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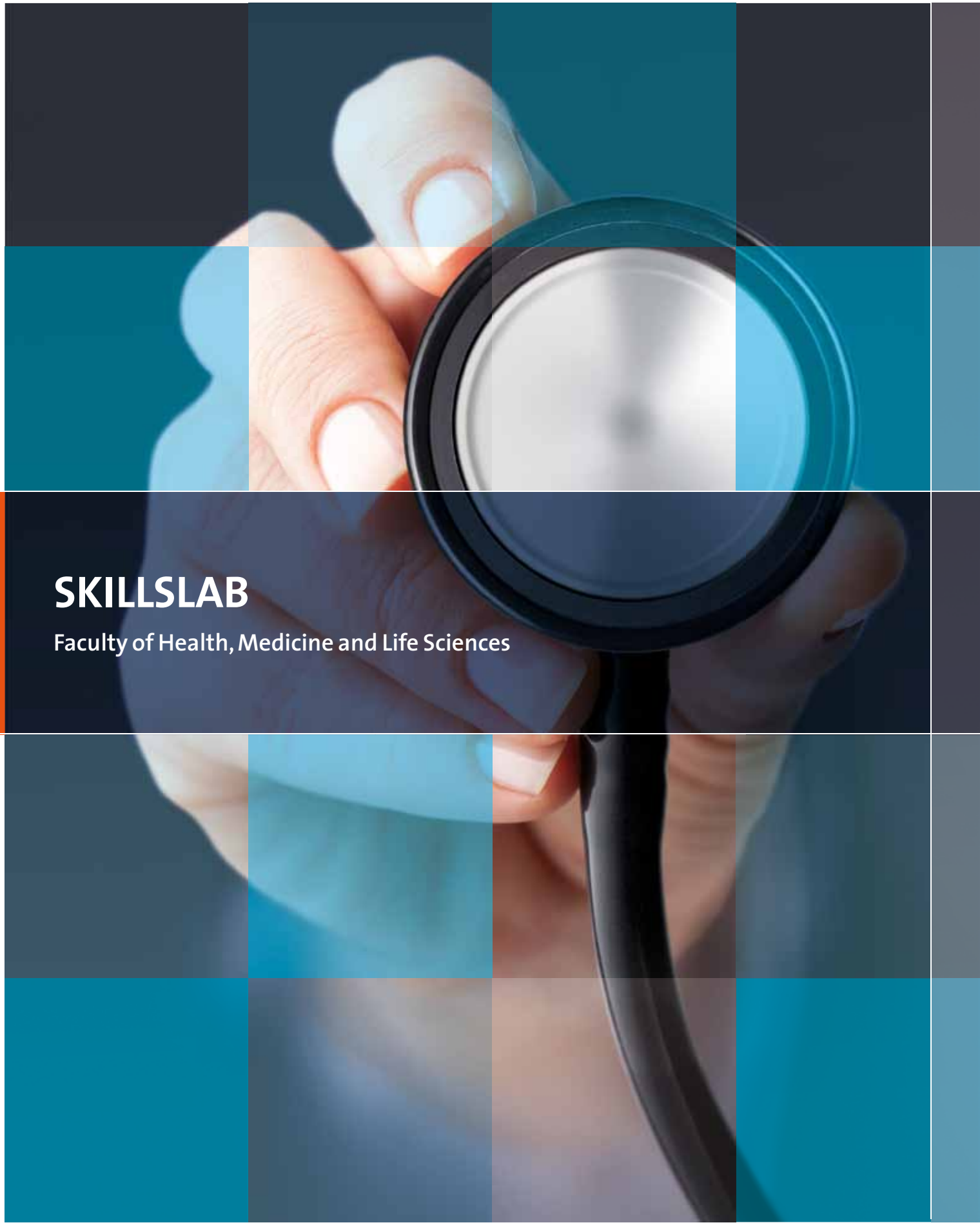

SKILLSLAB

Faculty of Health, Medicine and Life Sciences

Contents

In this brochure we refer to students, teachers, and physicians as ‘he’. This should be taken to indicate ‘she or he’.

Introduction

The training of skills is an area of education that has enjoyed increasing attention in Medical Faculties and Faculties of Health Sciences all over the world during the last decades. In the Netherlands, until the end of the 1970's the main body of the teaching of skills in Medical Faculties took place in clerkships at the end of the curriculum, relying heavily on the situations that happened to be present.

Since 1975 a Skillslab exists at the Faculty of Health, Medicine and Life Sciences (FHML) of Maastricht University, the Netherlands. The Skillslab is an educational facility in which systematic skills training of many kinds takes place, in a wide variety of formats and circumstances.

The term medical skills refers to those applied professional skills that are necessary in encounters with patients. These skills cover a wide variety of topics, ranging from correctly taking a history, performing an abdominal examination, interpreting a urine-sample, to conducting a counselling session or suturing a wound. These skills can be acquired by training. Depending on the teaching goal, different training formats can be chosen. The ways in which mastering of these skills are assessed vary correspondingly.

Furthermore, the Skillslab is involved in setting up skills training programmes at problem-based, community-oriented and traditional medical, nursing and paramedical schools throughout the world.

In chapter 2, the history of skills training and the reasons for skills training in a laboratory situation are described, followed (in chapter 3) by the types of skills relevant for practising physicians. Characteristics of the FHML and the present state of skills training in Maastricht will be presented in chapter 4, and the different educational principles used, in chapter 5. Skills testing is described in chapter 6. Other activities of the Skillslab are described in chapter 7, and some facts and figures will be given in chapter 8. Finally, chapter 9 contains references and addresses where more detailed information about this type of education can be acquired. In chapter 10 a literature overview is given.

Development of Skill

Since the beginning of medical education, training of skills has been accomplished in several ways. Originally, the student acquired his skills by watching his 'master', the experienced physician. By carefully observing the physician's behaviour, the student slowly but gradually was initiated in the secrets of the craft. The 'master' decided when the pupil had enough knowledge and skills to 'stand on his own feet'.

At the beginning of the last century this individual teaching method was slowly replaced by a more collective, class-instruction. During the 1960's, with increasing numbers of students, dissatisfaction began to rise with this traditional approach. A number of new educational insights were emerging:

Research (Ausubel, 1968; Lembo, 1969) indicated that there was a difference between teaching processes and learning processes. Teaching could become more efficient if the learning processes were taken into account. More opportunity should be given to the student to direct his learning process. The teaching, originally 'teacher-centred', would gain from becoming more 'student-centred'.
Teaching was organised mono-disciplinary. This, however, was not the way reality presented itself to the students. In health care, students were presented with patient-problems, with simultaneous links to many different disciplines.
They had to integrate many elements of their knowledge to address these problems. It was therefore argued that this integration should become part of the education itself.

The best way to organise the factors described above was to present students with problems, rather than with disciplines. In doing so, the students would get the opportunity to integrate the different elements of knowledge, and to be more responsible for their own learning, formulating their own learning goals.
It was argued that early in the curriculum the students should get opportunities to come into contact with the reality of health care. Early exposure to the way professionals work, would give the students a good insight into what the work as a health care professional looked like. An additional advantage of this approach was that students could detect very early in their studies whether they possessed the desirable personal capabilities and characteristics for this future profession.

These insights were brought together under the caption 'Problem-Based Learning'. Instead of separately learning theoretical and factual cognition, and integrating these only after considerable mastery, the ideal curriculum should provide students with many patient problems, giving opportunity to formulate their own learning goals, to report their findings and to put these theoretical insights early and very frequently into practice. In 1974 a new Medical Faculty was founded in Maastricht, the Netherlands (now known as the FHML). The start of this Faculty presented the opportunity to organise a curriculum along these new educational insights. Using the experiences of McMaster University, Hamilton, Canada as a starting point, the curriculum in Maastricht was based upon the following principles:

Problem-Based Learning

The student's learning process is initiated and stimulated by problems, deriving largely from professional practice. From the analyses of these problems students formulate learning goals. Subsequently they look for literature to answer these learning goals. The answers are exchanged, integrating the relevant knowledge to address the original patient problem.

Progress evaluation

In a problem-based curriculum, students cannot study without detailed feedback regarding the progress they make. All students of every year-group participate in a three-monthly progress test, testing them at end-level. Progress can thus be established, in comparison with their fellow-students and with practising physicians.

s Training

Attitude development

During the encounters with health care, students compare their views of the profession with the approach they witness. Necessarily their norms and values are reflected upon. In Attitude Development students get the opportunities to become aware of, share and critically review these norms and values.

Early encounters with health care

During the whole curriculum students get into contact with patients in health care. The character of these encounters gradually shifts from observational (in the first years) to participatory (in the later years, starting in bachelor year 3). In order to optimise these encounters with health care, it was argued that students also need to be prepared for the practical aspects of this profession. Therefore, provisions were sought to provide for skills training, taking the principles described into consideration. A programme was designed for - mostly teacher-independent - skills training. Designing and developing proper teaching aids proved to be time-consuming. Departments were reluctant to put time and facilities at the disposal of the Skillslab. Consequently, skills teaching staff was appointed and the Skillslab became an independent unit.

Today, the Skillslab is well known. It welcomes many visitors both from the Netherlands and abroad.

Teaching clinical skills in a Skillslab was found to have these advantages:

- In a laboratory situation, complex practical situations that present themselves in health care can be unravelled in simple, teachable skills. The complexity of the learning situation can thus be controlled.
- In a laboratory situation, skills can be repeated as often as necessary to master the skill; this would be unacceptable with patients.
- In a laboratory situation, mistakes are allowed.
- In a laboratory situation, direct feedback is possible.
- In a laboratory situation, one does not depend on the patients that happen to be present.
- Patient problems that in reality develop over some time, can be acted out in a short period in a laboratory situation.
- Teaching of skills in a laboratory situation is a considerable motivating factor on the acquisition of both knowledge and skills.
- Teaching of skills in a laboratory situation requires the standardisation of the procedures. This increases the reliability of the examination itself.
- Pre-clinical skills training helps students benefit more from the clinical phase of the study.

Practical medical education

The Skillslab has developed beyond an institution for the training of skills. Existing opportunities for students to visit and/or participate in health care were integrated with skills training. In that way theory and in-school skills training were gradually introduced in encounters with patients in health care. In the medical curriculum, the theoretical and in-school training is gradually replaced by teaching in health care (Z-shaped curriculum). Consequently, structured and planned skillstraining in the Skillslab is strongly concentrated in the early curriculum years. Later on in the curriculum, training is more of a remedial nature, where students can attend the Skillslab when they feel insecure about their mastery of certain procedures. At all years however, skills are part of the examination, a strong motivating factor for student learning.

In this way, parallel to the acquisition of knowledge, students gradually acquire skills and learn to apply these skills in a variety of circumstances. They acquire problem-solving skills as well. Having observed and participated in health care, students are subsequently confronted with gaps in their knowledge, and with possible lacks in their skill-performance. They are thus, in turn, motivated to visit the Skillslab to practise some more.

These factors contributed to the fact that the Maastricht Skillslab grew to the educational institution it is today. The Skillslab is a source of information and inspiration to Faculties of Medicine and Health Sciences in and outside the Netherlands.

Types of Skills

In the Skillslab four types of skills are trained.

Training takes place in:

- **physical examination skills,**
- **procedural skills,**
- **laboratory skills,**
- **communication skills.**

Furthermore, the students are provided with many simulated patient encounters, to practise problem solving, clinical reasoning and reporting.

Physical examination skills

The main body of training activities in the Skillslab concerns physical examination skills. The physical examination skills can be divided into several domains, for example: neurological examination, examination of the abdomen, examination of the locomotor system. **About 50% of the training deals with this type of skills.**

Procedural skills

Procedural skills are curative, or care-interventions, rather than diagnostic activities. Examples are: acute care interventions, bandaging, suturing, and resuscitation. **About 15% of the training deals with procedural skills.**

Laboratory skills

In the laboratory skills training, those skills are trained that a general practitioner could perform in his surgery. These are not necessarily the laboratory skills that do take place in the doctors' surgery nowadays. Nevertheless, it is argued that for a good interpretation of the results of a hospital lab, students must have practised the laboratory tests themselves. Examples of these skills are: urinalysis, blood tests and analysis of faeces. **About 10% of the skills taught at the Skillslab are laboratory skills.**

Communication skills

In the communication skills training, the quality of the doctor-patient interaction is the topic of training. Rather than what to say, the focus in this training is on *how* to say (or to ask) it. Examples of these training topics are: conducting an exploratory interview, breaking bad news, and explaining and planning. **About 25% of the training at the Skillslab concerns communication skills.**

Organisation

The organisation of the teaching in the Skillslab can be characterised by the following principles:

- **Students can acquire the necessary skills at the moment they study the relevant theoretical knowledge.**
- **Continuous interaction between theory and practice.**
- **Skills training is organised on a longitudinal basis.**
- **Students can acquire the relevant skills at their own pace.**

Interaction between theory and practice

The curriculum is organised in blocks. Blocks are four- to ten-week periods in which certain groups of patient problems or complaints are topic of study, such as 'blood loss'.
Guided by a block-book, the students acquire the knowledge relevant for these complaints. As much as possible the skills training in these blocks are concerned with skills relevant for these types of complaints. In the block *Blood Loss* for example, students can follow training in:

- problem clarification,
- systems review,
- gynaecological examination,
- rectal examination,
- urine- and faeces analysis,
- suturing wounds, and
- infusion therapy.

Ideally, students study the theoretical aspects of a complaint in a morning, train the relevant skills in that afternoon and meet a patient with that complaint the next day. At a very early stage in the study, integration of theory and practice thus takes place. It is found that because of this early integration, the acquisition of both aspects (knowledge and skills) benefit from this organisation. By literally 'manipulating' the theoretical concepts the students gain more insight into (for example) the complex anatomical, physiological, psychological and pathological backgrounds.

Longitudinal basis

Evidently, because of the strong dependence on the acquisition of knowledge, the early integration can only be realised in a skills teaching programme that takes place parallel with the 'cognitive' curriculum. Skills training takes place on several occasions. Thus, complex skills can be unravelled into smaller - and less complex - elements. Starting off with the basic principles of the examination (for instance: using the stethoscope with each other) the students soon move on to the next stages of complexity in these techniques.

Eventually, they are able to perform auscultation of the thorax of a patient and to interpret the findings to reach a conclusion from that examination. The rationale of this is that by practising in many separate and different situations, the students acquire a certain agility and flexibility; their skills performance becomes stable and generalisable across many different situations.
From the first day of their study until the last, the students can train at the Skillslab. Each block a specified programme is provided. Each block students can register for these trainings. At the end of the 'skills-curriculum' the students are able to perform a doctor-patient encounter in a systematic, and technically correct way.

At the students' own pace

A number of different training situations are provided. Teacher-guided training is very much programmed. Furthermore, throughout the curriculum students can train teacher-independently whenever desired. A specific area of the Skillslab is reserved for these teacher-independent training sessions. Students can book a room and the necessary material, and practise from 8.00 a.m. until 10.00 p.m. This way, students have many possibilities to acquire and maintain the skills throughout the years.

In the later years of the curriculum, students can practise in large groups, guided by their own learning goals. A skills teacher, an anatomist and possibly a clinician is present to provide feedback during those sessions.

Didactical Principles

The reason for this organisation is in the didactical approach used at the Skillslab.

This approach can be described by the following principles:

- **Gradual increase in the complexity of skills.**
- **Gradual increase in the complexity of practising situations.**
- **Gradual increase in integration of different skills and knowledge towards problem solving in doctor-patient encounters.**

Gradual increase in complexity of skills

Because of didactic reasons a skill can best be acquired when the smallest constituting elements are identified.
By step-by-step mastering these elements students can develop their ability. When the skills are practised in a variety of circumstances and contexts, the students will finally master the whole action in a flexible way. Therefore, the skills training in the Skillslab increases in complexity throughout the course years.

For example: first students learn to handle the sterile syringe; then they learn under which angle and with which force to inject this sterile syringe into the vein. Both of these actions are learned with the use of an artificial arm. Only when those steps are mastered, and that can very well be in the same training, they proceed to the next step: performing a venepuncture on each other. In this step they learn how to deal with the emotional aspects of this skill: how to interact with a patient/fellow-student who may not be at ease.

Gradual increase in complexity of practising situations

The skills are acquired in different practising situations. Analogous to the increase in complexity of skills, these practising situations increase in complexity. This order should be regarded as a starting point. If at any stage a student considers his level of mastery of the particular skill insufficient, he can go back to a less complex practising stage and practise until he is secure enough to proceed to the next stage. There are also ethical, emotional, psychological and practical reasons why certain skills cannot be trained in a specific practising situation.

- In the first stage the skill is trained with the use of models. Many models are reasonable abstractions of reality. Most useful are those models or manikins that provide feedback to the student. In the case of the artificial arms mentioned above, the student knows when he has punctured the vein because he is able to draw blood. This way the model provides feedback about the quality of the action. In the case of a gynaecological examination the student can concentrate on how to locate his hands before having to deal with the interactive aspects of this examination. The students can practise at their own pace, in their own time, and as often as necessary before they move on to the next stage in practising.
- Next, students perform the skill with and upon each other. This stage has several advantages. First, students experience what certain examinations may bring about. In this way they learn to put themselves in the patient's place, which will have positive effects on the way in which they will prepare patients for these examinations in the future. Secondly, students find out that there is a wide variety of findings that are still called normal.
- In the next practising stage students meet with simulated patients. With the use of these patients students integrate the different skills and the knowledge they have acquired separately. They learn to apply the knowledge and the relevant skills to diagnose the patient's problem and to advise the patient. In this practising stage the training of skills gradually changes into the training of clinical competence.
- Finally, in the most complex practising stage in the Skillslab, the students train their diagnostic skills with the help of people with relatively stable dysfunctions. For example, at the end of a series of training concerning the examination of the thorax, students can thus experience the 'success' of

being able to actually diagnose impaired lung functions with a patient.

- Training with patient instructors. Some aspects of the physical examination, like genital and internal examination, are very intimate. The transition from models, via fellow students to patients is too big for these types of examinations. We therefore make use of patient instructors for the training of these examinations.
  Some carefully selected men and women have been trained to be expert teachers in these fields. They know how to guide students through their performance, giving feedback along the way, and in general helping the students to overcome their shyness. In the presence of a teacher, one patient instructor meets with one student during one hour. After a brief preparatory interview, in which the examination is described and the student's knowledge about this area is revived and tested, the student examines the patient instructor.
  The patient instructor and the teacher guide him. Afterwards the patient instructor gives feedback on the technical and interaction qualities of the student's performance.

Gradual increase in integration of different skills and knowledge

Not only the skills themselves are acquired in an increasingly complex situation, during the curriculum the students also get many opportunities to use their skills and their knowledge in doctor-patient encounters. With the use of simulated patients, once every three weeks every student can practise an entire doctor-patient interaction. In these simulated patient encounters students integrate their knowledge as well as physical examination and communication skills. In this way they learn to deal with the complex multidisciplinary problems that patients present, at an early stage in their study.

The roles that simulated patients are provided with, represent one complaint (for example: "my elbow hurts"). However, different simulated patients play a number of different actual reasons for visiting the doctor ("I promised I would type my daughter's thesis", or "I work as a cashier and cannot take a rest with my arm", or "I am a retired carpenter and still make myself useful by doing small carpentry jobs. I would break down if I had to abandon this") .
All students meet with these patients. By comparing what information they have heard, they realise that the advice must be tailor-made to the patient's individual situation and background. In every year simulated patient encounters take place parallel with the entire curriculum. The simulated patients are given roles that are relevant to the block students follow. Physical examination is gradually introduced into the encounter, during the first year. The simulated patient encounters, that take place without the presence of a teacher, are recorded. Soon after the encounter the simulated patient provides feedback to the student. Concerning the empathy, congruence and trust that the patient felt, his or her experiences are given.
The students of a group of ten individually watch the recordings of the simulated patient encounters. They write down remarks and comments with the recording.

One week after the encounters these remarks, comments and questions are evaluated in the group of ten, together with a behavioural scientist (in the first year of the bachelor), a Skillslab teacher (second year) or a practising doctor (third year).
In the third year the roles of the simulated patients represent more complex pathology and more demands for health education. Therefore, more is asked of the students' problem solving and patient management skills. In this way the training of skills gradually involves more complex situations in which the students can acquire more clinical competence.

In the three years of the master's programme (following the three-year bachelor's programme) the students take part in clinical rotations and participations. They see patients in the health care settings of different clinical wards, family practices and mental health care institutions. During these clinical rotations and participations they further increase their experience and their clinical competence, by dealing with patients with more complex (and less standardised) pathology. Sometimes introductory training is given in the Skillslab, as a preparation for these clinical contacts.

Skills Testing

Problem-Based Learning also implies the necessity to evaluate students' progress. Students need feedback in order to assess their level of mastery of skills and their level of clinical competence. Since 1977 formal skills evaluation takes place in the Skillslab, according to the OSCE model: Objective Structured Clinical Examinations. Once a year all students of every year group undergo standardised station examinations (they go from test station to test station).

In the station examinations in the first two years of the bachelor, students' knowledge and a sample of the skills acquired so far are tested. They must demonstrate the mastering of a number of skills and solve clinical problems, while trained observers fill out checklists concerning the necessary constituting actions, thus rating the students' behaviour.

In the later years the test emphasises more on the complete doctor-patient encounter: effectiveness and quality of communication, correctness of the inferences made during the encounter, the quality of the advice, assessment of the chances of compliance.

Care is taken to test observable behaviour. Actions that are demonstrated can be rated, inferences about the inner actions of students are avoided. Therefore, the criteria for the station examinations are discussed between teachers at the Skillslab, experienced specialists working as clinicians at the clinical wards, and psychometrists. The faculty members observing in the examinations are trained in order to ensure high inter-observer agreement.

Other Activities

Although medical education is the primary task of the Skillslab, other activities take place as well. These activities are:

- **Production of teaching aids.**
- **Initiating and implementing skills training in other medical faculties around the world.**
- **Research.**

Production of teaching aids

A large quantity of teaching aids has been produced at the Skillslab. Descriptions of standardised examinations, including the necessary actions in the examination of specific domains and decisions regarding certain outcomes of these actions, are described and published separately under auspices of the Skillslab. In separate volumes the following topics are addressed:

- Minor surgery.
- Gynaecological examination.
- Examination of the lungs.
- Examination of the abdomen.
- Eye examination.
- Wound dressing.
- Neurological examination.
- Examination of the locomotor system: upper extremities / lower extremities / spine.
- Ear, nose and throat examination.
- Obstetrics.
- Psychiatry.

International consultation

In 1980 the World Health Organization visited the Skillslab. Through this organisation many members of Medical Faculties interested in curriculum revision have visited the Skillslab. With Medical/Health Faculties of Moi University, Kenya; Makerere University, Uganda; University of Gadja Mada, Indonesia; Sulaiman Al Rajhi Colleges, Qassim, Saudi Arabia and all eight Medical Faculties in Vietnam, actual cooperation has been established. Taking the local demands and circumstances into consideration, Skillslabs have been or will be established at these universities.

Research

In close collaboration with the Department of Educational Development and Educational Research, research in the Skillslab has initially dealt with questions concerning the assessment of skills. The skills test has undergone research into the psychometric elements of generalisability and the various forms of validity.

Research has also been conducted into the predictive validity of a test of knowledge about skills, for the performance of the skill itself. It was indicated that knowledge about skills is a necessary, but insufficient condition for the correct performance. The predictive value of the skills test for future performance in the clinical rotations has been established to be substantial, and of much greater importance than the measurement of knowledge. A mass of research has been devoted to the development of an instrument to measure communication skills, the Maastricht History Taking and Advice Checklist (MAAS).

To provide a basis for optimising the skills programme, clinical clerks' opinions were asked about the Skillslab programme they had just participated in. On the whole, students expressed satisfaction with the programme. In addition, they offered various useful suggestions for improvement. Students feel that the competence levels they have attained do not match clinical teachers' expectations. As a result of these studies the final objectives of the skills programme have been redefined, after consultations with teachers from the clinical departments. As students are only able to judge the medical curriculum of one university, three studies were designed to compare the curricula of different medical faculties.
The first study compares the Maastricht skills curriculum with a national consensus report of educational objectives *(Blueprint)* and the curriculum of the Medical Faculty in Groningen. The results show that Maastricht students perform more skills more often than their Groningen counterparts. Another finding was that over a quarter of the students from either Faculty had never performed a substantial number of skills. This reveals discrepancies

between the requirements set out in the *Blueprint* and the results achieved by the medical curricula. For some disciplines the Groningen students were better prepared, for other disciplines the Maastricht students showed a higher level of preparation.

Next, a comparison was made between the results of Groningen and Maastricht fourth- and sixth-year students on a skills performance test and a written skills knowledge test (at the time of this study, the medical programme lasted six years in a row; today the medical programme is changed into a three-year bachelor's programme, followed by a three-year master's programme). The skills performance test results of the Maastricht sixth-year students were better compared to both the Groningen fourth- and sixth-year students and to the Maastricht fourth-year students. No difference was found between the scores of Groningen fourth- and sixth-year students. The Maastricht fourth-year students did significantly better on the skills knowledge test. No difference was found between the Maastricht fourth- and sixth-year results. The scores of the Maastricht fourth-year students, however, were higher than those of the Groningen sixth-year students. The Maastricht sixth-year students had results similar to those of general practitioners, which is suggestive of a ceiling effect.

The third study explores the increase in skills-related knowledge. Students of all years in Maastricht and Groningen were assessed with the same test. From the second year onward the Maastricht students scored higher than the Groningen students. The test is used in the three-year Vocational Training for general practitioners. It might be argued that this test is not relevant for undergraduate medical education. Therefore, three professors from Groningen Faculty of Medicine were asked to select the questions they considered relevant for undergraduate medical students. Again, from the second year onward the Maastricht students scored higher on the revised test than the Groningen students. The results on the skills knowledge test appeared to be strongly correlated to those on the skills test. The conclusion appears justified that from the second year onward Maastricht students have reached higher levels of skills competence than their Groningen counterparts.

The result of these studies (Scherpbier, 1997) so far can be summarised as follows:

- Students are satisfied with the Maastricht skills programme. They offered various suggestions for improvement, some of which have been implemented.
- Teachers are satisfied with parts of the skills programme. A striking finding was that the teachers' opinions differ with respect to the levels they expect from students entering the clinical rotations.
- An effect of the Maastricht skills programme is that students claim that they perform more skills more often during their clinical rotations compared to students in Groningen. Measurement with objective instruments revealed that Maastricht students had reached higher competence levels.

Comparative study into the acquisition of communication skills throughout the medical curriculum presented a similar picture. As has repeatedly been demonstrated, if no training occurs students unlearn expressing their natural curiosity and compassion with patients during the course of the medical curriculum. Training can help to avoid this reduction. In a comparison between two different communication skills training programmes in the medical curricula of Maastricht and Leiden, it was found that: 1) communication skills can be learned; 2) when trained longitudinally, retention of the skills is better and adequate performance is seen more consistently and longer. The strongest training effect is acquired in the first year of training, and training is effective in pre-clinical years as well as in clinical years (Van Dalen, 2001). The effectiveness of skills teaching can be increased when more student-patient contacts are realised early in the curriculum. Early patient contacts make students more aware of the goal of medical education.

Educational research is needed to investigate the effects of the medical curriculum on students' learning process, to enable rational interpretation of such findings and to measure the effects of any curricular changes. Results from research in the field of cognitive psychology are currently implemented in medical education and further studies are needed to explore how competence is acquired.

Facts and Figures

- On weekdays the Skillslab is visited by 150 students.
- 100 simulated patients work on a free-lance basis at the Skillslab.
- Simulated patients are paid € 15 an hour.
- Opening hours are from 8:00 a.m. to 10:00 p.m. on weekdays; on Saturdays from 9:00 a.m. to 5:00 p.m.
- The Skillslab's staff is 16 full time equivalents. Secretaries, general practitioners, clinicians, psychologists, medical analysts and nurses work there.
- Besides the Skillslab's staff many other faculty members work at the Skillslab, as evaluators of simulated patient contacts, as observers of the station examination, as co-producers of examinations or as co-producers of standards.
- The Skillslab has 28 training rooms of 32 m2 each, 15 training rooms of 15 m^2 each, a secretariat, a registration desk and 8 offices.

Addresses/References

In this brochure many topics were touched upon. Hopefully it has given rise to many questions with the reader. In this chapter addresses and references will be given with which the reader will be able to gather more - or more specific - information.

The Network: Towards Unity for Health (TUFH)
Implements problem-based and/or community-oriented education. Its general aim is to provide mutual support to member institutions that wish to adapt their curricula to the health needs of the communities they serve. Information about The Network: TUFH can be obtained at **www.the-networktufh.org**

School of Health Professions Education
Yearly two two-day Visitors Workshops and a two-week Summer Course are organised by the School of Health Professions Education (SHE). Advanced courses, both about predefined issues and tailor-made according to clients' learning goals are arranged annually. A two-year Master of Health Professions Education and a PhD programme are other courses offered by this school. More information can be obtained from **www.maastrichtuniversity.nl/she**

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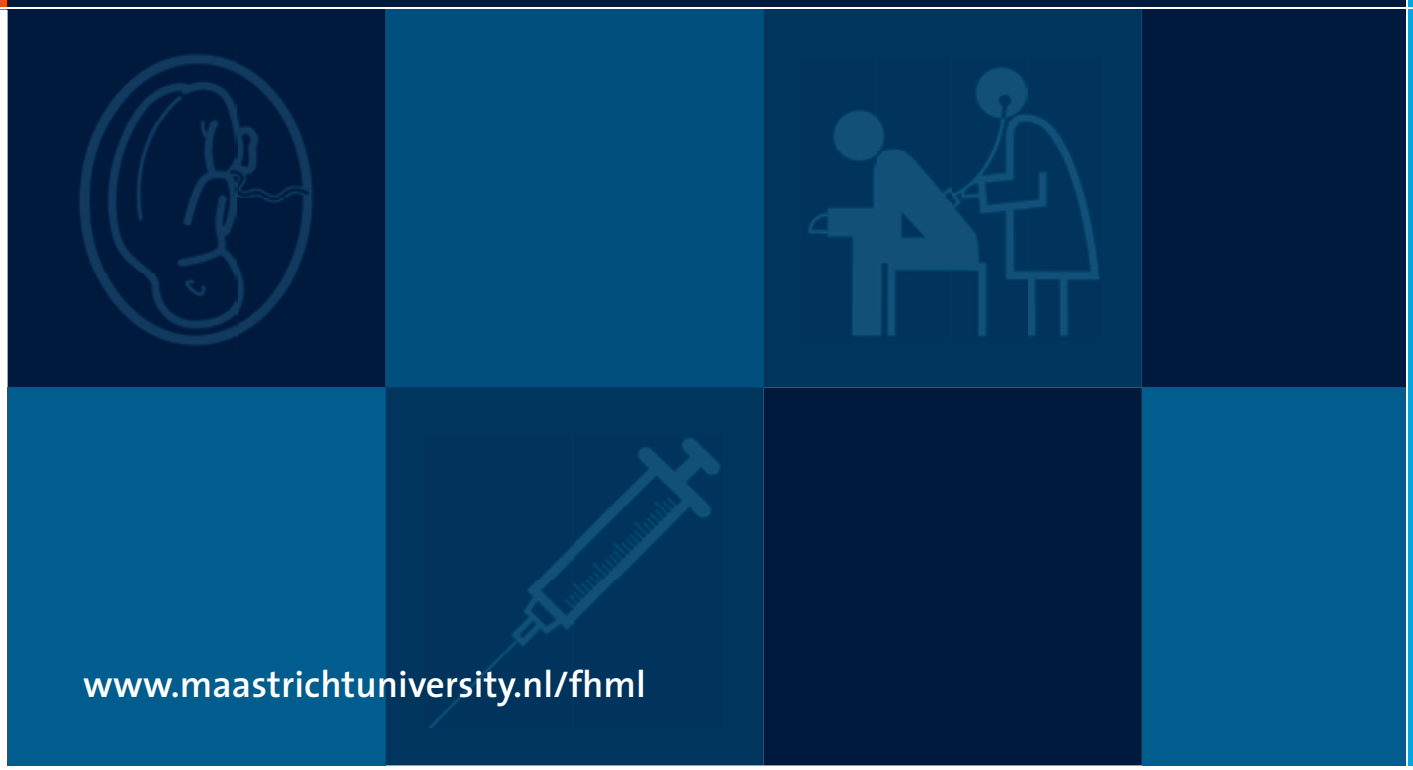

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