

# Teachers and Trainers in General Practice - attributes and learning areas

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## Introduction

Since the beginning of the first Leeuwenhorst Group, teaching the teachers has been seen as a target for General Practice medical education. This paper represents the consensus found in literature and reached inside the EURACT/Service Group at this time and attempts to synthesise many of the old ideas already published<sup>1,2,3</sup> and to develop in some detail new ones. The aim of this document is to provide all those who are concerned with learning and teaching in General Practice with a theoretical framework and a set of standards to develop education for teachers.

Thus, the questions to which we aim to answer are the following:

- Who are the teachers?
- How should they be selected?
- What is the curriculum for teaching the teachers?
- Which methods should be used for teaching the teachers?

Since the words teacher and trainer may not necessarily mean different approaches to learning<sup>4</sup>, but usually apply to different stages in the careers of learners, in this paper they will be regarded as interchangeable.

## Who are the teachers?

For Pereira Gray<sup>5</sup>, the word "doctor" means "teacher" and the medical profession has a long tradition of teaching, both as doctors teaching other members of society and as doctors training younger members of the profession. The Hippocratic oath specifically requires the doctor will teach his juniors.

In the language of education, taking into consideration both the context and the objectives, several educational roles must be performed by practitioners<sup>6,7,8</sup>: trainer, mentor, clinical supervisor, tutor, course organiser, educational adviser, assessor, preceptor... Normally differences in roles have more to do with professional status, tradition, socio-economic factors, the development of services and institutions and only occasionally with educational principles and approaches.

Traditionally those who work at academic level in undergraduate education and whose nomination is made by academic bodies are named teachers and those in postgraduate education, who work in the health service at practice level and whose nomination is normally done by professional bodies or organisations, are named trainers. Although working in different levels, professionals who seek to perform an educational role must be skilled practitioners who have in common several competencies<sup>9,10</sup>. They must be able:

- **to provide an understanding of the nature of professional practice, through the provision of learning opportunities and supportive interventions.**
- **to provide a facilitating relationship that promotes the personal growth and development of the learner.**
- **to observe, assess, advise and practice with others to enable them to acquire professional skills.**
- **to enhance learning by teaching, instructing, supervising and providing a role model.**
- **to provide experienced guidance for the inexperienced**

Therefore, teachers and trainers in general practice (GP) will be all those who possess these competencies and use them to help GP students or trainees make sense of an experience, helping interpretation and guiding decision-making<sup>1</sup>. This may be in a one to one relationship or in larger groups. The end result for teachers in general practice is that they must produce future general practitioners able to direct their own learning.

### **How should teachers be selected?**

Each country may have special organisations for the selection of teachers and trainers: these may include universities, academic departments, health departments and professional bodies.

Besides the involvement of the undergraduate and/or postgraduate education organisation and the health care system, the selection of teachers should adhere to a previously defined set of criteria<sup>12</sup> and follow a generally agreed procedure.

If one considers the general competencies listed above, the attributes used to develop such selection criteria should be concerned with clinical activity and with the relationship to students, trainees and colleagues.

It is important to understand the difference between attributes and criteria. In this context an attribute is a quality or skill that an individual possesses; it may be desirable or undesirable. An example might be that a desirable attribute for a racing driver is that they are less than average weight, an undesirable attribute that they are overweight. A criterion is a statement that is used in **judging** whether an attribute is present, and can be expressed as a mandatory criterion (must be present), or a desirable criterion (should be present, but may be acceptable without it). Using our analogy of the racing driver the attributes could be expressed as the following criteria:

- In order to be selected as a racing driver the applicant should be less than average weight for height (desirable criterion).
- No driver can be selected if their weight exceeds the average for their height and age by more than 5% (mandatory criterion).

### **Attributes for selection as a teacher\***

Extensive lists and tables of the necessary attributes to function as an effective teacher can be grouped together<sup>13</sup> within a framework consisting of two major domains: clinical activity, and relationship to students/trainees. Each country, in considering the context in which teachers operate, may wish to select the most important attributes to be used in developing their selection criteria..

In the area of clinical activity teachers should:

- **have the appropriate knowledge and experience to be effective in their work.**
- **have the full repertoire of consulting skills, such as skills in interpersonal relations, communication, counselling, instructing and coaching.**
- provide a reliable source of information and of resources.
- be able to work effectively with other professionals in the health care system and in education.
- **be able to deal with the personal problems, challenges and triumphs of others and able to command respect from others.**
- **provide space and equipment.**
- **involve all practice personnel in training.**
- **educate and motivate patients to assist in training.**
- **have an adequate clinical workload for training purposes.**

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\*There are some countries that would like to ensure that their teachers must have specific attributes ( not included in this list ) before they apply for the job: knowledge of a foreign language, publications and research work. But, as it was explained, each country can choose from the list the attributes needed and can also include in the list new criteria.

In the area of their relationship with students/trainees teachers should:

- **be able to cope with role changes, have insight into personal gaps and limitations, be reflective, and self analytical.**
- **aware of the influence of personal feelings on the trainer and on the trainee.**
- **personal motivation and a desire to motivate others.**
- **invest time, energy and effort in the teaching relationship.**
- **have the ability to make learning contracts.**
- **build on trainees' strengths and offer constructive feedback on their limitations.**
- **create learning opportunities from social and personal events.**
- **promote good judgement.**
- **be imaginative.**
- **allow trainees to develop within their own terms.**
- **be available to trainees.**

### **General Procedures for appointment of trainers**

Appointing bodies should have representatives of the different institutions and organisations involved in the process of Learning and Teaching in General Practice:

- **Candidates should have made an application for the post**
- **The post should be paid**
- **A minimum specified number of hours per week should be entirely devoted to this activity**
- **Both the application form and the practice arrangements should be evaluated**
- **Posts will be for a specified period and reappointment will be subject to reappraisal**

- **After appointment post holders may resign at any stage subject to appropriate notice**

### **What is the Curriculum for ‘Teaching the Teachers’?**

First of all it is necessary to point out that some EURACT members come from countries where general practice is a well established area of medical work and medical education. For these countries, the problem is to maintain or improve on the standards reached over the years. To ensure progress a methodology which is conducive to quality assurance such as quality circles, or self-appraisal is suggested. (*these should be defined in the glossary-Justin*) There will still be a need in these countries for prospective teachers to gain knowledge of the basic principles of teaching and learning general practice.

For countries that need to start training for general practice from the beginning it is important to choose a steering group to decide a programme for teaching the teachers, with members coming from the university, from educational departments, from professional associations, and maybe from general practitioners just engaged in the improvement of general practice in their area. This programme should be designed taking into account: the **organisation** of the Medical Education (Is there a discipline of general practice in undergraduate education?); the **health system** of the country (What is the position of general practitioners in the system?) and the **resources** available ( money, experts in Education to teach the first teachers, etc.).

As in any other Educational Programme<sup>14</sup>, this one should have explicit aims, contents, learning/teaching methodology and an evaluation system. The main areas of concern on content are educational and clinical \*.

### **The educational area**

First of all, in teaching the teachers we need to be aware that adults, unlike small children, have a wealth of experience and are well able to take part in planning their learning. Secondly, not all individuals learn in the same manner so that if a teacher gives a lecture this might benefit some, but not others. Thirdly, everyone learns at their own pace and not at the pace set by their teacher, or of their colleagues. Lastly, students might not be at same stage in their learning and in consequence the teaching/learning activities must be tailored to the individual<sup>15,16,17</sup>. Therefore by the time of application a doctor who wishes to be a teacher should know the **general principles of learning and teaching**.

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\* Appendix I shows a list of possible contents<sup>6,17</sup> for a curriculum on ‘teaching the teachers’ whose organisation could be modified according the teacher profile needed in each European country.

Doctors who want to be teachers must know that beyond content expertise (i.e. knowledge of subject matter), teaching involves connecting learners with the subject matter<sup>18</sup>. This includes knowledge of trainees' typical errors and the normal development path along which students progress in understanding content. Teachers' **knowledge of learners' needs**, motivations and abilities should also affect their choice of teaching method, and effective instruction will make use of this knowledge.

In addition to knowledge of subject matter and learners, teachers should possess **knowledge of teaching/learning methodology** including the methodology of assessment. Teachers must be aware of general conceptions of how students learn and how these interact with teaching & learning approaches and methodology.

### **Clinical area**

Depending on the type of general practitioner wanted in each country, the curriculum content in clinical area will be different. The WONCA<sup>19</sup> and UEMO<sup>20</sup> statements give us the content in this area. Whatever the country or the practice context, teachers have to reach a high level of competence (up to date knowledge, available skills and appropriate attitudes) linked to the highest performance level possible in their work environment. Obviously this competence and performance have to be closely related to clinical matters and have to be present at the time of selection and appointment, and each country must define the minimal level required for such appointments.

However, different knowledge domains are involved in different roles of teaching<sup>21</sup>. Although educational programmes for teachers are not intended to develop clinical competence, some abilities such as techniques and methods of understanding the needs of learners and patients, and the best way of teaching or training a specific subject (i.e. knowledge of subject matter and knowledge of content-specific instruction<sup>18</sup>) should be learned. Teachers need to possess enough clinical knowledge (clinically relevant information on the predisposing conditions, causes and consequences of an illness and recollections of specific patients who suffered from a disease) to make connections within the subject, across disciplines, and with their learners.

Whatever the learning sets and the teaching methods chosen, it is important to bear in mind that one of most difficult teachers' tasks is to teach clinical skills. This problem is linked to the characteristics of general practice: continuity of care, patient-centred care, freedom of choice of doctor for the patient.

Thus, ethical, logistic and even legal problems may rise when teaching clinical skills in GP. How should the patient be included in the teaching programme?

Actually it is not easy to ask patients (who have chosen their own doctor) to tell to a 'young doctor' their health problems or let the 'young doctor' carry out a physical examination. In spite of all explanations given, some patients still refuse to talk about some of their problems with trainees; this is difficult for teachers to change.

The enormous variability of health problems present in general practice is well known. The educational programme has to be constructed in such a way that teachers are able to meet these problems during the training period. In addition, training may require a repetition of acts and teachers must provide these opportunities for trainees. Therefore, it could happen that some types of health problems do not appear during the training period (terminal care, for example) and the teacher has to be imaginative in overcoming this problem, and providing the experience.

Teachers must also learn how to introduce trainees to patients: to inform practice patients that there are trainees working there, to sit-in with the trainee, to monitor and to assess trainees' consultations.

### **Which methods for teaching the teachers?**

Teaching the teachers basically follows the apprenticeship model of vocational training<sup>22</sup>. (*I do not agree with this sentence - apprenticeship implies a prolonged and continuous contact. This is true for trainer and trainee but not true for teachers of teachers and the potential teachers they are teaching- Justin*) Like vocational training in general practice, teaching the teachers should be primarily concerned with a demonstrable improvement of performance in an on-the-job situation<sup>23</sup>. Although others sets of learning could be chosen, countries where it is necessary to create rapidly a board of teachers, the training for teaching can be developed in an 'on-the-job situation'<sup>24,25</sup>. As this implies a learning-by-doing strategy, the methods should be chosen accordingly. Table I shows an example of methods and techniques for the three knowledge domains (knowledge, skills and attitudes) and in the Appendix II is shown a glossary of terms.

### **Continuing education for teachers**

Having acquired the basic teaching skills and been appointed as a teacher it is important that a programme of continuing support is provided. General practitioner teachers will need to continue to refine and review their skills, and will also need training in new methods, which will be introduced from time to time. Health care provision is never static, and medical education and teaching for teachers must reflect this. There is also a need for support from colleagues in dealing with the problems that a teacher may encounter, and bodies responsible for training must be aware of the need for continuing education.

### **Conclusion**

Teaching the teachers should cover two domains: one concerning clinical activity and the other the relationship with students or trainees. It is the convergence of these two axes that constitutes the essence of teacher's functions.

Teachers must learn to discover and rediscover what they already know. To better explore their own experiences and not simply to live with them, teachers must try to examine their experiences and themselves from the outside. Those who are immersed in practice may not appreciate the contours, the limits or evolutions; sometimes they may not be well placed to understand their own place in the context in which they are working and then they will fail to help others to progress.

Teachers have to understand that the ultimate goal of the educational system is to shift to the individual the burden of pursuing his own education. They should help their students to achieve this goal but, most of all, they must keep in their minds that as teachers they should not be content with coming to a certain level of achievement and stopping there.

**Table I. Examples of Content area and educational methods and techniques**

<b>METHODS AND TECHNIQUES</b>			
<b>AREAS</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
<b>EDUCATIONAL</b>			
<b>General Principles of Learning &amp; Teaching</b>	<i>Large Group</i> Lecture, debate, video, buzz group		<b>Critical incidents or random case analysis</b>  <b>Analysis of personal biographies (when, why, what have I learned?) interviews(when, why, what have someone else learned?)</b>
	<i>Small Group</i> Workshop, action learning, critical reading	<b>Project work (Analysis of video records (of a lecture), oriented practice</b>	
	<i>Individual Reading</i> , observation of others' performance, self audit, reflection-in-action	<b>Analysis of video records (of one's own lecture)</b>	
<b>Learning and teaching methods</b>	<i>Large Group</i> Lecture, debate	<b>demonstration</b>	<b>Videos Methods as above</b>
	<i>Small Group</i> Workshop, buzz group	<b>demonstration, oriented practice</b>	
	<i>Individual Reading</i> Observing	<b>Project work (working out a program), reflection-in-action</b>	
<b>Assessment methods</b>	<i>Large Group</i> Lecture, debate, discussion		<b>Oriented observation of oral examinations (Analysis of examiners and examinees performance during oral examinations)</b>
	<i>Small Group</i> Workshop, action learning, brain storming, buzz group	<b>Project work (construction of evaluation tools)</b>	
	<i>Individual Reading</i>	<b>Project work</b>	<b>Self-analysis through video recording or tape recording</b>
<b>CLINICAL</b>			
<b>Up to date</b>	<i>Large Group</i> Lecture, debate, video.	<i>NOTE: Individual foccus.</i>	
	<i>Small group</i> Seminar, workshop, role play, action learning, module		<b>Analysis of video records</b>
	<i>Individual</i> Medline,	<b>short visits, oriented</b>	

	<b>Internet, reading</b>	<b>practice, project work</b>	
<b>Problem solving</b>	<b><i>Large Group</i> Lecture, debate, video, demonstration</b>		<b>Analysis of video records (of his own consultation)</b>
	<b><i>Small Group</i> Workshop, action learning, brain storming, buzz group</b>		
	<b><i>Individual</i> Reading</b>	<b>Analysis of records (patient files, tape and video records of the consultation)</b>	
<b>Communication Research</b>	<b><i>Large Group</i> Lecture, debate, video, demonstration</b>		<b>Analysis of video records (consultation)</b>
	<b><i>Small Group</i> Workshop, action learning, brain storming, buzz group</b>		
	<b><i>Individual</i> Reading</b>	<b>Analysis of video records (consultation)</b>	
<b>Research</b>	<b><i>See above</i></b>	<b><i>See above</i></b>	



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## APPENDIX 1

### Example of Contents for the educational area

- **Learning in clinical settings**
- **Communication: the basis for learning**
  - Basics of communication
- Distractions from communication
  - How to improve communication?
- **The learner**
  - Motivational theory
  - Educational history
- **The teacher/trainer**
  - Roles and types
- **Elements of learning**
  - General principles of learning
  - Learning taxonomy
- **Planning for learning**
  - Goals for learners
  - Contract learning
  - Teaching methods and evaluation
- **Strategies for cognitive learning**
  - Learner-based
  - Teacher/trainer-based
  - Life long learning
- **Strategies for attitudes and skills**
  - Attitudinal skills
  - Psychomotor skills
- **Teaching Aids**
  - Nonprojected media
  - Projected media
- **Strategies for presentations in professional meetings**
  - Scientific presentations
  - Continuing medical education
  - Lectures to other professionals
- **Learner problems**
  - Performance problems
  - Providing feedback
- **Evaluation of cognitive skills**
  - Cognitive objectives
  - Test construction
  - Validity and reliability
- **Evaluation of non-cognitive attitudes and skills**
  - Attitudes
  - Skills
- **Methods of evaluation**
  - Self-evaluation
  - Formative assessment
  - Summative assessment
- **Critical review of literature**
- **Primary Care and General Practice research.**

## APPENDIX II

### Glossary

<b>BRAIN-STORMING</b>	This is a small group technique used to generate a great variety and quantity of ideas (solutions) in a short time (2 hours at the most). When a problem exists, students are invited to generate possible solutions. The focus is the imaginative phase of ideas production and students are encourage to shout out key words, accepted by the group without criticism. When the group presents a set of key words , begins the next phase, i.e., critical analysis of the ideas. The advantages of this technique are: unusual solutions may be identified, all can participate, needs few resources.
<b>BUZZ GROUP</b>	This strategy is used with large groups (more than 30) we want the students to interact with each other. Large group of students are divided into smaller groups of about 4, to discuss a problem for a short time (5 minutes). The buzz of several simultaneous discussions gives the strategy its name. It is necessary to nominate a leader or tell each group to appoint one. The teacher defines the manner of feedback - oral from the leader. The advantages: can be used in a large, formal lecture theatre, gives feedback on the learning, gives a change of activity and allows students to express themselves.
<b>DEBATE</b>	This is a student-centred, structured technique for learning communication skills. It is very useful when there is no right answer and where both sides of the argument would benefit from exploration. It is necessary to define guidelines (for preparation and presentation), to divide the group into those in favour of the argument, those against and those uncommitted. All of the groups present their motion and then the discussion is open. It is used for contentious issues.
<b>DEMONSTRATION</b>	This is the first stage in learners acquiring a skill and this technique is usually associated with demonstrating a practical skill. Demonstration implies clear introduction ( why it is important, when is it used), describing the tools to be used, stressing key points and relating theoretical aspects.
<b>LECTURE</b>	This is a method that involves a teacher talking to students about a subject. It should have a beginning, a middle and an end (introduction, development and conclusion) and must be supported by techniques that allow students to consolidate their learning. Despite the criticism of educationalists, if the teacher is skilled, the subject matter appropriate and the audience committed, the lecture can be the best way to give information to a large group in a limited time.
<b>PROJECT WORK</b>	This is a learning-by-doing strategy (Project-based learning). The students may choose the subject matter, and are then required o produce a report on a topic, or plan which constitutes a solution to a problem. This technique demands initiative, creativity and organisational abilities. Sharing of project outcomes, with commentary by an expert in that area, can be a useful way of teaching the essentials or broadly-based subjects like learning & teaching methodology.

<b>ROLE PLAY</b>	This is a very valuable technique for teaching interpersonal skills and exploring attitudes to situations. Characters are allocated and given an outline of a situation so that a scenario can be enacted. The students can put themselves into the shoes of a patient and thereby gain insight into how he might feel.
<b>WORKSHOP</b>	This is used to describe a series of teaching activities around a main theme, usually in the area of skills acquisition or skill reinforcement. Participants will be expected to be actively involved in order to practice techniques. Because of its participatory nature, workshops are usually in a small group format, and activities can take place over several separate sessions.