel, Vygotsky)

Adult learning theory (Knowles ‘Andragogy’)

Student-centred theories (Entwistle, Marton, Biggs)

Experiential learning theory (Kolb’s learning cycle)…
Kolb’s Cycle – experiential learning

Effective learning involves all 4 (although may have preference)

Experience → Reflection

If? → Why?

Planning ← Theory

What? ← How?

Reflective Practice (Schön 1987)

Ability to:

- Practise as an autonomous professional
- Recollect, think, reason and deliberate
- Recognise & explore confusing situations
- Engage in self assessment / critique
- Change behaviours / thinking as a result
- Adapt to change
How do (your) learners know what they need to learn?

How do you know what you need to learn?
Content - terminology

Learning outcome (LO)  Intention
Learning objective  Competence
Behavioural objective  Competency
Aim  Capability
Goal  Performance

EPA (Entrustable Professional Activity)
GMC Tomorrow’s Doctors

Learning outcomes for medical graduates:

1) The doctor as a scholar and a scientist
2) The doctor as a practitioner
3) The doctor as a professional

GMC Tomorrow’s Doctors

1) The doctor as a scholar and a scientist
   8a) Explain the scientific bases for common disease presentations

2) The doctor as a practitioner
   13c) Perform a full physical examination

3) The doctor as a professional
   22c) Work with colleagues in ways that best serve the interests of patients, passing on information and handing over care, demonstrating flexibility, adaptability and a problem-solving approach
Content – ‘Constructive alignment’

Define LO

Student-centred Teaching & Learning

Appropriate assessment

Evaluation

Biggs J (1996) Enhancing teaching through constructive alignment. HE 32:347-
Miller's Triangle (pyramid)

Content – mastery of skills

Identifying Learning Needs

SELF
- Self Appraisal
- Reflecting on practice
- Observing others
- Reading
- Critical incident analysis

FROM OTHERS
- Feedback – 360 degree appraisal
- Patient Feedback
- Audit
- Assessment
- Academic Feedback

Appraisal and mentoring
- Reflective writing
- Practice diaries
- Logbooks
- Portfolio
- Assessments
Cognitive Load Theory

‘Working memory’ (<30 sec) has limited capacity
Excessive ‘cognitive load’ on this can impair learning

3 types of load

- Intrinsic (grasping the content / task to learn)
- Extraneous (non-essential aspects of situation)
- Germane or ‘Generative’ (learning processes)

Sequence, reduce ‘elements’, tailor to individual
Avoid distractions, align, clear tasks & examples

Learning & teaching strategies to maximise retention

See e.g. Young et al. 2014 AMEE Guide 86. Med Teach 36(5):371-84
Where do (your) learners learn?
Key concepts: L&T Situations

Any situation or context in which learning or teaching occur

Can described by name (e.g. lecture, pbl tutorial, ward round, outpatient clinic)

Can also be described by variables such as number of learners, presence of patients…

Preferences relate to learning styles
1) Presence of learners & teachers

- Learners only
- Learners & Teachers
- Teachers only

2) Number of learners

- Individual
- Small group
- Large group

3) Presence of patients

- No patients
- Standardised patients
- Patients

4) Authenticity

- Non-clinical
- Simulation
- Clinical

What does the term ‘teaching’ mean to you?
**What does the term ‘teaching’ mean to you?**

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<tr>
<th>PRODUCTION</th>
<th>SCIENCE</th>
<th>ART</th>
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<tbody>
<tr>
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<td><strong>(theoria)</strong></td>
<td><strong>COMMON SENSE</strong></td>
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<td><strong>SYSTEM</strong></td>
<td><strong>REFLECTIVE PRACTICE</strong></td>
<td><strong>DIRECTING ACTIVITY</strong></td>
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<td><strong>APPRENTICESHIP</strong></td>
<td><strong>IMPARTING INFORMATION</strong></td>
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<td><strong>SOCIAL REFORM</strong></td>
<td><strong>MANAGED PROCESS</strong></td>
<td><strong>SUPPORTING TRANSFORMATION</strong></td>
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<td><strong>LEARNING ACTIVITY</strong></td>
<td><strong>ASSESSMENT</strong></td>
<td><strong>TARGETING LEARNING NEEDS</strong></td>
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Have you tried the TPI?

‘Teaching Perspectives Inventory’
Pratt & Collins (1998)

www.teachingperspectives.com/tpi/

Insights? Surprises? Problems?
Strengths & weaknesses of the TPI?
Aligned beliefs / intentions / actions?
Example of completed ‘Teaching Perspectives Inventory’ feedback from www.teachingperspectives.com/tpi/

TPI Profile Sheet

Thank you for taking the TPI. Your results are represented on the graph below. For information on how to interpret your results, please see the Interpretation page.

<table>
<thead>
<tr>
<th>TRANS</th>
<th>APPREN</th>
<th>DEVEL</th>
<th>NURTUR</th>
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<td>27</td>
<td>31</td>
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- TRANS: Total 27
- APPREN: Total 31
- DEVEL: Total 33
- NURTUR: Total 32
- SOC REF: Total 29

- B = 9
- I = 11
- A = 11

- B = 10
- I = 10
- A = 10

- B = 9
- I = 11
- A = 11

- B = 11
- I = 10
- A = 11

- B = 11
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- A = 11

- B = 11
- I = 10
- A = 11
What does the term ‘teaching’ mean to you?

Online: www.researchgate.net/profile/Michael_Ross3
What do clinical teachers (you) do?
Teaching Activities

1. Facilitating
   a) Facilitating content learning (theoretical & practical)
   b) Facilitating personal & professional development
   c) Relating to learners and providing perspectives
   d) Giving information and demonstrating
   e) Assessment with feedback

2. Managing

3. Learning & Community-Building

Teaching Activities

1. Facilitating
2. Managing
   a) Leading teaching & learning sessions
   b) Session and course organisation & development
   c) Developing learning environments
   d) Curriculum development, governance & policy
   e) Recruitment

3. Learning & Community-Building

Teaching Activities

1. Facilitating
2. Managing
3. Learning & Community-Building
   a) Informal reflective practice
   b) Formal training & development
   c) Local community-building
   d) National & international community-building
   e) Research

Summary: focus on the learner

#1. Teaching is about facilitating learning
Relatively few ‘shared activities’ – use wisely!
What the learner does is more important
than what the teacher does
Find out about learners & teach accordingly

Feedback
What do we mean by ‘academic feedback’?
Academic feedback can be defined as:

“Specific information about the comparison between a trainee’s observed performance and a standard, given with the intent to improve the trainee’s performance”

Intrinsic vs. extrinsic feedback

“Intrinsic feedback” is a natural consequence of the action (e.g. missing a diagnosis because certain questions were not asked)

“Extrinsic feedback” is an external comment / judgement (e.g. tutor or peer assessment)

What is your previous experience of receiving feedback?
Doctor in the House (1954) Rank Organisation
http://www.youtube.com/watch?v=oVWjAeAa52o
www.thestudentsurvey.com
Are there any principles which guide your feedback?
Feedback - Ende’s principles

Feedback should be…

- well-timed and expected
- teacher & trainee working as allies with common goals
- based on first-hand data
- regulated in quantity & limited to remediable behaviors
- phrased in descriptive non-evaluative language
- about specific performances, not generalizations
- clearly labeled ‘subjective’ as appropriate
- on decisions / actions vs. assumed intentions / interpretations

Usefulness ≠ Satisfaction

33 students taught to tie square knots
Randomised to receive feedback or compliments
Measure performance (before & after) and satisfaction
Performance improved with feedback, not compliments
Satisfaction was much higher in compliments group
Satisfaction is NOT a good measure of usefulness of feedback

Boehler ML et al. (2006) An investigation of medical student reactions to feedback: an RCT. Medical Education 40:746-749
Balance support & challenge

Low Support

High Support

Low Challenge

High Challenge


“That was fantastic, you should be proud of yourself”

“OK, carry on”

“Well done on these bits, but how might you do that part differently?”

“That was rubbish - my 3 year old could have done that better”

Low Support

High Support

Low Challenge

High Challenge

Balance support & challenge

Timing is important

12 practice trials on one colonoscopy simulator sequence

Concurrent vs. terminal feedback

Similar on pre-, post- and 1/52 afterward tests

Terminal feedback group significantly better on transfer test with novel simulator sequence

Walsh et al 2009 Concurrent versus terminal feedback: it may be better to wait. Academic Medicine 84(10):S54-57
Do you use any models or templates for giving feedback?
‘Feedback Sandwich’

Positive feedback

Areas for improvement

Positive feedback
‘Traffic Lights’

What to Stop
What / How to Change
What to Continue
Feedback - Pendleton’s ‘rules’

- Clarify factual details
- Learner comments on what went well
- Teacher comments on what went well
- Learner identifies areas for improvement
- Teacher identifies areas for improvement
- Discuss suggestions for change

ALOBA
(‘Agenda-Led Objective Based Analysis’)

- Learner identifies areas they want help with
- Learner & tutor define goals trying to achieve
- Learner then tutor & group suggest ways
- Tutor may highlight other areas of need / theory
- Learner rehearses strategies / skills with feedback
- Facilitator summarises achievement / future goals

‘One minute preceptor’

- Get commitment (Diagnosis & plan)
- Probe for supporting evidence
- Teach general principles
- Reinforce what was done right
- Correct mistakes

Other Feedback Models

‘SET-GO’ – what did you See; what Else did you see; what did you Think; what Goal(s) we’d like to achieve; any Offers on how to get there? (often used with ALOBA)

W3 – What went well; What didn’t go well; What could you do differently next time?

‘SHIM’ – what to Stop; How to Improve; what to Maintain - variation of traffic lights
Homework for tomorrow

Reflect on Ende’s principles and at least one feedback model (e.g. ‘Sandwich’ or Pendleton)

Reflect on which aspects of large group teaching you want to give / receive feedback

Think about ways you will try to ensure your feedback is appropriate, specific, descriptive and focused on remediable behaviours
"To a celtic spirit", Morton tapestry by Alan Davie