An Excellent Teacher

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ABSTRACT
A teacher plays a key role in medical training programs and is responsible for the success or failure of many education developments. This article examines the attributes of an excellent medical teacher using a three-circle model. In the inner circle are the technical skills required by the teacher as an information provider, a facilitator of learning, a curriculum developer, and an assessor. In the middle circle is how the teacher approaches their teaching—with an understanding of basic education principles, with appropriate attitudes and ethics, with an evidence-informed strategy, and working as a team member. In the outer circle is the professionalism of the teacher, evaluating their own competence and keeping up-to-date with their subject and education practice.

Keywords: Curriculum, Medical education, Student engagement, Teaching skills.

EXCELLENT TEACHER
An excellent teacher can be defined using the three-circle learning outcomes model.4 In the inner circle are the technical skills expected of a teacher (doing the right thing), in the middle circle is how the teacher approaches their teaching (doing the thing right), and in the outer circle is the professional development of the teacher (the right person doing the job). Based on this model, an excellent teacher can be defined in terms of the following equation:

\[ ET = (I + R + F + A + C + L) \times (S \times E \times D \times T) \times (P) \]

where ET is the Excellent Teacher, I is the Information provider, R is the Role model, F is the Facilitator, A is the Assessor, C is the Curriculum planner, L is the Learning resource developer, S is the Scientific education principles, E is the Ethics and attitudes, D is the Decision making, T is the Team working, and P is the Professionalism. The addition symbol has been used in relation to the technical skills in the first part of the equation as an excellent teacher may not be expected to be excellent in all of the areas. A multiplication symbol has been used in terms of approaches to practice and professionalism in the later parts of the equation as these are essential and a “zero” would be incompatible with excellence in a teacher.

TECHNICAL SKILLS
The first set of attributes relates to the teacher’s technical competencies. These are based on the different roles expected of the teacher as described by Harden and Crosby5 in the Association for Medical Education in Europe (AMEE) Guide no. 20, The Good Teacher Is More Than a Lecturer: The Twelve Roles of the Teacher. As each role requires special expertise, it would be unusual for...
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a teacher to be excellent in all of the six roles described (each role has two elements). However, an awareness and understanding of the different roles is essential.

Information Provider in the Classroom and Clinical Context

We are probably most familiar with the teacher as an information provider, providing the student with the knowledge required through lectures and other means. Despite criticism, the lecture has remained a widely used method of instruction, and it has been estimated that the average student may attend as many as 1,800 lectures in the course of their studies. As Brown and Manogue6 have argued the problem is not that lectures are bad but that the lecturer is bad. The excellent lecturer motivates the student and provides the required key information clearly along with practical examples. The excellent teacher not only provides the student with relevant information but also serves as a doorkeeper, educating the student in an era of “ubiquitous information” to ask the right question, to know where they can obtain information, and to understand how they can evaluate it.7

Role Model

The teacher not only provides the student with appropriate information but also serves as a role model in the classroom and in the clinical setting. The importance of the teacher as a role model has been well documented.8,9 Students are more likely to model their behavior and ethical decisions on those demonstrated by teachers rather than those advocated in lectures or textbooks. “Do as I do, not as I say” is the message students recognize.

Facilitator of Learning and a Mentor

There has been a significant shift of emphasis from the role of the teacher as information provider to the teacher as a facilitator of learning. This has been described as a move from “the sage on the stage” to “the guide on the side.” Student engagement in their learning and in the curriculum has been emphasized as highlighted in the ASPIRE-to-excellence initiative (www.ASPIRE-to-excellence.org). Approaches, such as problem-based or team-based learning focus attention on this changing role for the teacher.

Not all teachers find this change in their role easy as found in problem-based learning where some sessions develop, inappropriately, as mini-tutorials rather than facilitated discussion and opportunities for students to engage in their own learning. Teachers, as noted by Schmidt and Moust,10 if they are to be an effective teacher in a problem-based curriculum, need to have the ability to communicate with students in an informal way in the small group sessions and to encourage student learning by creating an atmosphere in which open exchange of ideas is facilitated.

A teacher may also be expected to serve as a mentor. Megginson et al11 have defined mentoring as “offline help by one person to another in making significant transition in knowledge, work or thinking.” The mentor is usually not the member of staff who is responsible for the teaching or assessment of the student and is therefore, “offline” in terms of relationship with the student. Mentorship is less about reviewing the students’ performance in a subject or an examination and more about a wider view of issues relating to the student.

Teacher as an Assessor

Perhaps one of the most challenging roles for the teacher and one where there is most disagreement is that of assessor of students’ performance. Best practice for assessment was described in the Ottawa Consensus statements.12-17 The excellent teacher not only assesses whether the student has achieved the required learning outcomes at the end of the course or phase of a course but also assesses the student’s progress during the course, providing feedback as necessary. Where problems are identified, additional assistance may be necessary to support the student in achieving the expected learning outcomes. It is important that the excellent student is also recognized and appropriate challenging learning opportunities provided. Medical schools can be judged not just by how they manage the average student but how they deal with the student in difficulty and the student who is excelling. There is also a move to thinking of not just “assessment-of-learning” but “assessment-for-learning” where assessment is more closely integrated with the education program.

In thinking about assessment, there are six questions that the teacher should ask:3

1. Why is the student assessed? For example, is it as an end-of-course examination or to assess progress and provide feedback?
2. What should be assessed? The assessment should reflect and match the expected learning outcomes for the course.
3. How should the student be assessed? A range of methods should be adopted including a written examination, with multiple choice or constructed response questions, a performance examination, such as an Objective Structured Clinical Examination, and a portfolio as a record of a student’s learning over time. A grid should be used to relate the assessment approach to the learning outcomes for the course.
4. When should the student be assessed? This can be at the end of the course, during the course, and for selection of students on entry to the course.
5. Who should be responsible for the assessment? Some countries have a national licensing examination, but there are advantages if responsibility is left with the medical school, provided that standards are monitored. In the assessment of competence, there is an important role for peer-assessment and self-assessment.

6. Where should assessment be conducted? Assessment in the workplace can make a contribution.

Curriculum Planner

Most medical schools and postgraduate bodies have curriculum committees, and an important role for the teacher is the contribution they can make to curriculum planning. Ten questions should be addressed:

1. What is the medical school or training program’s vision or mission?
2. What are the expected learning outcomes?
3. What content should be included?
4. How should the content be organized?
5. What educational strategies should be adopted?
6. What teaching methods should be used?
7. How should assessment be carried out?
8. How should details of the curriculum be communicated?
9. What educational environment or climate should be fostered?
10. How should the process be managed?

Learning Resource Developer

With the increased emphasis on independent learning and learning personalized to each student and with the availability of e-learning tools including virtual patients, teachers can contribute by developing learning resources for use by students. Not all teachers have the necessary technical or instructional design skills but they can contribute their content expertise as a member of a team and to facilitate the students’ learning they can identify and annotate in a study guide available resources.

HOW THE TEACHER APPROACHES TEACHING

The first part of the equation, as we have described, addresses the technical skills expected of a teacher. An excellent teacher, however, is more than just a technician. The excellent teacher approaches teaching with an understanding of basic educational principles, has an appropriate attitude, adopts an evidence-informed approach, and works as a member of a team.

Understanding of Basic Educational Principles

Teaching is both an art and a craft with underpinning principles that inform good teaching practice. There is extensive literature on educational psychology, but an in-depth understanding is not required for the teacher. Harden and Laidlaw described the four FAIR important principles covering feedback, activity, individualization, and relevance.

Feedback

The excellent teacher gives the student timely feedback about their performance in relation to the expected learning outcomes.

Activity

Learning should be active rather than passive. This applies to all learning situations including the lecture where students may be engaged through the use of an audience response system or by inviting students to discuss an issue with those seated next to them.

Individualization

Each student has different needs and aspirations, and learning should be personalized taking these into account. Of the four principles referred to, this is the most difficult to achieve. With consideration, it is possible to move in this direction even within a relatively traditional curriculum. The use of electives or options in the curriculum is one example.

Relevance

This is an essential feature of any educational program. It is reflected in the move to greater authenticity in the curriculum when the expected learning outcomes, the assessment, and the learning opportunities provided match the capabilities expected of the doctor on graduation.

Attitude of Teachers toward Teaching

The excellent teacher does not see teaching as a chore. He or she brings to it a passion for their subject and a passion for student learning. A master lecturer, for example, does not simply bring to the lecture the necessary technical skills to deliver a lecture. Lowman reported that students described clarity of presentation as a feature of the “master lecturer,” but this was not enough. The “master lecturer” also needed to provide emotional stimulation, inspiring and exciting the students and conveying an enthusiasm for the subject and for students’ learning.

Informed Decisions

The excellent teacher does not base their teaching practice on prejudices, hunches, opinions, and guesses (the PHOG approach). Just as in medicine, there is a need for clinical judgment, so also in teaching there is a need
for educational judgment. Where evidence is available, however, this should be used to inform teaching practice. The Best Evidence Medical Education (BEME) Collaboration has led this move.23

**Member of Team**

The excellent teacher works as a member of a team alongside other teachers and educationalists. This collaboration reflects the move to integrated curricula and the need to help ensure a smoother transition across the different phases of education. It may also involve students as partners in the learning process rather than as simply consumers.

**PROFESSIONALISM IN TEACHING**

The last part of the equation reflects the excellent teacher as a professional. This involves:

- The teachers conducting themselves with responsibility and according to recognized standards of behavior. This is addressed in AMEE’s “Teacher’s Charter” (www.amee.org).
- The teacher evaluating their personal performance as a teacher. This can be a self-assessment, but is usually informed by student surveys or peer assessment.
- The teacher keeping themselves up-to-date in their own subject and also with current educational practice.

**EXCELLENCE ON AGENDA**

Excellence is very much on today’s agenda. Tom Peters examined excellence in business, the Olympics rewards excellence in athletics, the Nobel Prize recognizes excellence in academia, the Man Booker Prize for Fiction represents excellence in literature, and the Turner Prize, more controversially, recognizes excellence in art. In medical schools, the ASPIRE-to-excellence initiative recognizes excellence in education in the areas of social accountability, student engagement, assessment, faculty development, and simulation (www.ASPIRE-to-excellence.org).23 The achievement of individual teachers has also been recognized with teaching awards locally in schools around the world and internationally with the Karolinska Prize for research in medical education. The question that arises, however, is how does one assess excellence in a medical teacher? In this article, a series of criteria are proposed that relate to the technical skills of the teacher, how they approach their work as a teacher, and their professionalism as a teacher.

**REFERENCES**


