How Effective as an Educator am I?

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What do we mean by effective?

Effective education really means looking at the *quality* of our teaching, in much the same was as we reflect and look back at the quality of our clinical care. We can do this by either looking at how effective we are as individuals or as part of the wider specialist training programme.

But what is quality?

- Quality is about best performance within the available resources.
- Quality is about doing the right THING, at the right TIME and in the right WAY.

The right thing, the right time and the right way are things which have to be socially negotiated amongst the different stakeholders. With current financial restraints there are a number of different stakeholders to be taken into account, such as Trusts , workforce deaneries, Royal Colleges, as well as more immediate stakeholders and of course patients.

Why do I need to measure the effectiveness of my teaching?

New teachers obviously find feedback enlightening to develop their own expertise but, even more experienced teachers need feedback to give affirmation to what they do well and help them reflect and develop as teachers (Hays, 2006.)

The 4 key questions we need to ask ourselves as educators:

1. What do we want our trainees to learn?
2. What are they learning?
3. How are we teaching?
4. How do we know?

Brown (1993)

Therefore, looking at the quality or effectiveness of teaching implies that we need to evaluate it in some way. In this chapter we will look at evaluation strategies as applied to taught sessions whether formal or informal, role modelling and group work.

What factors affect the effectiveness of teaching?

UNESCO (2005) provides the following framework:

Context: *whilst we might feel that the context of the learning is something outside our control it undoubtedly has a big impact on the learning that takes place. For example the European Working Time Directive has shaped the way training happens in hospitals. Public expectation is not static; neither are marketplace requirements in terms of both training places available and jobs at the endpoint. Kings Fund (2004) has produced a very helpful document looking at the changing contexts which face medical professionalism and we need to equip our learners to be able to adapt to ever changing tensions between external performance targets, limited resources and other factors that contribute to a reduction in professional autonomy – how can we measure that?*

Looking at effectiveness through numbers: caveat emptor!

The effectiveness of an educational programme could be considered simplistically in terms of quantifying the mismatch between the goals you had set before delivering the teaching and the achievement of these goals at the end.

A TPD said:

I decided to look at the success of candidates sitting the AKT (Applied Knowledge test of the MRCGP) in my GP Training Scheme. If all the candidates passed first time I could then congratulate myself that I was providing a highly effective scheme and could pat myself on the back and carry on.

Would you agree?

Does exam performance necessarily reflect the quality of the teaching? Undoubtedly it is data which is easy to collect and gives us a number. But is a number (or a quantitative value) the only thing that matters in education. Does it tell you the whole story?

Be careful with using numbers:

1. High scoring practices in terms of Quality Outcome Frameworks are not always the practices with the best doctors; in much the same way as high scores in a multiple choice paper may not reflect all the attributes that we would want our trainees to show. It is only part of the picture.

2. From the trainee's perspective: they may end up seeing exam success as the only outcome that they are interested in. We, as Trainers, may not rank exam results as a quality indicator so highly because we often feel we want them to learn more about general practice and patients than can be easily assessed - although there is increasing evidence that workplace based assessments because it is assessing 'does' rather than 'shows' (re: Millers pyramid – covered in chapters 4, 25 and 29 in the book) may have greater validity.

Making sense of this is complicated and we need to look at some qualitative features to really get a deeper understanding of effectiveness because it is not merely the achievement of goals in a numerical sense – there has to be some judgement about the quality of those goals or objectives (Fraser 2004). For example goals need to be individually specific: an effective supervisor should encourage an outstanding registrar to strive for excellence rather than just competence but for a struggling trainee competence is the only goal that should be set.

How to determine the effectiveness or quality of your teaching

In order how to gauge how effective our teaching is, we have to consider multiple perspectives. We should use several different approaches, qualitative and quantitative ones, in order to get a true picture.

Six windows to look at the effectiveness of your teaching

Imagine yourself in a single room building with 6 windows in the middle of some beautiful gardens. You can peer out of it and observe the gardens from 6 different angles. The more windows you look through, the better idea you get of the landscape and its beauty. In a similar way, there are 6 windows from which you can evaluate the effectiveness (or quality) of your teaching. The more you look at, the better perspective of the truth you get.

The 6 windows for looking at the effectiveness of your teaching

1. Attendance of your students
2. Learner feedback questionnaires
3. Feedback from peers (other fellow teachers)
4. Self-assessment
5. Exam results
6. Future learner progress

Red Alert:

Remember, any one of these methods on its own is not sufficient.

1. Student Attendance

Some people see student attendance or punctuality as a proxy marker for the degree with which you (as a teacher) excite and motivate them to learning. However, the UNESCO Framework reminds us to consider how learner characteristics such as poor mental health and poor organisational skills might interfere with this.

2. Learner feedback questionnaires

These are the type of forms that we all fill in at the end of an educational session. They can provide useful information depending on how they are written. Unfortunately, 'happiness ratings' around things like parking and quality of catering can detract from teaching quality issues. To improve the quality of data we get back from learner feedback questionnaires we need to go back to the drawing board in designing our questionnaires. Edwards (1991) talked about some guiding principles.

Designing feedback forms (Edwards, 1991)

Work out (with others), the answers to the following:

1. **What is it that you really want to find out?**
   Brainstorm any questions that come into your mind – don't hold back, write them down. When you've done this, go through them and critically evaluate them with the following questions.
2. **Why do you want to know that?**
3. **How do you intend to use that information?**
   For example, if a set of trainees said they needed more time for IT development during induction, would you be able to do that?

After critically evaluating your questions, you can then narrow down your 'question set' into a sensible framework that is more likely to give you the right information.
Consider piloting it before casting it out to the masses.

A golden rule in evaluation is that your learner must feel confident that they can give you truthful answers to your questions. In a one-to-one setting this can be a difficult thing to achieve.

Top Tip: Sometimes more in-depth questionnaires are better sent out at a programme level with anonymised responses sent to a Programme Director, for example. And don't forget about the free software such as *Survey Monkey* (www.surveymonkey.com) which is very easy to use and will email questions and anonymised responses to your account.

3. Feedback from fellow teachers

This is more difficult in Primary Care than in a hospital setting just because of the logistics. In addition it can feel quite threatening for a GP Trainer to have another GP Trainer to give feedback to them. However, it is important that not all our evaluation comes from student feedback - remember the multiple perspectives!

Sometimes it helps with our anxiety levels to have a proforma for our colleague to work to covering topic areas such as:

- **Organisation of subject matter** e.g. pre-tutorial preparation, provision of trigger materials (referral letter, article etc.), presentation of material, pace of the session and variety of learning activities.
- **Management of learning** e.g. facilitation skills, level of experiential learning, summarising, signposting, advance organising etc.
- **Personal qualities** e.g. level of rapport, level of dynamism, adaptability, use of humour.

In our Deanery (like many others), our Educational Supervisors (ESs) appraise each other. It's usually done in a Trainers' workshop and involves the ES providing self-assessment comments along with evidence to support them like the ES report or a video observation. This is then mapped against the 12 competencies to be an Educational Supervisor (which mirrors the trainee's 12 professional competencies).

4. Self-assessment

Assessing your own teaching is not easy but is worthwhile. Of course, you could just reflect back on a session but please consider occasionally videoing your teaching session so that you can pick up things that would be lost with memory recall alone.

Top Tip:

Videoing needn't be a complicated process. Use your mobile phone!

Questions to help you reflect on a video of your teaching session

- What kinds of questions did I ask?
- Did I talk too much?
- Did I interrupt the learner(s) often?
- Who broke the silences?
- Was I too prescriptive, informative, confronting? (Heron's tasks)
- Was I cathartic, catalytic and supportive? (Heron's tasks)
- Generally, what mode of facilitation was I in? (Heron's modes)
- Was this mode right for the learner(s)?

(More about Heron in Chapter 13 of the book).

From this you can begin to think about how good a facilitator you are. Whilst you can reflect on a single bit of teaching it is also important to reflect on other aspects of your role as an educator such as reviewing feedback from the ARCP panel about your ES report. Doing this will help you become a better 'all-rounded' educator.

Another useful exercise is to look back over a teaching year, which may encompass many different learners in your practice from medical students to ST3, to nurse practitioners and physician assistants, and think about :-

- What aspects of teaching have given you most/least **pleasure**?
- Where do you think your teaching **strengths/weaknesses** lie?
- Have there been any **problems** in your delivering your teaching and how could they be overcome?

5. Exam or Assessment Results

We have already alluded to the difficulties in basing evaluation entirely on our learners' exam results particularly if that is a knowledge test – numbers do not tell you the whole story!

However reflecting on the feedback you give during (for example) COTS and CBDs might be helpful to see whether it made any difference. Perhaps we can look at their CSA results (and examiners' comments) and see what bits of our feedback they have worked on, what bits still need work and what bits we had failed to capture.

6. Future Learner Progress

The real question is: *'In the future, how likely is this learner to become self-directed and passionate about their learning and that of others?'*. This is really the gold standard of any evaluation and is more than *'Would I have this trainee as a partner?'* which used to be the demonstrable outcome back when many of us were trainees back in the 80s and 90s!

Most of us want our learners to develop enthusiasm and passion for General Practice, to become life-long self-directed learners who are striving to achieve excellence. From a regulatory perspective we have a duty (to ourselves, to our patients, to licensing bodies and to our trainees) to ensure that our learners are safe independent practitioners but beyond that how can we assess if we are producing future **leaders** of the NHS, future educators or **champions** for primary care?

Does this not say something about evaluating the progress of our trainees once they have left training? You may feel that this is more in the remit of deanery evaluation rather than at practice or even at Programme level. If we leave the high flyers out of the equation we probably do need to know that our trainees have the necessary tools to be effective prescribers, good communicators and continue to provide patient-centred care.

At the moment there is no mechanism for looking at our previous learners' actual performance as GPs especially if they leave the locality - but this is a rapidly changing. The RCGP are looking at the first 5 years through their First5 initiative and mentoring beyond the training period is currently a hot topic.

Kitkpatrick's model of evaluation (1994)

What is our ultimate aim when we try to teach our GP trainees?

- Is it to make them more knowledgeable?
- Is it to equip them with better skills?
- Is it to instil some better attitudes?
- Is it to make them better doctors?
- Is it to give us a sense of satisfaction with ourselves?

Actually, it's all of these things, BUT the ultimate aim, surely, is to improve patient care. There is no point in any of these outcomes if they don't make a difference to patient care. Patient care is what being a doctor is all about.

Therefore, one can deduce that teaching methods which can be shown to positively affect patient care must be rated the best compared to the rest (level 4 on Kirkpatrick's model). Those methods that may or may not affect patient care, no matter how interesting the content or process was, has to be of less value. The further down the table you decide to evaluate, **the more impact and effect** your task will have had.

Modified Kirkpatrick level	What is being evaluated?	How is it being evaluated?
1	Reaction - what the learner felt about training	Learner feedback questionnaires
2a	Modification of perceptions and attitudes Acquisition of knowledge ,skills	CSA, WPBA
2b		CSA
3	Behaviour- extent of behaviour and capability improvement and implementation	CSA, E –Portfolio, including COT,CBD, MSF, Patient feedback
4a	Change in organisational practice	? Feedback to programme directors from workforce deanery?
4b	Results- the effects on patient care, wider NHS by the learners performance	Analysis patient care pathways , public health research

- GP appraisers can now start looking at PDPs in this manner. Has a PDP item been achieved? If so, how? At what level did the GP evaluate? Changes at level 4 may take many years to achieve, and it may be your wish to review the activity in a couple of years (for instance: changes as a result of a new protocol for managing patients with high cholesterol may only be visible in cholesterol levels via an audit in 1-2 years).
- Programme Directors can use Kirkpatrick's table to decide at what level they want to evaluate a teaching course they've just run. Sometimes, it is not practically appropriate to evaluate at level 4 - you may have to settle for level 3 or 2 - as long as you know what that level represents.

- Trainers can evaluate the effectiveness of their consultation teaching in this way. Reviewing the trainee's video consultations – that would be level 3. However, a positive change in a trainee's Patient Satisfaction Questionnaire score (the start vs. the end of post) is surely going to be the best measure – level 4.

Red Alert: Identifying areas where you could perform better is meaningless if you don't put into place a specific action plan to better that performance.

Summary of the key points

- Evaluation is necessary to demonstrate effective education.
- Evaluation needs to use several different methods or encompass several different perspectives to get a true picture.
- Ultimately the goal of effective education is to improve patient care.
- Evaluation is too important to be added on as an extra.
- We should not underestimate the importance of a positive (or negative) role model in education.

What is Effective in Education?

Let's now turn our attention to the various types of educational activities that are considered to be effective in terms of promoting a change in behaviour in our trainees.

Role Modelling is powerful

> 'We must acknowledge.....that the most important, indeed the only, thing that we have to offer our students is ourselves. All the rest they can read in a book.'
>
> DC Tosteson, 1979

Sometimes we worry as Trainers in these days of multi-learner practices that the process of immersion in general practice and apprenticeship with your GP tutor has been diluted to such an extent that it is no longer relevant. We would like to argue that it is still a vital part of GP training but that we as doctors must do our best to make the most of this learning experience for our trainees and demonstrate by evaluating it that it is worthwhile to both deaneries and beyond. This is the value added part of General Practice which in a lot of ways has been lost to secondary care as the 'firm model' has become eroded.

What is role modelling?

Wikipedia describes a role model as 'any person who serves as an example, whose behaviour is emulated by others'. Whether we are discussing teenagers, football players or GP Trainees it is clear that there can be positive and negative role models and both models are incredibly powerful. In order to maximise the learner experience it is important that the positive experiences outweigh the negative in order for the net effect to be beneficial.

The taught and hidden curricula

Role modelling teaches lots of things within the hidden curriculum.

- The *taught* curriculum is the overt learning that takes place and is typically planned, it may be formal or informal but is information that we 'intend' our learners to take on board.
- The *hidden* curriculum is a side effect of an education, lessons which are learned but not openly intended such as the transmission of norms, values, and beliefs conveyed in the classroom and the social environment. The hidden curriculum often conveys a lot of social and moral lessons.

The hidden curriculum is taught by *the school*, not by any teacher...something which comes across to the pupils which may never be formally spoken about in the classroom. Meighan (1981) says that it is in the hidden curriculum where learners pick-up an approach to living and an attitude to learning. A school should therefore be understood as socialisation process where students pick up messages through the experience of being in school, not just from things that they are explicitly taught (Philip Jackson, 1968). For example, a trainee will

learn more about working with colleagues and in teams by being in a GP practice than from any lecture or tutorial on team working.

Practical pointers for effective role modelling

Unfortunately, some of the things learnt via the hidden curriculum (and thus in role-modelling) might not be what we wish to have conveyed. A GP moaning about a visit request via the District Nurses that appears unwarranted may have unintended learning outcomes that are far more broad reaching than the original event – even though the interaction is brief and unplanned. To stop ourselves from becoming a negative role model there are some things we can do…

3 steps to help us be effective role models

1. Being aware of the impact of what we are modelling be it positive or negative.
2. Having protected time in order to reflect on and if necessary debrief our learners (this can transform a negative event into a positive learning experience in much the same way Significant Event Analysis does).
3. Make a conscious effort to articulate to the learner what it is we are trying to model for them (in other words make the implicit explicit!).

Cruess and Cruess (2008)

In General Practice we often feel that our job as a Trainer or role model is to translate the art of general practice for our learners. In order to make sure we are performing well as role models we need to think of the three key areas that we model everyday and in all aspects of our working day

1. Clinical competence.
   This encompasses the good consulter with excellent communication skills, examination skills and the ability to make reasoned diagnosis and awareness of appropriate patient centred management.
2. Teaching skills.
   These would include making time for teaching, being learner-centred, providing timely constructive feedback and being constantly aware of the potential positive and negative effect on the learner and promoting reflection in order to maximise the learning
3. Personal Qualities.
   We hope to impart compassion and empathy by demonstrating it but we can also show honesty and integrity. Demonstrating these attributes is much more powerful than just talking about them in the abstract.

Sometimes the worry for trainees is that if our role modelling is too 'perfect' then they worry that they cannot aspire to that or that our standards are too high. This brings us back to the point of **building in reflection *on* role modelling** into your tutorial time and being clear about what you are expecting them to learn.

How do we know if we have succeeded?

The evaluation of the development of professionalism in our learners is complicated but as a Trainer we can look in our trainee's ePortfolio for evidence. Where might you look? How about Multi Source Feedback (MSF) and Patient Satisfaction Questionnaire (PSQ) for starters. If you are going to find anything about the socialisation process we refer to earlier, you will find it there.

Problem Based Learning is effective too

In recent years more and more UK and non UK Medical schools have followed the example of McMaster Medical School in Ontario, Canada where Problem Based Learning (PBL) was first introduced. As time goes on the percentage of GP training entrants who have had PBL based teaching as an undergraduate increases and it seems logical therefore to continue the same ethos of PBL at a postgraduate level.

What is PBL?

In PBL, learners work through a clinical scenario which encourages them to share tasks aimed at filling their learning gaps and then subsequently sharing their knowledge.

The Evidence

The effectiveness of PBL at undergraduate level has been evaluated and there is still a continuing debate about the findings but almost universally students feel it is more enjoyable, more relevant and allows them to deal with uncertainty better (Bligh, 1995). In addition Vernon and Blake (1993) in a meta-analysis compared PBL taught students with those form a traditional course and found that they did significantly better in clinical performance with actual patients looking at communication skills, data collection, demonstrating empathy and patient centred care. There is also a growing body of evidence at postgraduate level.

The benefits of PBL

The benefits of PBL come from two aspects (i) from the PBL case itself and (ii) from the benefits of small-group learning.

The benefits of PBL itself:

- PBL helps identify learning issues for a particular small group. In PBL, the largest benefit comes from the clinical case scenario. This provides a platform from which learning issues amongst the group can be identified.
- Two small groups of learners given the same PBL case will come up with different issues – issues that are relevant to them specifically.
- The PBL case scenario provides a framework upon which issues can be identified and tackled.
- The PBL case provides a memorable scenario which aids recalls and understanding of the issues subsequently identified.

The benefits of small-group learning:

Nicol (1997:4) says that small group learning…

- Exposes students to multiple viewpoints which helps them make connections amongst concepts and ideas
- It provides opportunities for 'scaffolding' their learning – a framework upon which elements of learning can be hung.
- It often results in students teaching each other; it involves shared goals which leads to increases in students' sense of responsibility and self efficacy
- And generally, it provides a supportive atmosphere for learning'

In addition

- Small group learning results in an outcome that is bigger then the sum of the individual parts.
- Group discussions promote problem-solving ability.
- Group discussions encourage the development of professional attitudes.

And finally, if we review the principles of adult learning (Rogers, 1983), there are more benefits to be had from small group learning…

- Learning occurs better when the student perceives it as relevant.
- Learning is facilitated when the student takes part responsibly in the learning process.
- Groups can provide a safe environment for learners to test out their thoughts and assumptions.

Facilitating PBL

Sometimes we as Trainers can be asked to facilitate small groups, particularly at the beginning when the group is starting to form, this can be tricky.

As a PBL facilitator it is important to:

1. Be non-directive
   Don't dictate too much, promote a shared responsibility for learning.
2. Listen carefully
   Listen carefully to what is being said and facilitate discussions and elicit rather than give your own knowledge.
3. Be learner-centred
   Help learners identify their learning needs and what they need to do next to tackle them. Promote a shared responsibility for learning.

Jacques & Salmon. 2007

Using metacognition to make learning effective

What is it?

Metacognition is defined by Metcalfe et al (1994) as 'cognition about cognition', or 'knowing about knowing'. It can take many forms – things like knowledge about when and how to use particular strategies for learning or for problem-solving. Planning the way to approach a learning task, checking understanding, and evaluating the progress towards the completion of a task: these are skills that are metacognitive in their nature. Similarly, maintaining motivation to see a task to completion is also a metacognitive skill.

Is it any good?

Educationalist theorists have looked at metacognition as a predictor of effective learning. The theory that metacognition has a critical role to play in successful learning means it is important that it be demonstrated by both students and teachers.

Students who demonstrate a wide range of metacognitive skills, for example, those that are aware of outside distractions but are able to prioritise and continue working towards task completion, perform better on exam. They are self-regulated learners who utilize the 'right tool for the job' and modify learning strategies and skills based on their awareness of effectiveness. Individuals with a high level of metacognitive knowledge and skill identify blocks to learning as early as possible and change 'tools' or strategies to ensure goal attainment.

What can I do as an educator?

We need to display our metacognitive skills to our students and encourage them to 'think about their thinking' too.

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