Education and Culture DG

Lifelong Learning Programme

LEONARDO

WORKPLACE TRAINING IN HEALTH CARE

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Foreword

This booklet is the result of an intense collaboration with different European partners within a Leonardo-project for Lifelong Learning Programme. It is designed for different levels within the healthcare organization as well as in the educational institution. There is some useful information for the management level, but also for the operational levels. Next to results of studies, there are also some examples of good practices within the field of workplace learning/training. This booklet is mainly focused on students within workplace training, but the link with novice nurses or nurses who start working on a new ward, is also made.

We hope you will enjoy reading this booklet and hopefully you will get some ideas for your own practice.

Partners:

- Hospital Onze-Lieve-Vrouwziekenhuis Aalst-Asse-Ninove (Belgium)
- University College Odisee Aalst (Belgium)
- Telemark University (Norway)
  Høgskolen i Telemark
- University of Prešov (Slovak Republic)
- University of Vaasa (Finland)
  University of Vaasa
- ZorgSaam Zeeuws-Vlaanderen Ternezen (The Netherlands)
  ZorgSaam Zeeuws-Vlaanderen

Contact information for each partner can be found in chapter 7.

1 Introduction

Nurses play a critical role in providing healthcare, not only in traditional settings such as hospitals and long term care institutions but increasingly in primary care and in home care settings. There are also concerns in many countries about shortage of nurses. Aging population, more complex patient care, rising healthcare cost,... are common themes for discussion in nursing. These concerns and themes have prompted actions in many countries to increase the training of new nurses combined with efforts to increase the retention of nurses in the profession (health at a glance, 2013 OECD).

The nursing education program consists of theoretical and practical clinical training. Practical training is often carried out in hospitals and other healthcare settings under supervision of graduated nurses, employed by the health care institution. This means that workplace learning or training is vital to nurses throughout their careers, and starts during their education to become a nurse.

In some countries nurses who supervise nursing students during internships are trained mentors, but often there is no defined educational program for mentors. Mentors in the healthcare institutions often indicate a suboptimal preparation for these tasks and report confusion on how to apply these concepts in practice (Haidar, 2007; Gopee, 2011). There is a tension between educational partners and employer organizations on the distribution of tasks and responsibilities in the learning trajectory (Cowan & Cooparnah, 2012).

Recent studies have shown that a better educated nurse workforce is associated with fewer deaths. Every 10 % increase in nurses with bachelor's degrees was found to be associated with a 7% decline in mortality (Inda Aiken at all, 2014). Healthcare organizations should thus invest in training nursing students to achieve their bachelor's degree.

At this moment there is a high variability in concepts and practices on mentoring , coaching, supervising, tutoring and preceptoring even between institutions in one country (Nursing and Midwifery council, 2008). So far, there is no golden standard for the way in which supportive supervisory relationships are organized in the context of workplace training.

There are however some mayor concepts and findings which can help us to develop a global framework.

What do we know:

There is considerable evidence that a one-to-one relationship is of prime importance to the students in learning and professional development in clinical practice. The mentor's role has increased and the teachers involvement has declined over the last 2 decades (Saarikoski et all,2009). Nurses should be adequately prepared for their job as a mentor for students. There are however difficulties with evaluation forms, clear protocols and unified evaluation tools (Andrews et all,2006; Price et all, 2009).

A lot of factors are influencing the learning capability/possibility. Learning culture in the organization (Deketelare et all, 2005), the importance of staff support and peer support (Houghton et all, 2012), communication, mentoring skills (Wilkes, 2006), learner/student-mentor relationship (Hauer et all, 2014),…

Due to the fast changing possibilities in therapies and medical technologies, every healthcare organization needs to invest in a clinical learning environment and lifelong learning possibilities, not only for students, but also for the nurses who already work in the healthcare organizations. (Chan 2002,2003; Bernsten &Bjork, 2010)

Organizing workplace training involves:

- Different key partners (university/college, hospital, community health care,…)
- Different key players (clinical teachers, mentors, managers,…)
- Different key tasks (preparation, guiding, mentoring, evaluating,…)

The aim of the booklet is to propose a good practical model- using validated scales, literature findings, communication models, schemes and experiences of the different partnering countries- to create an optimal context for workplace training and learning for nursing students during their internships in hospitals or other healthcare settings.

2 Presentation model WPL

During the project we encountered many models and schedules for workplace training/learning. We found that none of them covered everything we wanted to discuss. Therefore we suggest our own model for workplace training, covering tasks within different levels of the healthcare setting and the educational partner (college, school or university). This model is the basis for creating the ideal clinical learning environment for nursing students.
We use three levels:

- Level I: Agreements
  This level is focused on the agreements between management of the healthcare organization and the educational partner.
- Level II: Clinical learning process
  In this level we focus on the workplace training self, using different phases explaining the clinical learning process.
- Level III: Evaluation and adaptation
  The final level discusses the evaluation of the learning environment and how the process of making a good context for a learning environment can be adapted.

In each level we will discuss some more theoretical background and give also some practical guidelines for developing a good learning environment for nursing students.

The green boxes represent the educational partner and the blue boxes represent the healthcare organization. If a box is green, it means that this is a task for the educational partner. The blue boxes are the tasks for the healthcare organization where the workplace training takes place.
When both colours apear in the box, it means that both partners have some tasks within the box.

On the next page you can find a schematic overview of the model that was developed.

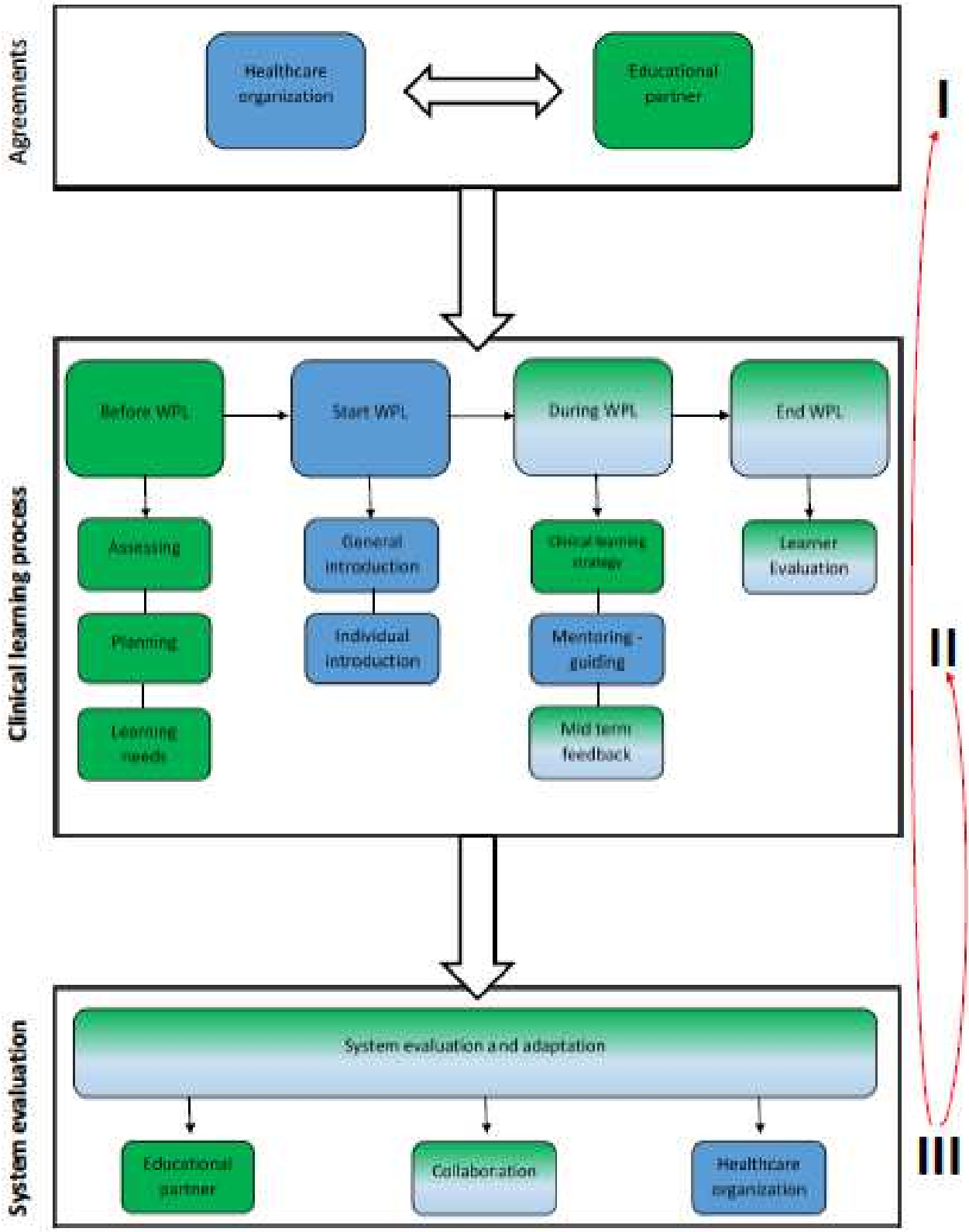

Figure 1 System for creating the ideal clinical learning environment

3 Definitions of concepts

In the following part, there is clarification about some concepts that are often used in the context of workplace learning. Following concepts will be explained:

- Clinical supervision
- Clinical learning
- Theoretical learning
- Workplace training / learning
- Learning environment
- Mentorship
- Health care instititutions

3.1 Clinical supervision:

Clinical supervision is a commonly discussed concept within nursing. Lyth (2000) used a concept analysis to define the term clinical supervision in nursing. He expressed that clarifying the concept of clinical supervision within nursing is not easy, as nursing is very varied in different practice settings. Lyth proposed following defnition of clinical supervision: "*Clinical supervision is a support mechanism for practising professionals within which they can share clinical, organizational, developmental and emotional experiences with another professional in a secure, confidential environment in order to enhance knowledge and skills. This process will lead to an increased awareness of other concepts including accountability and reflective practice.*"

The student needs supervision during the practice experience, because this is an opportunity for him/her to become immersed in the daily activities of nursing. Supervision and support during this experience is overseen by a mentor, who is a nurse within the team, and liaises between the educational partner, the learner or student and the clinical environment (other nurses, ward, other healthcare providers, ...). (Browning & Pront, 2015)

There are three main components of supervision in healthcare practice as summarized by Driscoll et al. (2013):

- supervised practice and learning (mentoring, often involving a component of assessment on practice)

- organizational supervision (performance management e.g. appraisals, caseload supervision, day to day feedback and management supervision etc.)
- supportive supervision (lifelong learning and professional development e.g. clinical supervision, development coaching, modified action learning).

The basic parameters of the first component, supervised practice and learning, include fulfilling institutional, professional and individual learning outcomes as a part of a course of pre-qualifying and/or post- qualifying study. Mentoring may be considered an example of supervised practice.

The main types of clinical supervision are: one-to-one supervision; one-to-one peer supervision; group supervision with a named supervisor; peer group supervision and network supervision (Royal College of Nursing, 1999). There is considerable evidence (Warne, 2010) that a one-to-one relationship is of primoridial importance to the learner in order to have a good learning process and a professional development in the clinical practice. Confidential supervision sessions are considered important, because they enable the learner to talk about their own experiences and feelings. More traditional models for supervision were often predicated upon group supervisory approaches. Contemporary models emphasise individualised supervisory approaches. The mentoring role of staff nurses has become increasingly central to these clinical supervision processes, especially in a one-to-one relationship (Warne, 2010). The importance of a mentor on the ward is stated in earlier research, but research also indicates that students viewed their mentor as a source of support during their learning process in the clinical environment (Myall, et al., 2008).

3.2 Theoretical learning

Nursing education is based on two main components: a theoretical part and a practical part. The learning process for a nursing student can also be divided in to two: the theoretical learning ("know-what") and the clinical learning ("know-how"). The theoretical part is the base of the education. This is mainly focused on obtaining knowledge. For the most part, students will learn this knowledge during lessons, but some knowledge can be obtained by doing internships. During these internships, students should integrate their knowledge in practice. While doing this, it can be sometimes necessary to obtain more knowledge in order to give high quality care. Clinical learning cannot go without theoretical learning and vice versa.

3.3 Clinical learning:

Clinical learning in nursing is characterized by learning through real situations and within specific contexts, i.e. patient situations in health care settings such as in hospitals, nursing homes and community health care facilities. When nursing students are in clinical placements, they may find themselves in two different contexts that influence their learning, a "context of performing" and a "context of learning" (Bjørk 1999). These two contexts are closely related to each other as performing and learning are interrelated aspects in learning processes in nursing care (Kolb, 1984). A "context of learning" is created when learning is acknowledged as a legitimate aspect of the nursing situation and when nurses, teachers or peers accompany the student either by observing or teaching in the situation. Observing and teaching is in this context a part of clinical supervision. However, students are often on their own and are forced into performing the best they can and know by repeating the most effective way of acting learned so far (Bjørk, 1999, Berntsen & Bjørk, 2010, Henderson 2012). This is the "context of performing".

To be able to learn nursing care in clinical settings, the students need to experience both contexts and appropriate opportunities for adequate guidance to connect performance and learning (Henderson, 2012, Vågan et al. 2014). Highlighting clinical learning environment in nursing homes, will contribute to develop both contexts, because students learn to work independently in this care setting (Bjørk, 1999, Berntsen and Bjørk, 2010, Chan, 2001, 2002). Other care settings, like the hospital setting, is more focused on the context of learning, because more clinical supervision is possible. Also community health care facilities are more focused on the learning aspect, because there is often a one-to-one supervision between a nurse and the student.

3.4 Workplace training / learning

Workplace training in general aims for learning in real life situations. Workplace training as a concecpt means a process that is planned and has clear objectives. Often the concept is about practical skills, but workplace training can also include some theoretical learning. In this guidebook workplace training refers to nursing students learning clinical skills in a hospital environment or other healthcare organizations. However, workplace training is not only for students, but also for nurses or other healthcare providers who already are working in a care setting.

In essence, workplace learning or training is about learning and applying competences in the practical field of nursing and not only practical skills, but also knowledge and attitudes.

3.5 Clinical learning environment

Clinical learning environment is defined in the literature as an interactive network of different aspects within the clinical setting (hospital ward, long term care setting, home care, ...). Those different aspects have an influence on the learning process of the learner and thus also on the learning outcomes of the learner (Dunn & Burnett, 1995). The learning environment is very important to achieve the desired learning outcomes within the clinical placement (Salminen et al., 2010). The environment is everything that surrounds the nursing student: clinical setting, staff, patients, clinical teacher, available materials, ... (Papp et al., 2003). There is a lot of variety in quality of clinical learning environments and thus this means also that there can be a lot of variety in learning opportunities and learning outcomes (Bisholt, 2014). A good clinical learning environment is described by nursing students as a clinical setting where there is cooperation among staff and a good atmosphere, where students feel appreciated and are given opportunities to achieve there learning outcomes (Papp et al., 2003; Wilkes, 2006; Bisholt, 2010).

In this booklet, the main focus for learning environment is on hospital wards, but the main principals are also applicable on other healthcare settings.

3.6 Mentorship

The last 3 decades, the mentor in nursing education has gained interest. It is difficult to give a definition of this concept, because of the different use of this term. Some people use this to define the guiding nurse on the ward, for others a mentor is the teacher from the educational partner. In our booklet, we call the guiding nurse on the ward a mentor. In most definitions authors match the same opinion that mentoring is the activity focused on assisting another person, who is learning. In our case, this is the student. Within nursing, there were many attempts to clarify the exact nature of the role, but it often still leads to confusion. There are many terms that are related to "mentor": mentor, tutor, clinical supervisor, preceptor, guarantee, lector, instructor, advisor, co-mentor, ...
We can agree on the fact that a mentor is someone who does the individual, clinical supervision of a student during his/her period of workplace training (Tichelaar et al., 2013). The nurse who is a mentor should be a high qualified nurse, who acts as the personal supervisor of the student(s). Therefore, mentorship describes the relationship between nursing student and his or her own supervisor

(Tichelaar et. al, 2013). The aim of the mentor's role is to support and help the student to develop necessary skills to become competent and knowledgeable practitioner (Saarikoski, 2008).

3.7 Healthcare institutions

These are the institutions where the workplace training/learning takes place. These institutions can be public or non-profit organizations that provide health care and related services, including inpatient and outpatient care, diagnostic and therapeutic services, laboratory services, medicinal drugs, nursing care, assisted living, eldery care, housing for elderly or sick persons, … Most common are hospitals, long term care facilities like nursing homes, and community health care.

In this booklet, we focus mainly on hospital wards as a clinical learning environment.

3.8 Educational partner

This booklet is cooperation between different partners from different countries. The nursing education for a bachelor's degree can be organized by a university, a school or a college, depending on the country. To cover all the participating countries we will refer to schools, colleges or universities as "the educational partner".

3.9 Model of key partners

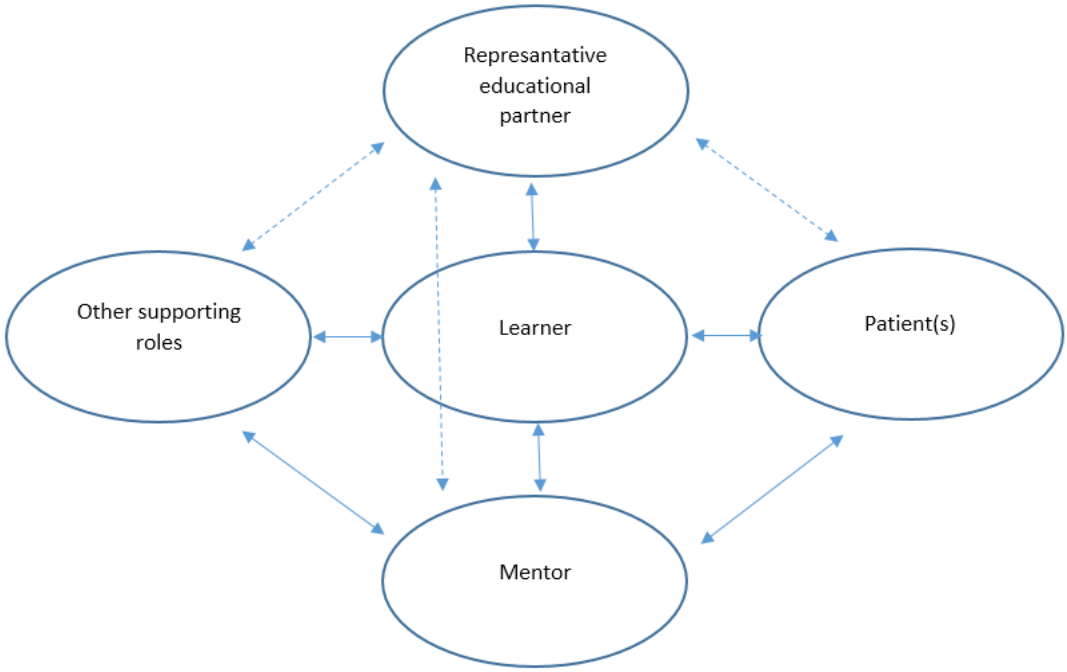

Figure 2 Model of key partners

This model shows the most important key partners for workplace training/learning. We distinguish five key partners:

- Learner
- Representative of educational partner
- Mentor
- Other supporting roles
- Patient(s)

The solid lines represent a direct relationship between the key partners. A dotted line means that these partners don't always have direct contact with each other, but can have contact through another partner or in certain situations direct contact can be possible.

3.9.1 Learner

In the middle of the model you can find **the learner**. This is the person who is learning while being on the workplace and is actually the focus partner in workplace training/learning. For this project, the learners are mainly students. A learner is guided by a mentor from the ward (cfr. Mentorship).
A learner can also be someone who is already working on the ward, but is still learning, like a novice or a new employee. When we keep the attitude of life long learning in our minds, we can even say that every nurse can be a learner on the ward.

Main characteristics of the learner:

- Being assertive in achieving the learning outcomes:
  Depending on the wards, learners will get more or less learning opportunities. Some nurses will ask or tell students or novice nurses to do certain nursing tasks, but other will leave the initiative with the learner. This means a learner should be assertive in taking opportunities to learn and achieve certain learning outcomes and competences in the practical field. This assertiveness should be in balance with a certain docility. Students are in fact still learning, but one the competences they should achieve during their education is stating and defending their own opinion. Nurses on the ward should also be open for this and also be able to state and defend their own opinion.
- Professional attitude towards patients and staff members:
  Every learner should have a clear, professional attitude towards patients and should not get to familiar, but also be able to gain the trust of the patient. A lot depends on their way of communicating with those patients and their attitude towards them.
- Coping with stress and anxiety:
  Students start their workplace training in a new environment, just like a starting nurse. They experience often a high level of stress in their clinical placements due to their lack of experience, unfamiliarity with the ward and procedures, fear of making mistakes and fear of physicians. During the nursing education and as they progress through their clinical training and learning process, they will feel more confident, but sometimes they are also overwhelmed by their sense of increased responsibilities and accountabilities.
  Coping styles in nursing students and other learners are very important, but these styles evolve according their levels of clinical experience, from problem-focus strategies to a more personal and emotional coping strategie.

- Autonomy

  Learners should have a certain amount of autonomy, what should be promoted by mentors. This is not always the case, because for a nurse it may feel dangerous and deterrent to leave the responsibility for their patients in the hands of a learner. Nevertheless, learners should get a sense of autonomy in combination with the needed guidance of a mentor.

- Critical thinking

  Critical thinking is one of the most important things to focus on during workplace training, according to the resprentative of the educational partner. They stimulate the student to think before they act and question the actions conducted by nurses. This is mainly focused on developing a lifelong learning attitude, but can be offensive to mentors and other nurses. Every learner should be carefull in verbalizing their critical thoughts.

(Berntsen & Björk, 2010; Andrews et al., 2006)

3.9.2 Representative of the educational partner

The representative of the educational partner, or sometimes called the clinical teacher or link tutor, is another important role in the workplace training. This partner should monitor the learning needs of the student and asses the learning outcomes and/or competences of the student. Practical nursing skills is just one of the learning outcomes that should be assessed. Studies show that a better organized system for supervision by the clinical teacher was interpreted to be a major reason for higher satisfaction with students‘ clinical practice (Saarikoski et al, 2002; Berntsen & Björk, 2010). This clinical teacher should be involved in the evaluation process of the workplace training. He/she is the person who has an overview of the learning goals or outcomes and the competences, that need to be achieved during the nursing education. Cooperation between mentor and the representative of the educational partner is very important for the process of workplace learning, in order to give the student the chance to achieve the needed competences to become a nurse.

<u>Main characteristics of the representative of the educational partner:</u>

The representative of the educational partner is also called differently in the participating partners. Lector, practical teacher, practical faciliator, clinical teacher, ... are all different terms for the same

concept/person. In this booklet we will use „clinical teacher". This is also the most common term in the literature. This is a very important role, relating to workplace training with students.

- Being a facilitator

  Clinical teachers should make the clinical placements for the students easier, in means of a good preparation and follow-up, good cooperation with the mentor, acting objectively if problems occur during the workplace training, … Students don't need an instructor who tells them what to do, but rather someone who can help them being autonomous, achieve their learning goals and become a nurse. The representative should also help with the much needed reflection on the tasks performed by the student.
- Giving feedback

  A representative from the educational partner should know the background of the student: what are the strong points and what are working points? Does the student have problems? During reflection, the teacher can keep these in mind and guide the student in his/her learning process to work on these points. This happens mainly through communication (oral or written) with the student and thus it should be in a friendly and considerate way, keeping feelings and thoughts of the student in account.
- Innovative

  Being innovative is an asset in a clinical teacher. Thinking about new teaching strategies and ways to learn, even during the workplace training, is important in guiding students. Student will be more focused if the teacher can relate to their own way of thinking, experiences and thoughts.
- Individualization

  Students should be treated as an individual and not as one homogeneous group. Approaching the student individually gives them the chance to reflect on their own actions. The teacher also has the chance to intervene on those individual actions, making the guidance of the nursing student better.
- Being objective

  A clinical teacher can not be subjective: own feelings, values, beliefs, emotions or own moral judgements can not be used during evaluating a learner. The objective evaluation should be based on facts. This factual basis should back up the evaluation or the statement given by the clinical teacher, with known facts that are observable, concrete and even measurable.

A clinical teacher should be able to see these facts from different perspectives: his/her own perspective, the perspective from the student, from the mentor and even from the patients (how does the student relate to the patients). Using all the different perspectives gives a more objective view on the learning process of the student.

(Andrews et al., 2006; Saarikoski, 2008)

3.9.3 Mentor

The third key partner is **the mentor**. As already mentionned in „*Definition of concepts*" the mentor is a nurse, who works on the ward where the workplace training takes place and is employeed by the healthcare setting. One the advantages of being employed by the healthcare setting is that the mentor is familiar with the environment, conditions, interpersonal relations and specific features and particularities of the ward. He/she is responsible for the guidance of the nursing students during the workplace training on the ward and should also be involved in the evaluation of the student. For this evaluation, it is important for the mentor to be familiar with the learning outcomes of the nursing education in which the student is participating.

Main characteristics of the mentor:

- Supporting and helping students

  The mentor should support the student in developing the necessary skills to become a competent nurse. This is possible by given students the chance to practice those skills under their supervision. When this task is conducted well, the mentor can help the student get better at different nursing tasks (communication, practical skills, cooperation woth other healthcare providers, ...).
- Observing clinical performance

  Mentors should be able to observe clinical performance of the learners. After the observation they should derive judgments about the performance from the learner. If it is necessary a mentor can plan additional learning activities.
- Observing attitudes

  Next to observing clinical performance, a mentor should also be able to observe the attitude of the learners. In order to do this, a mentor should know what a desirable attitude in the

worlplace is. One of the key aspects in attitudes in workplace training is an attitude of willing to learn. This is also important in obtaining a lifelong learning attitude.

- Testing knowledge and encouraging to consider other perspectives
  A mentor can also test the link between theory and practice. He/she can do this by questionning the learner while he/she is performing a practical skill or after the performance. It is possibele to use thought-provoking questions to promote critical thinking and to obtain a higher level of learning. The purpose of asking these questions is not only to test knowledge, but also to encourage learners to consider other perspectives.
  This is also a task of the clinical teacher, but a mentor can anticipate easily when watching the performance.
- Giving feedback
  A mentor should be able to give feedback to the student, based on the previous observations about clinical performance, attitudes and knowledge. Practical tips or guidelins will follow in the practical approach.
- Being objective
  A mentor should be objective to ervery student, independent of the level of knowledge and attitude of the student. This is very important in evaluating the student. A mentor should thus be aware of his/her own values and biases that can influence a judgement about the learner.

(Saarikoski, 2008; Andrews et al., 2006; Gaberson et al., 2015)

3.9.4 Patients

Patients should not be forgotten in this model, because they play a vital role in workplace training. Without them, there is no workplace and no learning proces. Patients have a rather passive role in this model.

3.9.5 Other supporting roles

Other supporting roles like the head nurse, ward manager or a clinical facilitator of the hospital are needed to support not only the learner, but also the mentor on the ward. For example, the head

nurse should take into account that a mentor needs time to guide a student. A clinical facilitator can be someone who organizes the workplace training in a hospital and assigns the students, in consultation with the educational partner, to a ward.
Positive relationhips between all partners, especially between learner and mentor, are shown to be very important in workplace training.

Note:
As mentionned earlier, also nurses who already work on the ward can be a learner, especially when we think about the lifelong learning attitude alle nurses should have. This means that this model can not be used for nurses who already work on the ward. The educational partner is not a key role in this concept. A mentor will still be important, but there will be also more follow up by the head nurse or from the HR-department, who should do an evaluation of the learning objectives of the nurse, based on written and oral feedback of the mentor on the ward and a conversation with the learner.

4 Level I: Organisation and agreements

4.1 Keypartners/Keyroles and tasks

4.1.1 Healthcare organization

We narrow the scope of a healthcare organization as a care facility (hospital or care center where clinical placements for student nurses must be possible.

Every healthcare organization must have a mission and a vision statement. If you want to incorporate workplacetraining in your daily activities it is important to mention this in your vision statement. The concept will only work if workplacetraining is shared within the whole organization.

Next summary is very important to take into account:

- Commitment of all the people working in the organization (coaching as a necessary competence)
- Provide the necessary resources (mentors, education,...)
- Establish a clinical learning environment, measure it and evaluate
- Proces of introduction, guiding, mentoring , education and evaluation
- Establish a coaching process (collaborate with the universities/schools)
- Cooporation with the different universities. Communication on a regular basis between workfield and educational field is primordial
- Worplacetraining must be managed , like every other process flow in the organisation

- Role of management / ward managers / Head nurses

  Ward managers are very important in creating or developing positive learning environments (Henderson, 2010). The upper management must provide the necessary resources and support the head nurses in developing the clinical learning environment. Treat students in a proper way (supernumerary) rather than an extra pair of hands. If there is a lack of support and specific learning experiences you demoralize the student (Andrews et al., 2006).

  Numerous studies have shown that the ward manager plays a significant role in influencing the staff attitudes and actions towards nursing students during the clinical experience, and concurrently the quality of teaching that students encounter (Andrews et al. 2005a, b; Dunn and Hansford, 1997). Students and nurses identify the ward manager as one of the key professionals that influences their experiences of clinical environments. In addition to professional development, the ward manager's leadership quality is reflected in the standards of care, ward atmosphere and the establishment of a facilitative, conducive, learning environment (Neary, 2000, Andrews et al. 2006).

Ward managers and mentors together should develop and implement effective student placement strategies in order to enhance the acceptance of students in clinical places as essential team members. This should take the pressure off mentors to be solely responsible for facilitating student learning (Dunn and Hansford, 1997; ENB/DoH 2001a,b) .

- Role of the clinical facilitator

In some countries, hospitals have employees with a very distinguished job description towards students or new employees. They also support mentors and wards during the internships.

They are called clinical facilitators. Their task consists of:

- Supporting the head nurses and mentors in developing information, brochures, websites, specific for students and/or new employees.
- Having a general insight in the student placement planning (g.e. maximum amount of students on a ward)
- Providing general information (student rooms, use of IT applications, meals, expectations, …)
- Providing general information on the first day of the workplacetraining
- Having a close contact with the student coordinator of the school.

The competence profile of these clinical facilitators has two groups of competences they have to possess. Attitude and job related competences (for example: reliability, being able to cope with stress, being able to work together with other people, being able to communicate on a proper way, take initiative, being able to plan, organize and coach)is the first group. The other group are the technical competences by which we mean the technical skills, didactic and pedagogical skills, knowledge and insight in health care, nursing education and the structure of their own organization (institution).

A clinical facilitator is important in guarding the learning process and helping the learners to achieve the main objectives. He/she facilitates by taking care of the placements of students

on the different wards, contacting the head nurses, following up when there are problems, …

- Role of the mentor

  The role of the mentor is very important during the workplacetraining for student nurses. Research had indicated that the presence of a mentor has an important influence on smooting students' transitions into new environments, and their self-reported clinical experience, in terms both of appropriateness and quality of the learning opportunities and of their enjoyment of the placement experience (Andrews et al. 2005 a, b; Grey and Smith, 2000).

  Jokelainen et al (2010) describe mentoring of nursing students in clinical placements according to two themes. The first one is facilitating nursing students' learning by creating supportive learning environments and enabling student's individual learning processes. The second one is strengthening students' professionalism by empowering the development of their professional attributes and identities and enhancing attainment of student's professional competence in nursing.

  A lot of research has been done about the qualities and competences a mentor should have. In studies of Gray and Smith (2000), Andrews and Roberts (2003) and Foster el al. (2014) students felt their mentor should be nice, approachable, be a good communicator, guide, assessor, supporter, be understanding and enthousiastic. A good mentor is a good role model and will involve students in activities, make effort to spend time with students and are genuinely interested in the student. They have confidence and trust in the student's abilities and gradually withdraws supervision. On the other hand Gray and Smith also found what students experience as poor mentors. Poor mentors brake promises, lack knowledge and expertise, have poor teaching skills. They either are over-protecting their student by allowing them to observe only or were unclear on the students' capabilities and 'threw them in the deep'. Poor mentors are often distant, less friendly, unapproachable and intimidate the student.

  Research has been done on the influence of the mentor-student relationship or supervisory relationship on the well-being of a student on a specific ward and the learning of that student. Warne et al (2010) has seen that the mentorship relationship is a very important element is the students' total satisfaction. In an individual supervisory relationship the student experience can be more uniquely tailored to reflect the students learning needs.

Like the clinical facilitators, they also have a specific competence profile. In addition to the competences of an nurse they also have to be competent in guiding supporting. They should have some didactical and pedagogical background. Therefore it can be appropriate that nurses who wants to be a mentor, take some courses or classes about mentoring. The need to educate nurses to become a mentor will be discussed in the next chapter.

The need for courses in mentoring

Although there's enough evidence which highlights the importance of the role of the mentor. Few countries have actual (governmental approved) courses specifically developed for the role of "nurse mentors". One of the partnering countries 'Slovakia' developed 2 accredited study programs of continual nursing education in the area of mentorship (g.e. Mentor of clinical practice in nursing). The accreditation of the program was based on:

- Criteria included in the European strategy of WHO for nurses and midwives
- International documents and literature related to the mentors preparation
- Conclusions of the international workshop "Professional preparation of mentors

The main character of the program is to deepen the nurses' knowledge and skills in guidance, supervision, assessment and evaluation of the practical skills. It is also an opportunity for professional growth and to ensure the effectiveness of the cooperation between healthcare and academic personel. More information about these courses can be found in attachment.

- Role of other staff members

Due to the fact that on a ward different healthcare professionals work together to ensure that patients get the best possible care, students should be able to experience learning opportunities regarding to other healthcare professionals too. Physicians, social workers, fysiotherapists',... , all have the responsibility to contribute in the education of a possible colleague. If you take the responsibility to be an educational center for healthcare professionals, every staff member of the healthcare organization has a responsibility towards guiding and educating students. To be sure of the willingness and competences of

your employees, mention this in your function description and evaluation system of your organization

4.1.2 Educational partner

- Role of the management

  Like a health care institution, also a university or college has to have a vision on education and learning. Workplace training/learning is a very important aspect in the vision of a professional bachelor's degree, like nursing.

- Role of the head of the department

  They have a very important role in creating the frame in which teachers have to teach their students. They have to set out the lines for the educational program and play a vital role in giving workplace learning and training a place in the nursing curriculum.

- Role of the coordinator of internships

  This person can be one person who is responsible for the placement of students or it can be a team of people. What they do, is to take care that every student can have an internship. They contact the hospitals to send the names and periods in which students have their workplacetraining and also in which phase of education they are. They coordinate the team of clinical teachers. During their meetings they talk about what is the best way to supervise the students, which tasks the students have to make during the internships, how, by the side of the school/university, we can facilitate the learing in student nurses.

  They also make a schedule on which clinical teacher had to go to which hospital to supervise the students.

  At the end of every period of workplacetraining he/she is the moderator of the meeting in which all students will be discussed about their workplacetraining. He/She has the responsibility of making notes of the scores that are given and also is responsible to talk with students in case of problems during internships.

  They also are responsible for organizing study programs for mentors.

- Role of the clinical teacher

The clinical teacher, is the person who is the direct link between a ward and the school. They come to the ward, at least 2 times during a period to talk with and evaluate the student.

4.2 Agreements between keypartners

4.2.1 Communication between the different partners

If clinical placements are to be effective, there is a need for stronger communication between the different partners. There has to be a clear and mutual understanding of the curriculum and clarification of the respective roles of nurse teachers and mentors (Andrews et al. 2006).

There's however a mutual role for the educational institution and the healthcare organization to ensure that workplacetraining for nurse students can become a success story:

- Identify learning outcomes
    - Identify the learning area and taxonomy in students curriculum
    - Compare the expected learning outcomes with the learning possibilities on the wards
    - Identify the possible learning outcomes specified per training year at specific wards
- Assess learning needs
    - Identify the individual students' prerequisite knowledge, skills and attitudes
    - Identify the individual students' learning styles, cultural backgrounds, ages and other significat characteristics regarding their learning process
- Plan learning activities
    - Keep in mind the learners' needs, interests and competences
    - Ensure the availability of clinical teachers and mentors
    - Organize activities to achieve progressive development

In order to give the school the tools to prepare the student for their workplacetraining provide them with:

- Information about the hospital (expectations, workprocedures,…)
- Specific information (brocures) about the different wards
    - Who is working on the ward
    - patient population
    - common pathology
    - day schedule and workflow
    - learning possibilities

4.2.2 Contracts / labour regulations

There are 3 kinds of contracts to be made before a student can do workplacetraining.

- Between educational partner and healthcare setting
- Between educational partner and student
- Between healthcare setting and student

Every student has a contract with his/her educational institution, visualized by the enrolment at the beginning of an academic year. Whether a student has a personalized contract with the healthcare setting or the educational partner has one with the healthcare setting, depends on agreements between healthcare settings and educational partners.
A student can only go on a workplace training when he/she is enrolled in the nursing program (contract student – educational institution) AND when there is contract between educational partner and healthcare setting OR a personal contract between student and healthcare setting.
In most of these contracts some juridical parts are written down about responsibility and risk factors during the training.

5 Level II: Clinical learning proces

5.1 Introduction: learning - learning concepts – knowledge in nursing

Every college and university have a formal or informal basic learning concept for the different study-programs. The basic learning concept at institution level will be specified, adapted and adjusted to the specific education program. However, we may say in general it is three kinds of knowledge in nursing; theoretical knowledge, practical knowledge and experiential knowledge (knowledge tied to experiences, obtains in the clinical field) and we do have two main venues for learning in nursing; learning in 1) teaching organizations (colleges and universities) and 2) workplace training in healthcare settings. This booklet will have the focus on learning in clinical placements.

Hospitals and other healthcare institutions are clinical placements settings for health care students in general and for nursing students in particular. When it comes to how to learn to be a nurse, clinical placements for nursing students are important in many respects and characterized as an irreplaceable component of nursing education (Tanner 2006). From a legal perspective, practice in clinical settings is a requirement to ensure fitness to practice as a nurse. From an educational perspective, the clinical placement is the venue where skills, knowledge, attitudes and cultural competence developed in the theoretical part of the curriculum are applied, developed and integrated (Newton et al. 2010 in Bjørk et al. 2014, Gaberson et al. 2015).

In level II, we will discuss the process of clinical learning. First, there will be a theoretical approach, explaining clinical learning based on literature review and research. In the practical approach, there will be some more practical guidelines, based on the content developed for the model in level II. Our intention is to cover clinical learning for both students and employees.

5.2 Theoretical approach

In the following chapter, we will present some theories and significant research findings as a platform for the Clinical Learning in Healthcare Institutions.

Clinical Learning Environment

To be able to learn nursing and to obtain Learning Outcomes in clinical placements, it is crucial to pay attention to the clinical learning environment at the wards/at the placements (Chan, 2001, 2002, Berntsen & Bjørk, 2010, Bjørk et al. 2014, Brynildsen, 2014). Several factors in the hospital learning environment have been reported to influence students learning outcomes during clinical placements

(Hauge, 1999; Chan, 2001, 2002; Saarikoski, 2002; Kloster et al., 2007; Robinson et al., 2008; Xiao et al., 2008, Berntsen & Bjørk, 2010; Bjørk et al. 2014, Brynildsen, 2014).

Studies in the field of clinical learning environment for nursing students have been performed in hospital settings. Supervision and mentoring were aspects with an effect on students' learning outcomes (Hauge, 1999; Saarikoski, Leino-Kilpi, & Warne, 2002). A comparative study between Finnish and British nursing students showed that a better system for supervision by clinical teachers was interpreted to be a major reason for Finnish students' higher satisfaction with their clinical studies (Saarikoski et al., 2002). Clinical placements provided students with opportunities to perform nursing care and practice specific nursing skills, as well as observe role models and reflect on a variety of clinical experiences (Chan, 2001b; Hauge, 1999). Clinical placements also afforded the students both planned and unplanned learning activities with patients in a complex social context (Chan, 2001b; Heggen, 1995). Earlier studies found that many students perceived clinical placements as anxiety provoking, which may have affected their learning process and learning outcomes (Campbell, Larrivee, Field, Day, & Reutter, 1994; Heggen, 1995). Being acknowledged, welcomed, guided, and provided with a comprehensive orientation from the beginning may reduce anxiety and pave the way for positive learning experiences (Hauge, 1999; Henderson, Twentyman, Heel, & Lloyd, 2006; Robinson et al., 2008; Rogan & Wyllie, 2003, Berntsen & Bjørk, 2010, Bjørk et al. 2014). Another important results are the fact that students worldwide score the subcategory Innovation very poor (Chan, 2001, 2002, Henderson et al 2008, Berntsen & Bjørk, 2010, Bjørk et al 2014, Brynildsen et al 2014), . Innovation measures the extent to which the clinical teacher/clinician plans new, interesting and productive learning experiences, teaching techniques, learning activities and patient allocations.

Process of Clinical Teaching

From an *employee perspective*, the importance of workplace learning is connected to the employee as an individual professional developing his/her potential as well as to the Health Care Institutions need for updated professional competence towards the quality of care for the patients (Van Harten, 2015).

From a *clinical perspective*, the nurses who teach and guide nursing students through weeks of learning experiences see them as potential new recruits to their specialty field of nursing (Storey & Adams 2002, Happel 2008a). From a *student perspective*, clinical placements are both stressful (Timmins & Kaliszer 2002) and rewarding (Hartigan- Rogers et al. 2007) and viewed as the most

important part of nursing education (Kinsella et al. 1999, Myrick et al. 2006). Regardless of the perspective on clinical placements, a plethora of studies have found that clinical placement experiences may influence positively on nursing students attitudes towards the clinical setting in question (see, e.g., Fagerberg et al. 2000, Abbey et al. 2006, Happel & Platania-Phung 2012 and a recent review by Happel & Gaskin 2013). Graduate nurses contend that they are more likely to apply for work in settings where they had positive experiences during undergraduate clinical placements (Courtney et al. 2002, Edwards et al. 2004, Bjørk et al. 2014).

Clinical learning is supposed to be influenced of what Agyris and Schøen (1996) defined as "single – loop learning" and "double - loop learning".

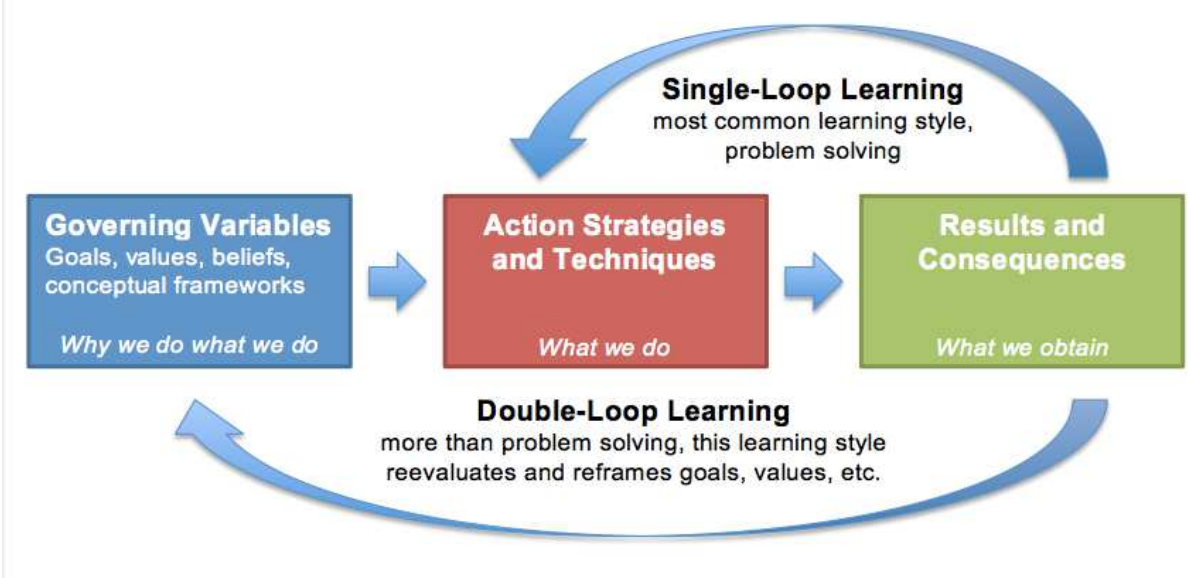

Figure 3 Singe-loop learning and Double-loop learning

Single loop learning is identified to be the most common and simple way of learning both individually and in organizations; what we do and what we obtain are the key parts of single loop learning. Single loop learning is limited when it comes to development and possibilities to change. Double loop learning is governing variables, necessary for development, changes and learning.

The process of clinical teaching in Health Care Institutions is supposed to include perspectives from double loop learning. Different learning activities need to be planned for both students and employees to be able to obtain double loop learning through clinical experiences.

To be able to initiate and participate in the students' learning process towards double loop -learning, the clinical teachers/clinical nurses, have to follow what we might call The Process of Clinical Teaching (Gaberson et al. 2015). The Process of Clinical Teaching is categorized in five steps:

1. Identifying the outcomes for learning
2. Assessing learning needs
3. Planning clinical learning activities
4. Guiding students
5. Evaluating clinical learning and performance

   (Gaberson et al. 2015, p. 95-124).

We may suggest using The Process of Clinical Teaching as kind of a manual for students' clinical studies in hospitals and other health care institutions as well as guidelines for Health Care Institutions planning their work place learning system for the employees. Our model that was explained earlier, is based on these 5 steps.

In the following, we will describe the 5-steps-model;

1. Identifying learning outcomes (LO)
    - identify the learning area and the taxonomy[1] in students' curriculum
    - compare the expected LO with the learning possibilities at the wards
    - identify the possible LO at the specific ward
2. Assessing learning needs
    - identify the individual students' prerequisite knowledge, skills and attitudes
    - identify the individual students' learning styles, cultural backgrounds, ages and other significant characteristics regarding their learning process
3. Planning learning activities

[1] A hierarchical system used for classifying levels of learning This system is called taxonomic classification., we have taxonomic systems for cognitive learning, affective learning and psychomotor learning

- Plan for learning activities
    - regarding the identified specific learning areas or learning outcomes
    - according to the learners' needs, interest and competence
    - according to the characteristics of the specific clinical setting; the size of the agency, the patient population
    - according to the clinical teachers/clinicians' availability
    - by organizing the activities to provide for the progressive development
- Decide upon the didactical methods to use
    - regarding evidence of the effectiveness of Clinical Teaching method and Learners activities; asking questions about best practice; reviewing literature and research to answer the questions; evaluating the quality of the evidence; decide whether the finding are applicable to the specific course, students and setting

4. Guiding students
    - To acquire the essential knowledge, attitudes and skills
    - A facilitative and supportive process that leads students to achievement of LO by coaching
    - Instructional phase in the clinical teaching process
    - Require Clinical teachers/clinicians skilled in
        - observing clinical performance; arriving judgments about the performance, planning additional learning activities if needed
        - awareness of their own values and biases when observing students
        - questioning students by thought-provoking questions to promote critical thinking and higher level learning; open ended questions about students-thinking and the rationale used for arriving at clinical judgment

- awareness of the way in which questions are asked; the purpose of questioning is to encourage students to consider other perspectives and possibilities in their performance and their thinking; promoting learning, reflective thinking and developing clinical judgment and not for grading

5. Evaluating students

    - Formative evaluation; monitoring students' progress towards meeting the LO; provide information for students' further learning needs and where necessary additional instruction is needed.

    - Summative evaluation; arranged in the end of students' stay/clinical placement, monitoring the acquirement of LO and provide the basis for grading in clinical

<u>Step 1 - What to learn in clinical - Learning Outcomes</u>

Undergraduate Nursing programs worldwide have different kinds of focus and learning outcomes for students during clinical placements. In Health Care Institutions, it is different systems for how they plan for and act regarding their organization's need for competence and the lifelong learning process for the employees (Unpublished material, ZorgSaam, Zeeuws-Vlanderen, 2015, Van Harten, Jasmijn, 2015). However, we may categorize the learning outcomes – what we may learn in the Health Care Institutions - in two main categories: Intended and Unintended Learning Outcomes (Gaberson et al. 2015 p 21 - 35), in which Intended Learning Outcomes are

- Cognitive Domain Outcomes; problem-solving; critical thinking; clinical reasoning and decision making
- Psychomotor Domain Outcomes; psychomotor skills; interpersonal skills; organizational skills
- Affective Domain Outcomes; beliefs; values; attitudes; dispositions essential elements of professional nursing practice
- Cultural Competence[2] Outcomes; cultural awareness; cultural sensitivity; cultural competence

[2] Include elements of all three categories

Unintended Learning Outcomes are

- Positive unintended outcomes as career choices (evaluate their desires and competence in future nursing career)
- Negative unintended outcomes like bad practice habits, academic dishonesty (lying, cheating, false representation regarding one's academic work)

To facilitate the learning process, we think it is of significant value to go deeper into assumptions for a process supporting students and employees to learn from their experiences during their placements and during their work.

Step 2 – Assessing Learning needs

Most often students and employees learning needs are connected to requirements in specific courses or development plans. However, to optimize the learning process for the particular student and employees, it is of importance to assess the students' and employees former learning experiences; what to learn; how to learn.

Step 3 - Clinical learning strategies

Purposeful organization of learning situations with variation in care tasks was also considered a key factor in a good clinical learning environment (Chan, 2002; Saarikoski et al., 2002). Students considered it important that the clinical lecturer was a facilitator rather than an instructor (Hauge, 1999; Henderson et al., 2006; Robinson & Cubit, 2005). Innovative teaching methods have also been suggested to positively influence perceptions of the learning environment (Chan, 2002; Henderson et al., 2006; Robinson & Cubit, 2005). However, in several recent studies, students reported that innovative teaching was the least developed aspect of clinical learning environments (Chan, 2002; Ip & Chan, 2005; Midgley, 2006). In all three studies, students also reported that the best developed aspect of the learning environment was Personalization, i.e.; opportunities for the student to interact with preceptor and members of the nursing team and to experience concern for the students' personal welfare (Berntsen & Bjørk, 2010).

When we go deeper into Innovation as Chan (2001, 2002) describes it, we may identify those items similar to the way Gaberson et al. (2015) describes the Process of Clinical Teaching. In step three - Planning for learning activities- it is mentioned three important factors to take into consideration when planning for students' learning process. This is 1) the identified specific learning areas/LO, 2) according to the learners' needs, interest and competence and 3) according to the characteristics of

the clinical setting (the size of the agency, the patient population; according to the clinical teachers/clinicians' availability; by organizing the activities to provide for the progressive development. The second part of step three is to decide upon the didactical methods to use. This means to 1) look into evidence of the effectiveness of Clinical Teaching method and Learners activities, 2) asking questions about best practice; reviewing literature and research to answer the questions, 3) evaluating the quality of the evidence and 4) decide whether the finding are applicable to the specific course, students and settings.

Other theorists (Bjørndal & Lieberg, 1974, Hiim & Hippe, 2006) suggest a model for the didactical approach when planning for, mentoring in and evaluating of learning processes in general: Didactical-relations-Model. The key factor in this is how the different aspects of the learning situation have an impact on each other and changes in one of the boxes will require considerations about changes in all aspects. The didactical-relations-model can be presented as followed:

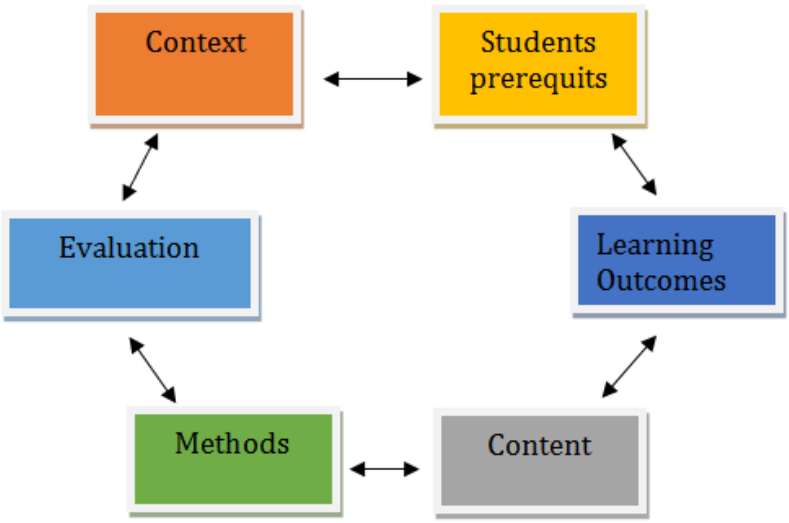

Figure 4 The didactical-relations-model

The importance of using didactical approaches in clinical learning processes is underlined by Patricia Benner's research in the US as well (Benner, 2010). In the following, we will give some examples of learning actions targeting nursing students in clinical studies as well as for employees. The learning actions are supposed to be considered through the above-mentioned didactical model.

Nursing students in clinical wards or placements have traditionally been expected to take different kinds of responsibility towards a certain amount of patients during the shift (Bjørk, 2000, Gaberson

& Oerman, 2011, Henderson, 2012). To provide comprehensive nursing care to one or more patients, is considered to be only one of many possibilities for students to learn nursing; nursing students are supposed to learning to care for patients; not nurses with responsibility for patient care (Infante, 1985 in Gaberson & Oerman, 2011). Bjørk (2000) suggests seeing the wards as context of caring and context of learning and the challenge for nurses, mentor and teachers is to integrate those two contexts. We may choose assignments form a wide variety of learning activities. Gaberson and Oerman (2011) suggest:

Learning assignments	**Learning Actions**
Teacher-selected assignments or Learner – selected assignments	Teacher responsibility – students may choose among several options – may encourage the learning process
Student – Patient Ration Options	One student/one patient, multiple students/one patient, multiple students/ patient aggregate
Skill focus vs Total care focus assignments	Students may focus on skills rather than the total care
Management Activities	Planning and managing care for a group of patients
Guided Observation	Observing purposely; learn through modeling, observing another person performing a skill, using written observing guidelines for particular situations and places
Service Learning[3]	Students participate in an organized service that meets identified community needs. Students reflect on the service activity to gain a deeper understanding of the course content, a broader appreciation of the discipline….

Table 1 Learning assignments and actions

Regarding Step 4 Guiding students

Clinical supervision and mentorship

Guidance by preceptors and clinical teachers had a positive influence on the learning outcome, if sound pedagogical principles guided student supervision (Henderson et al., 2006; Saarikoski et al., 2002; Thorell-Ekstrand & Bjorvell, 1995).

[3] Bentley & Ellison, 2005 in Gaberson and Oerman, 2011)

Three main components of supervision in healthcare practice summarized Driscoll et al. (2013) as:

- supervised practice and learning (mentoring, often involving a component of assessment on practice)
- organizational supervision (performance management e.g. appraisals, caseload supervision, day to day feedback and management supervision etc.)
- supportive supervision (lifelong learning and professional development e.g. clinical supervision, development coaching, modified action learning).

The basic parameters of supervised practice and learning include fulfilling institutional, Professional and individual learning outcomes as a part of a course of pre-qualifying and post- qualifying study. Mentoring may be considered an example of supervised practice. There is considerable evidence that a one-to-one relationship is of prime importance to the students learning and professional development in clinical practice. Confidential supervision sessions are considered important, because they enable the student to talk about their own experiences and feelings. More traditional models for student supervision were often predicated upon group supervisory approaches. Contemporary models emphasise individualised supervisory approaches. The mentoring role of staff nurses has become increasingly central to these clinical supervision processes (Warne, 2010).

There are three things that clinical supervision aims to do: to provide relief from the emotional and personal stresses involved in nursing; to help you do your work in an effective way; to enable you to gain the information and insights needed to develop as a nurse and make the best of your work. Clinical supervision has three functions (Proctor et al, 1992; Royal College of Nursing, 1999):

- restorative (helping to cope with emotional fatigue and stress);
- normative (enabling clinical effectiveness) and
- formative (encouraging lifelong learning and professional growth).

The main types of clinical supervision are:

- one-to-one supervision
- one-to-one peer supervision
- group supervision with a named supervisor

- peer group supervision
- network supervision

(Royal College of Nursing, 1999)

The term mentor in nursing is mentioned particularly in the period of last 3 decades. Agreement concerning the definition of this concept hasn't been reached up to the present. In most definitions authors match the same opinion that mentoring is the activity focused on assisting the others to get learned. In the findings of international scientific workshop with the title *Preparation of Mentors as a part of Professional Education in Nursing* (2nd Martins Summer School of Nursing – MLOS, September 2006) it was identified several concepts and terms related to mentorship: mentor, tutor, clinical supervisor, preceptor, guarantee, lector, instructor, adviser, co-mentor. The concept of clinical supervision was confirmed as an umbrella concept.

In the case of individual supervisor relationship, Tichelaar et al. (2013) used **mentor,** which is used specifically to describe a role of qualified nurse who acts as named personal supervisor. The term mentor we used as the sub-concept of clinical supervision. This concept describes the formal role of qualified nurse who facilitates learning and supervises a learner (students or other nurses) in the clinical nursing practice. It means that mentor is a named personal supervisor of the learner in the clinical nursing practice. Therefore, mentorship describes the relationship between a learner and his or her own supervisor (Tichelaar et. al, 2013). The aim of the mentor's role is to support and help the student to develop necessary skills to become competent and knowledgeable practitioner. (Saarikoski, 2008, p. 327)

:

The different definitions and roles connected to preceptor, mentor, and supervisor will not be further discussed in this booklet, however, each institution should define and choose the most appropriate definitions and role for the purpose of clinical teaching and learning for both students and employees. The roles and the competence of supervisor/mentor/preceptor in the learning process in health care institutions are crucial. Some of the partners in this Leonardo-project do have specific courses targeting nurses/significant others responsible for supervising/mentoring/preceptoring (see attached documents Program for Mentorship and Preceptorship in Slovakia).

Regarding Step 5 - Evaluation of the student

There are many evaluation methods for use in nursing education. Evaluation is mainly separated in Formative evaluation and Summative evaluation. For both students and employees we have to do both formative and summative evaluation. There is also a lot of literature about the evaluation of nursing students in clinical practice. There are some principles that should be kept in mind when evaluating students: it should be objective, fair, and free of surprises and should reflect the total work of performance and not only isolated behaviors (Durkin, 2010).

Several evaluation forms have been developed for the purpose to have a significant measurement of students' learning outcomes and performance in clinical practice. A common critique is that student evaluation is biased by clinical teachers and/or mentors' subjective understanding and thus based on discretion and personal values and attitudes.

In the following, we will describe an evaluation-system lately developed by one of the partners in the Leonardoproject. In the practical approach, there is an example of this rating scale.

Rating scale – contributing an objective evaluation /minimalizing discretion

Rating scale is indispensable tools in orientation evaluation. Many types of rating scales are used for evaluating clinical performance, one of them are Likert scale. Rating scales are most useful for summative evaluation. Rating scale also may be used to evaluate specific activities in clinical practice. A rating scale evaluation form has two parts:

- A list of learning outcomes
- A scale rating the performance of these outcomes.

The purpose of using a likert scale is:

1. Help students to focus/to attend on critical behaviour when perform nursing in clinical practice.
2. Give specific feedback to students about their performance
3. Demonstrate growth in clinical competencies over a designated time if the same rating scale is used. (Gaberson & Oerman, 2012, s.386).

Regardless of the type, all rating scales have numeric, qualitative or quantitative labels deepening on the preference of the evaluator. In this particular school it is developed a Likert Scale system; 1-4; measuring the level of students' independency; in which 1 «is depended and need assistance» and

4 is "independent and high level of performance". Our choice by using "Indepency" as mark for excellent competence, is based on the national curriculum for nursing (Ministry of Education and Research 2008).

Content of the evaluation forms: learning outcomes

In the evaluation form, we use the learning outcomes from the curriculum. The levels are formulated based on what a person knows, can do and is capable of doing because of a learning process. The outcomes of the completed learning process are described in the categories "knowledge", "skills" and "general competences" (The Norwegian qualifications framework for lifelong learning).

The categories describing learning outcomes include:

- **Knowledge**: Understanding of theories, facts, principles, procedures in subject areas and/or occupations. ieg: The student will demonstrate and apply knowledge about: Recent illnesses, examinations, diagnosis and surgical treatment
- **Skills**: Ability to utilize knowledge to solve problems or tasks (cognitive, practical, creative and communication skills). ieg: The student will assess patients' needs for nursing, including propose nursing diagnoses, defining goals for nursing and devise treatment plans
- **General competence**: Ability to utilize knowledge and skills in an independent manner in different situations. e.g.: The student will plan, evaluate and disseminate their own learning process and learning outcomes. Seek and accept supervision, show dedication, take the initiative and develop independence.
- **Attitudes: may be included in the general competence**

In the following table you will find an overview of the 5 steps, where our models is based upon, with the implications for the learner. For each step there is a distinction made between a student and an employee or a nurse who is already working in the workplace.

STEPS	RE.STUDENTS	RE.EMPLOYEES
Identifying the outcomes for learning	identify the learning area and the taxonomy[4] in students' curriculum compare the expected LO with the learning possibilities at the wards identify the possible LO at the specific ward	Identify the necessary and appropriate competence on the wards
Assessing learning needs	identify the individual students' prerequisite knowledge, skills and attitudes identify the individual students' learning styles, cultural backgrounds, ages and other significant characteristics regarding their learning process	Identify employees competence Compare employees competence with the competence necessary on the ward Identify the individual employees learning styles, cultural background ages and other significant character-istics regarding their learning process
Planning clinical learning activities	<u>Plan for learning activities</u> regarding the identified specific learning areas/LO according to the learners' needs, interest and competence according to the characteristics of the specific clinical setting; the size of the agency, the patient population according to the clinical teachers/clinicians' availability by organizing the activities to provide for the progressive development <u>Decide upon the didactical methods to use</u>	<u>Plan for learning activities</u> regarding the identified specific learning areas according to the learners' needs, interest and competence according to the characteristics of the specific clinical setting; the size of the agency, the patient population according to the systems' availability by organizing the activities to provide for the progressive development <u>Decide upon the didactical methods to use</u> regarding evidence of the effectiveness of Clinical Teaching method and Learners activities; asking questions about best practice; reviewing literature and research to

[4] A hierarchical system used for classifying levels of learning This system is called taxonomic classification., we have taxonomic systems for cognitive learning, affective learning and psychomotor learning

	regarding evidence of the effectiveness of Clinical Teaching method and Learners activities; asking questions about best practice; reviewing literature and research to answer the questions; evaluating the quality of the evidence; decide whether the finding are applicable to the specific course, students and setting	answer the questions; evaluating the quality of the evidence; decide whether the finding are applicable to the specific course, students and setting
Guiding students/ employees	To acquire the essential knowledge, attitudes and skills A facilitative and supportive process that leads students to achievement of LO by coaching Instructional phase in the clinical teaching process Require Clinical teachers/clinicians skilled in observing clinical performance; arriving judgments about the performance, planning additional learning activities if needed awareness of their own values and biases when observing students questioning students by thought-provoking questions to promote critical thinking and higher level learning; open ended questions about students- thinking and the rationale used for arriving at clinical judgment awareness of the way in which questions are asked; the purpose of questioning is to encourage students to consider other perspectives and possibilities in their performance and their thinking; promoting learning,	To acquire the essential knowledge, attitudes and skills needed for performing nursing care on the wards A facilitative and supportive process that leads employees to achievement of learning needs by coaching Instructional phase in the clinical teaching process on the wards Require clinicians – peers skilled in guiding, assessment, communication, reflection Require leaders skilled in the substance of double loop learning Require a system build for time for guiding and reflective performing

	reflective thinking and developing clinical judgment and not for grading	
Evaluating clinical learning and performance	Formative evaluation; monitoring students' progress towards meeting the LO; provide information for students' further learning needs and where necessary additional instruction is needed. Summative evaluation; arranged in the end of students' stay/clinical placement, monitoring the acquirement of LO and provide the basis for grading in clinical	Formative evaluation; monitoring employees' progress towards meeting the learning needs; provide information for employees' further learning needs and where necessary additional instruction is needed Summative evaluation; arranged in the end of a specific learning module

Table 2 5-steps-model for student and employee

5.3 Practical approach

In this part there will be some more practical examples and recommendations to create a good learning environment. This part follows the boxes as given in level II, the process of clinical learning. In this level there are four different phases that are important:

1. Before WPL
2. Start WPL
3. During WPL
4. End WPL

Each phase will be explained and completed with some practical examples and guidelines.

5.3.1 Before WPL

In this part there will some more information about the things to do for the educational partner and the healthcare organization, where the workplace training takes place. These are for the most part tasks for the educational partner, but there should be some form of consultation with the healthcare settings.

- **Assessing**

  Before the start of the internship or the actual workplace training on the ward, there are some important issues to consider.

Each nursing education should be based on competences. Those competences are learned during the theoretical part of the education, but also during the clinical training. So a student should get an overview of the competences that can be trained during the workplace training. Each healthcare organization has its own specific range of learning possibilities, which are linked to competences. For example, in a nursing home, the nursing student will work more independently and will get more in touch with leadership skills. Even in one specific healthcare institution there can be differences in the learning possibilities. For example, in the hospital there is a distinction between the different wards, such as pediatrics and geriatrics, where the student will have different learning opportunities and so they can achieve different competences.

All the above are factors for the educational partner to assess the learning outcomes for each period of workplace training and always taking the phase of the nursing education in account. The educational partner should select the competences that need to be achieved in a specific phase of the education program and link them to acceptable and realistic learning outcomes. For example, leadership skills should not be selected as a competence to be achieved in a first phase of a nursing education. This is a competence that should be achieved in the last phase.

When the learning outcomes in each phase are selected, the educational partner should assess the student's learning needs: which skills and/or competences should be more developed during the next internship? This is depending on the phase in the curriculum, but this can also differ from student to student. For example, one student can give communication skills as a learning need, and another student, who is very good in communicating with patients, can have problems with more technical skills, like wound care.

When the student has already done at least one internship, he can select learning needs, based on the feedback from previous internships on other workplaces.

The clinical teacher, who is responsible for the student, should make an overview of the learning needs, so he/she can take those in account when the student needs to be evaluated. He/she should also be aware of the learning opportunities on the different wards, for which he is responsible.

- **Planning**

When the learning needs per phase of the program and per workplace are determined, and the learning outcomes per period of internship and per phase are selected, the educational partner can select which workplace is the most interesting for each student. It can be interesting to involve students in this process or at least to know their preference for certain wards in healthcare institutions. As earlier mentioned, a motivated student will have better outcomes at the end of the workplace training.
When the planning for each student is made, the students should be notified. Each workplace where students can do to their internships, should have a script with the most important information about the ward: who is the mentor, what can they expect, what are the learning possibilities, what are the different shifts, how many beds are there on the ward, …? This script can be on paper, through a web tool, by use of a small video, … As long as it's possible for the student to consult this before the start of the internship. The script should give some clarification on what to expect on the workplace. It should also be possible to evaluate the script after each internship: students can give comments and the script can be updated.

- **Briefing**

  In this part of the preparation before the internship, the student and the clinical teacher of the educational partner should meet for the first time at the college/university. At this briefing student and teacher should discuss the learning needs of the student and make some learning goals, based on the learning possibilities during the internship. This should be done to assure the student can achieve certain learning outcomes and competences.
  The student should get the possibility to ask some more questions about the workplace, if necessary. After that, teacher and student should make some agreements, concerning the guidance from the clinical teacher: when will the teacher evaluate the internship, are there assignments to be made, does the teacher need to know the work schedule of the student, …? For the student, it is also important to know if the clinical teacher will work with the student on the workplace (bed-side-guidance) or will the teacher conduct only interviews during the internship?
  At this stage, the student should discuss with the clinical teacher when he/she needs to take contact with the ward's head nurse: does this need to be before the start of the workplace training or is the first contact on the first day of the workplace training?

Sometimes it can be feasible to take contact before the start, but only if the head nurse agrees.

In this stage, it can also be possible for the student to take an extra course to the his/her to expand his/her knowledge about the specific pathologies he/she will see during the internships. We advise to do this based on a e-learning module. The student can learn by going through the e-learning module, and after this, he/she can take the test on the first day of the internship. Organizing this test can give a better preparation of the student and the healthcare setting can link some consequences to this test: for example, when the student does not succeed for this test, he/she cannot start his/her internship, in the context of patient safety.

*This e-learning module and test can also be used in the context of lifelong learning for nurses who already are employed by the healthcare setting. Nurses can be evaluated on their knowledge by taking the test regularly. If necessary, they can take the course through the e-learning module.

5.3.2 Start WPL

In this part there will be more information about what to do at the start of the internship in a healthcare setting. These are mainly tasks for the healthcare setting, but it can be important to have an agreement with the educational partner on what will happen at the beginning of the workplace training.

- **General introduction**

  On the first day of the internship there should be a general introduction for all the students that start their internship that day. This general information should concern things like safety issues, where to take lunch breaks, how to pay for a meal, who to contact when there is a problem during the internship, … This information can be given by a clinical facilitator, who is employed by the healthcare institution. This clinical facilitator should be responsible for planning all the internships in the setting and thus should have an overview of the different wards.

  After the general information, the clinical facilitator should give a tour around the institution and point out the most important places. For a hospital this can be the

pharmacist, radiology department, laboratory, … After this tour, the students can be guided to their own wards, where they will do their workplace training during the next weeks.

Most of the time, this general information and tour is done in the morning of the first day. This means that students often are "dropped" during the morning/hygienic care. This is not the best time, because a lot of health care providers are very busy at that moment. If it's not possible for the mentor or the head nurse to be free when the student comes to the ward, the welcome can go wrong and will give a bad feeling to the student. We advise to do this in the afternoon, to assure someone has time to welcome the student. The head nurse can take this in account when making the work schedule.

- **Individual introduction**

  After the welcome on the ward, student should get a tour on the ward, get to know who is working there and what his/her tasks are, who will guide him/her and what the current patient population is. Students should be informed and briefed about the different patients, before they start caring for these patients. Literature states that a good organized welcome contributes to a better feeling and more motivated students and mentors. If the mentor has got the time to give some more information about the ward on the first day, both parties are highly motivated to start the intership.

  If it is possible, students can take the test through a web tool, as earlier mentioned (briefing), to evaluate their knowledge about the specific pathologies on the ward.

5.3.3 During WPL

In this part there will be more practical information about what is vital during the internship. There are 3 key partners who are involved in this phase: the learner, the mentor and the clinical teacher. Guiding, giving feedback and the optimal clinical learning strategy will be discussed.

- **Clinical learning strategy**

  The learning strategies are very important for the learner. At the beginning and during the learning process on the workplace, the learner can experience anxiety. When a mentor uses the correct teaching strategy, the learner can adjust his learning

strategy to this form of teaching. In this way, a learner can take a maximum advantage. Planned learning activities are a part of the clinical learning strategy for the learner.

Planned Learning Activities – Clinical Teaching

We may suggest some examples for effective clinical teaching strategies (Gaberson et al 2015) or as Chan (2001) suggested, productive learning experiences

- Self-directed Learning Activities

  Many individual differences among nursing students influence how they learn and how they are prepared when they enter the clinical courses, differences in learning styles, preferences in methods, cultural and ethnic background. It is varied types of self-directed learning activities for use in clinical courses and several of them are based on multimedia and ICT. In addition, we do have literature review and critique. When using self- directed activities, the teachers and mentors have to have an overview of the possible learning sources as well as guarantee the relevance of the learning activities for the particular clinical course

- Clinical Simulation

  Simulation is an increasing learning activity in nursing education worldwide, both in the educational institutions and in the healthcare institutions (Reierson et al., 2013). Simulations are activities designed to mirror real situations and the advantage is the possibilities to create specific learning situations meeting learning outcomes in the courses or in the wards. It is developed to be a learning concept within the context of simulation and to use this as a learning activity for nursing students in clinical courses as well as for employees, the mentors and teachers have to cover for the total concept adjusted to meet the expectation in the learning outcomes for either students or employees.

- Virtual Reality and Game Based Education

In this paper, we will not describe this Learning Activity in its fully potential. We will recommend the readers to do self-study in these topics and consider the relevance in the particular clinical course

- Case Method – Case Study

  By using Case Method – Case Study the students/learners are given "*Ability to apply concepts and theories to clinical situations, solve clinical problems, arrive at careful thought out decisions, and provide safe, quality care and essential competencies gained through clinical practice"* (Gaberson & Oerman, 2011, p. 213). These learning activities may contribute students' abilities to develop cognitive skills like problems solving, critical thinking and clinical judgment. The advantageis the possibility for the wards to create appropriate Cases adjusted to the particular wards

- Discussions and Clinical Conference

  Discussion is supposed to be an exchange of ideas for a specific purpose and clinical conference as a Learning Activity is a way of sharing information, reflections and learn how to behave and to collaborate. This Learning Activity is appropriate for use with a mix of students and employees at the particular wards.

The healthcare institutions have a great advantage for students to practice practical skills. In Norway, Professor IT Bjørk has developed a Model for Practical Skills – mirroring all aspects of a practical skill in nursing.

- Practising practical skills[5]

  Health Care Institutions are very good arenas to practice and to adjust practical skills in nursing, both for students and for employees (Bjørk, 1999). A model for practical skills in nursing is developed for the purpose to learn, to train and to

[5] Bjork IT. (1999) Practical skill development in new nurses. Nursing Inquiry; 6: 34-47.

evaluate nursing students in skills. This model is appropriate to use both in skills stations in schools and in the clinical field (Reierson, 2013)

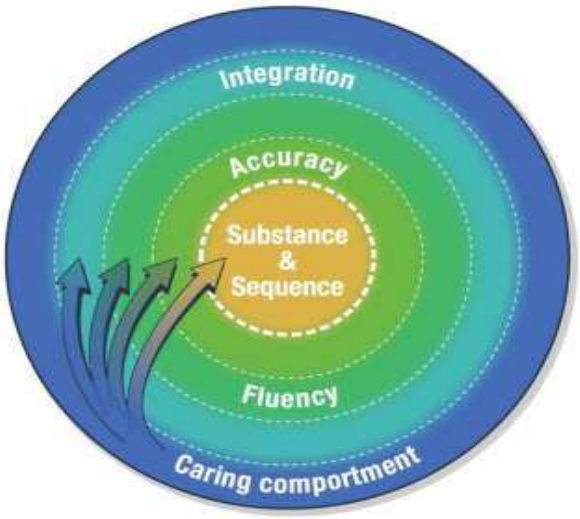

Figure 5 Model for practical skills

"*These categories are not seen as elements in a hierarchy. They are depicted as layers in a circle, a symbol of unity, wholeness and integration. The model is normative in the sense that all the categories within the circle must be realized in a good performance of a practical skill in nursing"* (Homepage; RINS.DK)
By using this model as a learning tool for nursing students and employees in clinical wards the students and employees will be guided towards a good performance of practical skills.

- **Mentoring - guiding**

We discussed mentoring in earlier chapters. We would like to refer to these chapters. During mentoring and guiding the learner it is very important to give the learner the opportunity to reflect on his/her own actions. Giving feedback to the learner is very important in this process of reflection.

The recipient of well-intended and well-delivered feedback receives a two-fold gift. First, there is the almost immediate benefit of hearing what others think. Second, there is the afterlife of feedback. We often replay in our mind what we've heard, review written feedback privately at a later date, and check out perceptions with family and others we trust. Often we'll make some changes immediately and then make more significant changes with deeper reflection and consideration.

The caveat to all this is the capacity and willingness of the recipient. This is a lot to do with how well and skilfully the message is delivered, but also on the openness and the emotional intelligence of the recipient to hear the message.

How to reflect?

The Gibbs' Reflective Cycle can be used to help learners reflect on their experience, make sense of situations on the ward, so that they can understand what they did well and what they could do better in the future.

About the Model:

Professor Graham Gibbs published his Reflective Cycle in his 1988 book "**Learning by Doing**." It's particularly useful for helping people learn from situations that they experience regularly, especially when these don't go well.

Gibbs' cycle is shown below.

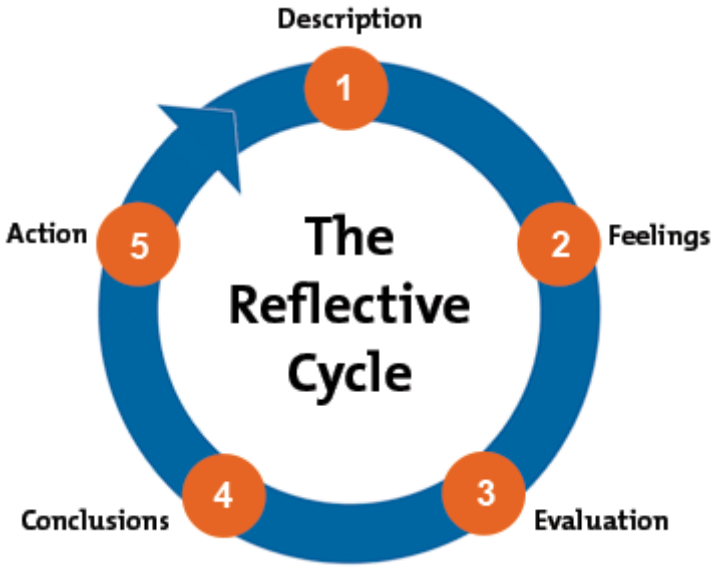

Figure 6 Gibbs' model for reflection (Learner's point of view)

From "Learning by Doing" by Graham Gibbs. Published by Oxford Polytechnic, 1988.

Note:

Gibbs' original model had six stages. The stage we haven't coverd here is "Analysis". We've included this as a part of the "Evaluation" stage.

Using the Model

This model can be used to explore a situation with someone who is being mentored or guided on the workplace. Thus, a mentor can use this model to let the learner reflect on certain actions that were performed.

To structure a coaching session using Gibbs' Cycle, choose a situation to analyze and then work through the steps below.

1. Step 1: Description

   First, ask the person you're coaching/ mentoring to describe the situation in detail. At this stage, you simply want to know what happened – you'll draw conclusions later.

Consider asking questions like these to help him describe the situation:

- When and where did this happen?
- Why were you there?
- Who else was there?
- What happened?
- What did you do?
- What did other people do?
- What was the result of this situation?

2. Step 2: Feelings

Next, encourage him to talk about what he thought and felt during the experience. At this stage, avoid commenting on his emotions.

Use questions like these to guide the discussion:

- What did you feel before this situation took place?
- What did you feel while this situation took place?
- What do you think other people felt during this situation?
- What did you feel after the situation?
- What do you think about the situation now?
- What do you think other people feel about the situation now?

Tip 1:

It might be difficult for some people to talk honestly about their feelings. Use Empathic Listening at this stage to connect with them emotionally, and to try to see things from their point of view.

Tip 2:

You can use the Perceptual Positions technique to help this person see the situation from other people's perspectives.

3. Step 3: Evaluation

   Now you need to encourage the person you're coaching to look objectively at what approaches worked, and which ones didn't.

   Ask him/her:

   - What was positive about this situation?
   - What was negative?
   - What went well?
   - What didn't go so well?
   - What did you and other people do to contribute to the situation (either positively or negatively)?

4. Step 4: Conclusions

   Once you've evaluated the situation, you can help your student draw conclusions about what happened.

   Encourage him to think about the situation again, using the information that you've collected so far. Then ask questions like these:

   - How could this have been a more positive experience for everyone involved?
   - If you were faced with the same situation again, what would you do differently?
   - What skills do you need to develop, so that you can handle this type of situation better?

5. Step 5: Action

You should now have some possible actions that your student can take to deal with similar situations more effectively in the future.

In this last stage, you need to come up with a plan so that he can make these changes.

Once you've identified the areas he will work on, get him to commit to taking action, and agree a date on which you will both review progress.

Tip:

This tool is structured as a cycle, reflecting an ongoing mentoring relationship. Whether you use it this way depends on the situation and your relationship with the person being mentored.

- Mid term feedback

  Effective feedback answers three questions :

  - Feed up – where am I going ? the learning intention
  - Feed back – How am I going ? Reflection –assessment
  - Feed forward – Where to next ? New learning goals

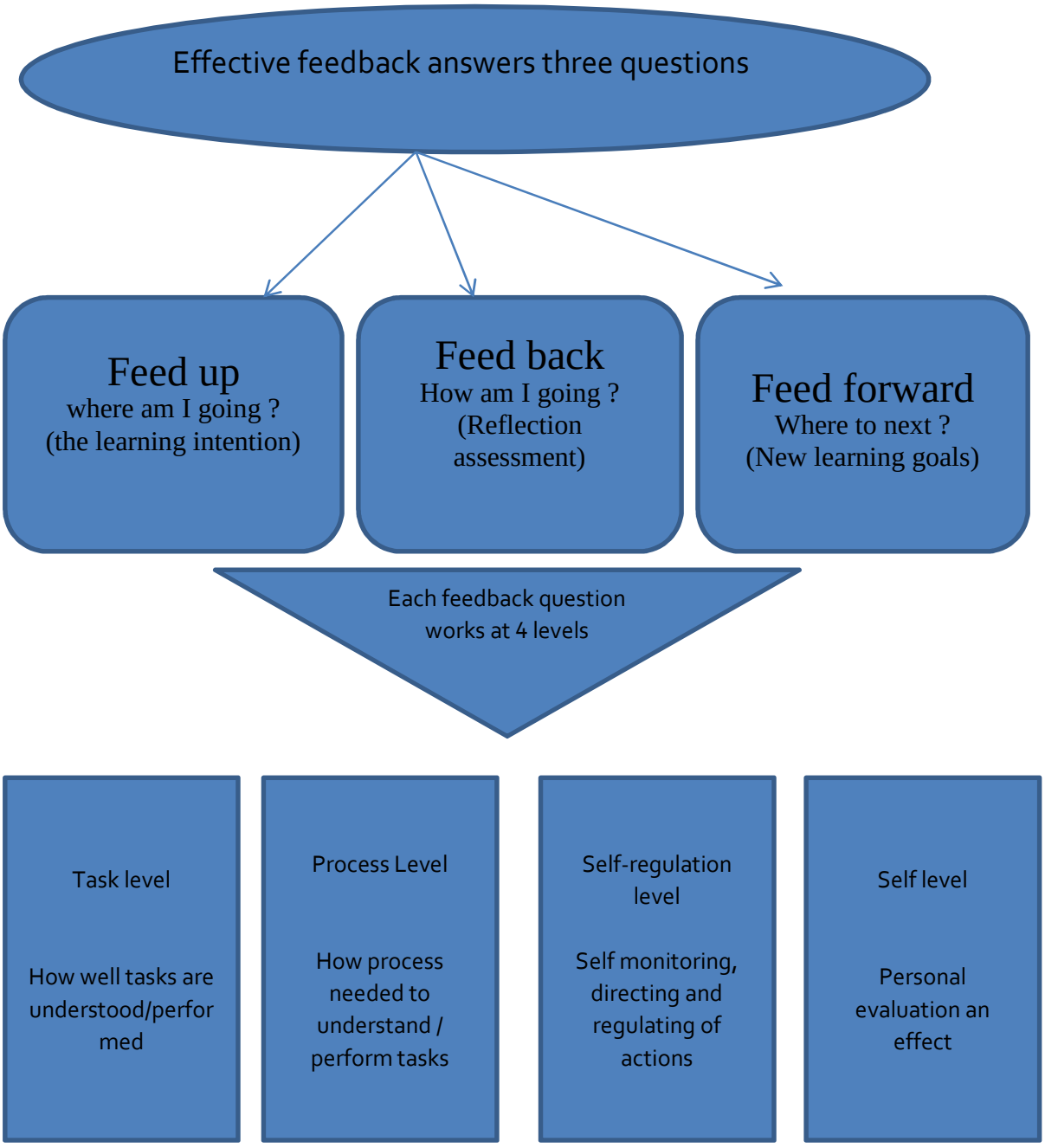

Figure 7 Adaptation from John Hattie's Feedback Model

Task level : is feedback about the task. It may include whether the work is correct or incorrect or include directions to acquire more or different information.

Process level feedback: is feedback aimed at the process. It focuses on the process used to create the task or complete the task an reflects upon the learning processes required for understanding or completing the task.

Self-Regulation level feedback: it encourages self-reflection, promoting greater application of skill and confidence to engage further on the task.

Self level feedback:

This is personal feedback. It is usually praise and often unrelated to performance on the task. Personal feedback is rarely effective. When feedback draws attention to the self, students try to avoid risks an challenges to reduce failure and minimize the risk to self. To help learners to focus on which skill they need to practice, they can use a checklist with all the skills needed to become a certified nurse. In attachment you can find an example that focuses on technical skills, but an addition of other skills, like communication, is possible.

5.3.4 End WPL

Evaluation at the end of the internship is a very important phase in the process of clinical learning. In nursing, there is often the question of who should be involved in this evaluation. In our schedule we have three parties: the student, the mentor or guiding nurse and the teacher. The mentor and teacher both focus on the objectives or learning goals that were established at the beginning of the internship (level II, Before). Those learning goals should be based on the competences that were selected to be reached during the different internships a student must complete during his/her education. To get a better understanding of the term competence, one should know that a competence contains of 3 factors:

- Skills
- Attitude
- Knowledge

The mentor on the ward has the advantage of working on a more daily base with the student, so he or she can monitor the student closer. So the mentor can focus on skills. This is an advantage a clinical teacher doesn't have. Next to the focus on skills, the mentor is also important in evaluating the attitude of the student towards patients or relatives. Knowledge can be evaluated by the clinical teacher, but also by the mentor, especially when we look to implementing theory in practice.
Since a common critique is that an evaluation of a student is based on the teachers' subjectivity and own interpretation of feedback from the mentor, it is necessary to develop an evaluation that is structured, standardized and clear for all parties. Using the learning outcomes, set in the preparation of the internship, as a standard and combining it with a likert scale to score each outcome, can give a conclusive image of the student's evolution and his final evaluation.

Evaluation of the student

The evaluation of the student should be done by as well a clinical teacher as the mentor of the ward. The mentor has the advantage of working with the student and he/she is better placed to evaluate nursing skills like taking blood pressure, wound care, bladder catheterization, ...
An important remark is that some procedures are taught differently in the educational institution than they are carried out in practice. It is important that the student knows the basic principles of nursing skills, for example working sterile. A mentor can use checklists of these procedures to evaluate the execution of these skills. You can find an example in attachment. These checklists can be used as a tool for giving the student objective feedback. The mentor has to leave some room for discussion when the student doesn't agree with the feedback. If both parties can't find an agreement, the opinion of the clinical teacher should be asked. Another way to evaluate this is to use the model for practical skills (Bjork IT. (1999) Practical skill development in new nurses. Nursing Inquiry; 6: 34-47). This model is mentioned earlier.
Other skills, like communication with patients, are more difficult to evaluate. The mentor has to know the basic principles of good communication, so he/she can pay attention to this, while observing the student. After each conversation with a patient, the student should get some feedback from the mentor, positive and negative.

Attitudes are also more difficult to evaluate. A mentor has to know first what is expected from a student. These expectations should be defined in the learning outcomes. To make it easier for a mentor, these attitudes can be defined by behavioral indicators. An example of an attitude is respect towards patients.

Behavioral indicators for respect:

- the student knocks on the door before entering the room
- the student asks visitors to leave the room before executing care
- the student speaks directly to the patient
- …

Knowledge can be easily evaluated during an oral examination with the student. This can be performed by the clinical teacher, but also by the mentor. When there is need of a more objectively way of evaluating, the student can make a test (E-learning or on paper) to prove he has obtained the necessarily knowledge on the ward. This test should be both general (medication, anatomy,…) and specific (pathologies, investigations, …) knowledge. An existing e-learning program on the ward can be helpful for testing the students, but also for testing nurses on the ward.

Which skills, attitudes and knowledge are evaluated, should be based on the selected learning outcomes and competences. These learning outcomes and competences can be listed in a function card, specific for every ward in the hospital. Before starting the internship, these function cards should be revised by the students, so they know what is expected from them to achieve during the internship. Next to the fixed learning outcomes for each ward, there should be room for specific learning outcomes and competences for each student individually.

An evaluation form should thus consist out of different parts:

- A clear subdivision of attitudes, skills and knowledge
- A likert scale to give an evaluation of learning outcome concerning the attitude, skill or knowledge
- Room for remarks, regarding the evaluated subject. This section should especially be filled out when the student scores "insufficient" or "sufficient with remarks".

Attitudes				
	Insufficient	Sufficient with remarks	Good	Very good
Respect				
Remarks:				
Skills				
	Insufficient	Sufficient with remarks	Good	Very good
Blood pressure				
Remarks:				
Knowledge				
	Insufficient	Sufficient with remarks	Good	Very good
Anatomy				
Remarks:				

Figure 8 Example of a possible evaluation form

This evaluation form should be filled out by the mentor and the clinical teacher during an oral consultation between these two partners.

As mentioned before, there should be at least 2 moments of evaluation: mid-term and end-term. The mid-term should be a formative evaluation and should be after at least the first week of the internship, but this is rather depending on the length of the internship. How longer the internship, how higher the need of more evaluation moments. The formative evaluation can be performed

orally, but at the end of this evaluation the learner should know what his strong and weak points are. This can be best put on paper and signed by mentor, clinical teacher and student.
At the end of the workplace training, there should be a summative evaluation of the student, based on earlier evaluations, feedback from the mentor, skills performance evaluations and even a knowledge test. The evolution of the student should always be positive. When there is a negative evolution all the key partners should look into this and trace the cause.
When there is an evaluation of the student, both mentor as clinical teacher should use the communication tool and feedback advices that were mentioned earlier.

5.3.5 Practical examples

- Teaching Department (TD)

  One of the partners in this project has established a ward like a Teaching Department, runned by nursing students under supervision of qualified nurses. The main goals for the Teaching Department is to provide care and teach nursing students. This may be a fruitful way when it comes to learning for both students and employees. Nurses need to learn something about guiding and mentoring students and students learn from the experienced nurse. Nurses also learn the latest findings from the students, as they get this information during their nursing education that should be up to date.

- Centre for Teaching and Care (CTC)

  A CTC is a hospital ward where teaching students and high-quality patient-care are two core processes. A clinical teacher is one day a week seconded from the educational institution to the hospital ward, in order to optimize mentoring of the students. This clinical teacher works together with mentors on the ward to guide students in the best way possible. With the presence of a clinical teacher and a mentor, who work together for a high-quality care and guiding students, there are possibilities to create a powerful learning environment. Next to an intensive guidance of the students, there is an optimal integration of the student in the team. The main tasks for the clinical teacher are: keeping up with the daily reality of the workplace, supporting mentors, monitoring and adjusting the learning process of students and finally also optimizing the patient care on the ward by implementing the latest knowledge, obtained in de educational institution. A mentor is in this concept an experienced nurse, has a one-to-one relationship with the student, stimulates the student

in taking initiative and responsibility and integrates the learning-aspect into the working-aspect. This concept increases the students' employability after graduation, increases the link between the workplace and the clinical teacher and it also increase the academic knowledge in daily practice.

- Care-ethics lab

  Another example for significant learning in health care, is called "Care-ethics lab", developed for the purpose to increase the quality towards vulnerable and/or older persons in specific workplaces:

  To generate empathy in the care of vulnerable older persons requires care providers to reflect critically on their care practices. Ethics education and training must provide them with tools to accomplish such critical reflection. It must also create a pedagogical context in which good care can be taught and cultivated. The care-ethics lab 'sTimul' originated in 2008 in Flanders with the stimulation of ethical reflection in care providers and care providers in training as its main goal. Also in 2008, sTimul commenced the organization of empathy sessions as an attempt to achieve this goal by simulation. The empathy session is a practical and fairly straightforward way of working to provoke care providers and care providers in training to engage in ethical reflection. Characteristic of the empathy session in the care-ethics lab is the emphasis on experience as a basis for ethical reflection.(Linus Vanlaere, 2010, p325)

  The article can be found in the references and is free available.

6 Level III: System evaluation

We consider the evaluation in healthcare institutions as a part of the individual learning process as well as a part of the clinical learning process within our model. We have the experience that in the daily routine the evaluation of clinical studies is mainly a task targeting the students, as discussed in level II. We recommend to broaden the Evaluation-focus to cover not only the students, but also the staff, the clinical learning environment and the organization (Moos, 1974, Bjørk, 1999, Chan, 2001, 2002, Benner, 2010, Henderson, 2012). We suggest five types of evaluation sources in this model:

1. Evaluation of the learning environment by using an instrument (CLEI or CLES + T). These should be completed by students.

2. Evaluation of staff by using an adjusted form of earlier mentioned instruments (adjusted CLEI or CLES + T), also completed by students.

3. Healthcare Institution/Ward evaluation - Analyzing the results from the instruments for use in Focus-group-interviews focusing the main aspects in Level II for

4. University/Course evaluation, in collaboration with the Institution and/or wards, focusing the three main aspects in the Pre-internship in Level II: assessing, planning and briefing

5. Healthcare Institution & educational partner: use of results from 3 and 4 focusing the main aspects in Agreements between key partners in Level I.

Based on these evaluations, both healthcare organization as well as the educational partner can make some adaptations throughout the whole process to improve it. Both partners should evaluate their own part in the system on level I and II. Using the feedback of the different key partners, they should make adaptations to optimize the system of creating a good clinical learning environment. After doing this individually, they should come together and compare their findings in order to cover all the feedback in the wright way.

In the following their will be a description of two interesting instruments to evaluate the clinical learning environment.

6.1 Evaluation of clinical learning environment

The clinical learning environment is a multidimensional entity with a complex social context that influences student learning outcomes in the clinical setting (Chan, 2002; Papastavrou et al. 2010). Exploration of this environment gives insight into the educational functioning of the clinical areas and allows nurse teachers to enhance students' opportunities for learning (Papastavrou et al. 2010). Chan (2002) asserted that identification of factors of the social climate that characterize a clinical learning environment could lead to strategies that foster those factors most predictive of student learning outcomes.

The evaluation of clinical teaching and learning has been of interest for many years (Chan, 2001). There is no common theoretical structure in the nursing literature for research into clinical teaching and supervision (Saarikoski and Leino-Kilpi, 2002). Most studies have targeted students' experience in diffrent clinical settings (hospitals, nursing homes etc). Several qualitative and mixed methods studies have focused on one or a few aspects of the learning environment (Bjørk et al., 2014). These studies have extracted a variety of themes across clinical settings such as the impact of different leadership style of the ward manager, supervision models, tutorial strategies, supervisory relationships or staff–student relationships on students' learning experience.

Papastavrou et al. (2010) provided a short chronologic review of studies focused on the evaluation of a clinical enviroment. Early studies in the 1980s examined multiple facets of student learning on clinical placement and demonstrated the complexity and demanding nature of the clinical environment (Ogier, 1981; Orton, 1981). Other studies questioned the effectiveness of clinical settings, and recognized it as a source of stress, creating feelings of fear and anxiety which in turn affect the students' responses to learning (Kleehammer et al., 1990; Kim, 2003). Several specific studies focused on hospital learning environments from the psychosocial educational/learning?? perspective (Chan, 2001; 2002; Berntsen & Bjrøk, 2010)Bjørk et al., 2014).

Another types of studies focused on the leadership style of the ward manager (Saarikoski and Leino-Kilpi, 2002). Later empirical studies concentrated on the supervisory relationships and supervision that takes place with an individual supervisor or in a group (Saarikoski, 2008). Terms like ''mentor", ''preceptor" and ''link teacher" are extensively explored to describe a supervisory role and the one-to-one relationship between student and mentor, or individualized supervision was found crucial to the process of professional development (Papastavrou et al. 2010). Other studies focused on staff–

student relationships and the impact this relationship has on students' learning (Andrews and Roberts, 2003;).

Several instruments have been developed to measure students' overall perceptions of clinical learning environments including aspects such as stressors in clinical settings and student's experiences of stress and anxiety in a clinical setting; the quality of staff–student relationships; role of the teacher, and the availabilty and variety of nursing tasks in the ward (e.g. Chan 2001, 2002, Saarikoski & Leino-Kilpi 2002, Saarikoski et al. 2008).

Saarikoski and Leino-Kilpi (2002) reported that it is difficult to find a robust instrument which could provide a valid measure of the quality of the clinical learning environment in a range of contexts. Some measurement instruments for assessing aspects of the clinical learning environment have been developed (Chan, 2001; Saarikoski and Leino-Kilpi, 2002) including most of the components synthesizing a clinical environment as an area of learning.

The Clinical Learning Environment Inventory (CLEI; Chan, 2001; 2002) and the Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T) evaluation scale (Saarikoski & Leino-Kilpi 2002, Saarikoski et al. 2008) have been recent and most commonly used complementary tools in measuring students' perceptions of clinical learning environments in international studies. Therefore, we decided to describe these instruments in this section.

6.1.1 CLEI

The Clinical Learning Environment Inventory.

Purpose

The CLEI measures students' perceptions of personalisation, involvement, task orientation, innovation, and individualisation that are pertinent to their psycho-social wellbeing and learning possibilities during the clinical practicum (Chan, 2001, 2002). The CLEI enables researchers and clinical teachers to assess student nurses' perceptions of psycho-social aspects of the clinical learning environment. Using this scale could lead to maximizing the benefits of clinical placements (Chan 2001, 2002).

Development of the CLEI

The CLEI was developed following an in-depth literature review on classroom learning environments, clinical learning environments, and discussion with experts in the field of nurse education and clinical nursing (Chan, 2002). The resulting inventory was based
on the existing scales of the College and University Classroom Environment Inventory (CUCEI) (Fraser et al.1986) and Moos's (1974) three dimensions for conceptualizing all human environments: relationship, personal development and system maitenance and system change(Fisher & Parkinson, 1998; Moos, 1974, as cited in Chan, 2001b.

The CLEI-factors are supposed to cover and frame for a good quality in clinical learning. In several of the studies using CLEI, it is reported low scores on the subcategory Innovation[6] (Chan, 2001, 2002, Henderson et al 2008, Berntsen & Bjørk, 2010, Bjørk et al. 2014, Brynildsen et al. 2014)
Recent research worldwide shows a lack of innovative learning strategies/ activities for nursing students in health care institutions (Chan, 2001, 2002, Chan & Ip, 2007, Henderson et al 2008, 20012, Berntsen & Bjørk, 2010, Skaalvik et all 2011, Bjørk et al 2014, Brynildsen et al 2014).
To be able to characterize wards to be good learning environments, it is necessary to develop strategies for the specific learning activities, learning activities encourage both single and double loop learning.

Structure of the CLEI

The CLEI comes in two versions: the Actual form, which measures the learning environment as perceived by the student, and the Preferred form, which measures ideally liked or preferred perceptions. Item wording is similar, but instructions differ. The CLEI consists of the actual form which measures student perception of the actual hospital learning environment, and the preferred form which assesses student perception of the hospital environment ideally liked or preferred. In order to achieve economy in answering and processing, the CLEI was designed to have a relatively small number of reliable scales, each containing a fairly small number of items. The final version of the instrument contains 42 items, with 7 items assessing each of six scales:

[6] measures the extent to which the clinical teacher or clinician plans new, interesting, and productive learning experiences, teaching techniques, learning activities, and patient allocations

1) Individualization—reflects the extent to which students are allowed to make decisions and are treated differentially according to ability or interest.
2) Innovation—measures the extent to which the clinical teacher or clinician plans new, interesting, and productive learning experiences, teaching techniques, learning activities, and patient allocations.
3) Involvement—assesses the extent to which students participate actively and attentively in hospital ward activities.
4) Personalization—emphasizes opportunities for individual students to interact with the clinical teacher or clinician and concern for students' personal welfare.
5) Task orientation—assesses whether the instructions for hospital activities are clear and well organized.

   These scales pertain to specific aspects of the environment. Chan (2002) also developed an additional seven-item scale to assess students' overall
6) Satisfaction with their clinical placement. This subscale was later added to the final version of the CLEI (Chan & Ip, 2007).

Individualisation reflects the extent to which students are encouraged to make decisions and are treated differentially according to ability or interest. Innovation measures the extent to which clinical teacher or clinician plans new, interesting, and productive learning experiences. Involvement assesses the extent to which students participate actively and attentively in hospital activities. Personalisation emphasises on opportunities for individual student to interact with the clinical teacher. Task orientation, however, assesses whether the instructions for hospital activities are clear and well organised. Student Satisfaction, was used to assess the students' level of satisfaction arising from their clinical placements. This scale, designed as an outcome measure, which reflects the extent of students' enjoyment, was utilised for investigation about the associations between student outcomes and the hospital learning environment (Chan, 2002, Chan 2003, Berntsen & Bjørk, 2010).

Administration of CLEI

The instrument has been designed so students answer the questions directly on the questionnaire. A response to each item in the CLEI is marked on a 4-point, Likert-type scale, ranging between the alternaives of strongly agree, agree, disagree, and strongly disagree. The 42 items are a mixture of positive and negative items. The instrument can be readily scored by hand. Underlining an item number and writing the letter "R" in the researcher use only column identifies items that are reverse

scored. Items not underlined or without the letter "R" are scored by indicating the corresponding number (i.e., 5 = strongly agree, 4 = agree, 2 = disagree, 1 = strongly disagree). The scoring direction is reversed for approximately half the items. Omitted or invalidly answered items are scored as 3 (Chan, 2002).

Psychometric properties

The reported internal consistency reliability of the total scale score, and of the five identified factors of Individualization, Innovation, Involvement, Personalization and Task.
Orientation (Chan 2002), are all acceptable by published standards. The sixth scale, Satisfaction, was derived as an overall outcome of students' satisfaction arising from their clinical placements (Chan 2004), and we have been unable to locate any data on
internal reliability for this particular scale. Newton et al. (2010) tested the psychometric properties of the CLEI on a sample constisted of 513 students . Principal components analysis using varimax rotation was conducted to explore the factor structure of the inventory. Authors identified 6 factors: student-centredness, affordances and engagement, individualization, fostering workplace learning, valuing nurses' work, and innovative and adaptive workplace culture. This study offers an empirically based and theoretically informed extension of the original scale. Further research is required to establish the consistency of these new factors.

Measure	**Country of origin**	**Implementation in clinical nursing education**	**Number of domains (scales)**	**Domains**	**Validity**
The Clinical Learning Environment Inventory (CLEI)	Hong Kong The most commonly used in Australian context	Chan, 2004 – (Australia) Henderson et al., 2006 (Australia) Smedley, Morey, 2009 (Australia) Perli, Brugnolli, 2009 (Italy) Berntsen& Bjørk, 2010 (Norway)	6 scales (42 items)	Individualization Innovation Involvement Personalization Task Orientation Satisfaction	ad hoc clustering of items good internal reliability of scale

		Bjørk et al., 2014 (Norway) Midgley, 2006 (UK)			

Table 3 Overview of the CLEI

6.1.2 CLES and CLES+T

The Clinical Learning Environment, Supervision (CLES) and the Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T) evaluation scale

Purpose

The CLES and CLES+T scale can be used as a part of the total quality assessment of nurse education perceived by student nurses . The CLES+T scale gives a possibility to evaluate primarily nursing teacher's pedagogical and social role-dimensions in the
clinical practice of student nurses (Saarikoski et al., 2008).

Development of the CLES

The CLES+T scale is based on the content analysis of the results arising from a number of empirical studies, audit instruments and systematic literature reviews published between 1980 and 2006. The theoretical framework of this instrument is based on the dyadic nature of the clinical environment: One is the clinical learning environment including the ward atmosphere (for example, the atmosphere produced by the nursing team), the culture (the basic ideas and principles of teaching and learning on the ward) and the complexities of care (Saarikoski and Leino-Kilpi, 2002). The second area is the supervision of student nurses by staff nurses. This means all the teaching and supervisory activities by staff nurses on the ward (Saarikoski and Leino-Kilpi, 2002).

The original CLES scale and the subsequent CLES+T scale have been validated in twodifferent empirical studies (Saarikoski and Leino-Kilpi, 2002; Saarikoski et al., 2008). The CLES was tested empirically in a study involving 416 nurse students from four nursing colleges in Finland in 2002. The results of validation study demonstrated that the method of supervision, the number of separate supervision sessions and the psychological content of supervisory contact within a positive ward atmosphere are the most important variables in the students' clinical learning. The results also suggest that ward managers can create the conditions of a positive ward culture and a positive attitude towards students and their learning needs (Saarikoski and Leino-Kilpi, 2002). The CLES+T scale has been validated within a Finnish study (N=549) during 2007.

Structure of the CLES+T

The original CLES consists of 27 statements which form five sub-scales – ward atmosphere (5 items); leadership style of the ward manager (4 items); premises of nursing care on the ward (4 items); premises of learning on the ward (6 items) and supervisory relationship (8 items). In 2008 a new sub-scale to the CLES was added, to measure the quality of nurse teachers' pedagogical and social role dimensions with regard to supporting students in clinical practice. The CLES +T scale consists of 34 statements which form 5 sub-dimensions: pedagogical atmosphere on the ward (9 items); supervisory relationships (8 items); the leadership style of ward managers (4 items); premises of nursing (4 items); and the role of the nurse teacher (9 items). A five-step continuum scale on all statements of the CLES+T was used: (1) fully disagree; (2) disagree to some extent; (3) neither agree nor disagree: (4) agree to some extent and (5) fully agree.

Psychometric properties

The structure of the CLES+T scales factor model followed theoretical presumptions and the factors' eigenvalues and explanation percentages (64%) were sufficient. Reliability coefficients of the other sub-dimensions of CLES+T scale ranged from high (0.96) to marginal (0.77). These values reflect those achieved with the initial CLES scale (from 0.94 to 0.73). In the international European sample from 9 countries (Cyprus, Belgium, England, Finland, Ireland, Italy, Netherlands, Spain and Sweden) the reliability coefficients of the sub-dimension varied between 0.96 and 0.83 (Warne et al., 2010).

Measure	**Country of origin**	**Implementation in clinical nursing education**	**Number of domains (scales)**	**Domains**	**Validity**
The Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T)	Finland The most commonly used in European context	Saarikoski et al. 2008 (Finland) Warne et al. 2010 (9 European countries – Cyprus, Belgium, England, Finland, Ireland, Italy, Netherlands, Spain and Sweden)	5 scales (34 items)	Pedagogical atmosphere on the ward Supervisory relationships The leadership style of ward managers Premises of nursing items	construct validity internal reliability

				The role of the nurse teacher	

Table 4 Overview of the **CLES+T**

7 Contact information

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8 Attachments

8.1 Checklist for administering inhaler medications

Teacher: ..... Student: ..... Date:			
SKILL	**+**	**-**	**COMMENTS**
State the name and purpose of the procedure			
Preparation			
Identify the patient & the patient medication report			
Identify all the medications to be given			
Identify the amount to be given			
Identify medication(s) to be given at this time			
Check if order is current			
Check for allergies			
Identify type of medication			
Check for special instructions regarding administration			
Administration			
During entire procedure respect patient's privacy			
Read entire name and dose of medication to be given at this time			
Obtain the medication from secure storage area			
Check the expiration date on the label of package or container and read the label carefully			
Place the bottle or container by the name of the drug on the medication record and be positive the label on the container and the medication coincide			
If they don't, do not give the medication and clarify			
Identify patient to receive medicine. Call him/her by name, check			

identification and check picture ID if available			
Execution			
Explain the procedure to the patient			
Position patient			
Wash hands			
Put on gloves			
Assemble inhaler			
Shake and/or insert medication in the canister			
Ask the patient to enclose the mouthpiece with the lips while holding the inhaler vertically			
Have the patient exhale deeply, and then slowly inhale through the mouth while pressing firmly on the inhaler. Ask to continue inhaling deeply			
Have the patient hold his breath for a few seconds			
Remove the mouthpiece and ask to exhale slowly			
If a second haler is ordered, wait at least 5 minutes			
Replace the protective cap			
Have the patient rinse his mouth with water			
Leave the patient in a comfortable position, following observation of the result			
Remove gloves and dispose of them properly			
Wash hands			
Clean and replace equipment as specified			
Documentation			
Document in the nursing file			
Note date and hour and the medication given			
Note and document unusual complaints and action taken			
Write your ID and give signature			
Wash hands before contacting other patients			

8.2 Clinical skills self-assessment checklist

Name: _____

This skills checklist is meant to be a self-assessment guide for you. Determine approximately when you last performed some, if not all of these skills in a nursing clinical position. If you are satisfied with your skill performance for the skills listed below please indicate. As you have been away from the field of nursing for sometime, both the Simulation and Clinical experiences are designed for you to obtain more hands-on time moving towards proficiency with clinical skills; they are not designed for testing. This checklist will also help you and your preceptor evaluate which skills to spend more time on in the clinical area.

Clinical Skill	Year last performed clinical skill	Satisfactory	Needs more hands-on time	Recommendation(s)
Handwashing				
Donning and removing personal protective gear				
Bedmaking (unoccupied and occupied)				
Bathing the client				
Oral hygiene				
Bedpan/Urinal				
Vital Signs (Temp., Pulse, Resp. Rate, Blood pressure)				
Oral feeding				
Enteral feeding				
Transfer of client (bed/chair/gurney/arjo lift/bariatric equipment)				
Range of motion (ROM)				
Client repositioning				
Restraints				
Pressure ulcer care				
Sterile dressing change				
Point of Care Fingerstick Glucose testing				
Urinary specimen collection				
Intake and Output				
Ostomy care				
Insertion of Indwelling urinary catheter				
Strait catheterization				
Enema				
NG/G-tube insertion				

NG/G-tube care				
Insert Peripheral IV/Venipuncture				
Medication Administration • PO				
• IM/ Subq				
• IV-piggyback				
• IV push				
• Ophth/Otic				
• Topical				
O_2 therapy				
Admission Assessment				
Documentation of care				
Basic Shift assessment				
Discharging a Client				
Suctioning (oral, NT)				
Care of Drains (JP, Hemovac, other)				
Trach Care				
Other				

Signatures needed only when in clinical areas:
Clinical preceptor name and initials: _____

Clinical preceptor name and initials: _____

8.3 Presentation Teaching Department

8.4 Presentation Centre for Teaching and Care

8.5 CLEI

8.6 CLES + T

8.7 Course for mentor (Slowakia)

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