# APPROACHES TO TEACHING, LEARNING AND ASSESSMENT AND THE SUBJECT AREA COMPETENCES

### NURSING

Good teaching means that Faculty, as scholars, are also learners Boyer 1990:23-4

There is a well established knowledge and evidence base associated with the learning, teaching and assessment of nursing and nurses: some illustrative texts are outlined at the end of this paper. Boyer's scholarship typology can be aptly applied to nursing in so far as he considers four types of scholarship: that of discovery/research, integration, application/service and that of teaching itself. Nurse learners, whether before or after qualification, are by definition adult learners undertaking professional/vocational programme of studies that includes both theoretical and practical knowledge, behaviours and attitudes and the ability to perform in routine and unpredictable situations. The pedagogical knowledge base includes concepts and research associated with andragogy, experiential learning, work based learning, organisational cultures and learning, decision making, development of leadership skills, social psychology of learning, values, ethical and emotional literacy to name but a few.

The different approaches to learning have all been included in the history of curriculum design and implementation, for example cognitive, behavioural, constructivist and post modern approaches to nursing and nurse education. Theories of competence acquisition, clinical decision making, mentorship, expert practice (Benner), tacit knowledge (Polanyi) and reflection (Schon, Johns, Gibbs) are well established. Theories or models that have been applied to nursing include Bloom's cognitive taxonomy of learning, Steinaker and Bell's experiential taxonomy; Dreyfus and Dreyfus and Benner's work on novice to expert development. There is an increasing emphasis on collaborative learning styles, especially at second cycle level. With at least fifty per cent of the registration programme being practice based, understanding and applying the evidence based of how students learn and develop in practice is crucial. A typical developmental model is that of Benner outlined in Box 1.

### Box 1 Benner 1984. Novice to Expert.- a developmental model

Benner conducted research using the Dreyfus Model (1981) which posits that the acquisition and development of a skill a student passes through 5 levels of proficiency

- novice
- advanced beginner
- competent
- proficient,
- expert

These stages reflect changes in 3 general aspects of skill performance

(1) Movement from the reliance on abstract principles to the use of past concrete

experience as paradigms.

- (2) from learning pieces to a complex whole with the ability to focus on relevant components at a time
- (3) from detached observer to attached performer

# Example using Blooms cognitive taxonomy: applied to the theoretical comprehension of medications

Level 6: Valuing	Draw conclusions, defend, and make decisions Realizes patient is in pain, reviews medication chart and following patient assessment and dialogue, chooses appropriate medication from prescription list. Suggests change in therapy following evaluation of effectiveness.
Level 5: Synthesis	Draw conclusions, find connections, derive, make comparisons Patient complains of dizziness, especially on getting out of bed. Reviews patient and realizes that two medications may be interacting to the patient's detriment.
Level 4: Analysis	Find parts in a whole and connections, discern, criticize, and make comparisons.  Reviews a patient's health status and medication regime and can explain the rationale behind the medication therapy for this particular patient.
Level 3: Application	Demonstrate, explain, make use of knowledge Knowledge of action of steroids enables student to explain to patient the importance of glucose monitoring while on these drugs.
Level 2: Understanding	Formulate knowledge in own words, explain, account for, show differences  Able to recognize the difference between diuretics that are potassium sparing and those that are not.
Level 1: Basic knowledge	Define, declare, count, recognize Can identify normal therapeutic range of common drugs.

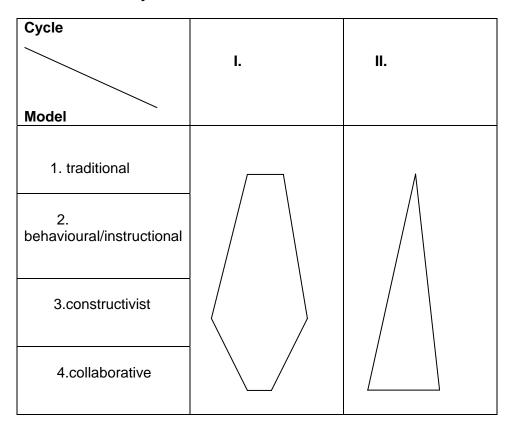
The concept of *differentiation* is crucial to nursing to enable development, progression and achievement of safe, intelligent practice in the 'real' world of patients and their families/loved ones. This is why we argue for a sub first cycle level descriptors en route to the first cycle achievement of competence. Many typologies of learning do not accord value to the role of apprenticeship, craft knowledge and skill acquisition that are often fundamental to learning in a person based practice.

### Models of learning and teaching

Through analysis of nursing in our representative 13 countries, we considered that while there is a place for many different models of learning and teaching in nurse education, the models are used in different proportions according to the resources available and the developmental stage of the learner (e.g. Figure 1). Typically there are the (1) traditional methods of instruction (2) behavioural and instructional models (3) constructivist models and (4) collaborative approaches to learning. However, as previously indicated, there is often insufficient attention to experiential learning, learning in the workplace and the established and extensive research base in this field. The traditional model –or apprenticeship model still has an important place in learning nursing for novices or at the novice stage of a more complex competence acquisition. These methods are relevant to the development of safe practice, for examples learning lifting and handling of patients and the safe and precise acquisition of procedures. Craft knowledge is often passed on traditionally and it is appropriate to do so in workplaces where role modelling and coaching develop practises ahead of the evidence base: this applies to both novices and experts.

Many first cycle programmes have increased their emphasis upon collaborative learning approaches as evidenced by enquiry based and action learning styles. Behavioural, instructional and constructivist models are often used for teaching skills. In contrast, second cycle programmes tend to focus more upon constructivist and collaborative models of learning.

Figure 1. A theoretical conceptualisation of how the four models may be balanced within first and second cycle curricula.

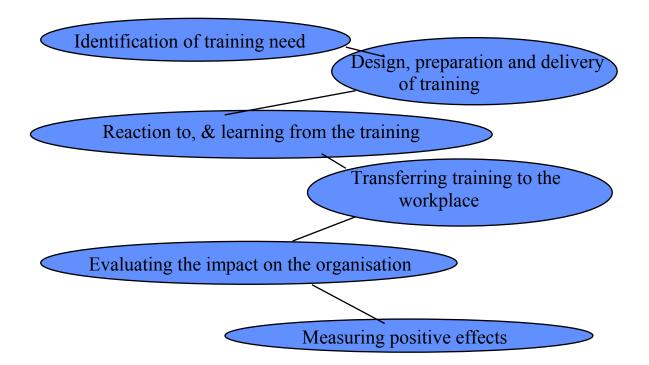


When human and material resources become available, there is a rise in small group work and technology assisted teaching/learning. During recent years there has been an increasing use of reflective, critical approaches to learning matched by the use of informatics to support web based and work place learning. Practical skills are often

developed through observation of practice, demonstrations, simulations, role play and exposure and engagement in real clinical experiences. However, many countries reported the challenges encountered during work placed learning placements when there may be problems with student supervision and the quality of patient care. To this end, where available, resources are now being allocated to support learners in practice, to prepare students for practice through clinically based wards, clinical skills laboratories and through the use of simulations or virtual practice.

Critical enquiry has been fostered by enquiry, problem, scenario and action based learning. Role play and other experiential modes are adopted in a variety of forms to develop communication skills, team building and to sensitise students to the experience of patients and clients (e.g. blind walk, being fed on one's back); to enable rehearsal of skills and emotions (breaking bad news); decision making and prioritisation (games, simulations). Interprofessional learning is now more common and is developing its own evidence base (Barr 1998). Training Needs Analysis combined with workforce review and skill mix analysis are often used to identify education and training needs, particularly in post qualifying education. Here is a typical model.

TRAINING NEEDS ANALYSIS
(adapted from Spilsbury M 1995 Measuring the Effectiveness of Training, IES, Brighton; Figure 3.1. p12)



Teaching terms/methods See reference list for definitions	Fr	Typical use by Tuning Departments in nursing : Frequently/Sometimes/Rarely									Definition or meaning if used in your country for nursing (or give reference to a defined text commonly used- see Annex 3)		
	В	D	F	G	Н	I	M	Ne	No	Sk	Sp	UK	
Lectures	F	F	F	S	F	F	F	F	F	F	F	F	Teacher led session largely informative
Tutorials	S	F	F	F	Ø	F	S	S	S	F	F	F	Teacher facilitated topic based interactive session for one or more students
Small group	F	F	F	F	F	F	S	S	F	F	F	F	Varies upon
Large group teaching	S		S	R	F	F	F	F	F	F	F	F	course and no of students
Practicals	F		*	*	F	F	S	S	F	F	F		Rehearsing practical skills in a non clinical environment
Practice in clinical areas	F	F	S	*	F	S	F	F	F	F	F	F	Nursing experience
Laboratory work	F	S	*	*	F	F	*	*	F	S	F		Using scientific laboratories for experiments or investigations
Reading	S	F	F	F	F	F	F	F	F	F	F	F	
Guided study	f	F	F	F	F	F	F	F	F	F	F	F	Prepared work for students on given topics
Workbook	F	F	S	R	F	S	F	F	S	F	F	S	Structured theoretical tasks that are recorded in written format
Discussion	F	F	F	F	F	F	S	S	F	F	F	F	Oral exchange of ideas
Debates	S	F	F	F	F	S	S	S	F	F	S	S	Contesting and defending ideas
Role play	F	S	R	S	F	F	S	S	S	S	F	S	Acting a part

Simulation	F	R	R	R	F	R	S	S	S	S	F	F	Practising situations that are not 'real'
Observational visits	S	R	S	R	F	R	S	S	S	S	S		
Visits to	S		R	S	F	S	S	S	S	F	S	S	Institutions, departments
Problem based learning	S	S	S	S	F	F	S	S	F	F	S	F	
Virtual learning	S	F	F	S	S	R	R	R	F	R	S	F	
Enquiry based learning	S		S	S	F	F	S	S	F	S	S	F	
Portfolio development	R	S	S	S	F	F	F	F	F	S	S	F	
Interprofessional learning	F	S	S	S	F	F	S	S	F	F	F	F	Two or more professional disciplines learning together
Life long learning	S		F	F	F	S	F	S	F	S	R	F	
E learning	S	S	F	S	S	R	R	S	F	S	S	F	
Distance learning	R	R	F	R	S	R	R	R	F	S	R	R	
Discovery learning	R		S	S	S	S	S	S	F	S	S	R	
Experiential learning	F		F	F	F	S	S	F	F	F	F	F	
Information technology based or web based	S	F	F	F	F		R	F	F	F	S	F	
coaching	F	F	F	F	F	F	S	F	F	F	F	S	
supervision	F	F	S	*	F	S	S	S	F	F	F	F	Supervisor in clinical setting
games	S		R	R	F	R	R	R	S	S	R	R	
internship	R		*	F	F	*	*		S	S	R	R	
Clinical teaching	F	F	R	*	F	S	S	F	F	F	F		
shadowing	S	R	S	*	F	*	*	F	S	F	F	R	Observing and following a practitioner to learn their role and actions
Video/audio tapes	F	F	S	F	F	S	R	F	F	F	F	S	
drama	S	R	R	R	S	R	R	R	S	R	S	R	
Special studies/ projects/ dissertations	F		F	F	F	F	F	F	S	F	S		All have a final year special project but some may have other projects.

**Learning nursing in the practical/clinical setting**As previously noted, at least 50% of the registration programme currently comprises clinical, practical or work based learning. This environment is often described as the

clinical learning environment: 'an interactive network of forces influencing student learning outcomes in the clinical setting' (Dunn and Burnett, 1985). Various names are given to the clinician who teaches, supervises and assesses the student nurse in practice. These include; mentor, coach, supervisor, teacher, assessor. There is a confusion of terms and their application between and within countries. Simms (1993) suggests that the following elements are part of the role of the supervisor in practice:

# Roles of supervisor in practice (Simms, 1993)

Symbol Colleague
Communicator Role Model
Disciplinarian Human Being
Mentor Advocate
Teacher Guide
Enabler Consultant
Assessor Decision Maker

The roles and respective accountability for the quality of the clinical learning environment are outlined in appendix. This table demonstrates the complex stakeholder involvements in student learning in practice and the role of competent authorities. In the first cycle with registration programme, clinical or practical education of the student is required to enable the student to meet the aims, outcomes and competences of the curriculum so the student may be competent as a practising nurse. In some countries, there are now requirements for competences after registration with the development of advanced, specialist nurse practitioners (e.g. Republic of Ireland)

There is significant evidence to confirm that quality in the clinical learning environment is related to how students are treated (humanistic or not), team spirit, leadership and management style of the senior clinician and available support for teaching and learning. Audits of clinical learning environments may be undertaken by the educational provider, regulatory bodies or quality assurance agencies. In these situations it is typical for the following items to be considered: (see also table)

- Number, experience, qualifications and mix of clinical staff
- Motivation of staff
- Research or evidence base of clinical practice
- Patient/staff ratios
- Relationship between educationalists and clinicians
- Philosophy of nursing care
- Learning opportunities and supervision of students
- Development of staff
- Quality of patient care

In the example below, we have used real curriculum issues from Hungary to demonstrate how the various learning theories relate to developing nursing practice. The way that curricula are developed is not only cultural, but in nursing reflects the stage of nursing within that country and where it is situated and controlled. Historically, there is tendency for nursing to initially reflect a biomedical model before emerging its own models and theories of practice. As the model changes so do the pedagogies and assessment strategies. Curriculum expression reflects also the curriculum design, resources available and teacher/student capabilities. Assessment strategies in nursing at

first cycle with registration need to address both theoretical and practical based competences. Diverse strategies are used to reflect the assessment of knowledge, skills, attributes and professional values. In the interests of public safety, each programme will identify core components that must be passed in order to achieve the necessary licence/registration to practice. These assessment strategies range from examinations of theory and observed episodes of practice to continuous assessment, viva voce, portfolio use and project work.

This next example is based upon a draft, constructed and used by College of Health Care of Semmelweis University Budapest. With permission, this example has been adapted and augmented by the Tuning nursing group. The italicised comments indicate associated learning, teaching and assessment theories.

# The instructions and requirements of the nursing clinical practice educational process have to be gradually built stage by stage.

### Level 1

At the beginning the practice room is designed to be life -like using ward equipment and audio-visual demonstrations. Nursing procedures are introduced by a university teacher assisted by a demonstrator (often a former successful student). Here, in the practice room, students can observe not only the entire activity, but also its component parts augmented by teacher commentary and student /teacher interaction. More complicated exercises are shown a couple of times, in order to enable the students to learn the entire task.

This is classical skill teaching incorporating humanistic, behavioural approach to skill acquisition. The whole performance (gestalt) is shown first at normal speed and quality, followed by the demonstration and rehearsal of the logically derived components or steps of the skill. Once the individual components are successfully learnt, the whole skill is practised.

The exposure level of Steinaker and Bell's taxonomy where role modeling by the teacher and demonstrator are essential. Novice stage of Benner's model.

### Level 2

Following the observation of the skill/activity, under the supervision of the demonstrator, the student practices individual elements of the skill. The practice of the activities takes place on this level in individual, couple or teamwork, depending on the skill/tasks. The teacher and the demonstrator are continuously supervising the work of the students and supply them with support and information or help executing the nursing procedure if needed.

This reflects the participation level of Steinaker and Bell's taxonomy. Coaching is evident in this stage. Advanced Beginner stage of Benner's model.

#### Level 3

Here, the student can complete the activities, skills or tasks in their entirety. Minimal supervision should be required for safe, effective performance. Students should now be able to outline the indications and contra-indications of single nursing procedures, the equipment needed for the intervention, the somatic and psychic preparation of the

patient and the execution of the activity. Students should be able to manage a practical example within the practice room and be examined in this context.

At this point, within the practice room context the student has reached the competent stage (Benner) and the identification stage (Steinaker and Bell). However to be competent in practice, the student has to be able to apply this learning and performance to the real life contexts with real patients and staff. In this respect the student has not yet demonstrated competence in the clinical environment.

### Level 4

During guided clinical nursing practice, students are enabled to learn, practice, check and evaluate nursing procedures in real-life situations. At this stage, the leader of practice (supervisor of practice) promotes the recall of the students' knowledge in connection with the given activity, and then presents the student with a practical example in the real -ward (e.g. the care of a patient confined to bed). The student then practices the activity under the supervision and evaluation of the leader of the practice. On this level, the leader of the practice is present at every activity of the student.

The student should be demonstrating safe and effective performance and thus competence. This should be the internalization stage of Steinaker and Bell

# Level 5

This is the last stage, which leads to the final exam. Here, students are capable of independent work, although they are still supervised and evaluated. During this clinical practice they will need to proved that they comprehend the daily routine, and can demonstrate adequate knowledge concerning the given nursing actions and interventions. The activities are executed with maximum precision, students are aware of their competences and the methods to avert possible complications, thus the leader of the practice can entrust to the students the organization of the daily routine and individually performing patient-care in the practice room and the real situation.

In this stage, students are ready for practice and fit for the purpose of being a registered nurse. They can identify with being a nurse (Steinaker and Bell) and for the more able student can teach their juniors (dissemination phase of Steinaker and Bell). Students may still be context bound in their learning and revert to previous levels of competence if they are unable to transfer their competence to different client groups or contexts of care where the salience of cues, signs and actions may be different (Benner)

All levels of the practical training are "Guided Clinical Nursing Practice" where the continuous activity and control of the leader of the practice is needed; the student cannot be left alone. Meanwhile the style of the leader's supervision, teaching and support of the student will vary according to the student's competence, the context and the complexity of the client's care and needs. The models of teaching to complement the development of the student are different and are outlined by both Benner and Steinaker and Bell.

### **Assessment issues**

Assessment strategies in nursing at first cycle with registration need to address both theoretical and practical based competences. The range of assessment strategies incorporated within nursing are diverse to reflect the assessment of knowledge, skills, attributes and professional values. As curricula move from a biomedical based content driven approaches to nursing, health needs and outcome or competence based curricula, the assessor and their role changes. For example the extent to which medical/scientific staff are involved in the delivery and assessment of the curriculum diminishes. Conversely, when there is a significant social sciences content, students may be taught by non nurse academics like ethicists, psychologists and sociologists until there are nurse teachers with this expertise. Inevitably, the focus and type of assessment will then reflect the tradition of the teacher. For example emphasis on disease orientation, social structures, person centricity with or without application to nursing practice and theory. As the academic nature of the programme rises, there is a move from content recall assessment to critical appraisal and scenario based assessments. Some of these various differences are illustrated in Annex 1 and 2.

Annex 1 from Hungary represents what would be termed as a biomedical approach to nursing. It includes the criteria for clinical examinations and assessment in clinical practice and has a clear medical focus in language and content. In contrast, annex 2 from Norway outlines the purpose, organization and application of practical nurse training. This model reflects a more contemporary nursing focused curriculum and is derived from their 'General Plan and Regulations for 3 year Training Programme in Nursing 'dated January 2000. The 2004 updated version of this national framework has not yet been translated into English.

### Some illustrative texts used for the learning and teaching of nursing

Annex 3 provides **a few** examples of the many texts available; we have tried to use different texts for the English speaking countries to offer broader perspectives. This list should not be seen as a list of recommended texts, rather an indication of the depth and breadth of material available. The list includes (1) texts used for the students at first cycle level for clinical teaching, (2) texts used for the theoretical teaching, as well as (3) texts regarding the pedagogy or didactics of nursing. Definitions of terms will be found in the didactic texts.

This paper has tried to encapsulate the diverse and common threads within the learning, teaching and assessment of nurses and nursing. We have indicated how the development of nursing within a country is influenced by its status, history, the role of women in society, the resources available, the relationship with medicine, the Universities and the health services. Together, these and other factors shape the nature of the nursing curriculum, where it is taught, what the balance of the curriculum may be and who may teach/assess the student nurse in both theory and practice. Not withstanding these differences, we have also shown that nurse education involves a range of diverse pedagogies as it endeavours to enable students to be safe and competent practitioners within an ever changing environment.

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# **Annex 1: Example from Hungary**

# 1. Abilities for collecting data

During the student's practical activity we are eager to know how precise and deliberate his/her collection of data is, if he/she uses the direct and indirect communication techniques.

# 1.1 Anamnesis

- complete anamnesis
- adequate technique/culture of interrogation
- correct examination of the problems
- the art of hearing

# 1.2 Objective data

- complete execution of viewing and observation
- helping the physical examinations appropriate for the illness
- ordering laboratory and other examination and organizing their execution
- executing examinations with tools and instruments

### 1.3 Documentation

- systematizing the patients' data
- accurate formulation of the information
- precise and brief record of data
- registering the time and result of the interventions

### 1.4 Case-review

- nursing anamnesis covering every need and problem
- recording accurate nursing status
- recording former illnesses, operations, examinations and medicine allocation
- brief and clear professional report on the patient

### 2. Clinical decision-making abilities

In this field of the student's practical activity we want to know how precisely established his/her decisions are, if he/she knows the outcome of his/her decisions, if he/she is able to apply problem-solving in nursing.

# 2.1 Making a nursing plan

- very accurate collection of data
- setting up correct nursing diagnosis
- choosing the right nursing interventions from the alternatives
- activity done according to the changes of the patient's condition
- evaluating the result of the intervention
- doing the necessary modifications

# 2.2 Executing the therapeutic plan

- precise allocation of medicines
- professional execution of therapeutic interventions
- ordering examinations with tools and instruments, the organization of their execution
- detecting complications and adequate action
- using cost-effective medicines, bandage and medical aids

### 2.3 Work organization

- keeping order, discipline and hygiene
- correct division of work among members of the nursing team
- good cooperation between the members of the health care-team
- adequate communication with the diagnostic departments
- ensuring medicine, bandage and medical aid necessary for patient care
- supplementing the lacking or malfunctioning tools in time

### 3. Role-development

During evaluation we would like to know what changes the student's personality has undergone during practice, if he/she corresponds to required behavioural expectations of nurses.

- uses effective communication skills
- building up good relations with his/her patients and co-workers
- making decisions according to his/her competences individually
- knows the legal-ethical relations of his/her work
- his/her behaviour always corresponds to the given situation
- able to work effectively as a member of the health care-team
- able to continuously develop him-/herself

# Annex 2: Example of practical training curriculum from Norway (based on 2000 Regulations)

# 1. The aims of practical training

The aims of practical training: The student must

- study, learn and participate in practical nursing in medical and surgical wards, in mental treatment, in services for the elderly, and in home care as part of the total treatment that the patient is in need of.
- have knowledge about and acquire nursing experience and experience in cooperating with other occupational groups in preventive health care and in prenatal and postnatal care

In the course of the practical training, the student must

- study, experience and develop nursing competence in relation to different diseases and in different patient situations, both in specialist services and in municipal health services
- under supervision practice, reflect upon and develop knowledge, skills and attitudes in direct interaction with patients, next of kin, and other occupational groups
- develop nursing competence in cooperation with experienced professionals, and acquire insight into one's own limitations and the qualifications of others
- reflect upon and discuss ethics, patient care and practical nursing
- develop the competence and will to cooperate with different occupational groups
- instruct and supervise patients and next of kin
- develop the competence to communicate with different patient groups and their next of kin
- assess and get experience with the structure and organization of health and social services
- gain experiences which may be discussed at the college and used as a basis for further learning

# 2. Fields and duration of the practical training

The practical training must constitute a total of 30 credits. The duration of practical training in the various fields is described in terms of weeks. 30 credits correspond in this plan to a total study period of 60 weeks. At least 50 of these weeks must consist of practical training with patients and next of kin. 10 weeks may be used to acquire skills, and for preparation and reflection upon the practical training periods. The curriculum guidelines of the college describe how the practical training periods are planned in relation to other study methods, such as individual study, project-oriented learning and study periods in connection with the practical training. The college's curriculum guidelines give a closer description of distribution, sequences, guidelines and aims of the practical training. The distribution of the practical training periods presupposes that the practical training in an institution takes up on average 30 hours per week.

### An outline of the fields and duration of the practical training periods

A: Skills, preparation for and reflection Upon the supervised practical training					
B: Practical training with patients and next of kin	50 weeks				

Practical training in medical and surgical	
wards	minimum 16 weeks
The practical training must be of minimum 6 weeks in a	
Medical ward and minimum 6 weeks in a surgical ward	
Municipal health services:	
Nursing services in municipal health services, care for the elderly	
and home careweeks	minimum 12
Of these must minimum 8 weeks be practical training	
in home-based services or in nursing homes	
Specialist or community health services:	
Practical training in the first year of trainingweeks	. minimum 4
Practical training in mental health	
careweeks	minimum 8
Other types of practical training in the B categoryweeks	. maximum10

The practical training in health services must include training in an out-patient surgery, operating rooms, intensive care units, in preventive care, and prenatal and postnatal care. This practical training may take place both in fields where a minimum duration is given or in "Other types of practical training in the B category". However, practical training under "Other types of practical training in the B category" should primarily take place in fields where a minimum duration is given.

# 3. Detailed description of practical training

When learning practical nursing skills, interaction and communication with patients, next of kin and other occupational groups, the student must be given a practical training which enables her or him to benefit from other people's experiences within the requirements of rules and regulations and based on the patient's integrity and self-determination. During the supervised practical training periods nursing students must gain experience from working in cooperation with others. The practical training is divided into practical training in the first year of study, supervised practical training, and observation training.

# Practical training in the first year of study

The purpose of practical training in the first year is to give students early in the study an understanding of nursing as a profession, and the role of nursing in large organizations. The practical training should preferably take place in the first semester and have the duration of minimum 4 weeks. The college determines whether the training should take place in municipal or specialist health services, and whether the training should be supervised or not. The experiences should form the basis for the college-based academic and practical introduction to nursing as a subject. The college cooperates with the institutions where the practical training takes place when developing the guidelines for the organization and implementation of the training programme.

# Supervised practical training

The purpose of supervised practical training is to give the student optimal operational competence in order to meet the nursing needs of patients and society as part of a complete health service. The student must have supervised practical training of

minimum 8 weeks within each of the following fields: medicine, surgery, mental health care and municipal health services. (The minimum requirement for medicine or surgery is 6 weeks.) All students must have supervised practical training in home-based services. Supervised practical training implies that the college's teaching staff supervises and organizes good learning environments. Thus, the college has the main responsibility for the quality of the supervision; a responsibility that requires frequent supervision and presence of teaching staff in the practical training periods. The nurses working in the institution where practical training takes place are responsible for the supervision and instruction in the specialist nursing skills required in that particular field. In many nursing services learning situations may take place night and day. The student organizes the practical training in such situations in cooperation with the nurses and the college's teaching staff.

During the supervised practical training the student must be supervised continuously preferable by nurses with supervision competence and at least one year of work experience as a nurse. The college is responsible for offering nurses at institutions where practical training takes place courses or education in supervision. Before every practical training period the college and the institution where the training takes place must in cooperation formulate concrete plans for the practical training which describe what the students may learn at that particular institution. The college has the main responsibility for ensuring that the plans are in agreement with the curriculum guidelines and the general plan. The institution where the practical training takes place is responsible for realizing and describing learning situations and nursing and cooperation challenges which are present at its institution.

# Observation training

The purpose of observation training is for the student to experience different and important parts of nursing services. Observation training is short periods of practical training which are normally not subject to evaluation. The student's experiences will lead to an incomplete operational competence, which may be developed by training and further education into an operational competence.

All students must have experience with patients in preventive health services and in prenatal and postnatal care. The college determines whether the training takes place in specialist services or in municipal health services. All students must also have experience from surgical wards, intensive care units and outpatient clinics.

# Learning practical nursing skills

Practical nursing skills are learnt through practical training and experience. Nursing skills cannot be taught by an academic approach only, but require practice based on attitudes to nursing as a profession and the learning environment. The acquirement of this type of practical knowledge presupposes the availability of clinically experienced people who are able to demonstrate skills and correct mistakes, and that the student can practice practical skills in interaction with patients and other students. Learning practical skills implies that the student practices and reflects upon important skills required in professional nursing. The students come close when they practice their skills on one another. It is important to make use of this closeness in the learning process, in order for the student to learn about her or himself and gain experience of other people's reactions in relation to the body, to physical contact and interaction. The training of practical skills may take place at the training unit at the college itself or in connection with practical training periods outside the college. The areas and aims of learning practical skills must be regarded in relation to the learning of the total nursing competence, and these must

be described in the college's curriculum guidelines. The college is responsible for developing training and study methods which ensure that the students gain operational competence in basic skills. Practice and training at training units, in demonstration rooms, and by interactive computer and video equipment may be highly educational and may contribute to simulate realistic exercises. These types of simultaneous learning presuppose training in groups of maximum 10-15 students, and a supervisor with educational and clinical competence. The college is responsible for the availability of relevant equipment.

# **Evaluation of practical training**

Cf. §50, No 1 and 2 in the Universities and Colleges Act No 22 of 12 May 1995. Also cf. § 4 in the regulations. Evaluation is a continuous and obligatory part of the supervised practical training, cf. 11.3.

The College Board specifies the aims of each period in the curriculum guidelines, and lays down criteria which must be satisfied in order to pass the practical training. At the end of every period of supervised practical training there must be an evaluation in agreement with the aims of the training. At the final evaluation there must be two other persons than the student present: one teacher from the college and one supervisor from the institution where the practical training has taken place. In case of doubt, the teacher's evaluation will be decisive.

An evaluation of the student's practical nursing skills must be based on a total evaluation of the student's ability to practice as a nurse. In the evaluation of the practical training the marks *pass* and *fail* will be used.

# Annex 3: Some illustrative texts used for the learning and teaching of nursing

### Denmark

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