# Habit and Doubt in the Classroom: Everyday Media Literacy in a Norwegian Upper Secondary School

*Visuality Design in and for Education*

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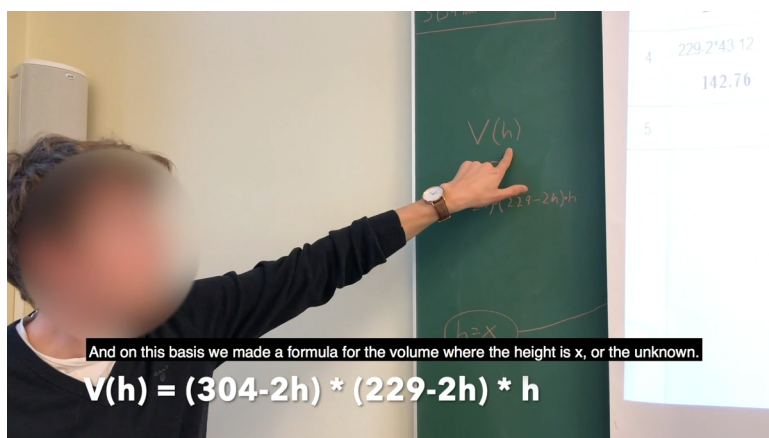Norwegian University of Science and Technology (NTNU),
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## Abstract

Even though several students are experienced producers of audiovisual texts in their everyday lives, there is no quick fix to transfer these media production skills to the formal school setting. This article is based on a classroom study from a science class in a Norwegian upper secondary school. Instead of what they have become accustomed to in the subject – making written or oral reports – they were asked to create video reports using smartphone applications they have learned to use in everyday life. The article argues that the students meet such a task with doubt and they do not necessarily draw upon their vernacular skills in the formal school setting were the tradition of the linguistic text is well rooted. The habit of producing verbal texts in school is challenging to break and video production is experienced as difficult and time consuming. However, this article argues that there is much to be gained if teaching supports students to 'break habits'. While this opens for students' doubts and hesitations, breaking habits also can inspire inquiry, creativity and new learning.

## Keywords

visuality design – media education – media literacy – visual and multimodal communication – smartphone use – abduction – habit and doubt – Pierce

FEATURE    Mia Fasting's article comprises three videos, which can be viewed here.

## 1      Introduction

The increasing use of smartphones and communication applications in recent years has made multimodal media production an integrated part of everyday life (Medietilsynet, 2018; Ní Bhroin & Rehder, 2018; Monitor skole, 2020). In line with this development, a number of scholars advocate the inclusion of students' existing media literacy skills in school practices (Burn & Durran, 2007; Erstad, 2010; Frantzen & Schofield, 2018; Kalantzis & Cope, 2012; Kupiainen, 2013; 2018). To benefit from and strengthen students' everyday media production skills in formal education, this is also addressed in school curricula (Utdanningsdirektoratet, 2018, Kunnskapsløftet, 2020) and international policy documents that promote 21st century skills (European Commission, 2019).

This article is based on an empirical study conducted in a public upper secondary school in Norway with students in a science and technology class. The main data are video reports produced by the students which were analysed using multimodal theory of communication (Jewitt, 2011; G. Kress & van Leeuwen, 1996, 2001; Machin, 2016). Additionally, selected students were interviewed before and after the project about the texts they produced. A short, anonymous, written evaluation was also collected from 20 of the 21 students after the project. Lastly, classroom observations were conducted before and during the project. The method is further elaborated in the method section below.

Based on three empirical cases from the study, this article illustrates that transferring everyday media production skills to the formal school setting is

not without friction. Peirce's (1931) concepts of *habit* and *doubt* are used to highlight the process described in this case study. Finally, I discuss whether the learning outcome can be fruitful in spite of the doubts and irritation expressed by the students when their working habits are interrupted by the introduction of 'new' methods. The article is based on the following research question: *What challenges and opportunities emerge when upper secondary students are asked to draw upon vernacular competences to make a video report in school?*

## 2　Multimodal Communication and Media Literacy

Creating multimodal texts that involve the combination of images, sound, film and graphics, demands competences other than those required in traditional verbal text production (Buckingham, 2003). In UNESCO's broad definition, media literacy is described as:

> A set of competences that empowers citizens to access, retrieve, understand, evaluate and use, to create as well as share information and media content in all formats, using various tools, in a critical, ethical and effective way, in order to participate and engage in personal, professional and social activities.
>
> UNESCO, 2013:17

The present study is especially focused on the *creation* of multimodal texts, which compared to traditional texts entail an increased meaning-making potential from both images, sound and written texts. In Norway, digital literacy is mentioned as one of the five basic skills[1] in all subjects since 2006 (Utdanningsdirektoratet, 2020), and the use of digital technology is extended both in and outside of school (Fjørtoft, Thun & Buvik, 2019). Nonetheless, research show that schools still mainly have a focus on verbal language production, oral or written, while the learning of visual language production primarily is learned outside of school (Kalantzis & Cope, 2012; Silseth & Gilje, 2019). The competence in audiovisual communication is largely based on visual communication and is part of what Lankshear and Knobel (2008) call

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1　Digital skills involve being able to use digital tools, media and resources efficiently and responsibly, to solve practical tasks, find and process information, design digital products and communicate content. (Udir, 2012, p. 12).

*vernacular literacies*, referring to reading and writing skills that are not dominant in schools and other formal institutions, but are rather obtained in informal settings, such as through daily use of multimodal communication applications. Texts produced in formal school settings are a part of established practices of creating texts, that for centuries has consisted mainly of written and oral typhographical texts (Lankshear & Knobel, 2008; Godhe, 2013; Meyers et al, 2013). Burn and Durran (2007) argue that schools today should meet students halfway and let them use their vernacular skills in curricular activities at school. The idea of incorporating vernacular competences – such as media literacy skills from everyday practices – into the classroom, is not necessarily new, as it is quite similar to Freire's (1997) pedagogy, which revolves around the idea of letting the learners be the teachers.

However, as I will discuss in this article, bringing the knowledge and the curiosity from everyday life into the classroom is not always a smooth process. As will be explained in the following sections, breaking the 'habits' of the classroom can be difficult.

## 3       Method

### 3.1     *Data Collection*

The empirical data was collected in a class called 'Technology and Theory of Research Studies'[2] in a public upper secondary school in a city in Norway. The class consists of 21 students – 17 boys and 4 girls, aged 16 to 19. All students used communication apps on their smartphones daily.[3] The students were asked to make video reports in groups on an experiment related to Archimedes' principle, as a substitute to a regular written or oral report. The students were divided into seven different groups. The teacher suggested that the students could use a video tool they were familiar with and expected the students to use their everyday media production skills to document the experiment and to make a report on the process. Experimenting and finding new ways of working were seen as important elements by the teacher in this subject. The students conducted the experiment in the classroom and the school laboratory, while their videos were edited at home. In total, the project lasted for four weeks.[4]

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2   Technology and Theory of Research is an optional subject for second- and third-year students, focusing on the practical application of the natural sciences and mathematics.

3   This article is part of a larger study were student's vernacular, multimodal texts also were studied. Due to the space it's not presented in this article.

4   The project was part of a longer period of work on Archimedes' principle that lead up to the construction of small boats.

The main data are the students' multimodal texts. However, the texts per se do not necessarily provide enough information about how they were produced or used (Blikstad-Balas, 2015; Flyvbjerg, 2006; Yin, 2014). Therefore, additional data were also collected, from student- and teacher interviews, a student questionnaire and classroom observations. Details about the context in which the texts were created are useful for understanding the intentions, limitations, and possibilities in the making of the texts (Eisner, 1991, p. 110; Machin, 2016; Forceville, 2020).

The classroom observations were conducted before and during the project to be able to analyse important activities; such as the teacher's instruction, the students' ways of working, and what affected the students' process with the video texts.[5] Three interviews with the teacher were conducted, while he was examining and reflecting on the students' texts. This helped me understand his analysis of the project as well as how he evaluated the students' multimodal texts and their learning process. Seven students were interviewed before and after the project regarding the texts they produced.[6] Lastly, a short, anonymous written post-project evaluation was collected from 20 of the 21 students, to understand their perspectives on the project and experiences of making a video report in school.

## 4       Analysis

Multimodal theory of communication was used to transcribe, systemize and study the videos (e.g. Jewitt, 2011; Kress & van Leeuwen, 1996, 2001; Machin, 2016). In a transcription from one mode to another information can be lost and added (Machin 2016). The transcription of different communication resources such as sounds, music, voice, ambience, visuals, graphics, animation, photo, and moving image was organised using a table. The transcription appears along with a screenshot from the video and the time code. The transcription of the audiovisual, with all its complexity, to written text is not without complications (e.g. Baldry and Thibault 2006; Lemke 2002; Machin 2016). Information

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5   My researcher role was characterised by me being present in the classroom and the laboratory during the presentations. I was sitting in the front corner where I could see and hear both the students and the teacher while recording (audio) and taking notes. I moved around in the classroom and the laboratory when the students were working in groups.

6   A focus group of seven students, volunteered to be interviewed about their everyday media production and about their expectations and experiences before and after this school project.

can be lost and added when transferring from one mode to another. However, what was made more visible describing each of the communication modes in different columns, was the variation of use or the lack of variation of modes. The concepts of *orchestration* and *duplication* were important to understand the multimodal meaning making in the videos. Meaning can be conveyed either through a variety of modes or a singular mode. For a video, however, the ability to use and assemble different communication resources to convey meaning, is seen as an advantage (Kress, 2010). A purposeful use of the modes available in video productions, would take advantage of all the meaning-making resources and their combination to create meaning. By for example letting the images provide one share of the information and the sound provide another, one benefits from the possibilities that exists in the ensemble or orchestration of modes. In contrast, a duplication of meaning, where different modes are conveying the same meaning, does not profit from the possibilities in the videos as a genre (Ibid).

The interviews and a questionnaire were used to shed light on the students' experiences with the production of the video reports. In contrast with the presumption that students would benefit from him meeting them halfway by letting them use "their own" tools in the classroom, many students' instead showed frustration, remarking that they didn't understand how to solve the task using video and that they would have preferred a written or oral report and failing to complete the task properly.

To study this, Peirce's (1931) concepts of *habit* and *doubt* were applied. According to Peirce, habits are made when an action is repeated multiple times and approximates indefinitely toward perfection to obtain *belief* (1931, p. 337). Doubt is described by Peirce as an uneasy and dissatisfied state, often followed by inquiry, from which we struggle to free ourselves and pass into the state of belief or as an irritation that leads to action (Peirce, 1877). Belief is recognised as a state of self-confidence, of knowing how to act under certain circumstances (Ibid). In this study, these concepts are used for understanding the differing results of this school project and the students' expressions of irritation when they were asked to use their vernacular media production skills in a formal classroom setting.

## 5        Ethical Considerations

In line with the guidelines of the National Research Ethics Committees (2021), the students were given information about the aim of the research. All participants gave their written consent to the use of their texts for academic studies

and presentation. Students aged above 18, could give their own consent. For the students under 18, (but above 16) parents had to be informed about the research as well. Audiovisual texts such as pictures, film and voice have been distorted to protect personal information. Furthermore, the project has been accepted by and meets the requirements of the Norwegian Centre of Research Data (NSD).

## 6        Three Examples from the Classroom Study

In this section, I discuss three examples from the video reports, supplied with analysis of the observations, the student- and teacher interviews, and the questionnaire. All seven groups produced a video report, but five of the groups expressed facing significant difficulties. These three examples are selected to show the diversity of the groups' processes. The first video excerpt illustrates a product with a complex use of communicative modes, such as music, ambience, illustrative graphics, voice-over, dialogue, titles, animation, and close-up filming of the experiment itself. The other two videos illustrate some of the difficulties several of the groups met in the video productions.

### 6.1     *Example 1*
The examples are parts of students' original video reports (see Video 1). Some of the video is altered for this publication. This includes the blurring of faces and changing of voice pitch for the sake of anonymity. In addition, time codes for the selected parts of the videos and English subtitles have been added.

The varied use of resources is visible in this video and is even more evident in the transcription in communication resources used (see Table 1) which reveals a great variety of modes: illustrations (digital and manual), graphics, animation, video, text, music, and direct sounds such as dialogue and ambient sounds from the laboratory. Images and sounds were produced during the recording as well as in postproduction. The assembly of a variety of modes at the same time is an important premise of the narration. This corresponds to what Kress (2010), calls a prominent ensemble of modes. The video starts with engaging music, while the titles inform about the essence of the project and which part of the presentation we are about to see. The animated graphics show the intention of the experiment. This is, as I see it, an example of how different modes are used to fulfil different functions; to inform (text), to engage (music), and to show (illustrations) (Cope & Kalantzis, 2009; Frantzen, 2018; van Leeuwen, 2005). Each mode has a different function, but it is the ensemble of modes that makes the narrative complete. The modes of communication

VIDEO 1        Video example 1, group 1, excerpt of video report. (See here.)

are orchestrated in a way that none is more salient than the other. The last excerpt of the transcription shows the use of camera angles with shallow focus depth and high detail. The video is presented at a high velocity – showing, not telling – how each step of the work was conducted in the laboratory.

### 6.2    *Example 2*

In the interviews, the students expressed that none of the students had any formal training in media production, and several groups encountered difficulties in the making of the videos. Example 2 illustrates this (see Video 2). This group of three students produced one part each according to different themes. The parts were separate productions and not assembled in one video. Each part had distinctly different styles, suggesting that collaboration was lacking. This corresponds to earlier research that shows that Norwegian students are used to different text editing and assembling programs that facilitate collaboration on written tasks in school (Skaftun et al 2018). However, tasks that include video and sound editing are far less frequent in Norwegian schools (Fjørtoft et al, 2019). This shortcoming related to collaboration also suggests that the students lack experience on planning a video production, sharing large files, compressing for sending, and editing.

Another characteristic made more visible in the transcription, is that the words that are read out loud in the voice-over also are repeated as titles in the video (see Table 2). This is also done – to different degrees – in six of the seven video reports. Another reappearing use of semiotic recourses is that a concept is repeated not only in the voice-over and titles but is also already being

TABLE 1 Transcription of example 1. Two excerpts of the group's video report. The narrative relies on various communication resources and includes varied use of visuals and audio to convey meaning without relying on only one of the modes to convey meaning and also without unnecessary duplication of meaning into various modes.
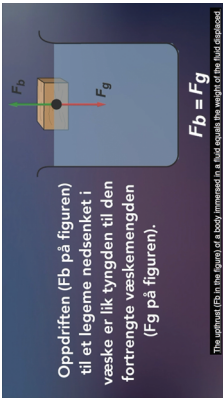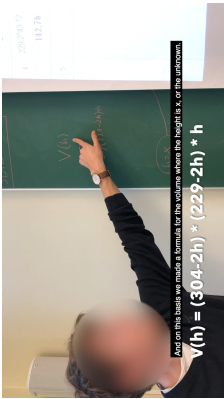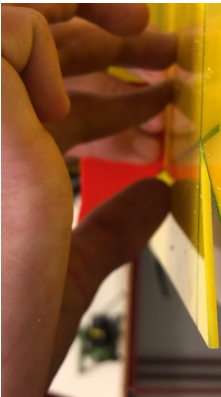
| Time Code | Screen shot | Voice off/on/over | Moving image | Photo | Graphics | Text/titles | Music |
|---|---|---|---|---|---|---|---|
| 00:10 – 00:30 |  Oppdriften (Fb på figuren) til et legeme nedsenket i væske er lik tyngden til den fortrengte væskemengden (Fg på figuren). *Fb = Fg* The upthrust (Fb in the figure) of a body immersed in a fluid equals the weight of the fluid displaced | | Text fade in and out. | | Illustration of box floating | Text describing formula and illustration | Music |
| 00:45 – 00:55 |  And on this basis we made a formula for the volume where the height is x, or the unknown' $V(h) = (304-2h) * (229-2h) * h$ | E: 'And according to this we made a formula for the volume given by the height where the height is X or the unknown' (Reading from the blackboard) | Mid shot of student in front of a blackboard, pointing at the following calculation on the blackboard: $V(h) = (304-2h) * (229-2h) * h$ | | | $V(h) = (304-2h) * (229-2h) * h$ | Music fading out |

TABLE 1  Transcription of example 1 (*cont.*)

| Time Code | Screen shot | Voice off/on/over | Moving image | Photo | Graphics | Text/titles | Music |
|---|---|---|---|---|---|---|---|
| 03:29 – 03:35 |  | | Detail shot of plastic sheet -sawing. Fast motion. | | | | Music fades in. Ambience from laboratory (sawing) |
| 03:46 – 03:58 |  | | Detail shot of bending the plastic sheet. Shallow focal depth. | | | | Music and ambience from laboratory |

illustrated by a photograph or moving image. This could be understood as an example of what Kress & van Leeuwen (2001) calls giving salience to a mode or to an element in the meaning making. However, in these examples, I relate the salience of the linguistic mode, to the habit of producing linguistic texts in earlier science reports in the school setting. In many ways, the students have not harnessed the potential that lies in each mode available in multimodal texts, basing the information almost solely on the linguistic, written text.

### 6.3 *Example 3*

As mentioned, the transcription of videos can highlight what communication resources are being used to convey meaning compared with other modes (see Table 3). In example 3 (see Video 3), an excerpt from the last minute of the video report, there is an evident shortage of illustrations, images, and footage from the experiment. The same photograph from the laboratory is used for a long time while we listen to the recorded voiceover.

In this report, images are added in the postproduction, and the groups' conduction of the video production seem to have been quite similar to the way they are used to proceed with written reports, where the narrative relies mainly on the verbal text. This is confirmed by the teacher in the teacher interviews. The habitual way of working with science tasks (written or oral report) is followed.

According to the students' interviews, it was actually more time-consuming to make a video-report than a written report. One student said she would rather report the experiment as they usually do; then she could have 'only

TABLE 2 Transcription of example 2. Excerpt of the groups video report. The main content was verbal voiceover without still or moving pictures, except for the onscreen text '202'. The video shows a lack of visual elements.

| Time code | Screen shot | Voice on/off/over | Moving image | Photo | Graphics | Text/titles | Music |
|-----------|-------------|-------------------|--------------|-------|----------|-------------|-------|
| 00:00 – 00:15 |  | Voice over: 'Then I wanted to talk about possible miscalculations we might have had in our project. When we did the calculations of how many marbles we would be able to board..' | | 'Filmora – created with filmora trial version' Watermark of trial version of editing program on white background. | | | |
| 00:15 – 00:20 |  | 'We arrived at the number 202. Something we assumed to be correct when we tested our craft.' | | 'Filmora – created with filmora trial version' Watermark of trial version of editing program on white background. | | '202' in from left. | |

00:20 – 00:38



Then I wanted to talk about possible miscalculations we might have had in our project.

'We started boldly, we thought, putting in 200 marbles and it was fine. After that we put in the marbles one by one until we had the maximum of 30 marbles extra.'

'Filmora – created with filmora trial version' Watermark of trial version of editing program on white background.

VIDEO 3      Video example 3, group 3, excerpt of video report. (See here.)

made the written report and wouldn't have to worry about having enough pic-
tures'.[7] Such statements indicate that what first comes to mind when choosing
a mode for conveying information in a formal setting, is the verbal. This is sup-
ported by the contrast of the beginning of the video, where images and footage
suffice, and on the other hand the end of the video (in the excerpt in Table 3),
where they only use two photographs as a mere background for the oral text.
Visual content is rather thought of as an illustration to support the information
given verbally, and it is experienced as an obstacle and as 'extra work'. Students
are not used to 'show and not tell' – strategies and that constructing meaning
through visual elements instead of words and text, is considered complicated.

The oral report (voice over) is accompanied by the repetition of text on
screen. This duplication of meaning in verbal and written text gives more
importance to the text rather than the audiovisual content as the main pro-
ducer of meaning. Different modes offer different potentials for making mean-
ing (Kress, 2003), hence it could be argued that by strongly prioritizing the
verbal language, the students do not utilize the expanded meaning poten-
tial of multimodal texts. Potentially, having access to all the communication
resources available in video and only using verbal language, might not be the
optimal choice.

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7   Translated from Norwegian: "Jeg hadde valgt en skriftlig rapport helt klart. da kunne jeg bare
    ha skrevet en tekst også blitt ferdig så kan jeg bare jobbe hvor som helst og da blir det ikke
    sånn at; oi! Jeg glemte å ta det bildet, nå kan jeg ikke levere inn liksom"

TABLE 3 Transcription of example 3. Excerpt of the last part of video report 3. The main information relies on the verbal resources of the voice over, and on-screen texts, which are presented over a photograph from the laboratory. The content of the verbal voice is also duplicated in the on-screen texts.

| Time code | Screen shot | Voice off/on/over | Moving image | Photo | Graphics | Text/titles | Music |
|---|---|---|---|---|---|---|---|
| 06: 27 – 06:36 |  | To assure the sawing to be exactly the same, we should have used *better equipment*, for example a laser cutter, but we didn't have one available. | Small pan over photo | Photo of the group in lab – (same as 02:10) | | *Better equipment* | |
| 06:36 – 06:42 |  | Something that would have made our calculations more accurate, is. That we had *calculated the accurate density of the water*, something that … | Small pan over photo | Photo of the group in lab – (same as 02:10) | | *Calculated the right density of the water* | |

TABLE 3  Transcription of example 3 (*cont.*)

| Time code | Screen shot | Voice off/on/over | Moving image | Photo | Graphics | Text/titles | Music |
|---|---|---|---|---|---|---|---|
| 06:50 – 06:56 |  | When we made this equation, we didn't think about the fact that a rectangle has the bigger surface and would have more volume and more buoyancy | Small pan over photo | Photo of the group in lab – (same as 02:10) | | | |
| 06:56 – 06:60 |  | ... but that a square would have better buoyancy and more volume something that would have been vice in this task. | Small pan over photo | Photo of the group in lab – (same as 02:10) | | Had a quadratic ground surface | |

## 7  Differing Media-production Skills

The video in example 1, with its graphic illustrations, varied camera angles, and confident oral reporting, bears resemblance to instructional videos on learning platforms and YouTube. There are several intertextual references that can be interpreted as a sign of the students being inspired by an existing video clip. When the teacher gave his instruction in the classroom, he said the students could use a familiar platform, such as the ones used to make the vernacular texts. The students in example 1 applied a variety of modes more similar to professional video production, as I interpret it. One of the students from this group said in the pre-interview that he looked forward to doing a video report and in the post interview he expressed no doubt or irritation during or after the project period. It seems like this member of the group in example 1 had an idea of how the video could be made, and what was needed in terms of footage and recordings. One way of understanding this through the use of Peirce (1877) is that the students in this group had more confidence, knowing how to proceed under these circumstances and finding themselves closer to a state of Belief. In example 2 and 3, as in three of the other videos, the shortage of footage illustrates that all the students don't necessarily have highly developed skills in producing and planning media production as one might assume, considering that they spend so much time filming, photographing and composing visual elements on their smartphone devices in their spare time.

## 8  The Verbal Focus

Example 2 and 3 demonstrated a lack of visual elements and footage in the end of their video, leaving the students to rely mostly on the text read in the voice-over track and the text written on the screen. The repetition of the verbal text in sound, writing and image, represents the habit of using verbal, oral or written text, as the main resource for providing meaning. This tendency of repeating oral expressions in meaning, both with written on-screen text and with visual illustrations can be used as a way of facilitating a lecture of the given information. However, example 2 and 3 can indicate that the students were overly focused on the verbal text, and that for various reasons they have not taken full advantage of the potential of other communication resources available and narrative possibilities of the genre. Visual elements such as graphics, moving images, sound, and still pictures were used in relatively basic ways or not at all. In the interviews the students highlighted difficulties in finding enough visual material to *cover the information needed* to solve the task.

Both example 2 and 3 can be understood as less complex texts compared to the multimodal texts produced in everyday communication on their smartphones. That students choose to solve the task, basing the narration on verbal text, oral or written, could be understood as a result of the profound linguistic traditions in formal education (Álvarez, 2016; Messaris, 2012; Müller, 2008). School has established traditions for text production mainly based on typographical text, which serve as points of reference for students as well as teachers (Godhe, 2013). Even though producing multimodal texts are part of their everyday practices, it is relatively 'new' and unfamiliar in the formal school setting.

As I see it, producing the report as a video interrupts the students' habitual way of working on science projects in school. It demands another kind of project planning than for verbal texts that can be produced at any time, without synchronization with real time events. In example 3, and in four of the other groups, students proceeded with this task as they normally would: by first writing the report, then trying to find images and illustrations to accompany the written report (recorded while read out loud) when editing, and finally recognising the lack of footage in postproduction, when it is too late.

These students were in their 11th or 12th year of school, all possessed a fair academic level, and were used to working in specific ways in school. Using Peirce's concepts, it could be said that they have developed habits of action when it comes to doing school and meeting the school's demands. They have obtained a belief, that a certain behaviour is the most accurate one in this context. According to Peirce (1877), the feeling of believing is a more or less sure indication of there being established some kind of habit which determine our actions (p. 149). In this example, the prevailing verbal focus, can then be interpreted as a habit that has been established in this kind of school setting. The deviation' from this habit creates uncertainty and doubt.

## 9      Using Everyday Skills in School

Initially, it seems that the students do not employ their everyday skills, methods, and tools in an 'automatic' way to create a video report in school, perhaps particularly when the teacher was the designated reader. In the post-interviews, the students expressed a need of an example of a video report to follow. This can be seen as a will to meet the requirements of school and what is expected from them. When no example is provided, students first choice is not necessarily to experiment using their vernacular skills. The lack of a habit of doing this kind of task in school rather creates doubt and hesitation.

Some of the students expressed concrete doubts about the task. For instance, Ina stated: 'Yes, I don't really know. I think it's a bit difficult to understand … It would have made more sense if it was more like a presentation, then I would have understood.' I understand this perspective through Peirce's (1931) method of inquiry regarding, where doubt arises when one encounters something that contrasts with one's belief or habit of action. The students seem to meet doubts when having to break their habit and present a task at school in a different way. Ina continues:

> My friends often make (smartphone) videos when something happens … but it is totally random what it is. … [pauses, laughs] Is it strange to do this in school? Yees [laughs] Doesn't it fit? No, it doesn't [fit] at all, when I hear *report*, then I think of something that I will do on my PC.[8]

In the quote, Ina elaborated on her doubts and sounded a bit annoyed as she found the task unclear. She expressed that smartphone filming is connected with random events, whereas she imagined something else when she heard the word 'report'. When referring to the computer, she also had an image of the work process and tools that are supposed to be used, that she saw as being fit to use, or that are normally used to make a report. Here, we might add that smartphone use is rarely accepted in Norwegian classrooms (Fjørtoft et al, 2019), which can also explain why the students do not see their smartphone as a tool suited for school projects.

The idea of using mobile phone applications to conduct a school report does not make sense to Ina, as it seems to her as though these applications do not belong in this setting. In the interview, she mentioned two known forms of reporting: the oral presentation and the written report. She did not understand what she was meant to do when asked to show the experiment and learning outcome in a video report. Many students reported that they lacked instructions on using relevant editing tools and suggested more examples and software instructions. The frustration presented in the interviews and the difficulties the students experienced when conducting the report highlights that obstacles were encountered when the students tried to communicate in a formal way using applications that were familiar from everyday settings.

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8   Translated from Norwegian: "Vennene mine lager ofte videoer hvis det er noe som skjer (…), men det er helt tilfeldig hva det blir … (ler) Blir de rart å gjøre dette på skolen? Ja (ler) Passer det ikke inn? Nei, det gjør ikke det i det hele tatt. Ikke når jeg får høre rapport. Da tror jeg liksom at det er noe jeg skal gjøre på PC liksom."

## 10      Conclusion

The students met a variety of obstacles when producing video reports, and if school is going to meet students halfway, letting them use vernacular multimodal skills in the school setting, it demands relevant instructions and support. Even though students spend hours of their spare time on their smartphones every day, and some are able to produce quite complex multimodal texts on their devices, the transfer to the school context is not smooth, nor perceived as easy by the students. In school, the students have a long experience of working with verbal texts and have formed habits (see Peirce, 1931) of doing school in a certain way. Given student's habits of writing reports and conducting oral presentations, many found the video production difficult to figure out and time consuming as compared with their traditional manner of formal meaning-making in school.

The study suggests that the challenges of transferring vernacular skills to the classroom should be taken seriously by educators. This is not something to be simply included in the curriculum and left to the students to independently manage. As my data implies, students' digital competences vary, and their vernacular competences are not necessarily directly transferable to the school setting. Furthermore, students do not automatically think of using their everyday skills, methods, and tools for conducting a school report where the teacher is the designated reader. Students have acquired a 'way of doing' school, a habit developed after years of experience. Doubt arises when this habit is interrupted by the introduction of something new (Peirce 1877).

The frustration felt by the students can be understood as the interruption of habit when deviating from the habitual forms of conducting and presenting works in school. Apart from the feeling of lacking media production skills in this particular school task, the students also expressed a dissatisfaction related to not being able to solve the task in the way they normally would do. A few of the students in this class appreciated this freedom and the alternative way of working, but the majority of the students found it difficult, and expressed the need of more guidance and would have preferred a more traditional written or oral report.

It would be easy, and sometimes also necessary, to provide examples, guidance and tutorials to help students in the work with media-productions in school. However, educators should not necessarily always provide concrete examples and step by step descriptions of how to proceed in every project, as this might force the student's multimodal texts into formalised patterns. On the contrary much is gained by letting students experiment using their vernacular media production skills, even if this creates doubts. Doubt is a dissatisfied

state but it is often followed by inquiry (Peirce, 1877 p.149) and is an important step towards the acquisition of new learning. By giving open tasks – with the intention of letting students find their own way and making room for failure – opens up for the student's own capacities for inquiry and creativity. To experiment, hesitate and maybe "fail", can feel risky. An effort should be made to provide tutoring and situations where students are not sceptic of taking this risk. Suggested further research could be made on different assessment methods, non-evaluated school projects, with the aim to study how student's vernacular media skills can serve as a resource in their learning in school.

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