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Becoming a caring nurse
– the heart of the matter in nurse education
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The cover picture is a Hubble Space Telescope image of MyCn18, a young planetary nebula located about 8,000 light-years away from earth.

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BECOMING A CARING NURSE
– THE HEART OF THE MATTER IN NURSE EDUCATION
Becoming a caring nurse
– the heart of the matter in nurse education

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ABSTRACT

Sandvik, Ann-Helén, 2015: Becoming a caring nurse — the heart of the matter in nurse education

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This thesis in caring science didactics is based on a thinking, where the fundamental basis for the didactic is science-based, i.e. it does not emanate from the nursing profession but brings forward a didactic that grows out of caring science and its core substance and ethos. This view on didactics arises from the caritative theory developed by Eriksson.

The overall aim of the study is to clarify the meaning and essence of understanding, as well as to explore and deepen the understanding of student nurses’ processes of understanding and becoming with the intention of developing a theory model for caring didactics. The overarching research questions are: What is the essence of understanding (of caring science knowledge)? What are the possibilities and importance of understanding in the appropriation of caring science? What characterizes and impuls the process of becoming?

The thesis consists of four sub studies and a summary section. The overall methodological approach is hermeneutic involving quantitative as well as qualitative methods. The data for the study has been collected through a longitudinal research project that followed student nurses at three universities during their entire education. The empirical sub studies form the basis for the interpreted knowledge that is formulated in the new understanding. This new understanding have, through additional theory-charging with the theory fragments from Gadamer, generated the heuristic synthesis which is illustrated in the theory model.

The findings shows that understanding can be described as something unlimited, as an endless movement, which can be illustrated as a lying eighth, a lemniscate. The lemniscate of understanding is characterized by seeing, knowing and becoming and consists of seven differently named phases; the acquired horizon of understanding, the encounter of horizons, the dialogue of horizons, the fusion of horizons, application, reflection and shaping a new horizon of understanding. Bildung (formation), is the ultimate imprint of the endless spiral movement of understanding. Ethos and arête constitute the hubs around which the lemniscate of understanding circles. These include the spirit and driving force that the student carries within. The caring culture encloses the lemniscate of understanding. The caring culture provides the life space of understanding and the prevailing basic values are evinced in the culture.

Keywords: understanding, seeing, knowing, becoming, Bildung, caring didactics, hermeneutics
ABSTRAKT

Sandvik, Ann-Helén, 2015: Att bli en ‘caring’ sjukskötare - kärnan i vårdutbildningen

Handledare: FD, Professor emerita Katie Eriksson, Åbo Akademi
HVD, Docent Yvonne Hilli, Høgskolen i Oslo och Akershus

Denna avhandling i vårdvetenskapens didaktik bygger på ett tänkande, där den grundläggande basen för didaktiken är vetenskapsbaserade, dvs. att den inte utgår från sjukskötaryrket, utan lyfter fram en didaktik som härrör från vårdvetenskap och dess kärnsubstans och ethos. Denna syn på didaktik har sitt ursprung i den caritativa teorin som utvecklats av Eriksson.

Det övergripande syftet med studien, som har en hermeneutisk ansats, är att klargöra innebörden och kärnan i förståelse, samt att utforska och fördjupa förståelsen för sjukskötarstuderandes förståelse- och tillblivelseprocesser med avsikt att utveckla en vårddidaktisk teorimodell. De övergripande frågorna är: Vad är kärnan i förståelsen (av vårdvetenskaplig kunskap)? Vad är förståelsens möjligheter och betydelse i tillägnelsen av vårdvetenskaplig kunskap? Vad kännetecknar och framkallar tillblivelse processen?


Sökord: förståelse, inseende, kunnande, tillblivelse, bildning, vårddidaktik, hermeneutik
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Vikby in March 2015

[Signature]

Ann-Helén Sandvik
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I. INTRODUCTION

“The beginning of all science is the surprise that things are what they are.”

Aristotle

1. Introduction

This thesis in caring science didactics is based on a thinking, where the fundamental basis for the didactic is science-based, i.e. it does not emanate from the nursing profession but brings forward a didactic that grows out of caring science and its core substance and ethos. This view on didactics arises from the caritative theory of the caring science tradition that has developed at the Department of Caring Science, Åbo Akademi University (Lindström, Nyström, & Zetterlund, 2014; Eriksson, 2002; Eriksson, 2001). This perspective also involves an overall epistemological and methodological approach for theory generation that is hermeneutic. Hermeneutics is seen as a natural and fundamental prerequisite for being able to make the caring science tradition, its ethos and "matter" alive and evident, which helps to sharpen the sight towards a continued search for a deeper meaning (Eriksson, Lindström, Lindholm, & Matilainen, 2007). When approaching the theme of the thesis, i.e. understanding, it is this perspective that sets the direction and focus of the research.

The present thesis studies the phenomenon of understanding in relation to the way student nurses develop understanding during their nurse education. According to Gärdenfors (2011), one can roughly distinguish between two types of understanding. One type is the “aha experience”, i.e. the immediate realization in context. The second type is a slower form of understanding that results in “getting the hang of a field of knowledge”, i.e. grasping it. In this slow form of
understanding, one is often not aware that the level of understanding is increasing, although it does become evident as an increasing ability to solve new problems within the field of knowledge. In the learning of nursing care, both types of understanding are of course represented. However, although the instantaneous “aha experiences” are not to be underrated, a slow process of understanding is required in order to become an expert in one’s field of expertise (Gärdenfors, 2011). Here, time is of crucial importance. No topic is generative if the students do not have enough time in which to explore the subject matter, make connections and develop their understanding (Blythe, 2006).

Promoting understanding is one of education’s most persistently acclaimed objectives (Blythe, 2006). Regardless of the type of understanding, understanding in itself has no value if the focus is not on that which is to be understood, i.e. the substance. Thus, that which is to be understood constitutes the essence of learning for understanding, implying focusing mainly on what, i.e. substance rather than how, i.e. methods. For a student nurse, this means the opportunity to learn and understand the matter in nursing care.

In other words, learning for understanding has advantages over learning how. The acquirement of knowledge and skills does not guarantee understanding; one can possess them without understanding their basis or knowing when or how to use them. Understanding implies being able to think, act and apply the knowledge (Newton, 2000) in different ways in various situations. The understanding gives rise to productive knowledge (as opposed to repetitive knowledge) which allows students to apply their knowledge to new types of problems. Thus, education leading to understanding provides deeper insights and makes it easier to understand why one solution is better than another. Thus, the acquired understanding becomes visible in performance (Wiske, 2010). In this respect, understanding not only affects the students’ knowledge and concrete action, since it is also linked to formation. In other words, what we understand we appropriate. Once one has seen the “pattern” and understood, you cannot erase it or make it
unseen. It becomes a part of you. As such, understanding affects us as people and forms the kind of people we grow to become. In this respect, formation can be linked with the slow process of understanding. Formation knowledge is appropriated knowledge which is incorporated in such a manner that it becomes "our own". This means that we have interpreted and understood the information in our own way. It is also a prerequisite for us to be able to use it in a more long-term way than to simply repeat it. Being able to use the knowledge in practice is a measure to show that we really have appropriated it (Gustavsson, 2009). Thus, learning to become a nurse is not just about learning how to act like a nurse; it is also about being a nurse. For me, who has roots firmly in caring science, this implies appropriating the ethos of caring in words, stance and action.

Gustavsson (2011) argues that education has been capitalized and market aligned with standards of efficiency, productivity and thrift. These hard values have been strengthened and societal decisions are based increasingly on short-term economic gains (Opetusalan ammattijärjestö, 2014), leading to a reduction of knowledge and humanity to an economic level (Gustavsson, 2011). Thus, knowledge and learning has, to a higher degree, come to exist for economic growth, not for human growth (Gustavsson, 2011).

Gustavsson (2011) argues that today's education system encourages mediation pedagogy, by transferring given knowledge. In education and upbringing, a too strong task-oriented approach and an emphasis on theory prevail, while there is a lack of supervision and coaching (Opetusalan ammattijärjestö, 2014). The educational nursing programmes of today have been criticized for focusing more on doing, i.e. acting on acquired knowledge and skills, than on becoming (Dall’Alba, 2009; Guenther, 2010). In other words, attention is largely given to tasks or functions (Mulcahy, 2011). To counter this problem, there is now a strong need to support students in order to help them develop a critical stance to both professional knowledge and to the kinds of professionals they are becoming (Scanlon, 2011a).
For nursing care to be effective, thus fulfilling its function, the focus in nursing ought to be on the matter of nursing care, i.e. caring. Thus, to be a good caregiver it is assumed that the education is designed in such a way to support students in their development of understanding regarding nursing care. But what does understanding mean and how does the education support the students in their formation to become nurses who have appropriated the matter of nursing care and are able to provide good nursing care? How do students appropriate a caring perspective and a caritative attitude and ethos that are expressed in words, stance and action?

As a teacher with many years of experience in nursing education, I am concerned about the nurse education practised today when considering the issues stated earlier. Student nurses’ learning focusing on their processes of understanding and becoming appears to be a neglected area of research since there are very few studies that touch upon this. No study explicitly focusing on student nurses’ processes of understanding and becoming have been found. Thus, there seems to be a need for research aimed at outlining a comprehensive picture of the developmental processes students undergo during nursing education. Consequently, this thesis focuses on student nurses’ learning with an emphasis on developing the students’ understanding and growth to become nurses. The focus of my research is learning and understanding in clinical education, because that is where the students feel that the pieces fall into place and learning occurs (Löfmark, Hansebo, & Törnkvist, 2008; Sandvik, Eriksson, & Hilli, 2014).

As the basis of the thesis is in caring science, the view on didactics will be affected. In this thesis didactics is referred to as caring didactics, i.e. a didactics which is rooted in the theory core and ethos of caring science.
The structure of the thesis

The present thesis is a compilation of four sub studies and a summary section, which is made up of five main sections comprising a total of 12 chapters.

The sight, the search and the closing, metaphors to describe a research process (Eriksson & Lindström, 2000a) constitute the structure of thought in the present thesis.

The first part of the thesis, the sight, states the horizon from which the research takes its point of departure. It outlines the research objectives, research questions and design. An overview of relevant literature in the area of interest is presented. In the chapter on pre-understanding and theoretical perspective, the researcher’s ontological, ethical, epistemological and methodological starting points are clarified.

In the second part, the search describes the implementation of the research, the different studies and their findings. The conclusion, the third part of the thesis, involves an interpretation of the new understanding of the horizon and a heuristic synthesis illustrated in a theory model.

The closing, i.e. the derivation, provides new forms of reasoning based on the theory base and pre-understanding from which the sight was set. A discussion and critical review of the work is subsequently performed. The closing also means a new opening and a new sight upon which continued research can focus.
2. Review of the literature

This chapter provides an overview of the literature that can be considered relevant to illustrate various aspects of the research object, give an idea of the current state of research, form the background for the continued research and contribute to the pre-understanding. It is worth noting that a literature review can be seen as a method of knowledge generation and not only as a first step within a single study (Kirkevold, 1997). In the present thesis, the literature review is to be considered as a synopsis, i.e. to demonstrate the existence of different perspectives in literature.

The purpose of the literature review is to obtain an overview of how student nurses’ understanding and processes of becoming nurses are portrayed in research and other literature. The literature review does not claim to cover all the research in the field and has been limited to research related to learning in clinical practice. Therefore, the overview does not include specific theoretical learning. As such, the literature review includes scholarly works, literature and articles whose content is relevant to the aim of this thesis. In order to make the literature manageable, the material used has mainly been newer than the 2000s. As such, older literature has, only been included where warranted.

Literature searches have been made continuously during the research process; in connection with the preparation of the different studies, and in relation to this present summary section of the thesis. Moreover, the literature searches here have mainly been done by database searching. In addition, manual and unsystematic

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1 The Nelli portal at Åbo Akademi University has been the main search path. Through the portal 18 different databases within the category of health sciences - caring science, can be reached. These databases include among
searches have been made. This kind of searching has been based on tips about interesting literature and by other researchers’ references to current and relevant articles, i.e. a kind of snowballing effect2.

Although searches have mainly been done with English keywords, some searches have been made using the corresponding Swedish and Finnish keywords in the Nordic databases. To increase the possibility of hits the keywords have been combined in various ways3.

2.1 General overview

Our changing world places demands on higher education to reconsider its traditional ways of working in order to better adapt to the needs of the outside world (van Rooijen, 2011). This also applies to nurse education. Spitzer and Perrenoud’s (2006) review of nurse education in 20 European countries shows how the rapid social changes affect the healthcare system and are causing changes in the nursing profession, which will eventually lead to modified demands on the competence of nurses in the future. The reality in nursing is much different today than it was 20 years ago. Staff shortages, increased awareness among patients, shorter hospital stays and an increased focus on preventive care and the care of chronic diseases has contributed to this change. Also, technological progress affects both nursing and education (Tanner, 2007). Demographic changes, such as greater variation in age, life experience, educational background and ethnicity, have influenced students’ learning needs, learning methods and requirements for teaching (Heller, Oros, & Durney-Crowley, 2005). Tanner (2006) criticizes nurse

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2 see Ang (2014)

3 The search terms have included; student nurse, nurse education, undergraduate, bachelor, understanding, becoming, process of becoming, growth, formation, transformation and Bildung. By using Boolean search, these search terms were combined with each other in various ways to maximize the possibility of hits.
education and argues that while the reality in nursing and student learning needs have changed, education has remained relatively unchanged over the past 40 years. Students have classroom teaching and laboratory lessons and clinical placements based on medical specialties and availability, making it difficult to ensure students receive the necessary clinical learning (Gubrud-Howe, Schoessler, & Tanner, 2008). Spitzer and Perrenoud (2006) believe that basic education, considering the changefulness in our society, should not be governed in detail but focus upon preparing students for a process of lifelong learning. Higher education should thus stimulate students’ critical thinking, problem-solving ability and independence. Wiske (2010) also emphasizes the importance of students learning transferability, i.e. how the knowledge and understanding they have acquired can be transferred to other situations.

Nurse education is an area within which a lot of research has been conducted. The focus of this research appears to primarily be on teaching methods and student-centred methods (Russell, Comello, & Wright, 2007). A research overview shows that much developmental work has been done in education. Areas explored include for example: teaching methods in problem-based learning (e.g. Lin, Lu, Chung, & Yang, 2010; Landeen, 2013; Martyn, 2014); team-based learning (e.g. Mennenga & Smyer, 2010; Hyung-Ran, 2014); simulation (e.g. Jeffries, 2005; Shepherd, McCunnis, Brown, & Hair, 2010; Berragan, 2014); network-based methods (Chaffin & Maddux, 2004; Posey & Pintz, 2006; O’Connor & Andrews, 2014); case-methods (e.g. Delpier, 2006; Raurell-Torreda, 2014); drama (e.g. O’Connor, Abbott, & Recoche, 2010; SmithBattle, 2012); reflection (e.g. Berglund, Sjögren, & Ekebergh, 2012; Bulman, 2014); and narrative methods (e.g. Overcash, 2010; Matthews, 2014). Although many of the different methods tried show positive results, these methods are perhaps more about changes on the surface than in the deep structures of education. In other words, is the renewal of teaching methods adequate or is a more profound change needed? Dall’Alba (2009) criticizes today’s educational programmes for having a limited scope and being inadequate in preparing students for the challenges of professional practice. The emphasis is often on model learning and
students show a surprising lack of responsibility for patient care (Christiaenes, 2008). Generally, knowledge and skills training are in focus and although they are necessary, they are not sufficient for the student's transformation into a professional practitioner.

### 2.2 Learning as understanding

Matilainen (2004a) argues that in order to exercise professional care, an education, where the intent is the formation of versatile skilled carers with a strong caring-science identity and an inner caritative ethical stance, is needed. According to Matilainen (2004a), the task is thus threefold, consisting of a moulding of the student, a competence and an ethos. In other words, a set of values is assumed. According to Jerlock, Falck and Severinsson (2003), the higher education of nurses should yield independent and autonomous nurses with the ability to acquire, update and assimilate new knowledge, skills and attitudes. In their future careers as nurses, students will continually be faced with situations where they have to make correct ethically-justified decisions and act in a professional manner. This requires practice in problem solving, reflection and inductive learning strategies. New ways of looking at knowledge are thus needed. In the traditional, rationalist way of looking at knowledge, competence was perceived as a set of properties of knowledge and skills used in performing a particular job. In this approach, development of competence is an acquisition of knowledge and skills (Sandberg & Targama, 2013). In caring science, a new, more human scientific approach is sought, i.e. an approach in which knowledge will serve a more profound understanding (Benner & Sutphen, 2007; Högström & Tolonen, 2004). Sandberg (2000) advocates an understanding-based, interpretive view of knowledge where understanding is the key. Knowledge and skills that are not understood are of little use for students (Wiske, 2010). Understanding, rather than a mechanical acquisition of knowledge and skills, should be the starting point for both identifying and describing competence as well as developing competence in various jobs and professions.
According to Wiske (2010), understanding goes beyond knowing. In this respect, teaching for understanding is necessary in order to obtain a long-term benefit from the education. Similarly, Blythe (2006) noted that teaching for understanding is needed and should be given the highest priority in education. As such, it is understanding that forms the basis of human action. Human actions are not primarily governed from any kind of external factors such as instructions and rules. Human actions are instead based on one’s way to interpret and understand various (working) situations and thus how one understands these rules and instructions. It is dependent on how one understands the matter at hand that gives the situation a new meaning and meaningfulness. It is our understanding of the matter at hand and the context that guides our attention and decides what is interesting and relevant, and what is not. One can have knowledge and skills, but it is only through an understanding of the situation that they are put to use: one acts according to how one understands the situation. Without a deeper knowledge of the worth of understanding, it is difficult to develop effective practical methods to influence a person's understanding (Sandberg & Targama, 2013). Consequently, the teacher should have a good knowledge of the connection between understanding and action in order to find effective methods of learning; learning takes place when the student’s understanding changes.

Understanding is not something that we have, i.e. a knowledge or skill, but it is a part of who we are (Heidegger, 1996). In this respect, by changing one’s understanding, oneself is also changed. Consequently, a change in understanding also affects who we become: the development of understanding also means a development, a process of becoming or a transformation of the human being. According to Sandberg (1994), there is a need to reformulate education and development so that the focus is more on the change of understanding. The development to a professional practitioner thus implies a fundamental change in the students. The education should help students transform as people, to become nurses with a professional being, an attitude. Ethos, i.e. the basic values as well as ontology and epistemological beliefs, is crucial for the making and growth in nurse
education (Matilainen, 2004a) With this thinking in mind, Flaming (2005) argues that teachers should sound out the students' current understanding of their own identity because it would help the teacher to understand what motivates a certain student to a certain action. As such, learning can be improved by the teacher's attention on how the student's ontological self affects the student's action (Flaming, 2005).

A transformative learning means that there is a fundamental change of perspective, a transformation that changes the individual's understanding and relationship to the world (Mezirow, 2009). According to Taylor (2009), the transformative learning includes six basic components in an interdependent relationship; individual experience, critical reflection, dialogue, a holistic approach, context awareness and authentic relationships. The individual experience includes everything that the learner has in the luggage, i.e. earlier experiences that are put into play in the learning process. The critical reflection refers to the questioning of assumptions and beliefs based on earlier experience, which can lead to the transformation of the learner's own perspective (Mezirow, Taylor, & Associates, 2000). Dialogue with oneself and others induces and develops this transformation. In this respect, the dialogue is closely related to critical reflection: one reflects on experiences, assumptions and beliefs which ultimately lead to a different way of thinking. In order to facilitate transformative learning a holistic approach in teaching is emphasized. To develop an awareness of context means to develop a deeper appreciation and understanding of the personal and socio-cultural factors that play an influential part in the transformative learning process. The importance of creating authentic relationships is also emphasized. It is through trusting relationships that the learner develops confidence to manage learning on an affective level, where the transformation at times can be perceived as a threatening and emotionally charged experience. Without relationships, critical reflection becomes weak and empty, and the genuine conversation that is necessary for thoughtful and thorough discussion is missing (Taylor, 2009).

According to Gadamer (2004), understanding begins when something unfamiliar “speaks” to us, e.g. a situation or an experience. This experience forms a horizon
that, through encounter with the “established” horizon one previously attained, comes into dialogue. This dialogue or movement between the new and the established horizon Gadamer calls a hermeneutic circle or spiral. In the spiral there is an encounter between one’s prejudices, the already known and understood encounters, and the new and unknown. This encounter between horizons eventually ends up in a fusion of horizons; one’s “old” understanding is fused with the unfamiliar, new horizon. This fusion of horizons Gadamer calls understanding. Gadamer further elaborates that understanding takes place in every aspect of our experiences, hence understanding is not merely a concern of science; it is a deeply intertwined human experience of the world in general. According to Davey (2006), Gadamer sees understanding as formative and transforming in the sense that the deepening of the understanding of experience is the preparation for further, more demanding experiences.

2.3. Learning as identity construction

Education is vital to the student nurses’ development of professional identity. It is during these years that the student develops from a lay person into a professional nurse (Johnson, Cowin, Wilson, & Young, 2012). Becoming a professional is an irreversible transformation which cannot be undone (Foster, 2011). During this transformation, students form much of their professional identities as nurses during their clinical studies. When theoretical knowledge and clinical situations are intertwined, a continual professional growth and development occur. Here the students are able to develop knowledge, skills and attitudes with the ultimate goal of advancing their ability to care for patients (Hovland, 2011). Encountering patients provides excellent opportunities for pursuing caring activities. Students develop self-confidence through experiences, skill development, dialogue, and reflection (Hovland, 2011). Thus, the clinical education is pivotal for student learning and development and students highly value the opportunities it provides in the process
of becoming nurses (Löfmark, Thorkildsen, Råholm, & Natvig, 2012; Warne et al., 2010) and promoting the development of a nurse identity.

To be able to facilitate the student nurses’ process of becoming nurses it is necessary to understand how identity is formed and how the development of a professional identity in student nurses can be positively influenced (Johnson et al., 2012). Surprisingly, however, little knowledge is available on how students learn to become nurses during their clinical studies (Stockhausen, 2005).

Hovland (2011) defines identity as a construction developed through learning, alternating between the community of practice and the individual. The development of identity has also been described as a gradual process that takes place during the course of education (e.g. Ora-Hyytiäinen, 2004). As students begin their education they become exposed to the world views, theories, skills and languages embedded in their professional field, which will influence their identity building as they eventually appropriate some of these cultural properties (Abrandt Dahlgren, 2011). When studying student nurses’ identity shaping, researchers often use sociological perspectives such as professionalization, socialization and role theory (Benner, Sutphen, Leonard, & Day, 2010; Flaming, 2004). Mackintosh (2006) sees professional socialization as a complex process involving the acculturation of the individual into the existing patterns of an organization. This implies the acceptance of disciplines, attitudes and values which are demonstrated through behaviour (Faulk, Parker, & Morris, 2010). Although this approach specifically studies what a student is becoming or how a student becomes a nurse, it does not focus on who is becoming a nurse (Flaming, 2004).

Socialization as a model for professional identity formation can be problematic. This is because identity formation is not necessary about gradual stabilization within a community through increasingly meaningful participation. Instead, it may result from perturbation, resistance and conflict (Bleakley, 2011). Students’ expectations may not be met, resulting in the students feeling out of pace within the system (Johnson et al., 2012). Another aspect is that socialization may involve the takeover
of bad habits which can lead to the continuance of poor and ritualized practice (Mackintosh, 2006). Mackintosh (2006) argues that professional socialization into nursing may even result in a loss of humanistic concern or lack of care. Her study showed that the effect of socialization may be negative, leading to a lessening of importance of care or emotional hardening. For example, Willassen, Blomberg, von Post and Lindwall (2014) found that student nurses in operating theatres suffered an inner ethical conflict due to witnessing undignified caring situations. Socialization to such an environment cannot be a desired development.

According to Benner, Sutphen, Leonard & Day (2010), the changes in identity and self-understanding that occur when moving from being a lay person to a professional are not best described by socialization. To describe this process, the authors prefer using the term formation. The difference between socialization and formation is that socialization describes the social forces and influences of the person’s formative experience. Formation, on the other hand, describes the changes that student nurses experience within their skilled practice and highly relational work; changes that literally transform their ways of perceiving and acting in situations. Thus, according to Benner et al. (2010), becoming a nurse is best articulated as formation because it points to being constituted by the meanings, content, intent and practice of nursing rather than merely learning or being socialized into a nursing role in an external way.

Another weakness with socialization theories is that they do not adequately account for the total personal transformation that is described by many student nurses as a change from acting like a nurse into being a nurse (Benner et al., 2010). Characteristic for the process of formation is a shift in focus from a mastering of memorized skills to a flexible readiness for action, implying being able to think, act and apply the knowledge in different ways in various situations (Benner et al., 2010; Newton, 2000). Formation includes what students describe as becoming attuned to responding as nurses rather than merely acting like nurses. Thus, they develop a sense of salience, i.e. the ability to recognize what is more or what is less important in a clinical situation (Benner & Sutphen, 2007).
Identity shaping and the process of becoming a nurse could also be referred to as Bildung⁴. Gadamer uses Bildung, a concept developed in German philosophical and educational thought, which means formation, cultivation and education (Bohlin, 2008; Davey, 2006). Kim (2013) concludes that for Gadamer, Bildung is "one’s disposition that pursues an inner process of forming and cultivating the self as an intellectual and moral endeavor, while keeping him/herself open to the other with sensitivity for a fusion of horizons without sacrificing one’s past, biases, and particularities".

For Gadamer (2004), Bildung is a central part of the development of the human being. In his view, knowledge is integrated into the personality; we make the knowledge our own, incorporate it with ourselves and thereby it changes who we are. Thus, Bildung is the result of an internal process of formation and cultivation and cannot as such be sought as a goal. Bildung is a continuously ongoing process, also characterized as “the element within which the educated man moves” (Gadamer, 2004).

Bildung implies changing by developing a comprehensive, mature personality with the ability to think and act independently in a moral way and with good relations with the outside world (Gadamer, 2004). “It is about the connection of who we were, who we are and who we can become in the future” (Thompson, 2005).

Scanlon (2011c) brings forward the concept of ‘becoming’ as an iterative and emergent concept of identity formation, arguing that it involves the ‘ongoingness’ of developing a professional self, i.e. a professional identity. By conceptualizing professional identity as becoming, the evolutionary, processual nature of developing a professional self is highlighted. The concept of becoming is contiguous with that of lifelong learning because the iterative cycle of becoming encompasses the notion of learning throughout one's professional life. Vu & Dall’Alba (2011) emphasize that we construct and shape what we know and can do in a process of

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⁴ There is no precise English word that precisely corresponds to Bildung (Vásquez-Levy, 2002). To capture the intent of the German expression, different expressions are used in English. For simplicity, in this thesis, the term formation is used as the synonym of Bildung.
becoming. They bring forward a notion of learning that incorporates not only epistemology – what students are expected to know and able to do – but also ontology, i.e. who students are becoming, or who they are learning to be. Becoming involves both coming to know – and coming to be (Lee, 2011) and is enacted through the student’s performance (Scanlon, 2011b). Formation and becoming are related. Mulcahy (2011) defines professional becoming as the processes of professional identity formation and transformation, processes that necessarily involve both epistemology and ontology. The process of becoming continues throughout the professional life and is in various ways interwoven with the rest of one’s life. As such, the process of becoming is never complete, since it incorporates both continuity and transformation (Dall’Alba, 2009).

Identity formation is rarely a yardstick for good education. This is because the focus in education is usually more on what one can do with new knowledge and skills as opposed to what one can become (Guenther, 2010). In this light, Hills & Watson (2011) argue that behaviourism continues to thrive in nursing education today. As medical technology becomes more complex, nurses are required to have greater technical expertise and knowledge (Scott, 2008). Nursing education programmes have responded to these challenges by developing a competency-based curricula and advanced qualifications (Scott, 2008). Technical competence is increasingly being presented as a key indicator of professional nursing practice and therefore equated to professional identity. This has led to concerns that caring, identified as a traditional core nursing attribute, was becoming devalued (Arthur & Randle, 2007; Johnson et al., 2012; Scott, 2008).

It is known that the successful performance of psycho-motor skills confirms students’ knowledge, and doing what nurses do develops their identity as nurses (Stockhausen, 2005). However, this is an identity development on an "outer level" (c.f. Dall’Alba, 2009). Students will only learn and develop the external attributes characterizing nurses and their work. Instead, education should focus on seeing students and their abilities in terms of becoming and growing (Hills & Watson,
The educational ideal, according to Matilainen (2004b), is aimed at moulding the whole person, a formation of the nurse-to-be.

Dall’Alba (2009) emphasizes the need for a professional education that targets the processes of becoming and supports identity formation, with the key purpose of developing professional ways of being, rather than simply knowledge and skills. She also suggests that knowledge and skills should be developed in ways that contribute to this process of becoming professionals.

2.4. Conclusion

If the education does not change it will no longer meet the needs of the rapidly changing healthcare sector or the demands of the changing educational environments. These are not only structural changes that are required, in the form of new curricula, but also changes in teaching methods (Christiaenes, 2008). The fact that the taught substance is evidence-based does not automatically mean that the teaching methods are (Ferguson & Day, 2005). There is a need for a didactics based on the basic thinking in caring science (Eriksson, Lindström, & Matilainen, 2004), where the prospective caregiver’s growth and becoming are at the centre (Högström & Tolonen, 2004). If the starting point is that each person creates and develops her/his own understanding, then the challenge will be to understand how students develop and change, cognitively and morally, and promote this process. In the construction of a new model of caring science didactics, it is important to have a clear connection to the caring science substance, ontology and ethos; otherwise there is a risk that a narrow problem-based paradigm becomes prevalent (Eriksson et al., 2004).

It can be concluded that identity formation is best facilitated in clinical education. However, it is worth noting that there are various models of identity construction, not all of which are suitable for the task at hand. Socialization, for example, can be regarded as a problematic model of identity construction since it can lead to the takeover of bad habits leading to the continuance of poor and ritualized practice, lessening of caring and emotional hardening. Likewise, a too extensive focus on
knowledge and skill in nurse education may lead to the devaluation of caring as the traditional core attribute in nursing. The concepts Bildung (formation) and becoming better describe the total transformation that student nurses experience in growing from a lay person to a professional nurse. The concepts connect the student’s past, present and future in a continuous process of integrating knowledge with the self, making it their own and thereby gradually changing them into who they will eventually become.

The development of nurse education is a matter of international concern (Spitzer & Perrenoud, 2006). The Bologna Declaration, for example, has entailed collaboration between European countries. However, even though the basic structures of this declaration are now established, there is still need for development (Salminen et al., 2010). More research has been requested to develop educational solutions for nursing education, particularly international and cross-cultural projects between different European countries (Levett-Jones, Lathlean, Higgins, & McMillan, 2009; Salminen et al., 2010). An overview of the research shows that the focus of research to a high degree is on the development of teaching methods, while research focussing on how education can promote students’ understanding and development and transformation to become nurses is sparse. A large part of the research describes nursing clinical skills and activities and didactic research seems to be task-centred. Although, dexterity and conducting research focusing on that is important, caring, i.e., the core of nursing and the encounter of man is, after all, are still the basis upon which the nursing care is based.

This study is an attempt to clarify the development of students’ understanding in relation to scientific caring and nursing knowledge and the transformation to nurses. The intention is to create a caring science didactic model for nurse education, where a holistic formation, with a competence rooted in caring science and a caritative internal ethical approach, forms the basis for the development of professional nurse competence.
3. Aim of the study and research questions

The overall aim of the study, employing a hermeneutical approach, is to clarify the meaning and essence of understanding, as well as to explore and deepen the understanding of student nurses' processes of understanding and becoming with the intention of developing a theory model for caring didactics.

The research seeks to answer the following overarching questions:

- What is the essence of understanding (of caring science knowledge)?
- What are the possibilities and importance of understanding in the appropriation of caring science?
- What characterizes and impels the process of becoming?

The research, which is based on four sub-studies, seeks answers to the following questions: How do the student nurses describe their development of understanding and becoming? (Sub-study I)

- How are student nurses' processes of understanding shaped? (Sub-study II)
- What is the meaning and essence of understanding? (Sub-study IV)
- What is the meaning and essence of becoming? (Sub-study IV)
- How is the becoming shaped from the student's point of view? (Sub-study III)

The purpose of the research design, which is depicted in Figure 1, is to give an overview of the macro structure of the research. The design is read from the bottom up. Furthermore, the research design is qualitative with a hermeneutic research
approach, and is characterized by the hermeneutic spiral movement that stands for movement between the parts and the whole.

The sight of the research process, which concludes in the research objectives and questions, is based on the researcher's pre-understanding and theoretical perspectives that reflect the ontological and epistemological starting points.

In the search, which covers the method and implementation of the research, three different methods of reasoning (induction, deduction and abduction) have been used. The design would depict how the empirical sub studies have formed different phases in the process of understanding during the research process. The connection to the SNB projects has enabled and provided the framework for the empirical data collection while a continuous literature study has given theoretical influences that have further widened and deepened the understanding, thereby taking the research process forward. In this way, every individual sub-study has shaped a new pre-understanding for the following study; i.e. each sub-study has shown the direction for how the research would continue, and consequently suggested new questions. The four sub-studies have together formed the basis for the interpreted knowledge that is formulated in the new understanding. This new understanding has been the building blocks in the theory modelling that, through additional theory-charging with the theory fragments from Gadamer, have generated the heuristic synthesis which is illustrated in the theory model.

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5 The data collection was compiled in the Super Nurse Botnia and Super Nurse Botnia2 projects (SNB). These are described in more detail in Chapter 8 Methods and implementation of the sub-studies.
Figure 1: The design of the research
II. PRE-UNDERSTANDING AND THEORETICAL PERSPECTIVE

“People seem not to see that their opinion of the world is also a confession of character.”

Ralph Waldo Emerson

The purpose of this chapter is to describe the starting points for this thesis. As such, this requires the making of a positioning⁶, i.e. a determination of the starting point from where the research begins. This positioning will then provide clarification of the ontological, epistemological, methodological and ethical starting points that form the imprint and basis for the thesis.

4. Ontological and ethical starting points

Caring science, as an autonomous discipline within the human science tradition, is the ontological starting point and basis for this thesis. Moreover, the caring science perspective rests on Eriksson’s caritative theory (Eriksson, 2013a; Eriksson, 1987a; Eriksson, 1987b; Eriksson & Lindström, 2000b; Lindström et al., 2014).

These starting points represent my horizon of understanding in caring science and they, together with my pre-understanding, constitute the basis and the focus of this thesis; the student nurses’ process of understanding caring and nursing. This

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⁶ Positioning means to locate one’s position with reference to place, location and situation. Positioning is the first principle of navigation and a requisite for being able to determine the appropriate route and course to the intended destination (Nationalencyklopedin, )
requires the researcher to make a positioning concerning the didactics of caring and nursing. Caring didactics and nursing didactics are sub disciplines\(^7\) of caring and nursing science respectively.

Although caring and nursing didactics has evolved as a separate discipline in parallel with caring/nursing science, different paradigms and traditions in the didactics of caring/nursing have evolved. At present, there are mainly two different didactical orientations in nurse education. One orientation is based on the basic thinking in caring science (caring didactics) and the other has a more interdisciplinary basis (Eriksson, 2001) and is anchored in the nurse profession (nursing didactics) (Eriksson et al., 2004).

In this thesis the caring didactic approach is appropriated. There are no other options since the perspective of one’s own area of science, for me caring science, is crucial in the selection of theories and methods from other disciplines. It is this perspective that sets the tone and direction of the research and knowledge in the sub discipline.

The common ground for caring science and its sub disciplines is the common core and the basic substance, which consists of a uniform bearing ontology, epistemology and values (Eriksson, 2001). The theoretical foundations of caring/nursing didactics specify the orientation and are concretized in the contextology and methodology (Eriksson, 2001). Thus, the chosen didactic needs to be in congruence with the basic thinking of caring science, for example in terms of the view of the human being (Eriksson, 2001). The knowledge that the sub discipline generates should contribute to a greater understanding of the caring and the world of caring, and thus to the development of the best possible care for the individual patient (Eriksson, 2001).

\[^7\] A sub discipline is a field of study or work that is related to one aspect, but not the whole, of a broader field of study or work (Subdiscipline, 2013). Caring/nursing didactics is a sub discipline that is related to the teaching and learning of caring and nursing.
The researcher’s perspective on caring didactics emanates, in addition to the ontological views described in the aforementioned sources, also from didactical literature produced by Matilainen (e.g. Matilainen & Eriksson, 2004) and Ekebergh (2001). These authors are congruent with the caring tradition that emerged in the United States (see Eriksson, 2001) in the early 1990s (e.g. Bevis & Watson, 1989; Halldorsdottir, 1990; Leininger & Watson, 1990). However, this tradition does not offer the same depth of understanding that the caritative ideal of education stands for - a holistic formation of carers with a caring science based competence and an inner caritative ethical stance (Eriksson et al., 2004).

Research in caring didactics is anchored in a human science and hermeneutic ideal of formation. Moreover, caring didactics is seen as a synthesis of science, art and culture with a foundation in a caritative ethos in which the ethical forms the cornerstone. This is a prerequisite for the creation of a caring didactics culture of becoming and growth. The teacher is seen as the bearer of a personally-made caring science paradigm (Eriksson, 2001). Within this school of thought, an emphasis of substance, the ethical in the teacher-student relationship and the culture of caring didactic as the potential for formation emerges (Eriksson, 2001).

In caring science, the view of the human being is a fundamental starting point which also characterises the way students are viewed in the world of learning. This view is characterised by the caritative ethos, whereby the esteem and reverence for human dignity and the belief in the students’ ability to grow and become are seen as central foundations and conditions (Matilainen, 2004a). The human being is seen as unique, albeit always situated within a context of meaning and in close communion with others (Matilainen, 2004a). S/he is seen as constantly becoming; a person who is in constant change and therefore never in the state of full completion.

The view of the human being in caring science is based on a conception of a person as a physical, mental and spiritual unity. As such, in didactics, it becomes important to reflect on how knowledge can be conveyed in such a way that it engages the whole person, not only their cognitive and emotional abilities. For the student to be
able to acquire scientific knowledge it must be brought back from “the cortex to the body”, i.e. back to what touches and affects the student (Wiklund, 2007).

Education and learning are seen as something unfinished, i.e. an ongoing never-ending process of becoming through formation (Bildung) (Gadamer, 2004), where the students’ growth and becoming is in focus. In other words, students’ learning is seen as a process of becoming, where students construct and shape their knowing and doing (Vu & Dall'Alba, 2011). The goal of the education is seen as a holistic formation and moulding rooted in caring science, which is aimed at educating caregivers with a caritative ethical stance and professional competence (Eriksson et al., 2004).
“Anyone who has ever asked for directions knows you need two crucial pieces of information to get good results: a starting point and a destination.”

Mike Quigley

5. Epistemological and methodological starting points

The epistemology of the study is anchored in caring science ontology. In the caring science tradition, the quest for knowledge happens through a hermeneutical movement of understanding where ethics lights the way for research and knowledge (Eriksson & Lindström, 2009). As a researcher, it is important to be aware of one’s understanding to really be able to open up to the new and undiscovered. The theoretical perspective and previous research give the idea direction and provide structure to the interpretation of the research. Understanding of the matter, 'die Sache', is subsequently achieved through interpretation (Gadamer, 2004).

The research forms a hermeneutical spiral movement as parts and wholes achieve a fusion of horizons (c.f. Gadamer, 2004). In this regard, the individual sub studies constituted wholes in themselves. One sub study led to a new understanding, i.e. a different understanding than the previous, and at the same time this new understanding also constituted a pre-understanding of the following sub study. In this way the different sub studies built up a gradually expanded pre-understanding that built on each other and led to a new understanding. The new understanding highlights the investigated matter in a "new way" so that one can see reality with new eyes (c.f. Eriksson, Lindström, Matilainen, & Lindholm, 2007). Later, a synthesis arises from the movement between the caring didactic starting points, the theoretical perspective, the interpreted findings and from the widened and deepened understanding achieved through the fused horizons. Thereby a new,
different horizon of understanding is formed (Eriksson et al., 2007; Eriksson & Lindström, 2000b; Gadamer, 2004). The closing results in a heuristic synthesis that is illustrated in a theory model. The forms of reasoning used in this thesis are induction, deduction and abduction, all of which were necessary for knowledge generation during the various phases of research. According to Eriksson and Lindström (1997), these three forms of reasoning; induction, deduction and abduction, complement each other. They consider, besides induction and deduction, that abduction is necessary when endeavouring to reach a deeper knowledge of understanding.

Induction gives a picture of reality as experienced or perceived (Eriksson & Lindström, 1999). This form of reasoning moves from the individual towards the general and is used to summarize the knowledge of how it is. This type of knowledge emerges through the interview studies. A deductive form of reasoning provides knowledge of how it should be (Eriksson & Lindström, 1999) and is used to structure the knowledge contribution added from Gadamer's philosophical hermeneutics and other literature and research.

These two forms of reasoning make up the basis for the third form of reasoning, i.e. abduction. Induction and deduction are seen as more shallow forms of reasoning than abduction (Alvesson & Sköldberg, 1994). In abduction, a dialectical movement between the empirical and theory occurs (Alvesson & Sköldberg, 1994). Abduction involves that thinking is theory laded. By utilizing existing knowledge, theoretical patterns or deep structures are found, leading to a different understanding (Alvesson & Sköldberg, 1994; Eriksson & Lindström, 1997). In other words by being theory laden, the knowledge and understanding about how it could be, is widened. As such, induction and deduction provide existing or interpreted knowledge that serve as a springboard for the abductive leap, which can be described as a synthesized abstraction (Eriksson & Lindström, 1997).
6. The expected knowledge gained

The expected knowledge gained is assumed to be the discovery and generation of new patterns of thought regarding student nurses’ process of understanding becoming nurses. Hopefully, the findings are able to open up a new vision that clarifies and paves the way for a new approach in nurse education that can enable the introduction of new patterns of action in caring didactics.

The new knowledge and understanding elicited are summarized in a heuristic synthesis illustrated in a theory model. The obtained body of knowledge, the synthesis, is applied and is appropriated to the body of knowledge in caring didactics, which thus deepens and becomes more complex (c.f. Koski, 1995). The ultimate purpose of appropriation is accomplished when the knowledge is applied and dedicated to the students by the new understanding being appropriated to nurse education. This understanding is characterized by a holistic formation with a competence rooted in caring science and a caritative internal ethical stance that forms the basis for the development of professional caring competence. Ultimately, the knowledge will benefit patients through the students’ being and acting.
III. METODOLOGY AND IMPLEMENTATION OF RESEARCH

“What we observe is not nature itself, but nature exposed to our method of questioning.”

Werner Heisenberg

7. Methodological approach

This research is grounded in human science, and the theoretical perspective has its origins in the caring science tradition developed at the Department of Caring Sciences at the Faculty of Education and Welfare studies, Åbo Akademi University in Vaasa, Finland.

The sight, which is tuned according to the ethos of caring science, sets the tone and provides the meaning for the scientific search (Eriksson & Lindström, 2000a). The sight of this research is placed on studying student nurses’ understanding and becoming, from a caring didactics perspective influenced by Erikson's caritative theory (Eriksson, 2013a; Lindström et al., 2014). In the search, the sight is kept on target by focusing on what-issues, i.e. substance (Eriksson & Lindström, 2000a).

The starting point and goal of all research is understanding (Helenius, 1990). The researcher's pre-understanding refers to the level of understanding that is the starting point for the research. This understanding changes during the research process and changed understanding is thus both a precondition and a means to achieve research findings (Gadamer, 2004).

The search or the opening means to venture into the unknown, into discovery (Eriksson & Lindström, 2000a). This study has a hermeneutic approach. In the broad sense hermeneutics implies the study of understanding and interpretation of
symbolic meaning-bearing human activities. Eriksson (1992) emphasizes that hermeneutics, both as a philosophy and a method, is one of the key starting points for a caring science which is based on a human science paradigm. The method acquires its meaning through a fixed sight that has its roots in the ethos and in the ontological foundation (Eriksson & Lindström, 2007). In terms of hermeneutics this implies possessing a horizon (Gadamer, 2004). The matter for hermeneutics is to seek understanding of the matter’s very intrinsic meaning. Accordingly, the purpose of interpretation is to create something new and thus make new discoveries (Gadamer, 1997). The world opens to us through the process of interpreting. The interpretation can be described as a prerequisite for understanding since the interpretation process is the researcher’s path in the hermeneutic circle (Söderlund, 2007).

Gadamer's (2004) hermeneutics was chosen as the methodological starting point for the research because the researcher is guided by the urge of, in a deeper sense, to reach a deepened understanding of the meaning and essence of understanding, as perceived by student nurses.

The main idea of hermeneutic knowledge building is to seek the essential and enter into a dialogue to find new ways to see and understand the matter. When the researcher goes into dialogue with the object of research it is done on the basis of the researcher’s pre-understanding. According to Gadamer (2004), pre-understanding is of vital importance in hermeneutics and it provides a starting point for any analysis and interpretation to create meaning and understanding of the studied phenomenon. As a researcher, one has to realize one’s own prejudices for the meaning of the text to appear. Gadamer (2004) emphasizes the risk that the interpreter's preconceptions can prevent new understanding. It is therefore highly important during the process of interpretation that the researcher is self-critical of her/his own interpretation based on her/his prejudices about the research object.

The hermeneutic approach involves a dialogical movement between part-whole, question-answer, and pre-understanding-understanding, eventually leading to a
different understanding through a fusion of horizons (Gadamer, 2004). Something that was previously unknown becomes incorporated in a new horizon of understanding. The hermeneutic movement is a process of understanding that is without end, always open and comprehensive. The process does not result in a truth, in correct or good interpretations, but in reasonable alternatives to how the phenomenon can be interpreted. Through a hermeneutic movement, from whole to part and back to the whole, the research thus gradually extends the researcher's horizon of understanding.

The hermeneutic approach in this research implies that the individual sub studies are understood in the light of the whole and the whole in the light of the sub studies (c.f. Gadamer, 2004). This means that the findings from the sub studies are understood in a new way and in relation to each other, as well as partly in relation to the whole. In this way it becomes possible to reach a final finding that is greater than the sum of its parts.

*The closing*, or the derivation, can be done either through the path of evidence or the path of discovery. The logical closing, which is based on the different methods of reasoning, raises new what-questions. Each closing also means a new opening (Eriksson & Lindström, 2000a). In the closing, the ethical, the ontological and the contextual understanding and interpretation are interwoven into a whole new understanding on which we consolidate the relevance of scientific knowledge (Eriksson & Lindström, 2000a).

The closing involves returning to the core theory as well as deriving the knowledge back to the primary sight and dedicating the knowledge to the students, thus ultimately affecting the nursing care for the patients (Eriksson & Lindström, 2000a). The closing can be compared with a fusion of horizons where something new and something old come together and form a new horizon (Eriksson & Lindström, 2000a). In the application, the core of the theory and theoretical knowledge are translated, resulting in a specific meaning that is bound to a new experience of meaning (Eriksson & Lindström, 2000a).
In order to crystallize the aim and questions, the research takes its starting point in the clarification of the researcher’s pre-understanding and through the study of current literature in the field of research. In order to achieve the stated purpose, light is then shed on the research issues by collecting empirical data from the nurse education context. Through the sub studies, there is a gradual advancement towards an uncovering of the core of the object of knowledge, which through the hermeneutic movement deepens the knowledge and the understanding of the matter. The different studies then take shape in a synthesis by considering the empirical material through the lens of a caring science theory and through hermeneutic interpretation. After a re-examination of the findings and a deepening of relevant literature, a new hermeneutic interpretation is made and the synthesis is loaded with theory. As such, a synthesis of a caring didactic model is developed in the fusion of horizons. Based on this model, implications for caring didactics in relation to understanding and formation in caring are formulated.
8. Methods and implementation of the sub studies

This chapter describes the implementation of the study. The search for the meaning and content of understanding is done through the use of hermeneutics. In the present research, several methods are used, but the individual methods may, according to Gadamer (2004) not be allowed to prevail over the important what-question that is the main focus of the study. The research participants in the study are presented, the methods of data collection are described and finally the processes of data analysis are presented, thus, describing the procedure of the research process.

The data material used in the sub studies has emerged from the empirical material collected in a Nordic project, Super Nurse Botnia 2 (2009 - 2013), an educational research and development project involving three universities in Finland and Sweden, with the aim of developing clinical preception within undergraduate nurse education. The aim of this project was to strengthen the learning of student nurses, with the specific intention of developing a common educational platform for preceptors in clinical education within the region. Although this thesis has availed some of the datasets collected during the project, the objective of the thesis was not the same as the objectives of projects.

The Super Nurse Botnia 2 project was a longitudinal project, i.e. three groups of undergraduate student nurses, one at each of the universities, were followed during their entire education. Data collection was conducted at the beginning, the middle, and the end of their nurse education. An overview of the sub studies is presented in Table 1.
| Sub-study I: Sjuksköterskestudenters erfarenhet av sin första kliniska utbildningsperiod—a nordisk kvantitativ studie | The aim of the study was to describe the nursing students’ experiences of their first clinical education period in relation to learning and professional development. | 139 nurse students from Finland and Sweden who had just completed their first clinical placement in nursing practice | The data was collected by questionnaire | Statistical analysis. Background factors were described using frequency and percentage. Standard deviations were calculated and the instrument’s structure was examined using exploratory factor analysis. |
| Sub-study II: Becoming a caring nurse - a Nordic study on students’ learning and development in clinical studies. | The aim of the study was to elucidate the meaning and deepen the understanding of student learning and development in becoming a nurse. | 21 nurse students from Finland and Sweden who had just completed their clinical education period in the second year of study. | The data was collected in three focus group interview in Finland and Sweden. | The data was analyzed using a phenomenological-hermeneutical method according to Lindseth & Norberg. |
| Sub-study III: Understanding and becoming – the heart of the matter in nurse education | The aim of this study was to deepen the understanding of student nurses’ processes of understanding and becoming nurses. | 21 nurse students from Finland and Sweden who had completed their last period of clinical education and were ready for graduation | The data was collected in three focus group interview in Finland and Sweden. | The data was analyzed using a phenomenological-hermeneutical method according to Lindseth & Norberg. |
| Sub-study IV: The Essence of Understanding – A Formation in Seeing, Knowing and Becoming | The aim of this study was to unfold and explicate the essence of understanding as experienced by undergraduate nurse students ready for graduation. | 21 nurse students from Finland and Sweden who had completed their last period of clinical education and were ready for graduation. | This study was a secondary analysis of the focus group used in the third study. | Data was analyses with a hermeneutic approach according to Gadamer. |
8.1 Presentation of research persons

The research involved three groups of undergraduate student nurses in Finland and Sweden who began their nursing studies in autumn 2008 or spring 2009.

**Sub study I** was a total population study consisting of 139 student nurses who had completed their first period of clinical education. Of these, 75 students were conducting their nurse education programme in northern Sweden; 44 in a Swedish-speaking nurse education programme in western Finland and 20 students in a Finnish-speaking nurse education programme in western Finland. Of these students, 86.3% were female. The students’ age ranged from 19 to 43 years and the mean age was 22.1 years.

The research persons included in **sub study II** and **III** were chosen among the students that took part in the first sub study and had completed their clinical education period in the second year of studies. A purposeful selection from this group was performed in order to maximise variations considering age, gender and cultural background. For sub study II, eight students at each university, a total of 24 students, were selected to participate in focus group interviews, of which 21 accepted (four male and 17 female). The students’ age ranged from 22 to 49 years and the mean age was 25.9 years. The same procedure was carried out for sub study III, and also this time 21 students accepted to participate out of 24 invited (four male and 17 female). The students’ age ranged from 23 to 29 years and the mean age was 25.6 years. The students participating in sub study III were not the same students as in sub study II, but since the research was longitudinal, the students belonged to the same three groups of students who were followed at universities throughout the project.

In **sub study IV**, the data from the focus group interview conducted for sub study III were used. Consequently, the research persons in sub study IV were the same students as in sub study III.
8.2 Methods for data collection

To obtain an overview of the starting position among the students a questionnaire was used in sub study I. The data were collected using a self-administered structured questionnaire named SECE (Students’ Experiences of Clinical Education). This instrument was developed on the basis of a literature review and by using parts of earlier tested instruments developed at the Centre for Learning and Teaching, University of Technology in Sydney, Australia. The questionnaire consisted of three parts that monitored students’ experiences and evaluation of clinical education, clinical supervision and students’ learning. The data was collected by the researchers in the Super Nurse Botnia 2 project during the spring semester of 2009.

In order to move towards a deeper understanding of students' learning and understanding a qualitative, hermeneutic approach, was chosen in sub study II and III, and focus group interviews were employed. In both sub studies, three focus groups, including 6 – 8 students per group, were conducted, one at each university. Since the interviews were conducted in three different universities and with different interviewers, a questioning route was used to guide the interviews and keep the aim of the study consistent. To ascertain that the themes were clear and easily understood, a pilot focus group was conducted. For sub study II four students representing the same group of students invited to the study participated and for sub study III six students constituted the pilot focus group. The data collection for sub study II was conducted in spring 2011 and for sub study III during the academic year 2011-2012.

In the questioning route for sub study II, five main themes were explored: preception, learning outcomes, connection between theory and praxis, feedback and reflection. The opening statement was “Tell me about your experiences of preception”. Sub study III explored three topics: understanding, transformation and

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8 The questionnaire used in the study is due to copyright reasons not included as an appendix. The questionnaire can be obtained from the author on request.
ethics. The opening statement was “Tell me about your experiences of understanding”. Both focus group interviews were advanced, when necessary, by asking clarifying and exploratory questions, such as “How do you feel about that?” and “What does that mean to you?” The focus group interviews in both sub studies were recorded and lasted for 70 - 90 minutes. They were then transcribed verbatim.

In **sub study IV** the purpose was to drill even deeper into the phenomenon of study, and a qualitative secondary analysis with a hermeneutic approach (Gadamer, 2004) was conducted. The performed secondary analysis is what Thorne (2013) considers an *analytical expansion* which refers to a study where researchers use a previously used data to answer new questions as the theory base increases or as they pursue questions at a higher level of analysis. This form of secondary analysis seems to coincide with Heaton’s (2004) *supra analysis*, i.e. an analysis that goes beyond the terms of the primary work, focusing on other aspects of the data. It transcends the focus of the primary study by examining new empirical, theoretical or methodological questions.

### 8.3 Methods for data analysis

In **sub study I** the quantitative data set from the questionnaires were analysed statistically with Statistical Package for the Social Sciences (SPSS) software, version 17.0. Background factors were described using frequency and percentage. Means and standard deviations were calculated for the statements and the instrument's structure was examined using exploratory factor analysis. Although the original SECE comprised 64 items, items were excluded which received loadings <.500 in the factor analysis or did not properly load on any factor. Finally, 40 items remained, forming four sum variables. The instrument's internal consistency (Cronbach's alpha) was tested for the factors named Clinical supervision (0,913), Learning in Clinical Education (0,902), Outcomes in Clinical Education (0,827), and Reflection in Clinical Education (0,709). To examine the background factor associated with student experiences, a Pearson Correlation test was used for clinical training period
length, and a t-test for nationality. A p-value ≤ 0.05 was considered statistically significant.

In sub study II and III a phenomenological-hermeneutical method developed by Lindseth and Norberg (2004) was chosen for the data analysis. This method is inspired by Ricoeur’s philosophy and aims at uncovering the significance of lived experience by interpretation. The interpretation of the texts emerges from a dialectical movement between three phases. The first phase, naïve reading, meant that the interviews were read through several times to gain an understanding of them and obtain a sense of the whole. The researchers strived to be open to the text by letting the text speak and allowing themselves to be affected by it. Consequently, the researchers created a structure of meaning, i.e. a naïve understanding.

In the second phase, structural analysis, the text was critically analysed in order to explain its parts and scrutinised to see if there was any support for the naïve understanding. The text was divided into meaning units consisting of a few words, several sentences or long paragraphs, and sorted into groups according to similarities and differences in meaning. The groups were compared with each other, condensed and abstracted to form themes and subthemes.

In the third phase, comprehensive understanding, the findings of the earlier steps were intertwined to create a foundation for a new creative interpretation by reinterpreting the text as a whole. This could be described as a dialectic movement back and forth between the different steps. Here, the aim of the study, the naïve understanding and the structural analysis were reflected on in relation to the theoretical perspective, relevant literature and the authors’ pre-understanding (Lindseth & Norberg, 2004).

In sub study IV the data analysis was guided by an approach inspired by Gadamer’s philosophic hermeneutics (2004). The hermeneutic interpretation process involves a movement between the text and its parts, the so-called hermeneutic circle or spiral of understanding, attempting to capture the meaning of the whole. The interpretative process continues until a fusion of horizons is reached,
i.e. the interpreter’s horizon of understanding blend with the horizon of the text so that a common meaning emerges.

The interviews were read several times and conceptions formed were evaluated and re-evaluated as the understanding of the text grew. The authors discussed the themes that emerged from the interpretative process in order to confirm that the findings were in congruence with the data. The presented interpretation rendered the entire text consistently and coherently, and appeared, compared with other possible interpretations, the most reasonable to the interpreters.
9. Ethical considerations

According to Eriksson (2001), ethics precedes the research process and the research ethics includes the researcher's approach to both research material and process. Honesty, diligence and thoroughness of research, documentation and presentation of the findings are all parts of good research practice (Varantola, 2013). Munhall (2001) emphasizes that the researcher's biggest ethical obligation is to describe the experiences of the research persons as faithfully and truly as possible. This can be described as a confidence the researcher is given by the research persons (c.f. Frilund, 2013). Eriksson (1992) points out that every researcher should develop their scientific conscience by constantly striving towards a natural ethical stance.

In this research, the aim has been to comply with the general ethical guidelines outlined by the Northern Nurses' Federation (2003) in all stages of the research process (Varantola, 2013). Moreover, the hermeneutic approach used here also involved an ethical stance that has led to exercising care, consideration and tact before the research participants, as well as by adopting the same attitude towards the gathered data material.

Requests for permission for the research were made to the head of each relevant department at the three universities included in the research, which were subsequently granted. Before the data collection began, the research persons were informed about the study. In this respect, it is worth noting that besides informing, the researcher's responsibility is also to obtain the research persons consent and to ensure that they understand what they have agreed to participate in. The information to the students was given both in writing and orally. They were
informed in writing via e-mail prior to data collection and those who chose to participate were also informed verbally. The students gave their informed consent for participation in the studies by showing up to the data collection.

The information made clear that the students’ participation was voluntary and that they had the right to withdraw from the study at any time without further justification and without consequences. None of the students have been in some form of position of dependence to the researcher and they were assured that their choice to participate or not would not affect their evaluation at any time.

Due to the very nature of focus group interviews, anonymity is impossible. Nevertheless, the students were guaranteed confidentiality as all personal data and all data collected for research would be treated confidentially. Names mentioned during the focus group interviews were removed in the transcription of the interviews. The findings are described on a group level, implying that no quotes or statements could be traced to the individual students.

Sub study IV is a secondary analysis of the data collected in sub study III. In this respect, it is worth considering that the reuse of a textual material for a purpose other than that which the material was initially collected also entails ethical considerations. In this study, the same researcher who collected the data was the one who re-used the text material. The fact that this researcher had prior knowledge of the context and circumstances related to the data collection represented a significant advantage in protecting the research persons’ confidentiality. Heaton (2004) argues that since the research persons have consented in connection with the original study it can be considered as sufficient, unless the research persons’ statements are of a sensitive and revealing character.

Thoroughness, accuracy and truthfulness of data collection, data analysis, documentation, preparation of materials and presentation of findings have been adhered to throughout the research process and for the different sub studies. In connection with each sub study an ethical discussion has taken place and ethical aspects have been examined. The researcher has also endeavoured towards
accuracy in the description of the research process. As such, there has been a desire not to distort the research persons' statements in the analysis and interpretation. The researcher has also aimed at respecting and valuing other researcher's work and findings by carefully accounting for the sources and the materials used.

The research findings should be seen as a contribution to the generation of knowledge in caring science and society. When a study is completed the researcher always has an ethical responsibility to ensure the findings are published, to be shared and come of use to others. The students were informed that the material would be published and included in the researcher's doctoral thesis. Moreover, the sub studies have been published in international scientific journals.

Since the research received external financing the researcher is also ethically obligated to act according to the financer’s rules. This research was financed by the EU with the consequence that the empirical research material is archived at Novia University of Applied Sciences until 2025 and then destroyed.
IV. FINDINGS

“Research is to see what everybody else has seen, and to think what nobody else has thought.”
Albert Szent-Gyorgyi

10 Findings of the different sub studies

In this chapter the findings of the sub studies are summarized and a new understanding of the findings is formulated.

10.1 Sub study I: First experiences of learning and professional development in clinical education

The aim of sub study I was to describe the nursing students’ experiences of their first clinical education period in relation to learning and professional development. The survey provided a mapping of the current situation that illustrated the situation in the beginning of the student nurses’ education.

Overall, the students’ ratings were high, although there were statistically significant differences among the students concerning nationality and length of clinical education; students’ clinical learning was associated with the length of clinical education.

Generally, students were very satisfied with their clinical education. They expressed that they felt that their proficiency in nursing had developed. The expected learning outcomes of the clinical education period were achieved and the students felt that the clinical education period had met their expectations. Furthermore, confidence in performing technical and practical tasks had increased and they had been given the opportunity to work independently. The students’ understanding of nursing had expanded and they had realized the importance of nursing care in their future profession. Students expressed that the clinical preceptor had given enough support
according to their level of knowledge and had provided honest feedback. Students also felt that the clinical education period had contributed to their personal growth and development.

Although the students’ ratings were high, generally, the lowest ratings are important to highlight, however, since they provide an indication of where there are deficiencies and areas needing improvement. Students gave the very lowest rating for being encouraged to reflect on their attitudes and values. It was experienced that the preceptor did not encourage the students to reflect on different methods of nursing in patient care. Self-assessment as a way of developing the ability to reflect was also not rated very highly. It did not become fully clear to the students what was expected of them during the clinical education period. This was seen in terms of deficiencies in the continuous feedback given by the preceptors. Furthermore, the students were not overly encouraged to use their past experiences in terms of applying different theories and principles, as well as in learning to see the connection between the caring subject and other subjects. Moreover, the preceptor’s decision making about patient care was not shown clearly. It was also found that the clinical education period did not develop the students’ ability to plan and organize their work very much, nor did the students feel that their ability to produce written documentation was developed to the fullest.

The findings from sub study I can be summarized as follows:

- Students’ performance of technical and practical tasks were in focus,
- Students felt that the clinical education period contributed to their personal growth and development.
- Students showed weaker abilities in matters that required reflection and more consideration.
- Students felt that it did not become fully clear to them what was expected from them in clinical education.
10.2 Sub study II: Prerequisite and itineraries for learning and development

The aim of sub study II was to elucidate the meaning and deepen the understanding of students’ learning and development in becoming nurses.

The findings of the study emerged as *prerequisites for learning and development* and *itineraries for learning and development*. In this respect, it was demonstrated that a pivotal foundation for learning and development (and a prerequisite for becoming a nurse) is a caring student-preceptor relationship. Learning and development can occur when students feel safe, are seen and cared for, are given permission to be students and are provided with the space to learn. In other words, students need to feel that learning is cherished, legitimate and allowed and that the preceptor shows an interest and willingness to teach. As such, the student-preceptor relationship should be characterized by an ethical dimension. This can be seen in the fact that the students expect preception to be based on the same premises as caring ethics, i.e. maintained on similar premises as those underpinning the caring relationships between patients and nurses.

Another prerequisite for student learning and development is will and motivation. The students’ inner incentives are driving forces that motivate them to learn and develop both as professionals and human beings; their ethos guides them in nursing and motivates them in their studies. Through education, ethos becomes an internal ethic.

These inner incentives are nourished when student learning and development is confirmed through continuous feedback. Feedback is seen as a continuous positioning that provides and strengthens the direction for learning and development. Consequently, students realise how they are doing in relation to their knowledge and skills and whether or not they meet the expectations. Without continuous feedback, students feel lost. Thus, motivation and awareness of expectations are vital in becoming a nurse.
Students in a caring relationship in which they feel safe, secure and accepted can focus on learning and development, which can occur through different paths. Leaving one’s comfort zone is one way forward in learning and development. However, when pushing boundaries, prerequisites are to be present at all times. Students expressed a will and a need to work independently if given an appropriate responsibility and the preceptors’ backup when needed. In other words, students did not want everything simply laid on a plate for them; they wanted to have their thinking challenged and stimulated through reflection and critical thinking by the preceptor’s questions.

Student learning progresses in stages, extending from a high level of dependence on the preceptor to a high level of independence. Eventually, students have a feeling of being on top of it, thus being able to handle ever more demanding situations.

Learning has a transformative effect on the students; becoming a nurse is due both to external and internal processes. In caring relationships, students feel worthy of becoming nurses, and through the support and feedback they receive, they begin to feel an affinity with the nursing guild. In other words, students begin to feel like nurses while undergoing an inner process of change. Students are transformed by what they learn and it changes their personality. Becoming a nurse seems to include a transformation of the “self”.

Another itinerary for student learning and development is the synthesis of theory and praxis through reflection. In other words, the students viewed theory and praxis as inseparable elements of understanding. As such, reflection was seen as the prerequisite for developing understanding. When students reflect with the preceptor, they see how the pieces fit together, i.e. how theory and practice are intertwined. A preception guided by the students’ expected learning outcomes is therefore needed in order for this to occur. Otherwise there is a risk that perception will be reduced to a demonstration of technical skills. Then students may lose the opportunity to develop their clinical judgment and ethical reasoning. Reflection plays an important part in facilitating this process of transformation, as regards the
external and internal processes of change in becoming a nurse. Through reflection, students also deal with the affective aspects of nursing which promotes professional maturity and the development of a professional identity.

The findings from sub study II can be summarized as follows:

- A caring student-preceptor relationship is a pivotal foundation for student learning and development,
- Permission to be a student and given the space to learn are enabling factors for learning and development,
- The student-preceptor relationship should be based on caring ethics,
- The preceptor’s attitude to students’ learning and development is critical for the students’ advancement in nursing,
- Feedback provides a continuous positioning to students, enabling them to know if they are doing well and meeting expectations,
- Students want responsibility with a life line, i.e. space for independent nursing but with the preceptor close at hand as a safety net,
- Theory and praxis are seen as inseparable parts of understanding. Consequently, perception needs to emanate from the students’ expected learning outcomes,
- Reflection facilitates the students’ process of understanding,
- Learning and reflection have a great impact on the students; they are transformed by them.
10.3 Sub study III: The process of understanding and becoming as a hermeneutical movement

The aim of sub study III was to deepen the understanding of student nurses’ processes of understanding and becoming nurses.

Student nurses’ processes of understanding and becoming nurses can be described as a hermeneutical movement. The prerequisites for this movement are a caring student-preceptor relationship and a growth-promoting perception in a supportive and inclusive environment. These fundamental conditions of optimal learning are permeated by a caring ethos characterized by a continuous reciprocity between the student and the preceptor, with a common focus on the "matter" i.e. student learning.

This hermeneutical movement can be described as a loop of understanding and becoming, comprising several steps. A loop can be a single patient situation, a separate learning situation or the sum of various learning situations.

Students are challenged by getting responsibility according to their level of knowledge and expected learning outcomes. A gradual increase in responsibility expands their comfort zone. Responsibility confirms the student’s dignity as a prospective carer; students feel proud and honoured by the preceptors’ faith and trust in their capacities, which motivates them to do their very best. Thus, responsibility appeals to the student’s ethos of caring and inner will to learn and provide nursing care. The received responsibility involves an opportunity to expand the knowledge and repertoire of performance. Thus, responsibility challenges the students' level of knowledge by exerting the students to take their entire repertoire into consideration. In this regard, the students themselves need to reflect on their theoretical knowledge, skills, ethical awareness, earlier experiences and how to use them in particular situations. According to their level of knowledge, they tie the threads together, considering the suitable means for providing nursing care that fit best in the present situation.
According to the scrutiny undertaken in the previous step, the students make conscious action and thus, their level of knowledge and understanding becomes evident in their actions. The preceptors’ caring stance is reflected in the student-patient relationship as caritative nursing is provided. Moreover, the ethical awareness that the student has reached determines the capacity to provide professional and ethically sound nursing care.

The response received from handled situations provides the students with new insights about themselves and their performance. By drawing on the experiences of performed actions, learning is processed further through reflection and transformed into understanding.

Eventually, the students’ previous understanding and level of development evolves into a deepened understanding and personal growth, i.e. a fusion of horizons. An increased understanding that changes the students’ worldview and an expanded readiness for more responsibility and action is reached. Moreover, students form a new base to stand on, thus taking another step towards a deeper understanding and becoming a nurse.

When one loop of understanding and becoming is closed, the student’s process of understanding and becoming a nurse continues by passing into a new loop. The preceptors evaluate the student’s proficiency and provide them with new challenges and responsibility accordingly, whereby a new loop begins. Thus, the process of understanding and becoming is a series of interconnected loops, an ongoing process where understanding and becoming occur and deepen over time. The student undergoes formation. This loop in the hermeneutical spiral takes the student further and deeper in their process of understanding and becoming a nurse.

The students’ ethics of caring is constantly present within the loop. As such, students have an ethical stance, an ethos, within them which develops over time. Feeling dignified also affects the students’ ethical development. The preceptor’s ethos of caring permeates the preception which spills over to the student-patient relationship. The patient encounters and experiences made in learning situations
also develop the student ethically. By being challenged at a suitable responsibility level, the students’ ethical awareness is also developed. This ethical awareness deepens as the students develop through understanding and transformation.

An appropriation occurs during this hermeneutical movement. Consequently, the students feel a transformation occurring, as their experiences develop them both personally and professionally. In other words, students appropriate what has been made their own, thus developing a nursing identity and gradually become nurses.

The findings from sub study III can be summarized as follows:

- The process of understanding and becoming is a hermeneutical movement,
- The caring relationship and a perception focused on students’ learning promote the process of understanding and becoming,
- Responsibility is a catalyst in the students’ process of understanding and becoming nurses,
- A suitable level of responsibility expands the students’ comfort zone and students tie the threads together in conscious action by utilizing all the means for providing patient care,
- Reflection transforms students’ thinking and knowledge to understanding and thereby expands their readiness for responsibility and action,
- Students ethics of caring and their ethical stance is influenced by the student-preceptor relationship and the ethics permeating it spills over to the student-patient relationship,
- Understanding transforms the students personally and professionally as they appropriate what has been made as their own, thus developing a nursing identity and gradually become nurses.
10.4 Sub study IV: Understanding as seeing, knowing and becoming

The aim of sub study IV was to unfold and explicate the essence of understanding as experienced by undergraduate student nurses ready for graduation.

According to the students, understanding is seeing and having insight. They emphasize the significance of previous knowledge, i.e. that understanding is built on knowing, *episteme*, and that attained learning is a prerequisite for further understanding. Understanding involves both the understanding of propositional knowledge and understanding achieved through earlier experiential learning. In other words, attained insights do not cause barriers for understanding; rather, the already known allows us to understand more.

Students expressed that understanding is realizing and achieving insight. Realizing and seeing leads to knowing. Thus, understanding implies an awareness of what one knows and understands as well as an awareness of the limitations of one’s knowledge and understanding. Consequently, areas still in need of detection and appropriation become identified. Seeing things from new angles broadens one’s vision of the subject at hand and is a demonstration of perspective, i.e. seeing the big picture, recognizing different points of view and being able to establish a distance from habitual beliefs.

The students expressed that understanding underpins knowing and acting, since knowing how and why are essential parts of understanding. Knowing how implies a form of *techne* that involves having the skills to perform actions and understand what one does. Knowing why implies deliberate actions; students know why to act in a certain way and have the ability to explain their reasoning. Understanding is connected to performance and production, a knowledge and understanding within the hands. Students express that understanding provides tools for action, helping them to apply, i.e. use and adapt knowledge in new and complex situations and contexts. Understanding also includes interweaving pieces of knowledge, i.e. mastering an entire field of interrelating parts, seeing the relation of parts to a
whole. Interweaving can thus be seen as an encounter between the already understood and the new and unknown, i.e. a fusion of horizons.

As understanding influences students both personally and professionally, a becoming in prudence occurs. A consequence of understanding is the fact that students undergo a formation (Bildung), implying the development of a comprehensive, mature personality with the ability to think and act in a moral way independently.

Understanding also influences students’ professional being and behaviour. In other words, understanding has provided students with an ability to judge specific situations and realize opportunities to do the right thing. Students become attuned to respond as nurses rather than just act like nurses; i.e. following procedures and performing. Thus, they develop senses of salience and ways to respond, relate and perform in particular situations, i.e. to recognize the significant in clinical situations. In practice, students acquire the mastery of insight.

Students also expressed that as they are moulded during the education; their understanding changes their attitude towards nursing and life, as well as how they view the patients they meet and care for. A personal becoming in prudence, phronesis, enables the perception of one’s own personal style, prejudices and patterns of thought. Thus, understanding deeply influences students. Their character undergoes a becoming as an internalizing of practice forms the practitioner (Benner & Sutphen, 2007). Consequently, understanding affects ethos, which becomes evident in the students’ bearing (i.e. Eriksson, 2003)(i.e. Eriksson, 2003)(i.e. Eriksson, 2003). Once one has seen and attained knowing, it appeals to one’s ethos and thus to one’s conscious and responsibility. The seen cannot be made unseen. One becomes responsible for the seen and is ethically obligated to act. Consequently, certain values become visible and demonstrated in action, i.e. as caring deeds.
The findings from sub study IV can be summarized as follows:

- The essence of understanding can be described as seeing, knowing, and becoming, which implies that understanding is a multidimensional concept,
- The Aristotelian intellectual virtues *episteme, techne* and *phronesis* can be viewed as inherent parts of the ongoing process of understanding,
- *Episteme* is the stepping stone for further understanding,
- Connected to understanding *techne* is not only reduced to technical performance, but involves a conscious act with sensitivity and tact for the benefit of the other,
- Understanding is connected to personal and professional becoming, *phronesis*; students undergo a formation (Bildung) as a consequence of the process of understanding.

10.5 The new understanding generated

In this chapter, the findings from the four sub studies (I – IV) have been put in relation to each other and the new understanding that this interpretation process generates is presented (see Figure 2). For ease of reading, the meaning-bearing units are marked in bold and italic.
Figure 2: The new understanding generated from the sub studies
The core of learning and understanding is the students’ will and ethos. Will is perceived as an inner incentive for understanding. Student motivation comes from within the students themselves; their ethos guides them in nursing and motivates them in their studies. Through education, ethos becomes an internal ethic.

The process of understanding can be described as a hermeneutical movement. This movement constitutes a loop, which moves forward in several steps that are not completely separated from each other. As such, a loop can be the movement of understanding pertaining to a single patient situation, a separate learning situation or the sum of various learning situations.

The movement of understanding unfolds against a background of a caring student-preceptor relationship and a growth-promoting perception in a supportive and inclusive environment. These are prerequisites that offer fundamental conditions for the students’ learning and understanding. The caring relationship with the preceptor is characterized by a caring ethics. The preceptor’s ethos, when combined with the student-preceptor relationship permeated by caring, not only affects the student nurses’ movement of understanding, since it also affects the students’ way of being and acting towards the patients that they encounter. Thus, the preceptors caring ethos spills over to the student-patient relationship.

A growth-promoting perception has the unique student as the starting point. The preceptors take the time to explain, discuss and reflect with the students, thus activating and challenging the students’ thinking. With the preceptors’ support and backup, students are offered the opportunity to work independently, with the appropriate responsibility and demands entailed. During this time, the students’ learning and progress are supported by continuous and constructive feedback. This continuous positioning is needed throughout the students’ process of learning and understanding as it allows the students to know how they are doing in relation to their knowledge and skills and whether or not they meet the work-life expectations. The movement of understanding is initiated by the students’ receiving responsibility according to their ability level. The preceptor has become acquainted
with the student's knowledge and expected learning results and plans appropriate learning situations accordingly. In this way, students are challenged by having their comfort zone expanded by a gradual increase in responsibility.

**Responding to the given responsibility.** Obtaining responsibility confirms the students' dignity; students feel proud and honoured by the preceptors' faith and trust in their capacities. The responsibility employed is perceived as a challenge and a trust they are compelled to respond to and fulfil. Consequently, responsibility involves a possibility to expand their knowledge and repertoire of performance.

**Tying the threads together/Interweaving the known and understood.** As the students see theory and praxis as inseparable elements of understanding, they must take their entire range of knowledge into use to be able to act. Students possess different types of knowledge; theoretical knowledge, skills, ethical awareness and earlier experiences. Thus, as different pieces of knowledge and skills come together, they become interwoven. In other words, students interweave their pieces of knowledge, i.e. considering the suitable means for providing nursing care that fit best in the present situation, according to their level of knowledge.

**Conscious action – the provision of care.** The students make conscious decisions based on their previous actions that they have scrutinized earlier. Thus, the students' understanding becomes evident in action. The preceptors' caring stance towards the student is reflected in the student-patient relationship as caritative nursing is provided. The students' capacity to provide professional and ethically sound nursing care is determined by the ethical awareness that they have reached.

**Reflection on experiences.** The experiences and response received from handled situations provide the students with new insights about themselves and their performance. Through reflection, the experienced learning situation is incorporated with earlier knowledge. As such, students understand how their own thinking and actions are manifested, which increases their self-confidence and gives them the courage to face further challenges in nursing situations.
A new, expanded readiness for responsibility and action. The students’ previous understanding and level of development evolves to a deepened understanding and personal growth, i.e. a fusion of horizons. As such, an increased understanding that changes the students’ worldview is reached, as well as an expanded readiness for more responsibility and action. Moreover, students form a new base to stand on and thereby take another step towards a deeper understanding and becoming a nurse.

This loop depicts the movement of understanding and its essence; seeing, knowing and becoming. These elements of understanding are interwove in the movement of understanding as a three-stranded twine, forming the movement that drives the students’ process forward.

The first loop in the movement of understanding is closed when students have attained a new, expanded readiness for responsibility and action. Then the student’s movement of understanding continues by passing into a new loop. Thus, the movement of understanding can be described as a series of interconnected loops (see Figure 3). This is an ongoing process where understanding occurs and deepens over time and through which the student undergoes formation. These interconnected loops can be seen as a hermeneutical spiral taking the students’ further and deeper in their process of understanding and becoming a nurse.

The students’ ethics of caring is constantly present within the loop. Moreover, students have an ethical stance, an ethos, within them which develops over time. As such, the encounters with patients and experiences made in learning situations develop the student ethically. The students’ ethical awareness deepens as they develop through understanding and becoming.

During this hermeneutical movement, the students feel a transformation occurring; a personal and professional formation happens. The students gradually become nurses by appropriating what has been made their own, thus developing a nursing identity.
Figure 3: The movement of understanding as interconnected loops
“It is also a good rule not to put over-much confidence in the observational results that are put forward until they are confirmed by theory.”

Arthur Eddington

11. The closing – the forming of a theory model of caring didactics

This chapter deals with the closing\(^9\) of the research process. According to Gadamer (2004), the closing is never something definite. Instead, it is a temporary state, a searching that is preserved until a new interpretation can be proposed. The closing can be compared with a fusion of horizons where the old and new come together and form a new horizon (Eriksson & Lindström, 2000a). A closing is supposed to provide evidence to the prevailing paradigm while simultaneously calling for an opening of new horizons (Eriksson & Lindström, 2003).

In this study, the closing implies that when the new understanding, which was synthesized from the sub studies, illustrated in Figure 3 and 4 and presented in Chapter 10.5, is related to the pre-understanding and the theoretical perspective, it creates opportunities for inference on a higher level of abstraction. Through a dialectical movement, a new pattern of thought emerges, which can be described as a heuristic synthesis that forms a theory model\(^{10}\) of the movement of understanding as described by the student nurses.

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\(^9\) The closing is the third and final phase of the metaphorical description of the research process as sight, search and closing (Eriksson & Lindström, 2000a). The closing, i.e. the derivation, provides new inferences based on the theory base and pre-understanding from which the sight was set.

\(^{10}\) Characteristic of a theory model is according to Lindholm (1998) that it reflects, simplifies and idealizes the investigated phenomenon. Here, the theory model illustrates a metaphorical abstraction based on the new understanding and theoretical fragments. A model does not reflect everything that is found in context. Its purpose is to facilitate the understanding of the research object (Näsman, 2010).
There are four building blocks that form the structure of the heuristic synthesis (see Figure 4). As seen, the phenomenon of understanding can be described as something unlimited, as an endless process. The lying eighth, or the lemniscate\textsuperscript{11}, i.e. the symbol of infinity, is a key element in the theory model. The lemniscate of understanding comprises several steps and depicts a movement of understanding as experienced by student nurses. Ethos and arête constitute the hubs around which the lemniscate of understanding circles. These include the spirit and driving force that the student carries within. Bildung (formation) is the ultimate imprint of the endless movement of understanding. A caring culture encloses the lemniscate of understanding. The caring culture provides the life space of understanding and the prevailing basic values are expressed in the culture.

\footnotesize
\textsuperscript{11} The lemniscate is commonly used as the symbol for infinity, or for a value that increases without limit (Lemniscate.2005). Both the lemniscate as symbol and as concept of infinity originates from the start of human civilization. For instance, in Christianity it appears wrapped around the bars of the cross of Saint Boniface (c. 675 – 754) (Infinity symbol).

In mathematics, the considerations of curves with a figure of eight can be traced back to the Greek Neo-Platonist and mathematician Proclus (412 – 485 AD) (Lemniscate.2014). However, its usage in modern science dates to the middle ages. The English mathematician John Wallis (1616-1703) introduced the infinity symbol to represent mathematical infinity in 1655. It has been assumed that the symbol was a variant form of a Roman numeral for 1,000 (originally CD, also C\(\bar{I}\)), which was sometimes used to mean "many", or of the Greek letter \(\omega\) (omega), the last letter in the Greek alphabet (Infinity symbol).

The terming of the lying eight as lemniscate dates to 1694 when the Swiss mathematician Jacob Bernoulli (1654-1705) first called the shape a lemniscus. Perhaps because the curves looked like ribbons tied into a bow (Lemniscate.2013). The word ‘lemniscate’ originates from the Latin "lemniscatus” which means "decorated with ribbons”. This may, in turn, come from the ancient Greek island of Lemnos where ribbons were worn as decorations, or alternatively it may refer to the wool from which the ribbons were made (Lemniscate.2014).
Figure 4: The hermeneutic lemniscate of understanding
11.1 Description of the four elements forming the theory model

In this chapter, the essence of the four building blocks of the theory model of understanding will be described in more detail.

*Ethos and arête as the hubs of understanding*

The first building block of the heuristic synthesis consists of ethos and arête. The theory model in Figure 4 should be perceived three-dimensionally, illustrating the lemniscate of understanding with the loops encircling the two hubs that are of fundamental importance for the movement of understanding. The term *ethos* comes from Greek and is given the meaning of conduct; character (Eriksson, 2003) or basic value (Ahlman, 1939). It symbolizes man’s innermost space; ethos is affirmed when one is sensitive to the voice of one’s own heart (Eriksson, 2003). Ethos also serves as man’s motivation and driving force (Hilli, 2007). Ethos means that we feel called to serve a particular task (Lindström, Nyström, & Zetterlund, 2014). Students express their will and inner incentives for learning caring and nursing and in their strive to develop into nurses (sub study 2), thus indicating a caring ethos.

Ahlman (1939) argues that acquiring an ethos implies that something happens within the individual so that s/he suddenly realizes the importance of certain values. According to Gadamer (2004), hermeneutic understanding requires that you become emotionally touched. In other words, emotions and significant others are of importance in the development of an ethical identity (Akerjordet, 2014). The student nurses describe how encountering patients and dealing with different situations provide them with experiences that change them and their perspective (sub study 2). They then revise their perspective which accordingly affects their actions. The foundations of ethics and ethical deeds are formed from ethos (Eriksson, 1999). Thus, good caring and true knowledge become visible through ethos (Lindström, Nyström, & Zetterlund, 2014).
The second hub, around which the lemniscate of understanding circles, is arête\textsuperscript{12}. Arête means to fulfil one’s characteristic human purpose in the best possible manner, i.e. with excellence. In its earliest appearance in Greek, this notion of excellence was ultimately bound up with the notion of the fulfilment of purpose or function\textsuperscript{13}; the act of living up to one’s full potential (Arete.).

Arête is tied to responsibility and, together with the concept of ethos, stands for an ethical basic bearing within an incorporated ethos. The nurse’s arête is to function wholeheartedly, and take responsibility for the realization of the good. Students feel a responsibility and a willingness to take responsibility for patients and their care (sub study 2). The possibility that ethos is made evident by arête is therefore suggested (Eriksson, 2013b). In other words, student nurses who have appropriated a caring ethos strive to fulfil their arête, i.e. to become caring nurses (sub study 2).

**The movement of understanding as a hermeneutic lemniscate**

The lemniscate of understanding represents the second building block of the heuristic synthesis. It is characterized by seeing, knowing and becoming (sub study 4). These basic components of understanding form so-called warp threads\textsuperscript{14} running throughout the lemniscate. Seven differently named phases are found within these

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\textsuperscript{12} Arête is regarded as a relative term in the sense that different professions have different arête (Eriksson, 2013b). Arête is excellence in fulfilling a function, also known as an Ergon (Aristotle & Barnes, 1984; Kraut, 2014)

\textsuperscript{13} Throughout the Nicomachean ethics, Aristotle uses arête to mean a measure of how well something fulfils its intended use or purpose (i.e. Ergon). This applies to both living creatures and objects. A ditch digger may be a bad ditch digger, an average ditch digger, a good ditch digger, or perhaps a truly excellent ditch digger. It is the purpose of the ditch digger to dig ditches, thus if s/he is truly excellent at digging ditches and exercises that skill, then s/he has arête. A ditch digger who either does not have or does not exercise the skill to dig ditches excellently lacks arête because s/he does not fulfil her/his Ergon well (Lotito, 2002). This could be compared with nursing and being a nurse: a nurse who does not have or does not exercise the skill to nurse excellently or to the best of her/his ability lacks arête because s/he does not fulfil her/his Ergon.

\textsuperscript{14} There are two main elements in the process of weaving a fabric: The warp that is the lengthwise threads that gives the fabric its form and weft that is the material located between the warp threads and usually across these, that intertwined with the warp provide the fabric.
warp threads; the acquired horizon of understanding, the encounter of horizons, the dialogue of horizons, the fusion of horizons, application, reflection and shaping a new horizon of understanding. These are the wefts that form the fabric together with the warp, i.e. the hermeneutic lemniscate of understanding.

*The acquired horizon of understanding*

The students possess an acquired, established horizon of understanding that comes from their previous understanding. This pre-understanding constitutes the momentary level of understanding and formation that they have achieved in their process of (human) becoming so far. Pre-understanding refers to the different forms of knowledge the person possesses, such as theory, as well as insights and skills (Gadamer, 2004). The horizon reflects the level of seeing, knowing and becoming that is current at the time (sub study 4). Pre-understanding emerges through language and actions (Gadamer, 2004). This horizon of understanding is the starting position of the "hermeneutic lemniscate of understanding" and it is from this horizon that the students’ further understanding and development will take place. Every time something is understood, it is with the help of pre-understanding, because understanding can never be developed without preconceptions (Gadamer, 2004). To understand, one must already have understood (Ödman, 2007). However, Gadamer (2004) emphasizes the importance of the fact that one's own horizon of understanding is not locked; rather it is be receptive to what may be possible.

*The encounter of horizons*

In clinical education, students encounter different kinds of situations and experiences daily. These experiential encounters offer an encounter of horizons, i.e. when the student's current horizon of understanding meets another horizon. An encounter of horizons involves students’ encounters with patients and different kinds of experiences related thereto. Since possibilities are available, students expect to that time and space are made available for the purpose of learning, i.e. the preceptor points out and creates learning situations (sub study 2). Although these learning situations can be encounters with new knowledge of a more theoretical nature, they could also be practice-related knowledge and experience based, i.e.
students in clinical nursing face a variety of patients in different types of nursing situations. Thus, the encounter of horizons is consequently both relational and experiential.

Encounters with a patient's horizon, i.e. his/her suffering, appeal to the students' responsibility and ethos (Arman Rehnsfeldt & Rehnsfeldt, 2003). Consequently s/he feels compelled to respond to the responsibility she perceives in the situation. The encounter of horizons consists of a responsibility to an ability level and taking on the given responsibility (sub study 2 and 3). The given responsibility first involves the responsibility given by the preceptor and later, with increasing understanding, the responsibility that the student her/himself realizes that s/he needs to take on. A responsibility made one's own has an existential-ontological dimension and is perceived as feeling responsible for life and the world (Akerjordet, 2014).

The dialogue of horizons – interweaving the known and the understood with the unknown and different

One of the most important ways to achieve dialogue is to be interested in what is being experienced (Lindseth & Svare, 2002). Likewise, an important prerequisite for understanding is a willingness to learn from what one sees and observes (Bergbom, 2007). Thus, interest and knowledge appear to be essential for understanding (Wiklund, 2007). The dialogue of horizons involves an encounter between experience and prior understanding in dialogue (c.f. Gadamer, 2004). In the dialogue of horizons, the new experience is interpreted against the current horizon of understanding. The dialogue provides an opportunity to deepen knowledge and understanding (Severinsson, 2014). For the dialogue to be developed and a deeper understanding reached, students should allow themselves to be affected (Holm, 2014).

As the occurring patient encounter and the responsibility it awakens require some form of action, students must decide on the best action. Therefore, different measures are considered and a dialogue between the horizons commences. This
dialogue is an assembly process of understanding and involves a weighing for and against. It is a consideration of whether the new knowledge is "reasonable" and how it can be tied in with the existing pre-understandings, i.e. the established horizon of understanding. This means tying the threads together, i.e. that the various fragments of knowledge that the students have are combined with the knowledge they receive in the encounter with the patient (sub study 2). In order to understand the reality of the other, it is required that one’s own conceptions are examined thoroughly, as well as to accept the other’s understanding of the world (Lassenius, 2014a). The patient (who s/he is, what health obstacles s/he has, how her/his suffering is expressed) comes into a dialogue with the student’s current level of seeing, knowing and becoming (i.e. how "mature" students are as humans). That is, what s/he sees and takes responsibility for, what knowledge s/he possesses, i.e. theoretical knowledge, skills, ethical awareness, earlier experiences etc., and the student’s ability to translate them into action in the particular situation.

_The fusion of horizons – reaching a new understanding_

In uniting thinking and doing in a particular situation, theory and praxis need to be intertwined. Each student must interweave their different threads of knowledge and create an understanding of the most appropriate action required in the situation. Thus, the dialogue concludes with some kind of decision about what kind of nursing care and nursing action are called for due to the situation at hand and the patient involved (sub study 2 and 3).

The dialogue of horizons affects the student’s acquired horizon and a momentary conclusion is reached; i.e. a new horizon begins to take shape. Through the dialogue between the acquired established horizon (i.e. the pre-understanding) and the experiences, the student gains insight, sees a broader picture and comes to a momentary conclusion, i.e. understands in a new way: a fusion of horizon occurs. This fusion does not blur the picture but broadens and changes it (Eberhard, 2004). This means that as the historical horizon is projected, it is simultaneously superseded (Gadamer, 2004). The fused horizon constitutes the ground for the following phases in the movement of understanding. As such, an expanded
readiness for responsibility and action is attained which eventually leads to a completion of understanding. Based on the current situation and the understanding and knowledge that students have, s/he creates a foundation for how s/he should act in the current situation (sub study 2).

Application - appropriation transforms and is made visible in outer application

Gadamer (2004) considers application to be an essential moment of the hermeneutical experience and understanding. As such, application involves both appropriation and concrete application in action (Eriksson & Lindström, 2007). Discovering the meaning and discovering how to apply it in a particular instance are not two separate actions, but one unitary process (Gadamer, 2004).

Appropriation is the inner part of the application, i.e. that which occurs in humans (Eriksson & Lindström, 2007). This means that the understood meaning is appropriated and embodies a meaning for us (Grondin, 1994). Understanding is always self-understanding and consequently appropriation, i.e. making the matter one’s own (Gadamer, 2004). Appropriation takes one to a new and possible world, where a new perspective on the phenomenon opens (Wiklund, 2007). The phase of appropriation also means that something different begins to reside within and becomes personal (Lindström, 2014). Thus, appropriation includes the understanding of oneself in a new way when the understanding of the matter changes (Fredriksson, 2014).

Realization refers to a momentary, conclusion when new understanding involves, develops and transforms the students. Students realize the new knowledge that they have appropriated, and the understanding alters them (sub study 2 and 3). Furthermore, students gain an insight of the way to act or perform in the situation at hand. This understanding is lived out in the clinical situation as a natural part of ourselves in our being, our stance, our language and our actions (Lindström, 2014). When the students have appropriated the understanding it alters their thinking, doing and being (sub study 3). Understanding provides a readiness for action and they apply their understanding in specific nursing situations. The outer application
is the part of the application that focuses on the methodical course of action, i.e. the emphasis is on different methodical procedures (Eriksson & Lindström, 2007). In the appropriation of a profession, it is important to be aware of and open to the existential and ontological dimension, in order to avoid merely becoming solely good "technicians" and "craftsmen" (c.f. sub study 1) (Hansen, 2014). In an application that involves both the inner appropriation and the outer application, a fulfilling of one’s arête is possible.

Reflection on experience

Reflection is seen as a prerequisite for the completeness of understanding (Gadamer, 2004). Thus, our ability to reflect is crucial. By reflecting and trying to see that which we had not previously seen or been made aware of, our understanding increases (Eriksson, 1987b).

In the reflection, students evaluate the appropriated understanding and see how the pieces fit together, i.e. how theory and practice are intertwined. Students perceive that reflection facilitates the process of understanding (sub study 2) in that it transforms their thinking and knowledge to understanding and thus increases their readiness for responsibility and action (sub study 3). In other words, an increased understanding of the real reality is accessed by reflection: science and reality meet in the reflective consciousness of man (Lindholm, 2003). Through reflection, the affective aspects of nursing which promote professional maturity and the development of a professional identity are also dealt with. Without reflection focus will easily be on the performance of technical and practical data (sub study 1).

The shaping of a new horizon of understanding

When students have understood, appropriated knowledge and made it evident in their thinking, doing and being, then the implication is that a new horizon of understanding has been shaped. Simultaneously, this new understanding is an adjusted pre-understanding, i.e. an acquired, established horizon of understanding, which forms the students’ new horizon with which new experiences will be met.
The change of the initial horizon is possible only through awareness of what one does not know. Questions are looking for new understanding, which in turn lays the foundation for the next pre-understanding and so on (Rørtveit, 2014). The new understanding is qualitatively different from the previous understanding, providing room for change. It is through understanding that new perspectives and new courses of action open (Eriksson, 1999). However, it is not easy to give up what one believes, i.e. having to change one’s mind about one’s view of the world or oneself (Andvig, 2014). In case the understanding is completed, theory and praxis become a whole (Eriksson & Lindström, 2007). Thus, a new level of seeing, knowing and becoming is achieved (sub study 2, 3 and 4) and the student reaches a new, expanded, readiness for responsibility and action.

**Bildung (formation) - the ultimate imprint of understanding**

The heuristic synthesis third building block consists of the formation. According to Lassenius (2014b), caring can be seen as a continuous development and formation in humanity. Students learning nursing and caring are altered by what they learn and experience. Moreover, students express how they develop not only professionally but also how they transform as persons (sub study 2 and 3). Consequently, for the student, understanding is fundamentally transformative (Lassenius, 2014b).

As the process of understanding proceeds, a formation (Bildung) also occurs. The lemniscate of understanding is infinite and with every turn in the lemniscate of understanding a higher degree of formation is achieved. Bildung could be referred to as an infinite loop\(^{15}\): a process that continues and deepens the process of understanding and formation. Bildung has no end, but goes on and on as long as the students’ ethos and arête allow it. Bildung is the result of an internal process of formation and cultivation and cannot as such be sought as a goal. Bildung means that the knowledge is integrated into the personality, i.e. something we have made

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\(^{15}\) In computer programming the term infinite loop is used. Looping refers to the repetition of a set of instructions that is repeated until a specific condition is met. An infinite loop occurs when the condition will never be met, due to some inherent characteristic of the loop. “Repletion” is impossible (Infinite loop.2014).
our own knowledge, incorporated within ourselves, and, as such, has changed us as human beings (Gustavsson, 2007).

In and through the hermeneutic formation the person is gradually created, shaped and "fostered". In other words, s/he becomes more free and guided from within her/himself (Berggren, 2014). The student develops a feeling of athomeness, a sense of being at home (Hilli, Salmu, & Jonsén, 2014). As self-understanding emerges, a transformation begins in the person (Berggren, 2014) as understanding becomes a way of life. Gadamer (2004) considers Bildung to be the ultimate purpose of man and a process that continues during the whole lifetime.

A caring culture

The fourth building block of the heuristic synthesis is the caring culture, which can be considered a foundation in the movement of understanding. Here, the prevailing basic values become visible in the culture. It is like a dynamic life space that can be enlarged or shrunk. The caring community forms the foundation of humanity, love, purpose of life and health and forms the natural meaning of context for caring sciences (Eriksson, 1990). The caring culture is based on community, as opposed to a culture that cultivates tasks (Nordman, 2006).

A preceptor in a way always becomes a sort of model and affects the precepted through her/his way of being and acting (Berggren, 2014). In a caring culture, where the preceptor's ethos is caring, students will perceive a caring ethic in the relationship with the preceptor, i.e. students who are seen and included experience benevolence towards them, their learning and development (sub study 2). With a culture permeated by caring, the process of understanding is provided with the best conditions for the continuous increase in understanding and thus formation.
V. DISCUSSION

“A lack of transparency results in distrust and a deep sense of insecurity.”

Dalai Lama

12. Discussion

This chapter offers a critical examination of the strengths and weaknesses of the thesis. The chapter ends with questions indicating a direction for the new sight and implications for further research.

12.1 Critical review

The discussion of validity includes a critical examination of the research based on Larsson's (1994; 1998) quality criteria for qualitative method\textsuperscript{16}. Larsson believes that the criteria should not be applied mechanically, but after consideration, to allow an overall evaluation.

Qualities in the presentation as a whole

The importance of a theoretical perspective in the scientific search for knowledge and its implications for theory and for the development of the healthcare science discipline is emphasized (Parse, 2001). It is important to expound the perspective so that a critical review of the research can be enabled (Larsson, 1998). The

\textsuperscript{16} Larsson (1994; 1998) uses the following quality criteria in qualitative studies:

a) Qualities in the presentation as a whole: awareness of perspectives, internal consistency, and ethical values.

b) Qualities in the results: richness of meanings, structure, and theoretical contributions.

c) Criteria of validity: the discourse criterion, heuristic value, empirical anchorage, consistency, and the pragmatic criterion.
perspective in the present thesis is made visible in the description of pre-understanding, theoretical foundations and research objectives (Section II).

The appropriated human science and caring science perspective runs like a main thread throughout the thesis. It constitutes the sight of the thesis and has guided the search in a definite direction. In the closing, the findings of the sub studies are reflected against the theory core and pre-understanding. Thus, the research contributes to the renewal of pre-understanding and theory core.

As regards the internal consistency of the thesis, there has been a striving for harmony between the research question, perspective, the studied matter, data collection and data analysis. The idea of this harmony is based on the aesthetic principle that a scientific work must be a well-integrated construction (Larsson, 1998).

The overall approach of the present thesis is hermeneutic. Notwithstanding the overall hermeneutic design, the thesis contains both quantitative and qualitative methods. The framework of hermeneutics is not strict though, and it is important that the method itself does not prevent understanding (Gadamer, 1997; Ödman, 2007). In this thesis, several methods of data collection and data analysis have been used, which is thoroughly reported in the different studies. It is worth keeping in mind that the validity of research is strengthened when multiple data collection methods are used. In this respect, Larsson (1998) brings up triangulation as a means for the validation of analysis. Triangulation involves the use of multiple sources in order to give evidence to the scientific description. As such, coherence between different sources is regarded as evidence of validity. Therefore, a systematic use of triangulation is extremely effective in terms of providing credibility to the interpretations. Even in hermeneutics, it is important to have evidence of what one claims is a reasonable interpretation.

In the research, varying methodology and methods of reasoning were used. Data collection methods were questionnaires and focus group interviews, and data analyses were performed statistically, using both the phenomenological-
hermeneutic method and hermeneutical method. In addition, inductive, deductive and abductive reasoning were used. The creation of the heuristic synthesis can be seen as an abductive leap, which Alvesson and Sköldberg (1994) describe as a rising from the empirical to the theoretical pattern, with the intention of finding the underlying, unobservable, deep structures. The empirical studies are to be regarded as visible surface structures that point to or suggest something underlying. These surface structures are further interpreted against the theoretical background and the theoretical perspective.

The student nurses, who were the research persons, were followed during their entire nurse education, which, according to Thorne (1997), strengthens a study's credibility. The questionnaire in Study I served as the entry into the hermeneutical spiral of the thesis in the sense that it gave an overall picture of the students’ position. One could imagine that the questionnaire could not reach deep enough into the students’ movements of understanding and becoming. In this regard it is worth considering how well the different themes in the questionnaire were able to "measure" and describe these dimensions. Perhaps with additional questions and topics specifically regarding understanding and becoming, the questionnaire might better have been able to capture these dimensions. The findings of this sub study could then possibly have contributed to the research findings as a whole, to a greater extent.

The questionnaire was followed up by focus group interviews in sub study II and III, which deepened the addressed issues with the intention of trying to drill deeper into the matter in order to reach a more profound picture. The phenomenological-hermeneutic analysis that was used contains several levels of interpretation and consequently results in a higher level of abstraction with a deeper understanding than would have been the case with content analysis.

Sub study IV was conducted as a secondary analysis of sub study III on the basis of a new research question. To reuse a text material involves some temporal distance to the primary material. According to Gadamer (2004), the historical distance
releases prejudices and enables new understanding. To reuse a text material allows researchers to ask new questions to a text that was primarily collected for a different purpose. The rich data set from sub study III offered good opportunities for new research questions. Reusing interview texts from earlier studies may involve both ethical and methodological problems if the data analysis was made by another researcher who had no knowledge about the basis for the collected material (Heaton, 2004; Thorne, 2013). This potential problem was not an issue in this research, however, as the researcher was the same, having both knowledge of the context and data collection as well as personal involvement in the study.

Sub study IV was analysed hermeneutically, which was perceived to be a natural consequence of how the hermeneutic spiral movement had progressed through the previous sub-studies. A hermeneutic analysis was a prerequisite to be able to reach even deeper into the matter, and to not lose the depth of research while further raising the level of abstraction.

The ethical values, according to Larsson (1998), mean the extent to which the researcher has been diligent in her conclusions about which conclusion that can be drawn from the current research. In this respect, an ethical thinking has permeated all phases of the research process. Furthermore, the research has been approved by the universities where the research persons studied and a good ethical position towards the research persons have been maintained. Prior to data collections, all participants received written information on the current study and their rights as participants in the research. Moreover, verbal information was given at all data collection sessions. The researcher has strived to maintain a good scientific practice (Northern Nurses’ Federation, 2003; Varantola, 2013), by documenting and rendering the completion of the analysis and presentation of findings as honestly, thoroughly and accurately as possible, both in the individual sub-studies as well as in the research as a whole. An ethical assessment of the study has been made by Åbo Akademi University’s Social Science department’s Ethics Committee. As a researcher, I also have an ethical responsibility to publish my findings, which also occurred through the publication of the sub-studies as individual articles.
Qualities in the results

The reporting of findings in qualitative studies often involves portraying something in such a way that new meanings arise; the interpretations are expected to have a higher quality if they can capture more nuances (Larsson, 1998).

Simultaneously, there is a tension between the richness of meaning and the requirement of *structure* that must be handled (Larsson, 1998). Moreover, as the findings shall meet the criteria for *richness of meaning*, the requirement of good structure should also be met, which means clarity and a reduction of complexity (Larsson, 1998). The findings may thus not be diffuse, but express a great richness of meaning in a well-structured way.

The hermeneutic design of the present research itself allows for a new and different configuration to take place in the sense that, in hermeneutics, there is not a single answer but multiple possible interpretations and truths. Accordingly, the interpretation has happened in a hermeneutic movement, where the horizon of understanding of caring science has been the foundation that made it possible to uncover the meaning of the students' process of understanding. The striving in the formulation of the themes has been to use as concise terminology as possible in order to clearly illustrate the material. The requirement of the structure can be said to have been met by stringent reporting of the findings and that the findings have also been illustrated in the tables and figures.

*Theory contribution* according to Larsson (1998) means how well one has been able to relate to previous theory and whether the findings could change the theory. By theory, Larsson (1998) refers to the fact that in the interpretation, one finds patterns or key features in the raw data and that the findings highlight that which is common in them.

In the present thesis, theory contribution means that I have found patterns in the data, which have been theory laden and form, in the heuristic synthesis, a contribution or addition to the theory and substance of caring science. The research
is thus assumed to develop and enrich the caring science and caring didactics nationally and internationally. The highest goal of research, however, is that the findings are ultimately dedicated to the patient.

Criteria of validity

The new meaning and the theory contribution is also strongly linked to the heuristic value. The heuristic value is about the existence of a knowledge contribution in the configuration, i.e. a new way of looking at reality (Larsson, 1998). In this regard, the theory model that emerged during the time of the work with the thesis represents an abstraction of the reality that is depicted in the sub studies. As such, the description of the heuristic synthesis is a new way to portray the core in both the glow of the basic pattern of caring science and the diverse contextual features (the sub studies). The findings, therefore, reflect the ontological evidence both from the systematic caring science and from caring didactics. In the dialogue between the new understanding generated in the thesis and the researcher’s horizon of understanding, a still image has been taken of a moment, in order to explain how the understanding has evolved (Ödman, 2007). This is a prerequisite for a new opening to the infinite, to again sharpen the sight. This still image is illustrated in Figure 4 where the students’ movement of understanding is depicted in the form of a lemniscate which shows a new way of looking at the endless movement of hermeneutics toward formation.

The heuristic synthesis has enabled the achievement of a deeper understanding, a new pattern of thought, based on the student nurses’ learning context. Appropriation means that the theory core and the new theoretical knowledge are translated so that a specific meaning in the nurse education praxis is obtained.

The discourse criterion is related to validity of the study and examines whether the conveyed assertions and arguments can pass a test according to the rules of the scientific community. If the research passes this test and others do not find crucial weaknesses in it, is considered to have good quality (Larsson, 1998). An open description of the approach, reasoning and findings is a prerequisite for an outside
examination/audit. Regarding the present thesis, three of four studies have been published in scientific journals and has thus been examined by several healthcare researchers. Neither the process of interpretation nor the new understanding that constituted the findings were questioned.

Larsson (1998) describes the consistency criterion, i.e. the examination of the relationship between part and whole, as important in the examination of the hermeneutical studies. High quality in interpretation is characterized in a way that there will be as few contradictions as possible between the interpretation (the whole) and individual data (parts). All the pieces have to fit together in order for the motif of the puzzle to appear.

In the present thesis, the interaction between part and whole, partly in the individual sub-studies and partly between the sub studies and the gradual progression of interpretation, eventually emerges in the hermeneutical synthesis and theory model.

Empirical anchorage refers to the fact that the interpretation provided must be rooted in the reality that is interpreted. The use of a longitudinal design appears to be a good choice considering the purpose of the thesis. The fact that data collection was done in Finland and Sweden, both in Finnish and Swedish, provides the data width. At the same time, it can also mean a weakness since it led to the use of three languages (Finnish, Swedish and English). Although Gadamer (2004) argues that translation is enriching as it always involves an interpretation, it is not entirely unproblematic. Some of the rich meaning in the Finnish interviews, even if my Finnish is good, may have been lost through my translation and interpretation. Also in the writing of articles and thesis in English, there is a risk that the nuances of the text has somewhat changed, with altered meaning and significance as a result.

The pragmatic criterion (Larsson, 1998) refers to the value that the research as a whole has for the object of study. The pragmatic criterion places emphasis on the consequences of the findings that the research has, and whether the findings will help to improve anything. Generalization of findings is not specifically sought in
qualitative research, since the findings of the interpretation of a qualitative study do not apply as universal statements. Hermeneutic interpretations have limited claims to truth, since all hermeneutical interpretations are linked to the tradition and situation of the research (Warnke, 1995). In order to promote transferability, a good description of the research process step is required so that the reader can form an opinion as to whether the results are transferable or not (Polit & Beck, 2012). Even though the strive has been to describe the research process as detailed as possible, the generalisability of the research is hesitant, because the focus is on a specific context with relatively limited material. But the new understanding of students' development of understanding is nevertheless assumed to be useful, transferable or applicable in other educational contexts when considering the nature and level of education and that the theory model is translated to the area in question.

Moreover, it is worth noting that although Helenius (1990) argues that hermeneutic transparency is not good enough for generalization, Arfwedsson and Ödman (1998, 18), on the other hand, argue that the understanding and knowledge that hermeneutics generate can be transferable to other areas than to those that the interpretation initially concerned. Taking part in a hermeneutic research often leads to a new understanding of oneself or one’s social context, which means that the interpretations will be generalized or translated into the individual's own situation.

The knowledge contribution of the present thesis involves a new way of looking at and understanding the student’s process of understanding and becoming, based on a formation approach to education. Thus, one can say that the findings confirm previous research while simultaneously paving the way for a more understanding-based didactic in nursing education through its empirical evidence. Moreover, the research may contribute to students' learning as it also meets the ultimate purpose of caring science research, which is research dedicated to the suffering human being.
12.2. Conclusion and implications for education and further research

The research interest in the thesis has been caring didactics, i.e. a quest for knowledge about the development of student nurses' processes of understanding and becoming. The sight of the scientific task, starting from a caring science perspective, was to explore and deepen the understanding of student nurses' processes of understanding and becoming, with the intention of developing a theory model for caring didactics.

The research takes its starting point in the ongoing discussion about the current situation in education. It has been argued that today's education system encourages mediation pedagogy (Gustavsson, 2011), has a prevailing emphasis on theory and largely gives attention to tasks or functions (Mulcahy, 2011), while there is a lack of supervision and coaching (Opetusalan ammattijärjestö, 2014). The current situation in education in general is also found in nurse education, where previous research has mainly had a pragmatic focus with an emphasis on benefits in the form of concrete solutions regarding methods and techniques (Russell, Comello, & Wright, 2007). In this thesis, the focus has, however, been on the student's processes of understanding and becoming. This thesis is grounded in caring science and caring didactics, which has characterized the research process, guided by Gadamer's ideas on formation (Bildung). This thesis represents an innovative association between theory and empiricism where the meaning of the searching was to reach an abstract, general and description of meaning of the phenomenon of understanding (c.f. Ekebergh, 2001). In the closing, the new understanding is derived from the substance of caring science and woven into a caring didactic context. The hermeneutic movement between empiricism and theory has resulted in a heuristic synthesis which is illustrated in a theory model that can be regarded as bringing a new understanding of nursing students' processes of understanding and becoming. Based on the results as a whole, the following conclusions can be drawn:
The core of understanding can be described as seeing, knowing and becoming, which together form the process of understanding and becoming in an infinite hermeneutic movement of formation (Bildung).

A caring culture permeated by a caring ethos is of great importance for the student's learning. The prevailing ethos affect students' ethos / ethical stance and provides the conditions for an optimal process of understanding and becoming.

Reflection promotes students' process of understanding and becoming by transforming their thinking and knowledge, which increases their readiness for responsibility and action.

Responsibility is a catalyst in the students' process of understanding and becoming. Furthermore, it reflects the students’ ethos and by the appropriation of a caring ethos the students can fulfill their arête, i.e. becoming a caring nurse.

Theory and praxis are an inseparable unit that constitutes a crucial foundation for understanding. They work together, complementing and nuancing each other as knowledge and understanding grows.

As research and knowledge development goes ahead and opens up new questions that create new visions and possibilities, the closing at the same time also always implies a new opening.

In relation to the understanding and becoming there are still many issues to highlight and extract knowledge on. These issues, among other things, can arise when the new knowledge will be devoted to a practical context, as in this case, when the theory model is being applied to the educational context and combined with educational practice. This model brings a rethinking of didactic activities in nurse education and it would be challenging to get the possibility to test this model empirically. However, the model can be the basis for curriculum development as well as a didactic structure for teaching. A research on development of applicable, concrete didactic actions and teaching methods is seen as a potential continuation of this work.
The promotion of a learning environment, permeated by a caring culture, is also perceived as a pressing area for development. The educators, both university teachers as well as clinical preceptors, are important for student learning and the development of understanding. By developing a caring culture, which is rooted in caring and its value system, i.e. ethos, students feel welcomed, which promotes learning, understanding, the development of understanding and becoming. In order to develop such caring cultures, leaders are needed who take responsibility for the development of such cultures. Taking responsibility for a caring culture is also a task for the individual teacher and preceptor. Based on the findings of this thesis, teachers and preceptors can reflect on different possibilities for the development of a caring culture in their own unit.

The presented findings can be the basis for the development of recommendations for future nursing education. The research findings can also be seen as border-crossing and can be of interest in other scientific fields because the outcome is not in itself profession bound. Although the model originates from caring didactics, its general principles are also likely to be applied to education other than nursing education. The result can possibly generate interdisciplinary research projects focusing on the processes of understanding and becoming. Thus, the findings will probably be beneficial to teaching at various levels in our educational systems.

### 12.3 Closing words

The dialogue between our self-understanding and our understanding of the matter at hand is what Gadamer (2004) calls play. When the play with the thesis now ends I can see that Gadamer's metaphor for understanding as play become tangible. While I have played the game, driven research and authored this thesis, the game has also played me. The hermeneutic research has changed me as a person and scientist, i.e. my way of looking at the world. I perceive clearly how the in-depth understanding I attained has also moved my own horizon and made it different and richer than it was when the process started. I myself have "fallen victim" to
formation. Based on my personal experience from this educational journey, I can confirm that the seen cannot be unseen. There is no longer any turning back to the world in which I previously found myself. What I have realized, I understand, and it has affected my becoming. I can no longer detach myself from my findings. They have become internalized with my knowledge and consequently with who I am. At the moment I have reached a momentarily frozen moment in my formational journey of life. But at the same moment as the moment was frozen, the continuing process started. As humans, we are in the infinite flow of life, like something unfinished and as part of a continuous searching movement towards a future, a reality we do not know. We only know that it will be different, as one of Scanlon’s (2011a, 246) students expressed in a descriptive way:

“I will miss the person I was… just who will I eventually become?”
SAMMANFATTNING

Ann-Helén Sandvik, 2015: Att bli en ‘caring’ sjukskötsare – kärnan i vårdutbildningen

Nyckelord: förståelse, inseende, kunnande, tillblivelse, bildning, vårddidaktik, hermeneutik

Introduktion

Denna avhandling studerar förståelse i förhållande till hur sjukskötarstuderande utvecklar förståelse och växer till sjukskötere under sin utbildningstid. Siktet i den vetenskapliga uppgiften är att från ett vårdvetenskapligt perspektiv utforska och fördjupa förståelsen för sjukskötarstuderandes förståelse- och tillblivelseprocesser med avsikt att utveckla en vårddidaktisk teorimodell.

Teoretiskt perspektiv och förförståelse


I vårdvetenskapen är synen på människan en grundläggande utgångspunkt som följaktligen också präglar synen på studerande i hens lärande. I sjukskötarutbildningen är världsbilden, ethos och grundvärden samt ontologi och syn på kunskap avgörande för tillblivelse och växt, både när det gäller caring och bildning (Matilainen & Eriksson, 2004). Synen på studerande kännetecknas av ett caritativt ethos där aktning och vördnad för mänsklig värdighet och tron på studerandes förmåga till växt och tillblivelse ses som grund och villkor för bildning. Människan ses som unik, om än alltid placerad i ett sammanhang av mening och i nära gemenskap med andra (Matilainen, 2004a). Hen ses som ständigt tillblivande; en person som är i ständig förändring och därför aldrig fullbordad.


**Syfte och forskningsfrågor**

Det övergripande syftet med studien, som har en hermeneutisk ansats, är att klargöra innebörden och kärnan i förståelse, samt att utforska och fördjupa förståelsen för sjukskötarstuderandes förståelse- och tillblivelseprocesser med avsikt att utveckla en vårddidaktisk teorimodell.

Forskningen söker svar på följande övergripande frågor:

- Vad är kärnan i förståelsen (av vårdvetenskaplig kunskap)?
- Vad är förståelsens möjligheter och betydelse i tillägnelsen av vårdvetenskaplig kunskap
- Vad kännetecknar och framkallar tillblivelseprocessen?

Forskningen, som baserar sig på fyra delstudier söker svar på följande frågeställningar:

- Hur beskriver sjukskötarstuderande sin förståelse och tillblivelseutveckling? (delstudie I)
- Hur formas studerandes förståelseprocesser? (delstudie II)
- Vad är förståelsens innebörd och väsen? (delstudie IV)
- Vad är tillblivelsens innebörd och väsen? (delstudie IV)
- Hur gestaltar sig tillblivelsen från studerandes synvinkel? (delstudie III)
Metodologi och tillvägagångssätt


I delstudie I deltog 139 sjukskötarstuderande som just hade avslutat sin första kliniska placering i klinisk praxis. Syftet med studien är att undersöka sjukskötarstuderandes erfarenheter av sin första kliniska utbildningsperiod. Studiens design var kvantitativ och data samlades in med hjälp av ett frågeformulär. Data bearbetades statistiskt. Resultaten visar att fokus på utförande av tekniska och praktiska uppgifter, medan sådant som krävde reflexion och mera övervägande inte uppmärksammades på samma sätt. Studerande upplevde också brister i den kontinuerliga feedbacken.


Heuristisk syntes

I denna studie innebär slutandet att när den nya förståelsen, vilken syntetiserades från de olika delstudierna, relateras till förförståelsen och det teoretiska perspektivet, skapas möjligheter för slutledning på en högre abstraktionsnivå. Genom en dialektisk rörelse mellan dessa framträder ett nytt tankemönster som kan beskrivas som en heuristisk syntes som bildar en teorimodell av förståelsen och dess rörelse så som den beskrivs av sjukskötarstuderande (se figur 5).


Förståelsens lemniskata omfattar flera steg och illustrerar förståelsens rörelse så som den upplevs av sjukskötarstuderande. Bildning är den yttersta konsekvensen av förståelsens ändlösa rörelse. Ethos och arête utgör naven kring vilka förståelsens

Figur 5: Förståelsens hermeneutiska lemniskata

**Ethos och Arête som förståelsens nav**

Studerande uttrycker att de har vilja och inre drivkrafter för att lära vård och utvecklas till sjuksköterska (delstudie 2).


Förståelsens rörelse som en hermeneutisk lemniskata

Förståelsens hermeneutiska lemniskata utgör den heuristiska syntesen andra byggsten. Den kännetecknas av inseende, kunnande och tillblivelse (delstudie 4). Dessa förståelsens grundkomponenter bildar ett slags varptrådar som löper genom hela lemniskatan. Längs med varpen löper sju olika namngivna faser; den förvärvade
förståelsehorisonten, horisontmöte, horisonternas dialog, horisontsammansmältning, applikation, reflexion och avslutas i formandet av en ny förståelsehorisont. Dessa är inslagen som tillsammans med varpen bildar tyget, dvs. förståelsens hermeneutiska lemniskata.

Den förvärvade förståelsehorisonten


Horisontmöte


**Horisonternas dialog – att fläta samman det kända och förstådda med det okända och annorlunda**


teoretiska kunskaper, färdigheter, etisk medvetenhet, tidigare erfarenheter osv. samt studerandes förmåga att omsätta dem i handling i den specifika situationen.

Horisontsammansmältning – en ny förståelse nås

I förenandet av tänkande och görande i en viss situation, behöver teori och praxis sammanflätas. Varje studerande måste fläta samman sina olika kunskapstrådar och skapa förståelse för vad som är den lämpligaste åtgärden som krävs i situationen. Således avslutas dialogen med någon form av beslut om vilken typ av vård och vårdåtgärder som den aktuella situationen och patienten kräver (delstudie 2 och 3).


Applikation – tillägnelsen och tillämpningen


Tillägnelsen är applikationens inre del, det vill säga det som sker i människan (Eriksson & Lindström, 2007). Det innebär att den förstådda innebörden tillägnas


Reflexion över erfarenheter


**Formande av en ny förståelsehorisont**

När studerande har förstått, tillägnat sig kunskap och den nya förståelsen har tydliggjorts i tänkande, görande och varande, innebär det att en ny förståelsehorisont har formats. Samtidigt innebär denna nya insikt en justerad förförståelse, dvs. en ny förvärvad, etablerad förståelsehorisont med vilken de kommer att möta nya erfarenheter.


**Bildning – förståelsens yttersta konsekvens**

Den heuristiska syntesens tredje byggsten utgörs av bildning.


**En vårdande kultur**


**Slutsatser**

Baserat på resultaten som helhet, kan följande slutsatser om sjukskötarstudierandes förståelse- och tillblivelseprocesser dras:

- Kärnan i förståelsen kan beskrivas som inseende, kunnande och tillblivelse, vilka tillsammans formar förståelse- och tillblivelseprocessen i en oändlig hermeneutisk bildningsrörelse.
- En vårdande kultur med ett caring ethos är av stor betydelse för studerandes lärande. Det rådande ethoset påverkar studerandes ethos/etiska hållning och ger förutsättningar för en optimal förståelse- och tillblivelseprocess.
- Reflexion befrämjar studerandes förståelse- och tillblivelseprocess genom att den transformerar tänkande och kunskap, vilket utökar deras beredskap för ansvar och handling.
- Ansvar är en katalysator i studerandes förståelse- och tillblivelseprocess. Ansvaret avspeglar studerandes ethos och genom tillägnelsen av ett caring ethos kan studerandena uppfylla sitt arête, dvs. att bli en caring sjuksköttare.
- Teori och praxis är en oskiljaktig enhet som utgör en avgörande grund för förståelse. De verkar tillsammans, kompletterar och nyanserar varandra samtidigt som kunskap och förståelse växer.
REFERENCES


Akerjordet, K. (2014). Autentiskt ledarskap i hermeneutiskt ljus. [Authentic leadership in hermeneutic light]. In E. Lassenius, & E. Severinsson (Eds.), Hermeneutik i vårdpraxis. [Hermeneutics in caring practice] (pp. 163-173). Malmö: Gleerups Utbildning AB.


Andvig, E. (2014). Förundran i hermeneutisk forskning - ett exempel från fokusgruppsamtal. [Wondering in hermeneutic research - an example from the focus group discussions]. In E. Lassenius, & E. Severinsson (Eds.), Hermeneutik i vårdpraxis. [Hermeneutics in caring practice] (pp. 197-207). Malmö: Gleerups Utbildning AB.


Eriksson, K. (2013b). Jag var där, jag såg, jag vittnade och jag blev ansvarig – den vårdande etikens mantra. [I was there, I saw, I testified and I became responsible-the mantra of caring ethics]. In H. Alvsvåg, Å Bergland & O. Førland (Eds.), Nødvendige omveier; en vitenskapelig antologi til Kari Martinsens 70-årsdag. [Necessary detours, a scholarly anthology Kari Martinsen’s 70th birthday] (pp. 69-80). Oslo: Cappelen Damm akademisk.


Fredriksson, L. (2014). Teoribegreppet i hermeneutik och vårdande praxis. [The theory concept of hermeneutics and caring practices]. In E. Lassenius, & E. Severinsson (Eds.), Hermeneutik i vårdpraxis. [Hermeneutics in caring practice] (pp. 43-50). Malmö: Gleerups Utbildning AB.


Hansen, F. T. (2014). Vad innebär förundran - eller praxis? [What does wonder mean - or practice?]. In E. Lassenius, & E. Severinsson (Eds.), Hermeneutik i vårdpraxis. [Hermeneutics in caring practice] (pp. 63-78). Malmö: Gleerups Utbildning AB.


Holm, A. L. (2014). Hermeneutiska möjligheter i psykiatrisk vårdpraxis. [Hermeneutical possibilities in psychiatric nursing practice]. In E. Lassenius, & E. Severinsson (Eds.), Hermeneutik i vårdpraxis. [Hermeneutics in caring practice] (pp. 135-148). Malmö: Gleerups Utbildning AB.


Lassenius, E. (2014a). Hermeneutiken i människans och vårdandets tjänst. [Hermeneutics in the service of man and caring]. In E. Lassenius, & E. Severinsson (Eds.), Hermeneutik i vårdpraxis. [Hermeneutics in caring practice] (pp. 23-32). Malmö: Gleerups Utbildning AB.

Lassenius, E. (2014b). En bro till en annan - förståelse i vårdande praxis. [A bridge to another - understanding in caring praxis]. In E. Lassenius, & E. Severinsson (Eds.), Hermeneutik i vårdpraxis. [Hermeneutics in caring practice] (pp. 81-96). Malmö: Gleerups Utbildning AB.


Lindström, U. Å. (2014). Vårdvetenskap och hermeneutik i praxis. [Caring science and hermeneutics in practice]. In E. Lassenius, & E. Severinsson (Eds.), *Hermeneutik i vårdpraxis. [Hermeneutics in caring practice]* (pp. 33-41). Malmö: Gleerups Utbildning AB.


Matilainen, D. (2004b). Strövtåg i sökandet av ett fruktbart bildningsideal - intellektets, hjärtats och handens bildning. [Wanderings in search of a fruitful ideal of formation - the formation of the intellect, the heart and the hand]. In D.


Rørtveit, K. (2014). Kropp och konst - hermeneutiska passager i psykiatrisk vårdpraxis. [Body and art - hermeneutical passages in mental health practice]. In E. Lassenius, & E. Severinsson (Eds.), *Hermeneutik i vårdpraxis. [Hermeneutics in caring practice]* (pp. 149-161). Malmö: Gleerups Utbildning AB.


Scanlon, L. (2011a). And the conclusion for now is…? In L. Scanlon (Ed.), *‘Becoming’ a professional: An interdisciplinary analysis of professional learning* (pp. 245-246). Dordrecht: Springer.


Severinsson, E. (2014). Berättelser från handledning - röster om vanmakt. [Stories from supervision - voices of powerlessness]. In E. Lassenius, & E. Severinsson (Eds.), Hermeneutik i vårdpraxis. [Hermeneutics in caring practice] (pp. 177-186). Malmö: Gleerups Utbildning AB.


HANDELINGSPROCESSEN INOM VÅRDBILDNINGEN

- ett samnordiskt forsknings- och utvecklingsprojekt

Bästa studerande

Sjuksköterskeutbildningarna vid Yrkeshögskolan Novia, Vasa yrkeshögskola och Umeå Universitet genomför ett samnordiskt projekt om handledning av studerande i Kvarkenregionen. Projektet strävar till att stärka studerandes inlärning i den kliniska undervisningen och att utveckla en gemensam handledningsmodell inom Kvarkenregionen.

Syftet med denna longitudinella studie är att undersöka handledningens betydelse för Din inlärning i den kliniska utbildningen under hela Din utbildningstid. Projektet pågår under tre år och den första delundersökningen genomförs under våren 2009. Din medverkan är givetvis frivillig, men det är viktigt att så många som möjligt svarar för att fånga upp olika aspekter på handledning och inlärning. Alla svar behandlas konfidentiellt.

Vi hoppas att Du utnyttjar tillfället att tala om vad Du tycker om Din praktik. Genom Ditt deltagande har Du möjlighet att bidra till att förbättra och utveckla den kliniska utbildningen.

Tack för hjälpen!

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SuperNurse Botnia 2 - utvecklandet av handledningsprocessen inom vårdutbildningen
– ett samnordiskt forsknings- och utvecklingsprojekt

01-03-2011

Bästa student

Yrkeshögskolan Novia, Vasa yrkeshögskola och Umeå Universitet genomför ett samnordiskt projekt gällande handledning av sjukskötarstudenter i Kvarken-regionen. Projekten strävar efter att stärka studentens lärande under praktiken/VFU och att utveckla en gemensam handledningsmodell inom Kvarkenregionen.

Syftet med studien är att undersöka handledningens betydelse för Ditt lärande under praktiken/VFU. Du deltog i de delundersökningar som genomfördes under våren 2009 och våren 2010. Utgående från enkätundersökningens resultat 2010 följs svaren upp och fördjupas med gruppintervjuer (fokusgrupper), dvs. studenter samtalar i grupp kring några utvalda teman.


Genom Ditt deltagande har Du möjlighet att bidra till att förbättra och utveckla den kliniska utbildningen under praktiken/VFU. Vid tillfället bjuds på juice och frukt.

Tack för din medverkan!

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**Teman för fokusgruppintervju med studenter VT 2011**

Avsikten med fokusgruppintervjun är att fördjupa förståelsen för studenters lärande och utveckling till vårdvetare.

Informanterna ombads inleda med att säga sitt namn när de talar.

**Handledning**

*Kan ni berätta om...*

- vad handledning är? Vad föreställer ni er att handledning är/ska vara?
- vilka förväntningar ni har på handledningen?
- vad handledningen innebär för lärandet?
- en handledningssituation där ni upplevde att handledningen fungerade bra och stödde ert lärande?
- vad som kunde eller borde ha ingått i handledningen och som skulle ha gjort den ännu bättre?
- varför handledning behövs (för lärandet)?
- Vad som är det *verksamma* i handledningen?

**Målsättningens betydelse**

*Kan ni berätta om...*

- vilken betydelse målen har för lärandet under praktiken?
- vilken betydelse målen har i relation till utvärderingen?

**Sambandet teori och praxis**

*Kan ni berätta...*

- vad innebär teori och praxis? Hur hänger teori och praxis ihop?

**Feedback**

*Kan ni berätta ...*

- vad är feedback? Vilken betydelse har feedback för lärandet?

**Reflektion**

*Kan ni berätta...*

- vad är reflektion? Vilken betydelse har reflektion för lärandet?
- vad är det som gör att ni utvecklas till vårdvetare?
HANDELDNINGSPROCESSEN INOM VÅRDUTBILDNINGEN
– ett samnordiskt forsknings- och utvecklingsprojekt

Bästa studerande


För att fånga upp olika aspekter på handledning och inlärning är viktigt att så många som möjligt svarar. Alla svar behandlas konfidentiellt och Din medverkan är givetvis frivillig.

Vi hoppas att Du utnyttjar tillfälle och berättar om Dina erfarenheter av Din praktik och den handledning Du fått. Genom att delta har Du möjlighet att bidra till att förbättra och utveckla den kliniska utbildningen.

Tack för din medverkan!

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Teman för fokusgruppintervju med studenter hösten 2011/våren 2012

Avsikten med fokusgruppintervjun är att få en fördjupad uppfattning om studerandes förståelse för idén med vårdandet och transformation till sjukskötsare.

Informanterna ombes inleda med att säga sitt namn när de talar.

Inled frågorna med "Kan du berätta om..."

**Förståelse**

Med förståelse avses förståelsen av idén med själva vårdandet, förståelsen för hur man tänker och hur man handlar.

"Kan du berätta om..."

- de processer som leder till förståelse/att du förstår idén med vårdandet (tankeprocesser eller handlingsprocesser).
- vad det är som gör att du förstår (vad är det verksamma i förståelsen?).
- vad som händer när du förstår.
- vad det innebär att förstå.
- hur förståelsen påverkar ditt handlande.

**Transformation**

Med transformation avses den förändring som sker under utbildningen, när studerande transformeras, tillägnar sig en yrkesidentitet och blir en sjuksköttare. Transformationen beskriver själva tillblivelsen till vårdare.

"Kan du berätta om..."

- transformationen som har skett under utbildningen. Vad är det som gör att du transformerats till sjuksköttare?
- hur förståelse och transformation är relaterade till varandra.
- vad som har påverkat transformationen?
- lärsituationer/lärmoment som bidragit till transformationen.
- vad som varit mest betydelsefullt för transformationen till blivande sjuksköttare.

**Etik**

"Kan du berätta om..."

- vad som är det etiska i vårdandet.
- hur din förståelse för det etiska har utvecklats under utbildningen.
- hur förståelse och etik är relaterade till varandra
- hur förståelse, ansvar och handlande är relaterade till varandra?
- vad fungerar som ditt inre motiv i vårdandet?
ORIGINAL ARTICLES I – IV
Ann-Helén Sandvik

Becoming a caring nurse – the heart of the matter in nurse education

This thesis studies the phenomenon of understanding in relation to the way student nurses develop understanding during their education. Promoting understanding is perceived as one of education’s most persistently acclaimed objectives, but understanding in itself has no value if the focus is not on that which is to be understood, i.e. the substance. Thus, the thing to be understood constitutes the essence of learning for understanding, implying focusing mainly on the what, i.e. substance rather than the how, i.e. methods. Understanding not only affects the students’ knowledge and concrete action, it is also linked to formation. In other words, what we understand we appropriate. Once one has seen the “pattern” and understood, one cannot erase it or make it unseen. It becomes a part of the person. As such, understanding affects us as people and forms the kind of people we grow to become. Thus, learning to become a nurse is not just about acting like a nurse; it is also about being a nurse.

The student nurses’ process of understanding and becoming is presented in a theory model. Moreover, the phenomenon of understanding is described as an endless process depicted as a lemniscate, i.e. the symbol of infinity. Enclosed by a caring culture, the lemniscate of understanding circles around two hubs, ethos and arête, which include the spirit and driving force that the student carries within. Bildung (formation) is seen as the ultimate imprint of the endless movement of understanding.