

How Student Driving Teachers Perceive Pedagogical Observation in Driving Lessons

Hilde Kjelsrud
Nord University
Stjørdal, Norway

Abstract. This article explores how student driving teachers perceive pedagogical observation in driving lessons. At a driving school connected to and owned by a university, these students conduct driving lessons with real student drivers with a fellow student helper in the back seat. Using thematic analysis, I explored data from interviews with student driving teachers and field observations of these in driving lessons and identified four main themes about pedagogical observation: (1) what is pedagogical observation, (2) what the goals are, (3) how is pedagogical observation conducted, and (4) what is needed. Students point to the value of pedagogical observation as an activity to help them learn and gain knowledge, and they see their peer students as useful helpers. This study contributes to the sparse knowledge/research on cooperation among student driving teachers in the practical field. The activity of pedagogical observation offers promising potential as it enables high-quality observation, communication, good relationships, and motivation.

Keywords: pedagogical observation; student driving teacher; higher education; observation; driving teacher education.

1. Introduction

The Vision Zero project (National Transport Plan 2014-2023, 2013) forms the foundation for educating driving teachers in Norway. Vision Zero is a multi-national road traffic safety project started in Sweden in 1997 aiming to create a system with no fatalities or serious injuries involving road traffic. This follows the larger trend in Europe to strengthen road users' behavior.

Norwegian driving teacher education started in 1970 in Oslo as a one-year vocational training. In 1972, it was relocated to Stjørdal and has been there ever since. In 2003, Norwegian driving teacher education became a two-year candidate program at the university college level, and in 2016, it became a study program at Nord University. Approximately 100 students graduate from the program every year. The two-year program includes theoretical and practical subjects, and the aim is to develop subject-matter expertise, pedagogical

knowledge, social competence, work ethic, and competence in change and development (University, 2016). Norway is one of only a few countries in Europe that educates driving teachers at the university level.

The focus of this article is on practice—namely, driving lessons. The university has 20 cars, its own driving school, and real student drivers. A student driving teacher must practice with real student drivers about one-and-a-half days per week in their second, third, and fourth semesters. In addition, student driving teachers have the opportunity to practice giving real driving lessons in the evening with fellow students. Figure 1 shows who is in the learner car during driving lessons at the university.

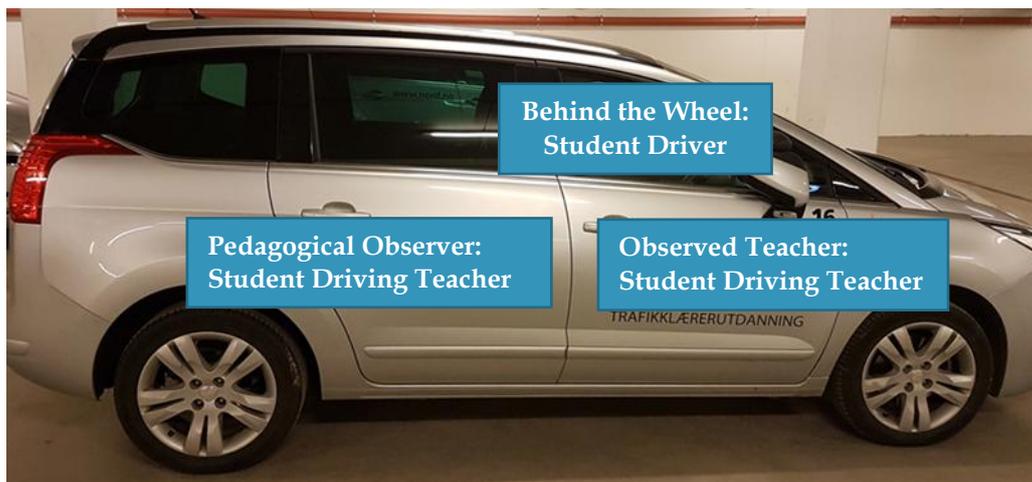


Figure 1. A student driver is behind the steering wheel, a student driving teacher is in the passenger seat, and a student driving teacher (pedagogical observer) is in the back seat observing the lesson

Driver education and driving teacher education are important social tasks in a community as they help prevent traffic accidents. Strengthening driving teachers' competence will benefit society as traffic accidents are a major problem throughout the world and in Norway.

There has been a strong focus on practice in Norwegian driving teacher education since 1970. The term "pedagogical observation," however, has only been in use in driving teacher education for approximately 10 years and is used to describe a particular way of organizing learning activities. Namely, in pedagogical observation, students observe each other in practical teaching situations in learner cars and give each other feedback to improve their teaching skills. However, the intentions and content of this activity need clarification to enhance the quality of the student driving teacher's role as a pedagogical observer.

In this article, I examine how student driving teachers work together in the field. The aim of this article is to examine the following research question: How do student driving teachers perceive pedagogical observation in driving lessons? I am studying this particular situation because I think the quality of pedagogical observation depends on how students perceive the activity. Some students take

it seriously and some do not. Those who take it seriously prepare, as pedagogical observers, before each driving lesson and are eager to help their fellow students in their learning process. Those student driving teachers who perceive pedagogical observation as being less important are often unprepared and tend to pay more attention to other activities (e.g., their cell phones) than to their fellow students during driving lessons.

2. Pedagogical observation

The driving teacher education program (University, 2016) includes a course on guided teaching practice, which includes driving and teacher skills. In addition, students use the theoretical knowledge they acquire in other courses in the program, such as pedagogics, vocational education, psychology, physics, law, car technology, road traffic transport, and technology and society, in their role as pedagogical observers in driving lessons. In their first semester, students practice their driving skills one day a week. In their second, third, and fourth semesters, they practice their teaching skills in the learner car one and a half day a week. Students gain theoretical knowledge about pedagogical observation in the courses above, and they learn how to execute this activity in the course on guided teaching practice. Figure 2 shows how student driving teachers execute a driving lesson with a student driver at the university.

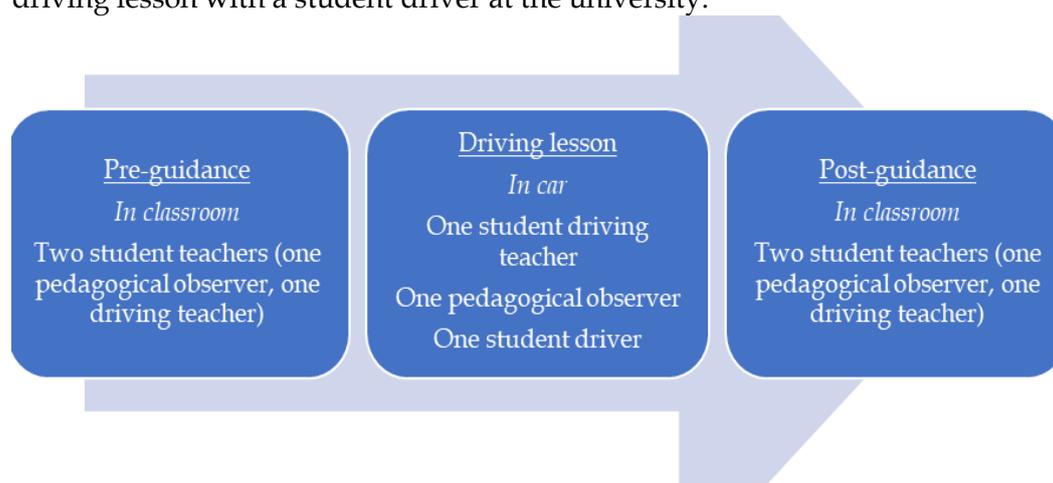


Figure 2. Pedagogical observation

In the pre-guidance (Figure 2) stage, the student driving teacher and the pedagogical observer determine what the observer should look for from the back seat. In the driving lesson, the pedagogical observer monitors the teacher and takes notes, which is *the main part of the pedagogical observation*. The driving lesson is the focus of both the pre - and post-guidance stages. In the post-guidance stage, the two students speak about the driving lesson and their experiences to increase both students' skills.

Experienced educators generally understand how to observe and learn from others, and they often implement lessons from those observations in their own actions. In our daily social lives, we observe all the time. When we observe other people, we notice their personality traits, emotions, and motives and form our

actions based on these experiences. Educators do the same; they form their actions based on their experiences from observations (Bisgaard, 1981).

While there is no research on the particular situation of student driving teachers who are educated at the university level and the ways they work together in the field, there is quite a bit of research on pedagogical observation, peer observation of teaching, peer observation, peer teaching, and peer learning, all of which have many similarities with the pedagogical observation done by student driving teachers. Varying literatures related to pedagogical observation use different terminology and present different ideas. However, I found five main features these literatures have in common, which I connect to the pedagogical observation done by student driving teachers in driving lessons.

The first point is that observation must have a purpose; it should not only be about appraisals but should also include self-development. Some authors (Cosh, 1998; Hammersley-Fletcher & Orsmond, 2004; Ivarsson, 2019; Martin & Double, 1998) use the term peer observation. These articles highlight established teachers using peer observation to develop their skills. There are some similarities to student driving teachers using pedagogical observation in their driving lessons. Cosh's article (1998) emphasizes that in addition to appraising others, observers also need to engage in active self-development and that peer observation is a means to do so. Actively engaging in self-development is just as important in educating driving teachers as in educating established teachers.

Secondly, observations are not neutral; they are influenced by circumstances, methods, and the elements the observer brings to the event (Gosling, 2002). Van Manen (1979) focuses on teachers observing children, and many of his ideas are applicable to student driving teachers helping other student driving teachers. Van Manen (1979) defines three different ways of observing: an outsider observing something, an insider observing something, and a professional (e.g., a teacher or a psychologist) observing something. His third way of observing aligns with pedagogical observation: "I observe them for a scientific or an educational vantage point of 'pedagogue' or 'diagnosticus'" (Van Manen, 1979, p. 8). Students should feel like they are important and have a responsibility to help their fellow students in their education. Thus, their observation has a purpose and is not neutral.

As a third point, pedagogical observations can be formal or informal but should be mutually beneficial to both parties involved and should include trust and support between peers. In this sense, peer learning, peer observation, and peer teaching have a lot of similarities with pedagogical observation in driving education. Peer learning can be defined as "students learning from and with each other in both formal and informal ways" (Boud, Cohen, & Sampson, 2014, p. 4). The term "peer" can be used in a variety of relationships and settings, from seniors tutoring junior students to students in the same year assisting each other with course content and/or personal concerns (Boud et al., 2014; Gosling, 2002). The latter is closest to our definition of peer: same-year students. The advantage of learning from peers is that they are or have been in the same position as the learner him- or herself (Boud et al., 2014). They may have the same challenges and generally use the same language as their peers. Pedagogical observation as

an activity has similarities to peer learning as a two-way reciprocal learning activity (Boud et al., 2014). In a two-way reciprocal learning activity, it is important that the activity is mutually beneficial, meaning that both the observed student driving teacher and the student driving teacher observing are learning from the activity. Connected to this, working together is a part of peer observation and includes developing trust and support between peers. However, this trust can be undermined by setting peer students up to judge each other (Cosh, 1998). As Martin and Double explain, “A peer-reflection approach assumes that each party may make an equal contribution and that the process does not lead to a judgmental report” (1998, p. 162).

The fourth point is that observation is quite often divided into pre-observation, actual observation, and post-observation. Martin and Double (1998) define three stages in the peer observation process: a pre-observation meeting, observation, and a feedback meeting. Others have different names for the three stages: pre-observation, actual observation, and post-observation meeting (Hammersley-Fletcher & Orsmond, 2004). The name “post-observation meeting” seems to signal a more collaborative activity between the observer and the individual being observed than “feedback meeting,” but it seems like the content of the feedback meeting in Martin and Double’s (1998) study involves both the observer’s opinions and the thoughts of the individual being observed on an equal basis.

The fifth and final point these literatures have in common is that teachers become accustomed to discussing their own and others’ teaching methods and results for later situations. Peer learning is also about students developing the skill to learn from each other, which is an important skill to have in life and work (Boud et al., 2014). In school situations and in daily life, we all learn from each other, and pedagogical observation among peers is a way of formalizing peer learning in the practical field instead of learning being done in an ad hoc manner. The skill of discussing their own and others’ teaching methods is important for student driving teachers so they are prepared to have discussions with established driving teachers as they enter the driving education profession. Peer observation of teaching (POT) is quite common in British higher education (Hammersley-Fletcher & Orsmond, 2004). The goal of POT is to develop teachers’ teaching practice through personal reflection and discussions with peer observers (Cosh, 1998; Fletcher, 2017; Gosling, 2000; Ivarsson, 2019). POT benefits both the observed and the observer and helps teachers become accustomed to discussing their teaching methods and results, which is a natural part of being a teacher (Ivarsson, 2019). Using pedagogical observation as an activity in driving teacher education thus helps students become accustomed to discussing their teaching methods and results, which should also be a natural part of becoming a driving teacher.

Overall, these are five main features the literatures have in common with pedagogical observation:

1. Observation must have a purpose; it should not only be about appraisals but should also include self-development.

2. Observations are not neutral; they are influenced by circumstances, methods, and the elements the observer brings to the event.
3. Pedagogical observations can be formal or informal but should be mutually beneficial to both parties involved and should include trust and support between peers.
4. Observation is quite often divided into pre-observation, actual observation, and post-observation.
5. Teachers become accustomed to discussing their own and others' teaching methods and results for later situations.

3. Theoretical framework

This article is based on a sociocultural perspective of learning, which is in turn based on a constructivist view (Postholm, 2010)—namely, when knowledge is acquired through interaction in a given context. This view of learning assumes that knowledge acquisition occurs through a process. Vygotsky (1978) argues that learning is constructed socially. Individuals initially learn through interactions with others before the knowledge becomes internalized. This belief underlies Vygotsky's (1978) principle of the zone of proximal development (ZDP): "What a child can do with assistance today she will be able to do by herself tomorrow" (Vygotsky, 1978, p. 81).

Therefore, one educational challenge is how to create learning environments and training situations that optimally reflect experimental practical training and reciprocal learning opportunities. Learning as participation in a collective practical experience is, according to Lave and Wenger (2003), a central element of the sociocultural perspective of learning. From this point of view, it is important that students gain experience by interacting with others. There are many ways of interacting with others, like for instance using a reflecting team with peers (Kjelsrud, 2018; Kjelsrud & Robertsen, 2012) or other group activities. A modern driving teacher has many pedagogical challenges and needs to do pedagogical choices (Susimetsä, 2018).

4. Method

This section will be about how the project is designed, some ethical issues and how I have been analyzing data.

4.1 Design

This article takes a phenomenological hermeneutic approach as I describe and interpret what students said in individual interviews and observations in the practical field. The interview and observations occurred over the course of one year, and I recorded and transcribed all interviews and field observations and took field notes during these activities. I had a meeting with practice supervisors, and they gave me 24 names of students in their first year of driving teacher education out of a total of 96 students. The project needed students that were talkative and willing to speak about their experiences—a strategic sample of students (Kvale, Brinkmann, Anderssen, & Rygge, 2015). Of the 24 students, 10 signed up to contribute. There were three female and seven male students between 22 and 36 years old.

I used semi-structured individual interviews and field observations for the project. The purpose of the research interviews was to produce thoroughly tested knowledge about how student driving teachers perceive pedagogical observation in driving teacher education (Kvale et al., 2015). In particular, I conducted semi-structured life-world interviews, as highlighted in Kvale and Brinkmann's (2015) book. The general goal of such interviews is to collect descriptions of the individuals' life world to interpret meaning. This interview format is partly inspired by phenomenology and hermeneutics. Phenomenology is about how people experience phenomena in their world, while hermeneutics is concerned with interpreting meaning. The phenomenon in this case is pedagogical observation. There were six questions in the interview guide about students' background, driving lesson experiences, group dynamics/cooperation, and their perceptions of pedagogical observation. I mainly used the latter question about their perceptions of pedagogical observation for my analysis.

In addition to the interviews, I conducted field observations of nine real driving lessons at the university. Figure 3 provides an illustration of the process.

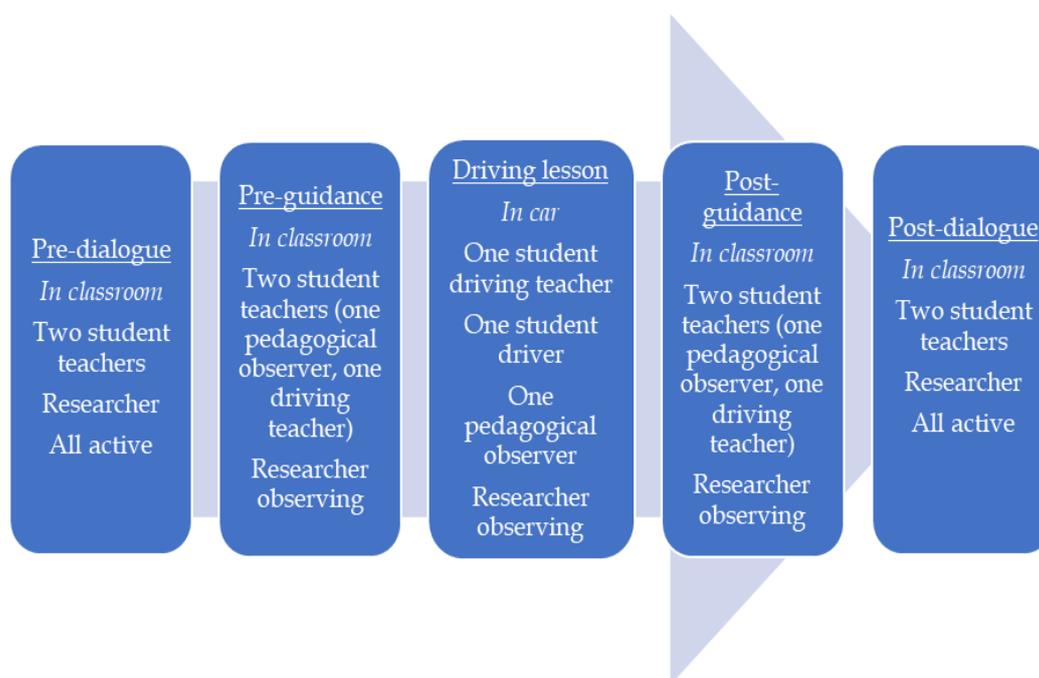


Figure 3. The researcher's fieldwork

In the field observations, I also used a semi-structured interview guide. In the pre-dialogue stage, I informed the students about my role as a researcher, the reasons I was there, and role expectations. In the post-dialogue stage, I asked the student driving teachers and pedagogical observers to tell me about their perceptions of the pedagogical observation process. More specifically, Table 1 includes the questions I asked.

Table 1. Questions in the post-dialogue stage

Questions for the student driving teacher	
1	Is it helpful for you to have a pedagogical observer?
2	Why or why not?
3	What did you learn?
4	Is there anything you wish the observer would have done differently?
Questions for the pedagogical observer	
1	How did your plan work?
2	Have you observed this student driving teacher many times before?
3	What did you find important in this pedagogical observation?
4	What did you learn?

4.2 Ethical issues

As an interviewer and observer, I had to be aware that there is tension in this situation since I worked at the university and the informants were students. I was searching for knowledge about how student driving teachers perceive pedagogical observation, but at the same time, I had a lot of experience and knowledge about pedagogical observation myself. I needed to be aware of this and let the students' voices be heard. I needed to avoid being too prejudiced; I needed to be open minded and avoid looking for confirmations of my own ideas or wishes. I have worked as a driving teacher and have educated driving teachers for many years, so I had to keep the "researcher hat" on.

4.3 Analysis

I used thematic analysis to analyze the information from the interviews and observations. Braun and Clarke (2006) outline a six-phase process for performing thematic analysis: 1) getting to know the data, 2) generating initial codes, 3) searching for themes, 4) reviewing themes, 5) defining and naming themes, and 6) producing the report. Using this method, I looked for themes and patterns to organize the data.

I became well acquainted with the data since I gathered all the data myself and completed and transcribed all interviews and field observations. In addition, I read and re-read the data and field notes along the way.

As mentioned, in the individual interviews, one of the questions dealt with students' perceptions of pedagogical observation in driving teacher education. From the 10 informants, I obtained 34 transcribed utterances about their perceptions of pedagogical observation, which I put into a table and developed codes for (each utterance received a code). These codes were connected to my understanding and interpretation of the meaning of each utterance. I grouped codes (Table 2) with similar meaning together, which represent the themes in my analysis. The codes include learning, evaluation, cooperation, agreement, preparation, discussion, feedback, the role of teaching, observation, usefulness, communication, a helper, a fault seeker, knowledge, and motivation. These 15 codes from how students perceive pedagogical observation resulted in four themes, as shown in Table 2.

Table 2. Themes

Number	Codes	Theme
1	Usefulness, a helper, cooperation, a fault seeker	What is it
2	Learning, knowledge	What the goals are
3	Preparation, agreement, discussion, feedback, evaluation, the role of teaching	How it is conducted
4	Observation, communication, motivation	What is needed

5. Results

As mentioned, I identified four major themes through my analysis of the data. The results will be presented under these four headings: what pedagogical observation is, what the goals are, how it is conducted, and what is needed. In the presentation of findings, I use these four themes and codes associated with each theme. I selected student statements from the individual interviews and field observations to support each code within a theme. Many quotations fit into more than one theme.

5.1 What is pedagogical observation?

This theme captures what pedagogical observation means for the students—namely, how they perceive it. In the interviews and observations, they used words like *useful*, *a helper*, *cooperation*, and *a fault seeker* (Table 2) when talking about this topic. These four words are the codes, and I connect each quotation to one of these four codes.

5.1.1 Useful

All students perceived pedagogical observation as useful. The following quotation discusses this usefulness and highlights that pedagogical observation has meaning:

“Earlier, before I started here, I had not, I had never heard of it [pedagogical observation] before. As I have perceived it until now, it is just that we should observe each other and the way we do things and how we talk about things, how we say things, yes, just what we do then. Both verbally and non-verbally and teacher activities. . . . It seems to have worked well. . . . In the beginning, it was perhaps a bit diffused, what we really should do, but eventually, as we learned more about pedagogy, it gave more meaning to me. I think it is something about communication, too, because if you think about pedagogy separately, it is about the way you communicate with others, so I really think it covers some of what should be done then.” (Pedagogical Observer 1)

It is quite interesting to notice how she was thinking and reflecting while she was talking. She was talking about observing each other, which is an important activity in pedagogical observation. There must be an action to observe; otherwise, there will be nothing to talk about. She spoke about how her peers do things and how they communicate. Her utterance covers her perception of what pedagogical observation is. She said it seems to have worked well even though they were uncertain about how to do it in the beginning.

5.1.2 A helper

While some students commented on usefulness, others commented on how they are each other's helpers, not fault seekers. But what is a helper? Is it someone who helps the student driving teacher or the student driver? The point is to help the student driving teacher. The first quotation shows how one student perceived a situation connected to this:

"We had an interesting conversation this fall. . . . There was someone in their second year, quite far into their second year . . . and they had not realized that they should look at the teacher, not the student driver, as a pedagogical observer." (Pedagogical Observer 3)

Instead of helping the student drivers, the student teachers are helping their peers become skilled driving teachers, as this second quote about development reveals:

"You should somehow help someone to develop."
(Pedagogical Observer 9)

Some students also called this helper an assistant, an assistant who helps the student teacher plan his or her driving lessons, as the third quotation shows:

"I think you have an assistant role before the driving lesson, maybe not so much during the driving lesson, but after the driving session. That is, if you have a pedagogical observer who can help you plan a driving lesson, if you both have time to do so." (Pedagogical Observer 3)

The fourth quotation says something about when to help. If the student driving teacher needs help during a driving lesson, he or she should get it. This can quite often be a problem if the student teacher and observer have not agreed on this in advance. At what point should the helper interfere?

"You are the helper, and if there is anything the student driving teacher is wondering about, then you should not just sit in the backseat and see what he is doing; you can contribute I think, if it is something he wonders about or if he has problems." (Pedagogical Observer 10)

The main student perception of this helper role seems to center on the agreement between the student driving teacher and the pedagogical observer (helper)—namely, about what the helper should do and when he or she is expected to do it.

5.1.3 Cooperation

Different groups of students make their own internal rules on how to cooperate. They perceive cooperation in pedagogical observation differently. Some groups do not disturb each other during driving lessons, while others agree to give each other comments during driving lessons. This difference is shown in the first quote, which discusses how cooperation can both interfere and not interfere

with a driving lesson. The following student changed groups and, at the time of the interview, was in a group that does not comment during driving lessons:

"In my previous group, it was like that. I was asked questions about the lesson when I was sitting in the back seat by fellow students, so that we could handle those problems a little earlier." (Observed Student Teacher)

The second quotation is about cooperation on another level; it is about feeling safe, giving constructive criticism, and being honest. This student seemed to perceive that the relationship between peers is important in pedagogical observation.

"Like us, we have had a lot of driving lessons together. We feel safe helping each other. It is important for me as a teacher and as a pedagogical observer because I know that I can give feedback to Arne, and he takes it as constructive criticism. He doesn't get angry with me because I say that he could have done things differently. If there is a person you do not know that well, you may be too gentle in your feedback . . . not step on anyone's toes. Since we have the relationship that we have, it makes it very easy to be honest."

(Pedagogical Observer 1)

The third point is about preparing and planning together. Student driving teachers are responsible for two student drivers each and for planning lessons for those student drivers. However, the following quotation shows how the student teachers often cooperate to evaluate how different student drivers are doing. They perceive pedagogical observation as a form of cooperation to plan driving lessons, in addition to executing and evaluating those lessons.

"We have prepared and planned for driving lessons together. Now in the beginning, we have gone through the different student drivers' conditions together, and then we have done a written plan for the driving lessons. We cooperate!" (Pedagogical Observer 3)

Students view cooperation differently, but they perceive cooperation as an important activity in pedagogical observation.

5.1.4 A fault seeker

While some of the students focused on preparing and planning when discussing what pedagogical observation means to them, others highlighted cooperation between peers, specifically that it is useful and that they are each other's helpers, not fault seekers. This last point about fault seekers is about being able to look for positive teaching activities in driving lessons, not just faults. In the following quotation, the student acknowledged the importance of giving positive comments but stated that it is difficult to do so. This quotation illustrates that it is often easier for observers to find faults and state what they would have done differently had they conducted the driving lesson themselves.

"It is easier for them, and it is certainly for me too, to notice what is being done wrong and what they should not do. I notice it when I sit in the back seat; I am thinking, 'I wouldn't do that' and then I put down negative comments, right, but it is not necessarily wrong. . . It's about

finding that balance between negative and positive comments. There are not so many positive comments". (Pedagogical Observer 3)

In this section, I have captured what pedagogical observation means for the students—namely, how they perceive it. For them, pedagogical observation is quite individual, but it is useful and serves as a helping hand. Further, they believe that they need to cooperate during the process and that the pedagogical observer is not supposed to be a fault seeker.

5.2 What are the goals of pedagogical observation?

This theme is about student driving teachers' perception of the goals of pedagogical observation and is closely connected to the theme above—how they perceive the activity. In the interviews and observations, I found words like learning and knowledge, which is why *learning* and *knowledge* are topics in this theme.

5.2.1 Learning

The first quotation reflects this students' perceptions of the overall intention and goal of pedagogical observation. He pointed out that he has reached a higher level due to from different pedagogical observers and that he could not have reached that level without them. This quotation is about learning from each other and learning by having someone observing you.

"If I had not received that much good feedback from Even and from the others . . . I would not be at the level I am now. After all, it becomes a bit like looking without being able to see when you don't have a pedagogical observer with you." (Observed Student Teacher)

The second quotation is about not being able to see your own mistakes and successes. Having a pedagogical observer watching you makes you aware of what you are doing and of what works and what does not work. The following student emphasized that an outsider perspective on your performance can help you get better or, in other words, learn more.

"For example, I can't see myself, where I'm making mistakes. I think maybe I'm doing good, but when she comes in with her input, I can get better. So, the next time, I remember what she said." (Observed Student Teacher)

In third quotation, the student reflected about the activity of pedagogical observation and his perception of its goal. He concluded that the goal of pedagogical observation is related to learning.

"Pedagogical observation, educational observation, I break down the words, I think it has something to do with education, at least something related to learning . . . and observation." (Pedagogical Observer 6)

Many of individuals want to get praised for what they do, but the fourth quotation also emphasizes the need to receive constructive criticism and ask questions to increase your skills.

"Yes, I do like to get praised, but I like very much to hear what I could you have done better. I am very concerned about it, and I like to ask

questions to develop my skills. I suppose everyone else wants to do so too." (Pedagogical Observer 3)

The fifth and sixth quotations tell us about when student driving teachers perceive that pedagogical observation does not work as intended or according to the goal of learning teaching skills. The observer in the back seat may be involved in something other than observation, such as his or her mobile phone; his or her mind may be elsewhere; or he or she might not be prepared or have enough knowledge to be able to help the student driving teacher.

"They are not attentive [the pedagogical observer], and then . . . you get no feedback." (Observed Student Teacher)

"But the importance of having a good pedagogical observer is essential. So, if you have a pedagogical observer who only says . . . "Yeah. It was good," nothing more. . . and without examples. Then it is – then the purpose is gone." (Pedagogical Observer 8)

5.2.2 Knowledge

This section is about knowledge, and the first and second quotations highlight that pedagogical observation is a new activity for the students. They often believe that they do not have enough knowledge about pedagogical observation to use it in the beginning. Only one student had done something similar before.

"Before then, before I started here, I had not . . . I had never heard of pedagogical observation before." (Pedagogical Observer 1)

"Perhaps it should be made a little clearer at first what pedagogical observation really is . . . that one should focus on the student who is doing the driving lesson". (Pedagogical Observer 8)

The last quotation is also about knowledge, but it is from another angle; it is about fellow students not having enough knowledge about pedagogics, traffic subjects, psychology, and other subjects in driving teacher education. This student could see the connection between gaining knowledge from lectures at the university and using that knowledge in the car. If the student does not have the knowledge, an important part of being a pedagogical observer is missing.

"In any case, I want them [fellow student driving teachers] to make an effort to understand the substance, that they show up for theory lectures at the university, and that we can pick it up again in the car conducting driving lessons." (Pedagogical Observer 3)

Knowledge and learning are closely connected, and many of these quotations overlap.

5.3 How is pedagogical observation conducted?

I identified many utterances on how to conduct pedagogical observation. These are the most common topics the students discussed in relation to this theme: *preparation, agreement, discussion, feedback, evaluation, and the role of teaching*. I group some of these topics together because they are closely connected, so there are four sections for this theme.

5.3.1 Preparation and agreements

First, there are two quotations about preparation and agreements. It seems like it is important for some of the students to make an agreement before a lesson, which is generally done in the pre-guidance meeting. The agreement is about the observer being focused in the back seat and having a specific job to do while sitting there. The first quote focuses on what the observed student driving teacher wanted the pedagogical observer to do, and the second quote describes another situation, in which the pedagogical observer repeated the agreement to the observed student teacher before the driving lesson started.

“So, what I want you to focus on, is, of course, on me, how the driving lesson is . . . but also . . . if you can pick up his [the student driver’s] eye movements.” (Observed Student Teacher)

“Our agreement today is that I’ll look at how Marcus [the observed student teacher] describes the goals of the driving lesson and how he motivates the student driver for the task he or she is going to perform. We have talked about it in advance. Last lesson, we talked about linking the goals in the book with motivation. The student driver reflects on his or her goal achievement for the driving lesson; this may help the student driver feel successful. Maybe you need to continue working on these goals next lesson.” (Pedagogical Observer 5)

Making an agreement is important for the students, but it is also important to be aware of the quality of the agreement. Is it clear? Is it too much for the pedagogical observer, or is it too difficult? The third quotation reflects on the observer’s task, while the last quotation discusses the number of things to observe:

“It’s simply that I should pay attention to whether he is able to be clear and focused on the goals he has set. There are two main goals in this driving lesson that he has set. I will focus on them; that is my task today.” (Pedagogical Observer 9)

“This semester we have been working on not observing too many things simultaneously, so we have two to three things to look at. It is stated in textbooks that it is better to have two to three things to observe than to observe everything because you can’t concentrate long enough to look at everything.” (Pedagogical Observer 5)

5.3.2 Discussion

The first quotation in this section is connected to the timing of the discussion: during the driving lesson or after the lesson. If they have the discussion in the car, the student driver is still there, but if they wait until after the lesson, they can talk without an audience and without disrupting the lesson.

“Yes, normally, it is allowed to say something in the car, but I rather choose to ask those questions afterwards, break into the lesson as little as possible.” (Pedagogical Observer 5)

The last quotation is about daring to speak up, not being afraid of saying your opinion if you think something is wrong.

"Eee, that you are not afraid to grasp what you might think is wrong, that you can discuss it". (Pedagogical Observer 8)

5.3.3 Feedback and evaluation

This first quotation is about how students give feedback. The intention is that they help each other in teaching situations and that they are open to input from their peers.

"Just being honest with each other and tolerating the feedback. It is important to remember that the feedback is meant to be constructive, to help you. If you actually manage to accept the feedback and do better in the next driving lesson, then you will improve yourself." (Pedagogical Observer 1)

The second quotation is short and is about how to give feedback. It is a comment from an observed student teacher after a driving lesson in reaction to how much the pedagogical observer had written. Is this reaction negative or positive? The answer depends on how the observer said it and whether the observed student teacher perceived the post-guidance stage as an equal conversation or an evaluation.

"Wow, [you have written] a whole page!" (Observed Student Teacher)

As I mentioned earlier, getting positive feedback and appraisal feels good and is highly appreciated, as evidenced in the last quotation:

"Sometimes you just get confirmation that you are doing something right, and it is a bit nice to hear . . . and then you might continue to do it like that." (Pedagogical Observer 8)

5.3.4 The role of teaching

In the first quotation in this section, the student reflected on how he works during observation from the back seat, looking at his fellow students' role as a teacher.

"I think it is essential to limit the observation to something that is important. I might see now that, since you were having a very fluid plan, I should have focused on learning activities. I don't know." (Pedagogical Observer 5)

In the second quotation, the student driving teacher was eager to define the role of the pedagogical observer—namely, that he or she should observe the teaching role of his or her peer, not the student driver.

"I say to the pedagogical observer that he should assess my teaching role. I tell them that they are not there to assess the student driver". (Pedagogical Observer 5)

There are many elements related to conducting pedagogical observation, and they link to prior themes like goals, students' perceptions of the activity, and the need for knowledge and practice to conduct it.

5.4 What is needed for pedagogical observation to work?

This theme describes student driving teachers' perceptions of what is needed to make pedagogical observation work. I identified three main topics in the analysis related to this theme: *observation, communication, and motivation*.

5.4.1 Observation

Students' perceptions of the physical part of the observation done in driving lessons is quite difficult to grasp because they did not go into depth about how they observe their peers. Many of them just stated that observation was an important part of pedagogical observation without being able or willing to explain it any further. The following two quotations show this.

"And then it is about observing how the driving teacher student conducts his driving lesson, how he explains . . . and all that the teacher does." (Pedagogical Observer 10)

"An observer is a just person who is looking and thinking in the background then." (Pedagogical Observer 3)

5.4.2 Communication

The first quotation is about peers and how they communicate depending on their relationship with each other. It highlights that trust is important in a peer group and that students choose who they want to cooperate with based on how they communicate.

"Carl knows me pretty well, so I dare to say my opinion to him. I don't dare to do so with everyone else in the group. I have not been with them as much since I know they react a bit differently, so then . . . I do not bother to say it all because it seems like they are getting a little bit annoyed. So, then I think . . . you may be a teacher, but you will not be a good teacher then." (Pedagogical Observer 2)

Communication involves so many elements, and one of the elements is asking questions. The second quotation is connected to asking questions and this student's perception of the importance of asking questions to make a good agreement before a driving lesson.

"Superb, but I must ask, except from motivation and context, do I get to look at other things, or do you want it to be just that? Or are there other things you would like to address? You can decide." (Pedagogical Observer 3)

In the last two quotations, the students indicated that communication is an important issue in pedagogical observation without getting into details on how to do it.

*"Because if you think of pedagogy, it's about the way you communicate with others, so I really think it covers some of what it should do then."
(Pedagogical Observer 1)*

*"I think communication actually [about pedagogical observation]."
(Pedagogical Observer 7)*

5.4.3 Motivation

The first quotation about motivation comes from a student who did not feel that fellow students were motivated to go to theory lectures.

*"When fellow students say, 'The theory lecture at the university wasn't mandatory, so I did not go' . . . I do not like such helplessness/laziness."
(Pedagogical Observer 3)*

The second quotation regarding motivation is about the pedagogical observer and providing comments as an optional choice, not as a concrete solution for the observed student driving teacher. Rather, the observed student teacher has a choice depending on his or her motivation to listen to the observer.

*"I will try to give you another approach, like how I would do it, and it is up to you if you want to use it or not."
(Pedagogical Observer 3)*

These quotations cover, overlap, and support the four themes found in the analysis. Based on these findings, I continue with a short discussion and some concluding remarks.

6. Discussion and concluding reflections

In this work, I presented student driving teachers' perceptions of pedagogical observation in driving lessons using the themes "what it is," "what the goals are," "how it is conducted," and "what is needed," and I supported my findings with quotations from student driving teachers. In driving teacher education, pedagogical observation has been used for many years. This section connects students' perceptions of pedagogical observation to my theoretical framework and research question and describes some main highlights, surprising findings, and practical implications.

The aim of this article was to examine how student driving teachers perceive pedagogical observation in driving lessons. The pre-conceived notion is that students do not have a common understanding of this activity. Taking an overall view of the data material, it looked like students appreciate and understand what pedagogical observation is, but it takes quite a bit of time for them to develop the skills and knowledge needed to make this pedagogical activity useful. Pedagogical observation appears to be a new activity for most of students; indeed, only one out of the 10 students I interviewed had done something similar before. The students want their peers to be responsible and observe for an educational purpose so that they can increase their teaching skills. Some skills are difficult to learn on your own. It seems like the students in this study find guidance and encouragement from others helpful in their learning of teaching skills.

In pedagogical observation, students work together to make the activity mutually beneficial, not only for the observed but also for the observer. It is a two-way reciprocal learning activity (Boud et al., 2014). This idea fits with an important finding from this project: students' perceptions of the importance of communication and cooperation. Students need to be part of the discipline and know what kinds of arguments, technical language, explanations, and questions are being used in the social practice they are participating in (Greeno, Collins, & Resnick, 1996) so they are better prepared to join a driving school and learn the driving school's practices when they enter the work world. One student even said that pedagogical observation is all about how you communicate with others. This utterance is not surprising but leaves a question why the students don't use theoretical concepts from theory lectures when talking with each other. They use some theoretical concepts in written material but not so much in face-to-face discussions. Some of the students said that it was the culture in the group to avoid communication using language that sounded too technical or difficult; some perceived that fellow students did not know technical language well enough to use it.

A surprising finding is the degree of importance of the pre-guidance stage. The pre-guidance stage is almost absent for some students, while it is important for others. Why this difference in perceived importance? It appears that student driving teachers want to make agreements with the student teachers they are observing, so it seems a bit contradictory when they do not put a lot of effort and time into preparations and pre-guidance. In my observations in the practical field, I felt the observers should have focused more on the pre-guidance stage to do a better job in the back seat. Indeed, the students do not necessarily need to have this pre-guidance discussion right before a driving lesson; they could do it as a part of the prior driving lesson or in a meeting a couple of days before the driving lesson. When the pre-guidance stage happens 10 minutes before the driving lesson, there is no room for changes. This implies that the pre-guidance stage should be earlier in the observations process than it usually is.

This article shows that the activity of pedagogical observation offers promising potential as it enables high-quality observation, communication, good relationships, and motivation. It also highlights a need for developing a more common understanding of what pedagogical observation is, and the need to clarify expectations between the different actors. In terms of other practical implications, teachers at the university level – not only those in the practical field of educating driving teachers but also theoretical teachers and teachers in other professions – can read and apply this research to help students understand the purpose of pedagogical observation and how to conduct it. Further research should be done on pedagogical observation among student driving teachers to find out what else is needed to make the activity work even better. Last but not least, students are developing the skill to learn from each other, which is an important skill to have in life and work.

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