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Practical nursing students' competence assessment in the workplace: A qualitative study

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Abstract

The aim of the present study was to describe practical nursing students', mentors', and educators' experiences and perceptions of student competence assessment in the workplace. The research data were collected using a qualitative research design which included interviews with eight practical nursing students, 12 mentors, and eight educators from three vocational institutions and four social- and health care organisations in Finland during November 2019–September 2020. The data comprised six focus group and five pair interviews. The collected data were subjected to content analysis. A successful assessment of competence in the workplace is based on easy-to-use and understandable assessment criteria. The competence demonstration should be student-centered and executed in the workplace in accordance with assessment criteria. An individual competence assessment discussion takes place in a peaceful space with sufficient time allotted for the process. The student has the opportunity for self-assessment, but the assessor and educator decide the grade. The successful assessment and demonstration of vocational competence positively affects a student's vocational development.

Keywords: assessment, competence, practical nurses, students, vocational education, workplace

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Introduction

Training in practical learning environments is an essential part of every health professional's education (Oosterom et al., 2019). Students will graduate to motivated and skilled health professionals when practical learning environments include high-quality student mentoring and assessment (Helminen et al., 2016; Pitkänen et al., 2018).

Research on practical learning environment, mentoring, and assessment is mainly conducted with the focus on nursing, rather than practical nursing students. Since the education of practical nurses differs from nursing education, more research on this topic is needed (Välimaa et al., 2023). Moreover, the assessment of competence is a complex process (Kajander-Unkuri et al., 2016; Lejonqvist et al., 2016), with the development of mentors' competence in assessing students a topic that requires the most research attention (Immonen et al., 2019). We have researched the importance of assessing students' competence and aimed to answer the following research question: what experiences and perceptions do practical nursing students, mentors, and educators have of the assessment of students' vocational competence in the workplace?

Finnish case and example of practical nurses' education

In Finland, practical nursing studies in vocational institutions include a significant amount of work-based learning in addition to theoretical studies. The concepts of work-based learning or on-the-job learning or learning at work refer to learning that occurs in a practical learning environment in the context of secondary vocational education (Finnish National Agency for Education, n.d.b; Ministry of Education and Culture & Finnish National Agency for Education, 2023).This study uses the concept of work-based learning.

In Finland, registered nurses graduate from a university of applied sciences. In contrast, a practical nurse completes the Vocational Qualification in Social and Health care at a vocational institution (Ministry of Education and Culture & Finnish National Agency for Education, 2023). The role of practical nurse is a regulated profession under both the Act and Degree on Health Care Professionals and the Act on Social Care Professionals. The scope of the practical nursing education and training is 180 competence points (Finnish National Agency for Education, 2023) with the duration of education determined on an individual basis, that is, taking into account the student's previous skills. If the student does not have previous competence, the studies usually take three and a half years (Finnish National Agency for Education, 2024).

Each student will have a personal competence development plan (PCDP) created for them. The PCDP consists of the student's prior competence and competences that need practice as well as how and in which learning

environment these competences can be developed. The student then acquires the necessary competences during work-based learning through either a training agreement or an apprenticeship (Finnish National Agency for Education, 2018).The national vocational competence requirements and assessment criteria define the learning goals and assessment of learning and competence. Vocational competence requirements state what the student should learn, and assessment criteria guide the assessment of a student's learning and competence (Finnish National Agency for Education, 2023). Criteria-based assessment has been considered fair because the vocational competence requirements and assessment criteria have been determined in advance and based on the goals set out in the curriculum(Kibble, 2017).

Competence is indicated in a competence demonstration after a period of work-based learning. Competence demonstrations are mainly implemented in workplaces in real work situations. For a justified reason, for example to ensure patient safety, the competence demonstration can be organised elsewhere than in the workplace (Finnish National Agency for Education, 2018). The competence demonstration can be initiated when the student has accumulated sufficient competence. Students learn at a different pace, one may be ready for a competence demonstration after a few weeks, the other may need more time to learn. If, during the competence demonstration, work or patient safety is compromised, it is the duty of the recipient following the demonstration to suspend the competence demonstration. The duration of the competence demonstration varies depending on the part of the degree and the type of competence to be demonstrated (Lähteenmäki, n.d.). There are no regulations on the duration of the competence demonstration in Finnish vocational education legislation. Competence demonstration should be continued for as long as the recipient of the competence is able to assess the student's competence according to the assessment criteria (Finnish National Agency for Education, 2018). Different countries vary in their skills-assessment, and this type of competence assessment is unique to Finland.

Assessment of learning must be differentiated from the assessment of competence by the mentors and educators to certify a successful process (Finnish National Agency for Education, 2018, 2023). Assessment of learning is an assessment made during the learning process. Learning assessment is formative. Its goal is to support and guide the student's learning and give feedback on it. The assessment of competence shown on the competence demonstration is a summative assessment. In most cases, a summative assessment is expressed by a numerical grade, as its function is to show how well the student has achieved a predefined level of competence(Finnish National Agency for Education, n.d.-a; Kibble, 2017) During the assessment, a student's vocational competence is graded jointly by the educator and the representative of working life (mentor/assessor)

using an assessment scale from 1–5. It is also possible to fail the competence demonstration.

In Finland, practical nursing education is composed of both vocational units (145 competence points) and common units (35 competence points). Depending on prior experience the students are required to complete 4–5 competence demonstrations during training in vocational units. In August 2024, the new qualification requirements have entered into force. All units have specific vocational competence requirements, but all vocational units as well as common units have unified assessment criteria (Finnish National Agency for Education, 2023). Work-based learning, that is, the acquisition of competence, often takes place in the same workplace where the competence demonstration is later performed (Finnish National Agency for Education, 2018).

The Finnish National Agency for Education (2018) specifies that the mentor and assessor must have sufficient vocational competence, familiarity with the qualification requirements and assessment criteria, as well as experience in assessing competence. Immonen et al. (2019) have stated that a supportive practical learning environment, which includes component mentors, is required for the successful assessment of competence. The nominated mentor works in the organisation where the student completes work-based learning. The role of the mentor is to guide the student during the work-based learning so that the student achieves the goals of the period. The nominated mentor can also act as a recipient and assessor of the competence demonstration of the practical nurse student. In addition to practical nurses, other health care professionals, such as nurses who have graduated from the universities of applied sciences, can act as mentors, but that is less common. In this study, the term educator refers to a nurse teacher who is employed by the vocational institution. The educator usually has theory teaching at the vocational institution. The educator supports and guides both the student and the mentor by visiting the workplace and keeping in touch with them by phone, e-mail and/or an online learning environment. The educator participates in the assessment of the student's learning and competence together with the mentor. The researchers have depicted the Finnish practical nursing education in Figure 1.

Aspects influencing the assessment of student competence

Previous literature, which we refer to in the next two paragraphs, has highlighted that many aspects influence the success of student competence assessment. Since, based on the literature review, there is no research information available on the assessment of the competence of practical nursing students, this study refers to the research related to the assessment of nursing students in a clinical learning environment.

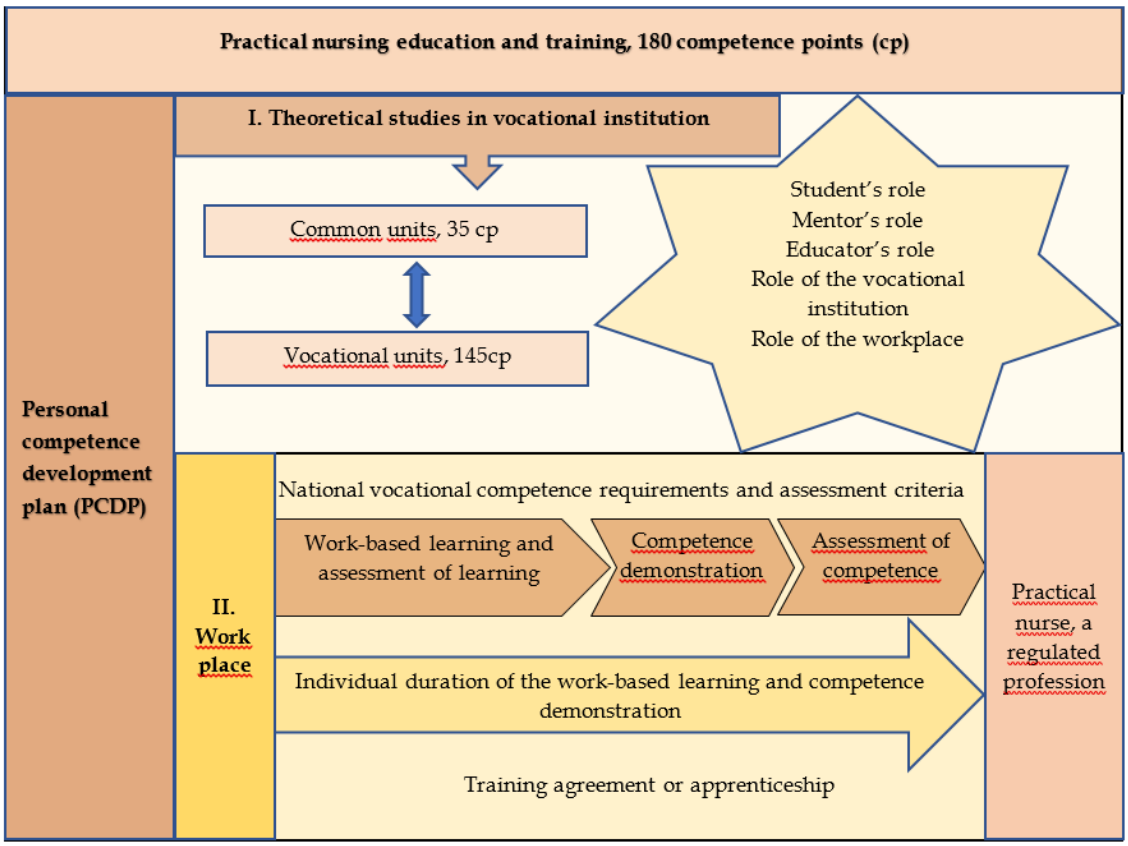

Figure 1. Practical nursing studies in vocational institutions in Finland.

For instance, studies have shown that mentoring education impacts a professional's competence and assessment skills; this provides evidence for how important it is to regularly organise mentoring education (Helminen et al., 2016; Immonen et al., 2019; Kälkäjä et al., 2016; Ruuskanen et al., 2018). Support for student assessment from the organisation, superior, and work community is valued by the mentors (Hyvärinen et al., 2019). The learning and assessment process must be clear, and everyone involved in the mentoring must understand their role and responsibilities in the assessment of the student (Karjalainen et al., 2015). Assessment of students is affected by the mentor's motivation, professionalism, interpersonal skills, and pedagogical knowledge (Kälkäjä et al., 2016; Karjalainen et al., 2015). Vae et al. (2018) mention that feedback to the student should be constructive, supportive, and summarised at the end of assessment discussions. A confidential student–mentor relationship increases the likelihood of a successful assessment (Immonen et al., 2019), while a good student–mentor relationship increases the student's courage for self-assessment (Allen & Molloy, 2017).

Collaboration between the student, mentor, and educator during practical training is important(Dimitriadou et al., 2015; Helminen, 2017; Hyvärinen et al., 2019) for enhancing a student's professional growth and learning (Immonen et al., 2019). According to previous studies, an educator's presence in assessment discussions is important (Tuomikoski et al., 2018). The student, mentor, and educator should all hold an equal position in the assessment discussion, and everyone should be afforded the opportunity to express their own position and opinion. In addition, the assessment discussion should be held in a suitable and peaceful environment with sufficient time allotted (Helminen et al., 2016). Previous research has reported that assessment documents include clear, comprehensible, and consistent language (Butler et al., 2011; Cassidy et al., 2012; Helminen, 2017), with Vae et al.(2018) stressing that carefully designed assessment tools can make the process more clear and substantial. Wu et al. (2015) previously mentioned that organisations should develop a holistic practical assessment tool with a reasonable level of validity and reliability. A crucial factor in assessing student competence is that the student is exposed to a practical environment in which they can acquire and demonstrate competence in accordance with certain assessment criteria (Helminen, 2017; Helminen et al., 2016). The comprehensive and reliable assessment of a vocational competence includes the prerequisite that competence defined to vocational requirements and the assessment criteria can be demonstrated in the workplace. Under certain, justified reasons, the competence demonstration can also be performed in another setting, for example, a virtual learning environment (Finnish National Agency for Education, 2018).

Methods and design

Study design

The presented research applied a qualitative, descriptive design that used inductive content analysis. A qualitative approach is used when there is insufficient knowledge about a certain phenomenon. Information can also be partial and/or unstructured (Kyngäs, 2020b). Research on how to assess the competence of practical nursing students in the workplace is still in its infancy, which resulted in the decision to choose the qualitative research method for this study (Kyngäs, 2020b).

Participants

A total of 28 participants were selected for the study using purposive sampling (Bowling, 2014). More specifically, eight practical nursing students, 12 mentors, and eight educators were selected from three Finnish vocational institutions, and

four social- and health care organisations that provided work-based learning environments. The students were in their final year of studies and had completed between two and four work-based learning periods. The mentors were practical nurses with 6-36 years of working experience. They had all previously worked as mentors. The mentors currently worked in home care, service housing, and institutional care. The educators had 6–30 years of working experience and all had guided students in the periods of work-based learning in the role of educator. They worked in vocational institutions that offer upper secondary vocational education in Finland. The participants were recruited for the study by the contact person of each organisation included in the study.

The number of participants was based on data saturation and information power. The information power of the sample is influenced by five factors listed by Malterud et al. (2016).These include a study aim, the specificity of the sample, the use of an established theory, quality of dialogue, as well as the strategy of the analysis. The presented data is in line with the aim of the study. The sample focuses on practical nursing students' learning and assessment of learning n the context of the workplace. The study design is based on the previous research related to the clinical learning environment in nursing students' learning and assessment. The participants had experience and knowledge about the research phenomenon, and they were able to express their perceptions in a very diverse manner. Interviews were conducted by one of the researchers (VV) who themselves has had experience in working as an educational teacher for practical nurses for eight years and is therefore able to assess the information power of the data collection and analysis based on their deep knowledge of the subject.

Data collection

The data concerning students', mentors', and educators' perceptions with competence assessment were collected through interviews. More specifically, six focus group and five pair interviews were performed. In four groups, the informants were mentors (12) and in two groups, educators (6). Each focus group had three informants. In four pair interviews, the informants were students (n=8) and in one pair interview, educators (n=2). The interviews were conducted between November 2019 and September 2020. The goal was that each interview would include three persons from one specific focus group (students, mentors, educators), but some adjustments had to be made because of cancellations due to personal reasons. The interviews were conducted either at the educational institution or in a quiet room at the workplace. Group interviews were chosen because this type of interview can provide extensive information from different sources; moreover, more data can be obtained from the interaction between participants (Polit & Beck, 2020).

Interview themes were formed on the basis of what was presented in previous literature (Finnish National Agency for Education, 2018; Immonen et al., 2019) and the study aim. The topics were: 1) content of assessment during work-based learning and competence demonstration; 2) methods used to obtain information about practical nursing students' competence; 3) environment for work-based learning and competence assessment; 4) roles of the student, mentor, and organisation; 5) aspects that increase the success of mentoring and assessment; and 6) aspects that decrease the success of mentoring and assessment. The participants provided consent for the recording of interviews, which lasted 95–151 minutes. The collected data were so rich that the results related to students' work-based learning and the assessment of their learning have been described in a previous publication (Välimaa et al., 2023).

Data analysis

Inductive content analysis was performed using the Nvivo software (version 11; Alfasoft, Göteborg, Sweden). Inductive content analysis is a systematic and objective process through which the topic of research is described at a theoretical level (Kyngäs, 2020a). The records were transcribed verbatim, after which the researchers listened to the records once and studied them through twice. A sentence or statement was selected as the unit of analysis. Every expression that was related to the research question was retrieved from the interview and reduced in the specific context without losing the original meaning. Data describing the students', mentors', and educators' perceptions yielded a total of 228, 297, and 309 codes, respectively. The codes with similar content were combined into sub-categories (n=98), and these sub-categories were further combined into categories (n=23). At the final stage of analysis, the 23 categories were grouped under three main categories. One researcher analysed the data, searching for the original expressions that correspond to the research questions and reducing and coding them. After that, she continued in collaboration with other researcher defining sub-categories, categories, and main categories.

Ethical considerations

Each stage of the presented research followed the principles of good scientific practice (Finnish National Board on Research Integrity, 2019). Permission to conduct the research was obtained from each target organisation. The participants received an email by the contact person before their interview that contained information about the study, namely, the reason why the research is being conducted, the aim for the study, and a description of the interview. The informational email also explained that taking part in the study was voluntary, all participant data would be processed anonymously, and that the results would be confidential. The participants were also given a chance to contact the

researcher if they felt this was necessary. Written informed consent about participation and recording of the interviews was obtained. The interviews were conducted at a time that was suitable for every participant. The researcher (VV) made sure not to include acquaintances or previous students in the group of participants. The material was kept in a password-protected database, which only the researcher had access to. The records and other material will be erased from the database when they are no longer relevant to the research project.

Trustworthiness and limitations

The presentation of the results followed the guidelines set out in the Standards for Reporting Qualitative Research (SRQR) reporting guidelines, which ensured transparency and credibility. Understanding about the topic was increased by including three different groups of participants in the study: students, mentors, and teachers. Data collection from mentors was carried out in four social welfare and health care organisations (home care, service housing, institutional care). Other relevant workplace settings, such as kindergartens, schools, and dental clinics, were excluded from the study. Extending the scope of research in the future to cover all settings where practical nursing students demonstrate their professional competence would be a valuable step.

Results

The inductive content analysis revealed three main categories that describe the successful assessment of practical nursing students' competence at the workplace. These main categories were: 1) easy-to-use and understandable assessment criteria as a basis for successful competence assessment; 2) student-centered competence demonstaration as a basis for successful competence assessment; 3) high-quality competence assessment and the student's continous vocational development.

Easy-to-use and understandable assessment criteria as a basis for successful competence assessment

The first main category consisted of four categories, namely, 1) assessment criteria as a basis of competence assessment, 2) facilitating the understanding and use of assessment criteria, 3) challenges understanding and using the assessment criteria, and 4) educator ensures an understanding of the assessment criteria.

According to the study participants (students, mentors, and educators), publishing the vocational competence requirements and assessment criteria in easily comprehensible language for students will promote learning and assessment at the workplace. The participants felt that it is important to integrate assessment criteria into vocational education from an early stage. However, they

perceived the broadness of assessment criteria as a challenge. Some educators mentioned that they have a self-prepared summary of the assessment criteria when visiting the workplace. Mentors and educators reported that there is also repetition in the assessment criteria. The mentors commented that the differences between the grades are very small. However, the participants in the present study considered the 1–5 assessment scale to be a good approach. Several examples of direct quotations include:

> When the criteria are included in the student's mentoring from the beginning, the competence assessment is much clearer. (I4M1 = Interview no. 4, Mentor no. 1)

> Sometimes I think that the mentor couldn't bear to read the whole stack of papers, and that they would like shorter and simpler assessment criteria. (I7S2 = Interview no. 7, Student no. 2)

Some students described that they had had a so-called checklist of assessment criteria which they could quickly read through when in their practical learning. Mentors and educators also voiced that this type of checklist is useful. The educators also reported that the use of keywords helps to make discussions about the assessment criteria with students more systematic. In addition to feeling that the criteria can be rather broad, students, mentors, and educators shared that the assessment criteria are unclear and difficult to understand. The educators highlighted that the assessment criteria use concepts that are challenging for students and mentors to comprehend; there were times when students – especially those enrolled in their first work-based learning period – faced challenges in understanding the assessment criteria. The mentors also felt that the students had difficulties in understanding the assessment criteria and applying them in practice. Students, mentors, and educators highlighted that it is the educator's task to clarify the assessment criteria for both the student and the mentor. The educators shared the following:

> I have made myself an abridged version that says that this includes these things and this includes these, et cetera (I9E1 = Interview no. 9, Educator no. 1)

> I go through the criteria every time I visit the workplace. Point by point, what iinvolved [in this]. (I9E1)

Student-centered competence demonstration as a basis for successful competence assessment

The second main category covered several distinct aspects, namely, 1) environment of competence demonstration in accordance with the assessment criteria, 2) goal-oriented preparation for the competence demonstration, 3) student mentoring prepares the student for the competence demonstration, 4) start of the competence demonstration once the student has accumulated sufficient competence, 5) assessor of the competence demonstration, 6) variety in the length

of the competence demonstration, 7) creating a supportive atmosphere for the student during the competence demonstration, 8) assessor–student teamwork, 9) ensuring occupational and patient safety, and 10) assessment methods used during the competence demonstration.

Mentors and educators reported that the competence demonstration should be performed in a workplace where the student has the opportunity to demonstrate their competence according to the assessment criteria. The students and educators reported that any aspects of the assessment criteria which cannot be sufficiently organised at the workplace should be demonstrated, for example, by simulation in a vocational institution. However, the educators mentioned that implementing a competence demonstration at a vocational institution is resource-intensive.

> We don't have the kinds of customers with whom a student would have the opportunity to show such a wide range of competence. (I2M2)

The participants emphasised that preparing for the vocational competence demonstration in advance is important. Mentors and educators shared that it is beneficial for the mentor and student to discuss the student's goal, as well as what competences they are supposed to demonstrate, prior to the competence demonstration. The mentors also stated that they usually discuss the grade that they have chosen for the competence demonstration with the student. The participants voiced that the student is gradually encouraged to work more independently when the competence demonstration is on the horizon; furthermore, the mentor is responsible for making sure that the student is ready for the competence demonstration before starting the assessment. The mentors mentioned situations in which the time of the vocational competence demonstration had been postponed or the demonstration had not been started at all because the student had not accumulated sufficient competence. Mentors and educators also shared descriptions of instances in which the student had quickly embraced new knowledge or had previous work experience and had been able to schedule the vocational competence demonstration earlier than planned. The educators felt that it was important to tentatively plan a time for the competence demonstration together with the student and mentor when they visit the workplace in the middle of the work-based learning period. The participants reported that – in most instances – the competence demonstration is planned and assessed by the student's named mentor. Nevertheless, the student and mentors elaborated that a professional who is not the student's named mentor can also act as an assessor. However, participants highlighted that a relative or friend of the student cannot act as an assessor. At times, there had been two recipients of the demonstration and two assessors of the student's competence. The participants

felt that this enhanced the quality of the assessment. Examples of direct quotations include:

> Before the competence demonstration, I will discuss the goals with the student. If the student wants a good grade, he/she should work according to that level. (I4M1)

> Let's have a discussion with the student […] when they have a competence demonstration in this week or next week, they will already be working independently. (I2M2)

> Even before the competence demonstration, it is necessary to assess if the student is ready to have the demonstration. Does the student have sufficient competence? (I9E2)

> I think it is good that the student has two assessors. One may notice something that the other misses. They also support each other. (I4M3)

The participants reported that the length of the competence demonstration is planned on an individual basis, with the length varying for different institutions and for different students. Most of the provided descriptions highlighted that 3–5 days were required for the competence demonstration. The students also mentioned that the competence demonstration could last seven days at times, while educators reported a duration of between 1.5 and two weeks for the competence demonstration. An educator described the process as follows:

> The assessors should have the feeling that they have been able to comprehensively assess the student's competence, and the student should have the feeling that he/she has been able to demonstrate his/her competence sufficiently. That's enough. (I9E1)

Students and mentors felt that each student generally acts the same way during the competence demonstration as they have throughout the work-based learning period. The students reported that their mentor observes their work throughout the entire competence demonstration. The mentors described that they work as a team with the student during the competence demonstration. They mentioned that it is better if students treat familiar patients during competence demonstration and focus on specific patients. Students did not experience the competence demonstration as an exam situation. Nevertheless, both students and mentors described that the students felt nervous about the competence demonstration. The students added that the competence demonstration may even be stressful for the mentor. The participants reported that the student is allowed to ask for advice during the competence demonstration, as well as that the student may also receive certain instructions during the competence demonstration. This is important in ensuring occupational and patient safety. The mentors expressed that situations in which a student needs to be advised and/or asks for help will affect the competence assessment. The mentors also added that situations in which the student is tasked with something that is new to them and/or they have not been able to practice before should not have a

negative effect on the assessment, but rather be taken into account when determining a grade. Both mentors and educators highlighted that the assessor needs to suspend the competence demonstration if patient safety is compromised. The participants discussed these aspects of the competence demonstration as follows:

> It is not the intention to take care of the whole group […] all patients […] the student would be completely panicked. (I4M2)

> Let's work together side by side […] (I2M2)

> The competence demonstration was not an exam situation […] I was working and the assessor was following [me]. (I6S1)

> Three bad mistakes related to patient safety happened at the beginning of the competence demonstration, the competence demonstration was suspended. (I1M2)

Participants reported that the assessment methods used during competence demonstrations were the observation of a student's activities, asking the student questions, and discussing with the student. They reported that an assessor can get plenty of information about a student's professional skills by observing the student, while asking questions provides the assessor with information about the student's theoretical knowledge. Mentors described that a student justifies their decisions if they have theoretical knowledge, and also knows how to integrate their knowledge with practical work. Students mentioned that some assessors ask for the reasoning behind their decisions during a competence demonstration, while some hardly ask about the reasoning at all. The participants considered it is important for the student and mentor to discuss the theory underlying goals that are written in the vocational requirements and assessment criteria, but that cannot be shown during the competence demonstration. They reported that different written assignments and functional tasks related to work-based learning can be taken into account in the competence assessment. Students also pondered whether it would be good to involve the customer perspective and customer feedback in the assessment of a student's vocational competence. The following direct quotations from the interview highlight this aspect:

> In the assessment, you could ask the customer, if possible, how the student has worked. (I6S1)

> […] the customer in the wheelchair said that a 5 [grade] should be given, she knows her job and is a good student. (I6S1)

High-quality competence assessment and the student's continuous vocational development

The third main category consisted of the following nine categories: 1) preparing for the competence assessment; 2) date of the competence assessment discussion;

3) duration of the competence assessment discussion; 4) location of the competence assessment discussion; 5) present at the competence assessment discussion; 6) atmosphere of the competence assessment discussion; 7) fair and individual assessment of student competence; 8) student's self-assessment; and 9) deciding on the grade of vocational competence.

At the end of the competence demonstration, the assessment of competence takes place during an assessment discussion. The mentors felt that it is important that both the student and the assessor prepare for the assessment in advance by thinking about the grade and the justifications for the grade based on the competence criteria. Mentors and educators reported that the assessment of competence should take place as soon as possible after the completion of the competence demonstration, preferably within a week or two. The participants perceived that 1–1.5 hours should be set aside for the competence assessment discussion. The mentors added that the discussion should last at least half an hour. Considering their other work, the mentors thought that the assessment discussion should not take longer than one hour. The participants agreed that the most pleasant type of discussion was one that was performed face-to-face in the workplace. They added that the room in which the competence assessment discussion takes place should be quiet and the discussion should progress without interruption. The educators reported that the assessment discussion is sometimes performed over the phone due to reasons such as a long distance between the vocational institution (where the educator works) and the workplace. The participants emphasised that both the educator and assessor should be present at the assessment discussion since they are responsible for assessing the student's competence. This study revealed that assessment discussions are conducted in slightly different ways by different vocational institutions and different educators. At some vocational institutions the student is present in the assessment discussion all of the time, while at others the student leaves the assessment when the assessors are deciding on a grade; moreover, in some cases the assessment discussion is held separately between the mentor and the educator, whereas in other cases the discussion is held between the student and the educator. This was expressed in the following quotations:

> I thought in advance… about what grade I would give. (I2M2)

> I think within a week, because after that things start to be forgotten. (I9E1)

> We always have an hour. An hour is a suitable time. (I7S2)

> A place where the assessment can be carried out in peace. The most important thing is that there aren't external distractions. (I10E2)

> The student is not present at the assessment discussion. (I11E1)

> When the educator is present at the assessment, the student's competence is assessed according to the criteria. The educator reports her point of view, and I report mine. (I4M3)

The students had good experiences about the atmosphere in competence assessment discussions, describing it as friendly and open. The students felt that a good atmosphere meant that the student, mentor, and educator were on an equal footing in the assessment discussion. The mentors mentioned that the assessment discussion should not be treated as an interrogation situation. The students expressed a desire for feedback, for instance, suggestions for developing the student's skills, but mentioned that any feedback should be provided in a constructive and nice way so that the student would not perceive it as a critique of their character. The educators also emphasised that the assessment should not concern the student's personality. The students appreciated competence assessments that were individual and included justification for any feedback. The mentors felt that each student should be afforded equal treatment during the assessment. These aspects are demonstrated in the following direct quotations:

> If there is something negative, it should be discussed constructively. (I7S1)

> Competence is assessed, not the personality. (I9E1)

> You cannot demand more competence from a native Finn because her native language is Finnish. (I1M1)

Students and educators both reported that each student conducts a self-assessment of their vocational competence. According to the participants, a student's self-assessment is carried out slightly differently by different institutions and/or educators. Some of the students had conducted self-assessments that were both verbal and numerical, while other students had performed self-assessments that were only verbal. Some of the students reported that they had already filled in a written self-assessment prior to the competence assessment discussion, while one student mentioned that she had not completed a self-assessment during the competence assessment process. If the student was not present during the competence assessment discussion, the self-assessment would be performed with the educator at the vocational institution. Educators mentioned that the student should have the opportunity for self-assessment, but the self-assessment should not affect their grade. Participants reported that the assessor/assessors and the educator always decide the grade. Students experienced the self-assessment, especially numerical self-assessments, to be difficult to perform. This aspect is demonstrated in the following direct quotation:

> It's hard to give yourself a number. (I7S2)

The students reported that the mentor/assessor considered the entire work-based learning period, not only what was shown during the vocational competence demonstration, when determining a final grade. The mentors also described how they assess the student's actions throughout the mentoring period when deciding on which grade to give them. The mentors and educators emphasised that, for example, the assessment of care procedures that cannot be shown during the competence demonstration – but which the student has demonstrated earlier in the work-based learning period – can be taken into account during the assessment of competence. Some of the educators believed that only the activities that were explicitly shown during the competence demonstration should be considered when assessing a student's level of competence; in this case, there would be no danger of confusing learning assessment with competence assessment. These differences in opinion are shown in the following direct quotations:

> In such a situation, at least we have been flexible in the competence demonstration. If you think, for example, about the treatment of a dying patient, it may have been demonstrated before the scheduled competence demonstration. (I10E2)

> It should be so that we assess what has been shown during the competence demonstration. (I9E2)

Mentors and educators reported experiences in which a student's competence demonstration had to be rejected. Such situations usually involved a risk to patient safety or occupational safety. Educators emphasised that it is important to determine whether the student has accumulated sufficient competence to undergo the demonstration before beginning the process of assessing competence. This approach prevents certain instances in which the competence demonstration is rejected. Participants expressed that the 1–5 assessment scale, which came into force with vocational reforms in Finland in 2018, is a good approach when assessing competence. Students and educators mentioned that the assessment should be reviewed if the student disputes the grade he/she received. This was highlighted in the following quotation:

> The student disputed the grade. What we did was that we held the assessment discussion again, discussed all the criteria, and ended up with the same grade. (I11E3)

Discussion

The aim of this study was to describe practical nursing students', mentors', and educators' experiences and perceptions of vocational competence assessments at the workplace. The participants reported that the vocational competence requirements and assessment criteria developed by the Finnish National Agency for

Education (2023) play a vital role in work-based learning and the assessment of learning and competence. These criteria guide the entire learning and assessment process and should be integrated into vocational education from the beginning. Previous studies have described how assessment documents and criteria are sometimes written in ambiguous language (Butler et al., 2011; Helminen, 2017). For instance, the mentors who participated in the Cassidy et al. (2012) study mentioned that the language used in assessment criteria is sprawling, verbose, and very confusing. According to research by Fahy et al. (2011), students and mentors feel that the assessment form should clearly describe which essential concepts each student should know. Participants in the present study perceived the vocational competence assessment criteria as overly broad and difficult to understand. Educators reported that students, especially those participating in work-based learning for the first time, have challenges understanding the assessment criteria and applying them in practice. In their opinion, the assessment criteria include concepts that are difficult for students and mentors to understand. The broad scope of the assessment criteria has resulted in vocational institutions publishing various summaries and checklists to highlight the essential aspects of vocational competence and ensure that students, mentors, and educators remember the key points. The mentors also experienced that a student's assessment was hampered by the miniscule differences in assessment criteria between different grade scales. Cassidy et al.(2012) stated that flexible competence requirements allow for a subjective perspective. This may lead to mentors paying attention to different issues in their assessment. For the competence assessment to be fair and equitable, the assessment criteria must be formulated in a way that they are clearly understood by students and educators from different workplaces and cannot be interpreted differently during the assessment of a student's competence. Helminen(2017) highlighted the need for national assessment criteria in nursing education. In the universities of applied sciences, there are many differences between institutions in the curriculum for nurses and the assessment criteria for the clinical learning environment. The same vocational competence requirements and assessment criteria are used in the practical nursing education of Finnish secondary degree at every vocational institution. In August 2024, the new qualification requirements have entered into force to Vocational Qualification in Social and Health Care. With the reform all vocational units as well as common units have unified assessment criteria. Vocational competence requirements have also been modified. After some time, it would be good for further research to find out how these new vocational competence requirements and assessment criteria are perceived by students, mentors, and educators. (Finnish National Agency for Education, 2023; Qualification Requirements Vocational Qualification in Social and Health Care, 2021).

The mentors and educators who participated in the present study emphasised that students should be directed from the vocational institution to workplaces where they can learn and demonstrate the competences mentioned in the vocational competence requirements. As the vocational competence requirements and assessment criteria are very broad, the student often fails to demonstrate competence in some of the work tasks mentioned in the vocational competence requirements. The participating students and educators felt that the demonstration of vocational competence in these tasks should be organised by the vocational institution, for example, via simulation. However, the educators mentioned that there was a shortage of resources to organise such simulations.

According to Helminen et al. (2017), it would be helpful for mentors to also receive some feedback on a student's competence from colleagues before conducting a student assessment. The assessment of vocational competence must be based on the observation and assessment of a student's competence during the competence demonstration. For justified reasons, the student can also demonstrate their competence in other ways (Finnish National Agency for Education, 2018). Participants in the present study expressed that the mentor/assessor can assess the student's competence even before the competence demonstration, for example, in relation to care procedures that the student has practised at the workplace but cannot (perhaps for practical reasons) demonstrate during the competence demonstration. However, some educators believe that the competence assessment should only take into account the activities performed during the vocational competence demonstration.

A student's work-based learning finishes with the competence demonstration, during which the student demonstrates their competence in matters mentioned in the vocational competence requirements and assessment criteria. The duration of the competence demonstration changes from student to student, as well as according to the vocational unit. However, the competence demonstration must be long enough that the assessors can reliably assess the student's competence (Finnish National Agency for Education, 2018). The students did not experience the competence demonstration as an exam situation, even though the mentor was with them all of the time to observe their work. The participants emphasised that the student has the right to ask for advice, and the assessor is allowed to guide the student during the competence demonstration, to ensure occupational and patient safety.

Participants in the present study reported that the methods employed to assess a student's vocational competence were the observation of the student's work, assessment of written assignments and functional tasks, and asking the student questions. However, the students expressed that they felt uncomfortable if the mentor asked questions while the patient was present (Arkan et al., 2018). The interviewed students raised the idea that the customer perspective and customer

feedback should be systematically included in the competence assessment. On the other hand, Arkan et al. (2018) point out the challenges in the attitudes of patients and relatives towards students.

At the end of the competence demonstration, the assessment of the student's vocational competence takes place during an assessment discussion. The participants reported that a quiet and undisturbed room should be provided for the competence assessment discussion. The mentors and educators reported that it is important for the assessment of the student's competence to take place within 1–2 weeks of the competence demonstration. The participants also stated that it was most pleasant when the assessment discussion was performed at the workplace while the educator was present. Helminen (2017) has published similar results about the student's competence assessment. The data for the study were collected before the Covid-19 pandemic, which has significantly increased students', mentors', and educators' skills in virtual cooperation. As such, online tools may be more often used in the assessment discussion than before the pandemic. The students reported that a good atmosphere for the assessment discussion meant that the student, mentor, and educator are all at an equal position. This is important because the assessment can sometimes cause anxiety among students (Arkan et al., 2018). According to the students and educators, the student's self-assessment varies slightly between different vocational institutions and different educators. The students perceived the self-assessment to be challenging, especially the numerical self-assessment. However, self-assessments are an important part of the assessment process (Helminen et al., 2016). A good student–mentor relationship, which fosters trust, promotes a successful assessment (Immonen et al., 2019) and increases the student's courage for self-assessment (Allen & Molloy, 2017).

There was a degree of variation in terms of how the assessment discussion is conducted at different vocational institutions, that is, whether the student was present throughout the assessment discussion, present part of the time, or not present at the assessment discussion. According to the participants, about one hour should be set aside for the assessment discussion. In a study by Butler et al. (2011) only 10% of mentors reported having spent more than 45 minutes on the final assessment. In the present study, participants believed that endangering customer and/or occupational safety should lead to the rejection of the competence demonstration. For this reason, it is important to determine whether the student is ready for the competence demonstration to ensure patient safety and avoid the unnecessary rejection of a competence demonstration.

Conclusions

A successful vocational competence assessment is equal, fair, individual, and based on vocational requirements and assessment criteria. It is important to integrate vocational competence requirements into vocational education from the onset of learning. Educators have the important task of clarifying these requirements and assessment criteria to both the student and mentor/assessor. Students must be able to demonstrate their competence at the workplace according to vocational competence requirements. The competence demonstration must be planned and carried out based on the student's individual characteristics. Furthermore, the competence demonstration should be supplemented by simulations, written tasks, or discussions with the student about the theoretical underpinnings that are included in the vocational competence requirements but cannot be shown during the competence demonstration. A supportive, open, and friendly atmosphere, both during the competence demonstration and the competence assessment discussion, contributes to the successful demonstration of competence and its assessment.

The results of this study can be used to develop the assessment of practical nursing students' competence at the workplace. Because only limited research exists on the assessment of practical nursing students, more empirical evidence from different organisations and settings is needed.

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Conflict of interest

The authors declare no conflicts of interest.

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