VIDEO-BASED REFLECTION IN THE ACQUISITION OF SKILLS AND COMPETENCIES

Vibe Jelsbak, Jette Henriksen, Claus Baagø Jepsen
VIA University College, Research Unit for Education and Profession, Research Programme of Professional Pedagogy (DENMARK)

Abstract

In Denmark professional bachelor programmes all have a curriculum based on the description of both theoretical and practical/professional intended learning outcomes. The intended learning outcomes are described in terms of knowledge, skills and competencies according to the Danish Qualifications Framework for Higher Education [1]. This study focuses on students obtaining skills and competencies and has less focus on theoretical knowledge.

Little is known about video-supported reflection as a method for mediating learning of skills and competencies. We aim to explore: In which way can shared video recordings, showing students simulating professional actions, mediate students’ reflection in order to obtain skills and competencies?

A qualitative study was conducted to explore the students’ experience and learning from the video reflection. We call the method “video-on-video”. The students’ videos show the recordings of themselves performing (simulations of) professional actions. Critical moments from the students’ video recordings - regarded as holding learning potential - are shown to the same students during interventions designed as focus group interviews, hereafter called interview-workshops. Data from this study consists of videos of students seeing these critical moments of their video recordings (video-on-video). The interview questions used in the interview-workshops are referring to the three levels of reflections regarding the actions performed: premise, product and process, as described by Mezirow [2]. Video recordings of interview/workshops (the “video-on-video”s) are analyzed using thematic analysis inspired by Braun and Clarke [3].

Findings show that students can be inspired to reflect on their actions when they see videos of themselves. The students’ reflections on skills and competencies seems to derive from both their knowledge as professionals (from internships) as well as pedagogical framing of the students’ video recordings. Furthermore, the students’ collaborative video-production seems to produce a new practice-based and socially supported learning environment. Students develop their professional judgement when deciding what they will present, and how they will present actions on video as well as when they judge their own and peers’ actions on video.

Keywords: Learning, Skills, Competencies, Video-supported, Reflection, Video-on-video.

1 INTRODUCTION

In Denmark learning outcomes are divided into three categories: knowledge, skills and competencies in professional education [1]. The curriculum therefore contains learning outcomes of theoretical knowledge and practical skills. Theoretical knowledge and practical skills are both parts of the students’ gaining competencies in order to be a professional practitioner. According to Jorgensen we define competence as personally qualified skill [4], a skill which we think can be qualified through reflection and usage in a specific, relevant context using their experience [ibid.].

Revision of the health professional bachelor programmes in Denmark in 2016, resulted in study programmes with learning outcomes covering both theoretical ECTS and ECTS dedicated to apprenticeship periods. The intended result of this is coordination between students being apprentice in practical periods and the students learning theory. This is why it is relevant to develop learning activities combining skills and knowledge, fi through reflection on combination of skills and knowledge supported by video recordings.

In this project, we aim to identify situations in which students reflect upon seeing themselves acting on video, performing simulations of professional skills. As students learn these skills during...
apprenticeship periods, and students learn theory related to the skills during theoretical periods in their study programmes, we expect them to combine theory and practice through reflection.

This project is based on the following research question:

*In which way can shared video recordings, showing students simulating professional actions, mediate students’ reflection in order to obtain skills and competencies?*

We expect students to learn through dialogue and reflection. Based on social-constructivist position [5] we see learning as mediated, situated and distributed [6] & [7]. We describe students’ learning process as activation of individual silent knowledge, described by Polanyi [8]. This activation by assimilating a new understanding through dialogue, described as collaborative group cognition by Stahl [9]. Students’ dialogue will hereby be the basis for activating reflection on either the product or content, the process and the grounds for the process and content, as Mezirow describes reflection for transformative learning [10].

As the students in focus in this project are asked to reflect on seeing themselves doing actions related to their professional practice, we also find Donald Schön’s theory of “reflection-on-action” and “reflection-in-action” relevant to consider, when analysing the students’ dialogue [11].

Profession oriented pedagogy are used in the professional bachelor study programmes. Basic pedagogy is therefore, that theory and praxis go hand in hand, so students learn theory related to practice and they learn practice in relation to the theory. Through internships during the study programmes, the students see praxis and learn the skills by training them. If students succeed in combining the theoretical knowledge and the skills, we hope to show, that students can reflect on their actions and hereby obtain competencies necessary for establishing the professional identity as described by Gilje [12].

Our aim is to describe factors affecting students’ reflections from dialogues in order to combine theoretical knowledge and skills in the process of obtaining competencies.

2 METHODOLOGY

The method used in this project is inspired from the learning design described by Due, called “Video-on-video” [13].

2.1 Gathering video data

We have retrieved data using a method based on students recording videos of themselves, followed by the students seeing the videos and having a dialogue about what they see. This “video-on-video” method can be described in six steps, as shown in table 1.

<table>
<thead>
<tr>
<th>Step</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Selection of students to enter the project as informants and description of professional actions to video record</td>
</tr>
<tr>
<td>Two</td>
<td>Students record videos of themselves executing practical actions related to the study programme-related profession</td>
</tr>
<tr>
<td>Three</td>
<td>Videos are shared to project group, who review the videos</td>
</tr>
<tr>
<td>Four</td>
<td>Student videos are analysed and the project group select sections that are expected to carry learning potential related to reflection on the skills and competencies related to the practical action on the video</td>
</tr>
<tr>
<td>Five</td>
<td>The so-called “interview-workshop” are prepared by the project group, and interview guide are designed</td>
</tr>
<tr>
<td>Six</td>
<td>Students meet with project group in an interview-workshop. Their dialogue, which is supported by the interview guide, is video-recorded using IRIS Connect Dual View®</td>
</tr>
</tbody>
</table>

Step one: The sampling is done by asking a larger group of students, who are in a period of their study programme, in which they are supposed to learn well defined skills and competencies related to a practical action that can be recorded on video. Four students from the study programme of nursing
(called “nurse”) and three students from the study programme of biomedical laboratory science (called “BMLS”) volunteered to join the project as informants.

Step two: Students record each other showing practical, professional skills. Nurse-students were supposed to produce a video as an exam showing themselves simulate how to administrate medicine in different ways. The BMLS-students were instructed by their clinical supervisor to record themselves performing a venipuncture (extraction of blood from a vein) on each other. The actions selected where not of specific importance for the project group, as it was primarily important, that the videos showed professional actions, as long as they are relevant to learning outcomes of skills and competencies related to the study programmes.

Step three and four: The videos recorded by the students show simulation of professional skills, the simulation was chosen instead of real patient situations, as the hospital would not allow students to record videos showing patients or sensitive patient data. The sections were selected from the videos, if they show students in situations difficult to describe by words alone or it was sections showing special actions or actions different than expected. All video sections contained profession related actions and actions including spoken language/communication examples, as we expected it to be crucial for learning potential of the video sections.

Step five and six: Interview guide was created with the intention to support the students reflecting on seeing the videos. To facilitate this, we chose to ask students open-ended questions inspired by the three levels of reflection as described by Mezirow in transformative learning: reflection on the product of the action, reflection on the process towards creating the product and reflection on the premises regarding the process and the product [14]. The interview-workshop was setup to mediate co-construction of new insights and reflections between informants and researchers. In this way, we expect to mediate students’ stimulated reflection. Figure 1 shows setup from interview-workshop, students and researchers are watching a student-video section. IRIS Connect system was setup to do a dual-view recording with two video cameras.

![Figure 1. From BMLS-interview-workshop, all are watching a student performing on video, followed by interview and discussion on the situation in the video.](image)

### 2.2 Analysing Video data

The video data from the two interview-workshops were analyzed using a hermeneutic approach in a method inspired by thematic analysis as described by Braun and Clarke [3]. Videos were seen through and themes were identified followed by a description of the themes in relation to the research question.

Table two presents the six steps in thematic analysis.
We made a comparative analysis of the two specific professional and pedagogical contexts, and thereby sampling of codes and themes from the two cases.

Findings from the analysis are presented in the next chapter, presented according to the codes and themes identified during the analyses of data. An overview of themes and codes are presented in table 3A, 3B & 3C.

**Table 3A. Themes and codes identified during comparative analysis.**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Citation examples</th>
<th>Codes describing the theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Features Affecting Students' Reflections when Mediated by Video</td>
<td>When I recorded the videos of others - I became aware that yes, I must remember this (nurse)</td>
<td>Individual Reflection</td>
</tr>
<tr>
<td></td>
<td>It is different when you see yourself [on video - instead of observing others] (BMLS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>It is good to discuss things together [...] Here it is not only yourself you have to think about. You also want the others to do well (nurse)</td>
<td>Social Reflection</td>
</tr>
<tr>
<td></td>
<td>We acted as sparring partners when recording (BMLS)</td>
<td></td>
</tr>
</tbody>
</table>

**Table 3B. Themes and codes identified during comparative analysis.**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Citation examples</th>
<th>Codes describing the theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obtaining Skills and Competencies</td>
<td>It is a different process, when we &quot;play&quot; compared to reality. It wasn't critical, even if you hadn't tried it before (nurse)</td>
<td>Authenticity Affecting Learning Skills and Competence</td>
</tr>
<tr>
<td></td>
<td>More silly than with a real patient [refers to her laughs in the video] (BMLS).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[The medicine simulation room at campus] Of course it is not the same, but I think it is similar. The medicine is in the same order ... it is almost as the real rooms in the hospital. It is still not the same as being in the hospital. There are more types of medicine (nurse)</td>
<td>Arena for Students' Video Capture</td>
</tr>
<tr>
<td></td>
<td>We have the routine in the rooms [rooms at hospital] (BMLS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The gloves - pure routine - have not thought about it - learned the handling at the hospital (nurse).</td>
<td>Routine versus Novice</td>
</tr>
<tr>
<td></td>
<td>Routine can remove uncertainty - less nonsense (BMLS)</td>
<td></td>
</tr>
</tbody>
</table>
### 3 RESULTS

The themes are addressed below and supplemented with students’ quotations (translated into English) from the interview-workshops.

#### 3.1 Features Affecting Students’ Reflections when Mediated by Video

##### 3.1.1 Individual Reflections

When asked, students from both cases reply, that watching themselves on video makes it easier to reflect on actions compared to reflection mediated by written materials, e.g assignments describing the actions performed in internship periods. They describe it also as if the video gives them the possibility to compare their own actions to peer’s actions, e.g “when I recorded the videos of others - I became aware that yes, I must remember this” (nurse) and thereby supporting reflections regarding their own talent or professionalism in performing the professional actions. When directly asked, they reflect on whether they performed the professional actions correctly. The question is necessary for them to relate to in order to come to this recognition of their own skills, because their first reaction to seeing themselves is not reflected, but merely criticism of their own actions. After answering questions about their actions on video, they reply, that in retrospect, the video helps their reflection on performance of skills.

“When I have an inner dialogue about why I do what I do – video supports that” (BMLS)

Students describe, that before acting in front of the camera, they choose which details to show and how to show them. Their wish is to show skills as perfect as possible. When they see themselves on video afterwards, they comment on these choices on details. This can be a sign of students reflecting in action oriented towards specific actions. They reflect on the product, in the way, using a lot of time discussion and planning the detailed action on the video. The time before recording, we discussed “how to” and practiced, before we recorded the video (nurse).

We find this as a sign of students reflecting before action, not only in and on action, as Schön describes it [11]. The inner dialogue on what to show and how to show it correctly is a part of the students’ reflection on the process in Mezirow’s description of reflection related to transformative learning [10].

##### 3.1.2 Social Reflections

Students’ social reflection in the group can be detected both in their reporting of discussions regarding what content to show, and how to prioritize between parts of the sequence, they want to show. For instance, the nursing students report about speeding up sequences in some of their videos, if it is shown in details in one video, they choose to speed up the same sequence in the other videos. The

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**Table 3C. Themes and codes identified during comparative analysis.**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Citation examples</th>
<th>Codes describing the theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Design and Framing</td>
<td>The time before recording, we discussed “how to” and practiced, before we recorded the video (nurse).</td>
<td>Learning Design Prior to Recording the Videos</td>
</tr>
<tr>
<td></td>
<td>We had a lot of influence regarding the decisions about what to include in the video (BMLS)</td>
<td></td>
</tr>
<tr>
<td>Pedagogical Use of Video recording</td>
<td>The process of editing the videos was frustrating – we learned a lot from helping each other (nurse). Recording video makes us think differently about what you are doing, we have the routine of performing vene puncture (BMLS)</td>
<td>Recording the Videos</td>
</tr>
<tr>
<td></td>
<td>Thinking and talking together. That gives something. It must make sense to make a video something to have in your hands - not a nursing theory, it must be written. Having something in your hands makes sense (nurse) We often do things without being aware of what we are doing […]but not while video recording] (BMLS)</td>
<td>The Pedagogic Use of Videos</td>
</tr>
</tbody>
</table>
discussion to select which video to show the sequence in details has a potential to support students’ social reflection in the dialogue. The students report on helping each other to refine their actions on video and also when editing the videos after recording. As one student say: “The process of editing the videos was frustrating – we learn from helping each other” (nurse).

It was of great importance for the students to have the dialogue “…good to have someone to discuss it with […] Here it is not only yourself you have to think about. You also want the others to do well” (nurse).

BMLS-students report on discussion content in the videos after each video recorded, as they were all present in the room where videos were recorded. One of the students reply: “We have a sparring partner when we stand side by side” (BMLS). This discussion of which details to present in the different videos are also discussed in the interview-workshop. Here the students report, that discussing details gave them the possibility to adjust their own video according to own choices. This dialogue in relation to preparing for video capture the students to have a critical assessment of the process. This can be seen as their efforts to interpret and make sense of the experience of the process of being together to produce a video. The social reflection described here supports the students’ sense of belonging in a community of practice and in this community the product (the videos) is central regarding learning of skills and competencies [15]. Working together raises all students to a higher learning outcome than if they worked as individuals. The students report on using a professional vision when they see each other performing, and through collaboration, they help each other develop the professional identity [12].

3.2 Obtaining Skills and Competencies

3.2.1 Authenticity affecting learning skills and competence

Students from both cases report of a simulated professional situation close to the real professional practice. Prior to recording the videos, both group of students had been apprentices in different professional workplaces in which they have trained skills. Students in both groups acted patients for each other in the skills demonstrated, and both groups of students report, that the performance is in order to make it more authentic, showing a professional action on another living person.

BMLS-students were all trained in performing venipuncture. The experiences from internships resulted in them being able to record their videos in one-take, with the result, that became authentic. The experience from internships also gave them a feeling of knowing how to act as a patient, which affected the authenticity a bit, as the ”patient” in the videos behaved very well. This was commented by the interviewer, but no students reflected on that.

Both cases show, that the degree to which the students experience authenticity is dependent on the students’ self-understanding as professionals. All students respond that the feeling of authenticity is important in order to act as a professional with routine [15], they know and can describe the relevance. This can be argued, when discussing content of the videos while watching them, as both group of students relate to real experiences from the internship period. This show us, that the students’ knowledge of how the professional practice is performed is important for them in order to relate the simulated situations to the professional practice. The relation between simulation and authentic performing of skills and usage of competencies supports also students’ assimilation of skills and competencies into their own professional behavior. Some of the students report of “how I act as professional”, which show how they see themselves as professionals in professional situations, where other students are more unsecure and focus on how to act “correctly” in the videos. This other group of students may have a longer distance between their action on video and their future professional behavior, so they have more to learn, before seeing themselves as professionals [12].

3.2.2 Arena for students’ video capture

BMLS-students recorded their videos in hospital in a break from their internship-described participation in daily routines of performing venipunctures on patients. They were told to perform the venipuncture on each other, and they were allowed to use a professional venepuncture room in the hospital. They argue, that being in the actual room, it made them comfortable. “It is like it is our little shop” [the venipuncture room] (BMLS). This shop-metaphor is interesting as, the room is designed with shelves containing remedies and glasses for blood samples, and the BMLS-student is in the room, when the “patient” enters as a guest in the room like a customer. Figure two shows a part of the
video from a BMLS-student performing a venipuncture, and nursing student handling a drop set in the room at campus.

Figure 2. (Left) From BMLS-video showing a student performing venepuncture on another student. Two other students are present in the room, one of them are holding the camera. (Right) From nurse-video with a student demonstrating how to administer medicine in a campus room resembling the medicine room at the hospital.

We discussed whether to show close up or the whole scenario […] if we edit the videos, it will be less trustworthy … and also if we recorded them over and over again in order to adjust small mistakes (BMLS)

The arena being similar to professional locations had positive effect on the students performing authentic and with professionalism. The nursing students report about the room at campus designed for training medicine administration is almost as the one, they know from the hospital. The room at campus has less kinds of medicine and therefore it is a bit simpler. The principles for interior design of the room are the same. Students report, that being at campus reassures them, that no patients are harmed if a mistake should happen. Knowing this, they act in a calm pace and in a safe environment.

Figure two shows nursing student handling a drop set in the room at campus. Notice the computer screen holding a paper, telling what should be shown on the screen, if it was at the hospital. This tells us, they can act as a professional, but without the potential consequences for a patient.

The simulation of the professional action gives the students a sense of reality, and both groups of students report, upon acting patient for each other it helped them to come closer to the authentic situation rather than the "playing" professional [15]. The BMLS-students took on a scarf to cover their hospital uniform, when acting patient and they performed a dialogue similar to the dialogue in performing a real venepuncture for it to look authentic.

3.2.3 Routine versus Novice

The students report, that seeing themselves on video confirms their knowledge of what they are good at and what they have less routine in doing. As the BMLS-students report, they all have to-three months of experience in performing venepuncture, so their view on themselves in the video is rather focused on details and personal acquired habits.

This is also the case when they see each other’s videos. They find, that video establishes a focus on what they are trained in. Nurse students report that the fact that they have to perform on video, forces them to repeat and train the skill. They collaborate in the selection on what to show and how to show it, as some of the nursing students have trained some specific skills during internship, and others may not have the routine I those skills.

“The action, you were trained in, I had not tried it during my internship, and as I had to do it as well [in my video], so I got advice from you, Sandra, on how to do it” (nurse). This shows us, that students with different levels of routine, can still work together and share knowledge. Thus, they can collaborate and active their own silent knowledge in their dialogue [9].

In the process of choosing which details to present in videos, both groups of student report that they base their decisions on what is important to show. In order to know what is important, they must have some routine and knowledge of the premises for the professional action shown. When asked, the BMLS-students agree on that the vocal communication is important during the performing of a venepuncture, but it is very different how they focus on it in their videos. The discussion on whether
communication is a part of the procedure is based on one student only focuses on how to do the handling and another student focuses on how to keep a good feeling for the “patient”, so she small talks while performing the vene puncture. Both group of students’ reflection on communication in the interview-workshop reveals their knowledge on how to act correctly, based on their routine acquired in internships. But at the same time, they comment on learning through individual and social reflections on seeing themselves. They mention specific small mistakes, that are not obvious for the interviewer, but it is details, a professional would notice as well as the students do, while seeing it on video.

One nurse student with routine on handling a drop set shows very easy movements and she acts faster than a student with no routine, who just learned it from her demonstration. It is observable for the researchers, which student has a routine and who does not. This means, that routine in showing skills can be demonstrated without words, as it has become silent knowledge to her [8]. The students comment on whether they are skilled or not, but their overall focus for the video is to show the procedure correctly, not necessarily with ease and routine.

While recording and again in watching the videos, BMLS-students comment on the different habits, that the students already have acquired in performing a vene puncture. One student mention “this thing I do” [with my arms] and she makes the movement with her arms. While saying this, she explains, that it is an action; she became aware of hen watching her video. She follows up explaining, that it is something she always do. Interviewer: “Did you see it on the video now?” Student: “Yes [laughs] it is a thing, I do, it’s a natural part of it”. She already has developed her own personal routine in performing professional procedures, and she became aware of it when seeing herself on video.

3.3 Learning Design and Framing Pedagogical Use of Video Recording

The two cases in this project was differently framed pedagogically, as presented in table 4

<table>
<thead>
<tr>
<th></th>
<th>Nurse</th>
<th>Biomedical Laboratory Science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timing of the assignment</strong></td>
<td>Production of video was a mandatory assignment, in the official semester descriptions.</td>
<td>They were given the assignment in the end of an internship period in which they had learned vene punctures.</td>
</tr>
<tr>
<td></td>
<td>After introduction, including information on which procedures to perform, they had five days to discuss, record and edit videos</td>
<td>The assignment was presented a few days before, they got one day to do the recordings</td>
</tr>
<tr>
<td><strong>Assignment description</strong></td>
<td>The assignment was mandatory and it was regarded as part of the exam for the semester.</td>
<td>They were told: “Make a video of yourselves performing vene puncture”.</td>
</tr>
</tbody>
</table>

3.3.1 Learning Design Prior to Recording the Videos

The BMLS-students were told to produce videos showing vene puncture. There was no other instructions but the information about them not being allowed to video film patients due to worries of GDPR regulations in hospital. The students describe initially to need some directions regarding the objective of recording video. Because the assignment was very open, the students had to use their own opinion on what to show. As they were all present in the room, they discussed fl. framing of the video and how much to say. One student chose to describe and argue for her actions while doing them, the two other students chose not to, as one student say: “I wanted it to be as simple as possible” because I did not know what the objective of the videos was. The student who told about her actions described, said: “I imagined, that I had to tell others what happens when [in the procedure] ” and she refers to her own experiences from internships where professionals had told her about what they were doing. Both students had eye-opening experiences of seeing their actions on video. The spars instruction to the BMLS-students did not affect their learning negatively.

Nursing-students were asked about what gives them the most benefit, whether it is recording of the videos or watching them afterwards. Unanimously three students answer: “to make the videos”, and one student continues: “Yes, because we focus on in which order to do it and in a short time, så we were focused on doing it right and in short amount of time”.

Holding this together with the information about the nurse-students helping each other on how to perform the different medicine administration procedures, we find this a sign of the students reflect together prior to the video recording in a social-material perspective. The filming and the actions being
the material to reflect upon in combination with the group of students having a dialogue in a safe and comfortable environment. The students report on having a trustful tone where they all fell, they could ask for help and explanation from each other.

Nurse-student: “At the beginning, when we were told to make a video, I thought … I was not that positive, but having ended the process, I think we have got a lot out of it” (nurse). Discussing production of the videos give students in both groups a direction towards the intended learning outcomes and the discussions supports them to choose between settings, actions on videos and video framing. Choosing in the process is central for developing and usage of their professional vision and evaluative judgement.

3.3.2 Recording the videos

In both groups the students filmed each other on tour, and they report on feeling safe and trustful when recording. Also both groups report about the benefits of being together when filming. If one sees, that another student forgets a part of the procedure, they made a new recording of that part of the procedure. “We were good helping each other during the filming” (nurse).

BMLS-student report about seeing each other’s performance while filming and on basis of that choose to copy or not to copy, what the other students do. One central difference on the two groups is that nursing students were told different medicine administration procedure to show on video, where BMLS-students all recorded the same procedure. Students report, that when recording their actions on video, they feel more obligated to perform correctly; they put it as “taking more responsibility”. The BMLS-students report thinking about how to perform more than in other situations, as the video camera made the students feeling more obligated to perform correctly. “There were more attention, because we are not used to video record ourselves performing venepunctures, and also all three of us were in the room and couldn’t avoid talking to each other about how to do it” (BMLS).

3.3.3 The Pedagogical Use of Videos

Nursing-students’ videos cover different procedures, so the students supported each other in training the handling and in discussing the procedures and how to show them on video. In this way, they shared different knowledge of skills they had acquired individually from internship period.

_We had many different types of content represented [in the group] … and we supported each other talking together during recordings about what to be aware of to remember to include (nurse)_

They report on learning the procedures from training them and not from viewing them afterwards. Actually, both group of students report not to learn when seeing video, but primarily when preparing for and recording them. BMLS-students report on the possibility to record herself performing the same procedure several times during a semester that it holds potential for learning. “If you recorded a procedure several times during internship and see the improvements, I think that holds a lot of learning potential (BMLS)

They report on the experience of seeing themselves, as video provides an external view on the things they do without knowing being aware of it. Here, they argue, video is central to get the view on one self and not just observing the peers or watching videos of others performing the procedure.

All students agree on the experience of seeing themselves and hearing their own voice on video is not a nice experience, but they also report that they could get used to it, and then the experience will be less negative. “Not everybody likes seeing themselves on video, I think it is obvious now, but if you learned to endure seeing yourself on video, I think we could learn from it, because we often do thinks without thinking about how we do them. .. if we could endure to see ourselves, I think we would learn more” (BMLS). So even if they report on learning more of preparing the recordings, they benefit from watching themselves.

The two groups of students were given different premises regarding editing the videos or not. BMLS students recorded their videos directly in the IRIS Connect-system, which does not give them the opportunity to edit the videos. The students report, that it is ok for them, as the video holds lot of authenticity then. It is not important for them to share "perfect" videos, but their focus is primarily to perform the procedure as correctly as possible. Nursing-students on the other hand had to deliver the videos as a final assignment. They report on having learnt not just the procedures of medicine
administration but also video editing. Even though they used different video editing programs, the help each other. “I think, that doing it together, it gave me something on all parameters” (nurse).

Relations between peers when producing and watching video in interview-workshop is important to the students in both cases. They explain that collaboration help them seeing alternative parameters regarding the current procedure. Instead, if they were to do the videos alone, the content would be less rich. The collaboration inspires the students to widen their perspective.

4 CONCLUSIONS

The students base their knowledge on how to perform from experiences related to their internships. They activate their silent knowledge when asked to reflect on what they see in videos of themselves performing professionally. The videos recall the students sense of being in the situation, which is why they can pronounce their silent knowledge of the skill. In this way, their development of competencies comes closer. When seeing their own and others videos, they comment based on their professional vision.

Students’ collaboration on preparing and recording videos creates a practice based and social learning environment. When having to decide what to show and how to show the professional procedures, the students develop their professional judgement and professional vision. It was not clear in the students just watching the videos, but it was initiated by the interview-workshop dialogues. Arena appears to be important for both groups of students in order to train skills and competencies in an authentic way.

Both students with routine and novices can benefit from making videos together.

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REFERENCES


