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Article

Primary Students' Experiences of Remote Learning during COVID-19 School Closures: A Case Study of Finland

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Abstract: The remote learning period that took place due to the outbreak of the COVID-19 pandemic in the spring of 2020 was a novel experience for many students, teachers and guardians in Finland and globally. To be prepared for similar occasions in the future and to support all students appropriately, it is important to be aware of students' experiences. In this study, instant video blogging (IVB) was used to collect primary school students' first-hand reports of their emotions in remote learning situations. Through an experience sampling method, 23 Finnish fifth-grade students (aged 11–12 years) took part in IVB during the remote learning period 18 March 2020–13 May 2020. Students' expressions related to negative emotional experiences were more diverse than those related to positive ones. *Nice* was the most often reported positive evaluation related to studying. The most often reported negative feelings were *bored* and *irritated*, and the most often reported negative aspects related to learning were *difficult tasks* or *not having learned anything*. Towards the end of the research period, positive mentions about returning to school increased. The IVB method offered direct insight into how primary students experienced the remote learning period, which can support preparation for exceptional periods in the future and the development of digital learning solutions.

Keywords: emotions in learning situations; instant video blogging; experience sampling; remote learning; primary students' experience



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1. Introduction

During the spring semester of 2020, the education sector worldwide faced challenges due to the outbreak of the COVID-19 pandemic, which led to alterations in educational practices [1]. Finnish students, teachers and guardians faced many unknowns when they were ordered to begin remote learning. While some parts of the world had experience with epidemics and adapting educational practices [2,3], the situation in which schools were going to be totally closed was not anticipated in Finland. Schools had been closed during the Spanish influenza pandemic in the 1920s and during World War II, but the present Basic Education Act [4] does not even recognize total remote learning, which relies heavily on on-line teaching technology, the use of computers and learning management systems as forms of organized education. Successful remote learning requires well-developed information and communication technology, including online class management skills, Internet access, up-to-date equipment, appropriate applications and technology skills. However, despite no previous comprehensive experience of remote teaching and learning in a situation where schools are closed, Finland has been implementing national-level efforts towards developing a digital technology infrastructure and teachers' digital pedagogy skills for some time [5]. According to a report published by the International Association for the Evaluation of Educational Achievement [6], 30% of Finnish students achieved level 3 or above in an evaluation that demonstrates their capacity to work independently when using computers as information-gathering and management tools, while only 20% of students achieved this level in all participating countries. The Finnish National Core Curriculum for Basic Education emphasizes that digital competencies should be integrated into every subject [7]. Further, there have been several national- and municipal-level initiatives to develop

digital practices on all school levels as an “educational digital leap” [8]. According to the OECD’s Teaching and Learning International Survey (TALIS), Finnish teachers reported the biggest change among all countries in using information and communication technology. While only 18% of Finnish teachers reported using information and communication technology (ICT) in teaching in 2013, more than half of them reported pedagogical use of ICT in 2018 [9]. These reports indicate that there is good readiness for the extensive use of digital tools in education. With respect to students’ preparedness for the use of digital tools during the COVID-19 pandemic, the OECD report summarizes [10] that Finnish students’ attitudes towards self-directed learning prior to the crisis were average or above average. Finnish students’ home environments for online learning prior to the crisis, which should include a quiet place to study and the required equipment, were above average.

In Finnish schools, students with different needs mostly study together according to the principles of inclusion [11]. There is significant variation in students’ learning strategies, motivation and self-regulation skills as well as digital competencies [6]. Therefore, it was assumed that their experiences during remote learning would vary. The teacher usually considers variance in students’ skill profiles when planning and teaching lessons to mitigate the influence of poor self-regulation skills and learning strategies. Contact teaching employs interaction to model critical thinking processes and to connect concepts for deeper understanding [12]. Scaffolding students remotely is more problematic. Furthermore, apart from familiarizing students with a given topic, teachers are also responsible for inspiring excitement for learning in the context of the discipline [13], which is difficult to guarantee during a remote learning period. During lessons, teachers continuously revise lesson activities according to their observations, but it is challenging to observe and evaluate students’ interests and emotional expressions even in contact teaching [14]. In the reciprocal loop of observing and adjusting activities accordingly, recognizing and influencing students’ learning-related emotions are important pedagogical tools for a teacher because emotions, together with motivation, learning strategies and competence beliefs, have a critical impact on subsequent performance [15,16]. Positive emotions associated with a task may help students reach objectives, whereas negative emotions may impair performance [13]. Emotions associated with learning activities are referred to as academic emotions [17]. It is suggested that academic emotions exist in two dimensions: Positive–negative and activating–deactivating ([17], p. 97). These two dimensions constitute four categories of emotions: Positive activating (enjoyment, hope for success, pride); positive deactivating (relief, relaxation after success, contentment); negative activating (anger, anxiety, shame) and negative deactivating (boredom, hopelessness).

Emotions play a significant role in learning. They influence many cognitive processes that are relevant to learning, such as attention, memory storage and retrieval and problem solving [13]. With respect to emotion categorization, different emotions have different impacts on learning. For example, anxiety distracts attention from tasks, which may, in turn, impair performance since the focus of concentration is somewhere else. On the other hand, positive emotions such as enjoyment may promote a total immersion in the task and facilitate attaining a flow-like state that means ‘losing yourself’ in the task [13]. Negative emotions, such as boredom, are associated with task-irrelevant thinking that is obviously harmful to learning and performance [13]. Besides the straightforward influence of emotions on learning that is mediated by attention, emotions have an impact on motivation, which can also profoundly influence learning [13].

In summary, it is assumed that during remote learning, students are expected to be more responsible for their learning strategies, learning-related emotions, self-regulation and motivation in comparison to contact learning. Learning during the remote period has been researched from the perspective of teachers’ and students’ preparedness for online learning based on TALIS and PISA studies [10], online learning platform statistics [18], from the perspective of school management in different countries [1], from the perspective of teachers [19] and from the perspective of higher education [2]. There has been a call for students’ voices to be heard when examining remote learning during the COVID-19

pandemic [19]. The present study enriches our knowledge via the perspective of primary students. Primary students' views regarding interest levels have been studied in a normal school setting [14], but the present study intended to examine how students experienced the remote learning period, how they evaluated their study days and what emotions they experienced.

The research question is as follows: What kinds of positive and negative aspects did students experience during the remote learning period? This question will be answered by analyzing the students' daily instant video blogs (IVBs) concerning learning activities, experienced success, challenges and feelings during the remote period. The aim is not to identify statistically significant correlations between certain emotions and the contexts in which they emerge, but to unveil students' experiences in a descriptive manner and to allow the students' voices to be heard in order to learn from their experiences to be better prepared for future occasions.

2. Materials and Methods

The context of this study—the sudden transition to remote learning due to the outbreak of the COVID-19 pandemic in Finland—is unique. The setting includes the complexity of students' challenges with the devices they used, challenges to their families and the overall atmosphere, which included confusion, nervousness and even anxiety. The timeframe of this research is the remote learning period between 18 March 2020 and 13 May 2020.

2.1. Participants and Procedure

The sample includes 23 students from a fifth-grade class at a comprehensive school in Helsinki, Finland. Finnish students mostly go to school in their neighborhood, and even the very few private primary schools operate on a free-of-charge basis. The differences between schools in Finland are small [20]. Finnish schools follow inclusive principles, meaning that students with special needs usually study together with other students. In this sample, three students required intensive support, and one required special support. The sampling took place on a convenience and practicality basis. The first author is a teacher-researcher and the teacher of the group that participated in the research.

2.2. Digital Learning Procedures That Were Followed

The procedure that was employed was a combination of synchronous and asynchronous learning. The schooldays started at ten with an MS Teams meeting that was called the 'Morning meeting'. This meeting lasted for about 30 min and included a teaching session and instructions for individual tasks. After 12 p.m., there was another meeting, the 'Afternoon meeting', in which the topics of the afternoon session were discussed. By 2 p.m., the students had to return their assignments to a Teams folder. The daily schedules were altered a little during the period, but the structure basically consisted of two sessions of synchronous learning and periods of asynchronous learning between them. The teacher held the meeting open throughout the day and was available for the students if they wanted to call or ask something. There were different Teams channels for different school subjects, and each channel had instructions and assignments. According to their daily schedule, the students moved from one channel to another as they would have moved from one lesson to another. The materials that the students used were traditional schoolbooks and the e-versions of them, web-based learning platforms and videos. The teacher taught the content in the meetings and did not use tutorial videos.

2.3. Instant Video Blogging in Experience Sampling

To support students in an optimal way during a remote learning period, teachers need accurate information about their students' experiences. In contact learning, a teacher observes students' reactions, which is not always possible in online teaching. To grasp the students' actual experiences, we applied an experience sampling method (ESM) in the data collection to collect the students' first-hand reports. ESM makes it possible to distinguish

longer-term conditions from the immediate context of a certain feeling [21]. The reporting of experiences occurred over several days [22]. Traditionally, ESM is defined as repeatedly collecting written responses to questions tailored to fit the particular situation [23,24], but digital tools have also been designed for mobile phones and iPads as a means of reporting experiences [22,25].

In this study, we applied instant video blogging (IVB) as an experience sampling method (ESM). The first author was the teacher of the class for three days a week. The students were asked to complete an IVB at the end of these days, and some students blogged at the end of the other two days of the week. All IVBs were included in the data. The students were given randomly numbered smartphones a couple of months before they began blogging to become familiar with using them. They were asked to introduce their activities and evaluate their feelings after the lessons each day, but some of the students did not follow this instruction. To support the students with video blogging, they were specifically asked to answer the following questions on the videos:

1. Describe what you studied and did today.
2. Where did you succeed today, and what was difficult?
3. How did studying at home feel today?

The students sent the videos to a private Microsoft Teams channel. This research explored the students' perceptions of the remote learning period and evaluated how they spoke about their experiences. Purposeful sampling was used because the first author of this article is also the teacher of the studied students.

2.4. Analysis of Instant Video Blogging Data

The data for this study comprise transcribed recordings of the students' IVBs. In total, 369 IVBs yielded data for analysis. One expression of a positive or negative aspect was chosen as a unit of analysis. The content analysis procedure proceeded as follows: The data were transcribed by a research assistant, and the researchers did not see the videos. The transcriptions, which contained no identifying information, were read several times, after which both positive and negative aspects were extracted from them. The positive and negative aspects were classified into inductive main categories. An example of the data reduction is presented in Table 1.

Table 1. Data reduction and classification of positive and negative mentions in students' IVBs.

Extracted Content, with Positive or Negative Content in Bold	Inductive Subcategories	Classification (Main Category)
I studied according to the schedule today and did what I was supposed to do. I succeeded in social science class. Almost nothing was difficult. Going to school at home today felt it is still boring because school is nicer. You get better teaching there than at home (Pupil 1, 31 March 2020).	Succeeded at something	1.2 Positive aspects related to learning
	Not a difficult task	1.2 Positive aspects related to learning
	Boring	2.1 Negative emotions/feelings
School started at 8. I did the language tasks that I was supposed to do and many extra tasks because I did them so quickly. Then, we had a meeting, and I did visual arts tasks. I'm irritated because we don't use real art equipment. I wanted to start using them long ago. Hopefully we can use them next week. Then, I had lunch. We had tuna pasta. We have lots of it at home. Then, we had a science meeting, and I did science tasks. For the rest of the lesson, I read a novel and did some online tasks, but not too many because we had problems with the network, and I couldn't fix it. I tried to fix it for ten minutes. Then, we had a Finnish language lesson, and I read the part of the novel that I was supposed to read and answered questions. Things went well today. There was one difficult language task. I found one word almost nowhere and had to ask my mom. So, the day went well (Pupil 23, 16 April 20).	Completing tasks	1.2 Positive aspects related to learning
	Completing tasks quickly	1.2 Positive aspects related to learning
	Irritated	2.1 Negative emotions/feelings
	Network/device not working	2.3 Negative aspects of the remote learning environment
	Things/day went well	1.2 Positive aspects related to learning
	Difficult task	2.2 Negative aspects related to learning

Table 1. Cont.

Extracted Content, with Positive or Negative Content in Bold	Inductive Subcategories	Classification (Main Category)
I feel nice because the tasks were easy, and I completed all of them (Pupil 8, 29 April 20).	Nice feeling	1.1 Positive learning-related emotions/feelings
	Tasks were easy	1.2 Positive aspects related to learning
	Completing tasks	1.2 Positive aspects related to learning
I was at school today—I mean homeschool. I succeeded with everything. I went to eat, went out, spoke with friends, and I did all the homework. What did I learn? I probably didn't learn anything new because I already understand Teams conference calls and such things. Today, nothing was difficult. I think it was an easy day. My feelings? Nice. I think homeschooling is nice, but I do wait for the day when I can go back to school (Pupil 6, 19 March 20).	Succeeded at something	1.2 Positive aspects related to learning
	Did not learn anything	2.2 Negative aspects related to learning
	Not a difficult task	1.2 Positive aspects related to learning
	An easy day	1.2 Positive aspects related to learning
	Nice feeling	1.1 Positive learning-related emotions/feelings
I just completed the math tasks. Today was one of the most boring days (Pupil 22, 27 April 20).	Completing tasks	1.2 Positive aspects related to learning
	Boring	2.1 Negative emotions/feelings

3. Results

Negative content comprised four inductive main categories: Negative emotions/feelings, negative aspects related to learning, negative aspects related to the organization of the remote learning environment and other aspects. Positive content comprised four inductive main categories: Positive learning-related emotions/feelings, positive aspects related to learning, the absence of negative aspects and other aspects. The data-based categories and subcategories are presented in Tables 2 and 3. The content of all units was classified. The overall distribution of the content into categories is presented in Table 4. The classifications were discussed between two researchers to reach a consensus. In this analysis, only the appearance of different positive and negative aspects in students' speech was examined. One IVB may have contained several mentions that were each considered analysis units and categorized. If the pupil mentioned, for example, frustration and a difficult task, these items were probably connected, meaning that frustration was caused by the difficult task. However, for this method of analysis, the connection is not the focus.

Table 2. Analysis categories and number of mentions: Positive aspects.

1. Total positive mentions	871
1.1 Positive learning-related emotions/feelings	310
Good feeling	46
Nice feeling	13
Nice	166
Fun	15
Glad	3
Confident feeling	1
Awesome	1
Relaxed	20
Relief	1
Happy	2
Excited	1
Good drive	1
It works	1
Okay	39

Table 2. *Cont.*

1. Total positive mentions	871
1.2 Positive aspects related to learning	398
Learned something	39
Day/activity went well	148
Going well	53
Good/nice day	43
Getting the work done	18
Easy	47
Fast	9
Clear instructions	3
Teacher help	2
Pleasant task	30
Interesting task	1
Short day/few tasks	5
1.3 Absence of negative aspects	115
No need to wake up early	1
No negative feelings	1
No stress/challenges	4
Not bad	3
No failing	1
Not difficult	105
1.4 Other positive aspects	48
Getting back to school	22
First day at school after the remote period	1
Nice to be/work at home	10
More free time	2
Meeting friends	4
First day of May	1
Quiet day	4
Weekend	1
Warm and bright day	3

Table 3. Analysis categories and number of mentions: Negative aspects.

2. Total negative mentions	296
2.1 Negative emotions/feelings	97
Irritating	20
Boring	25
Hard	1
Tired	8
No energy	4
Nervous	7
Stressed	5
Anxious	2
Frustrated	6
Melancholic	1
Sad	1
Weird	7
Anguished	1
Feeling bad	2
Challenging	4
Not nice	1
Arduous	1
Annoyed	1

Table 3. Cont.

2. Total negative mentions	296
2.2 Negative aspects related to learning	146
Didn't learn anything	41
Don't understand the instructions	5
Difficult to concentrate	8
Difficult to get motivated	3
Difficult task	75
Too few tasks	1
Too many tasks	3
Time-consuming tasks	3
Task went poorly	1
Failed to keep the schedule	4
Failed to complete the work	1
Unpleasant task	1
2.3 Negative aspects of the remote learning environment	30
Dysfunctional device/application	16
No tasks given	2
Missing equipment	3
Lack of teacher help	3
Confusing instructions	6
2.4 Other negative aspects	23
Going back to school	10
No school	5
Not seeing friends	5
Strict hygiene rules	2
Being alone	1

Table 4. Categorization of positive and negative mentions.

1. Total positive mentions	871
1.1 Positive learning-related emotions/feelings	310
1.2 Positive aspects related to learning	398
1.3 Absence of negative aspects	115
1.4 Other positive aspects	48
2. Total negative mentions	296
2.1 Negative emotions/feelings	97
2.2 Negative aspects related to learning	146
2.3 Negative aspects of the remote learning environment	30
2.4 Other negative aspects	23

The distribution of positive and negative mentions into subcategories is presented in Tables 1 and 2, respectively. Positive content fell into the following inductive main categories: Positive learning-related emotions/feelings, positive aspects related to learning, the absence of negative aspects and other positive aspects. Altogether, there were 871 positive mentions in 369 videoblogs. The subcategory positive learning-related emotions consisted of 310 mentions, 225 of which were versions of nice or good, which are quite unspecified definitions of a feeling or emotion.

The category *positive aspects related to learning* encompassed 398 mentions, 148 of which were variations of the theme *I succeeded in a task*. The students mentioned that they had learned something 39 times, which is a bit less than the 41 mentions of not having learned anything in the *negative aspects related to learning* category. Altogether, 96 mentions fell into the unspecific categories *nice day* and *doing well*. *Easy task* was mentioned 47 times, *pleasant task* was mentioned 30 times and *I got the job done* was mentioned 18 times. The category *absence of negative aspects* consisted of 6 subcategories in which there were 115 mentions.

Not a difficult task was mentioned 105 times, which may be due to the formulation of the questions for the students.

Negative content was classified into four inductive main categories: Negative emotions/feelings, negative aspects related to learning, negative aspects related to the organization of the remote learning environment and other negative aspects. Negative emotions/feelings were the most divergent subcategory related to negative aspects. Students mentioned 18 different emotions or feelings, and altogether, 97 mentions were related to negative feelings or emotions. The most common negative feeling mentioned was bored/boring (25 times), while irritated/irritating was mentioned 20 times. Tired was mentioned eight times, anxious was mentioned seven times and frustrated was mentioned six times.

The category *negative aspects related to learning* encompassed 146 mentions and was distributed into 11 inductive subcategories. *Difficult task* was mentioned 75 times, and *I did not learn anything* was mentioned 41 times. The subcategory *negative aspects of the remote learning environment* mostly consisted of mentions related to inoperative devices or applications (16 of 31 mentions).

4. Discussion

Even in a traditional classroom situation, a student's level of interest is difficult for a teacher to evaluate by observation [14]. During remote learning, it is likely that the teacher receives little information about individual students' learning-related feelings and thoughts. The global pandemic offered a scenario in which to test IVB in the remote learning context. Remote learning does not allow teachers to directly support students' study motivation, and much more self-regulation is expected of the students because they are essentially on their own. Given the variance in students' need for support and scaffolding and their different self-regulation skills, motivation and learning may be threatened for some. It has been argued that students with less-developed self-regulation skills are more dependent on support and control from the outside [26]. Teachers, in turn, must adjust their support based on their observations of students during a lesson and their interaction with them. Trying to remotely observe students' learning and determine the amount of support that they need is sometimes nearly impossible. All a teacher may see are the initials of the students' names on the screen. Some students may find it awkward if the teacher calls on them, and it may be difficult for them to express their feelings directly to the teacher. Through IVB, it is possible for students to convey their individual experiences and emotions to the teacher. In remote learning, IVB serves as a medium of interaction between the teacher and their students. Therefore, IVB serves not only as a research method for gathering students' experiences, but also as a support for communication between the teacher and their students. Furthermore, IVB technology allows students to refuse to speak out, and some students utilized this option. From the perspective of motivation support, the importance of expressing and accepting negative emotions have been emphasized because they reflect students' trust in the teacher [27]. According to the number of data-based categories associated with emotions or feelings, the emotional expressions of the students in this sample were more divergent with respect to negative feelings than positive ones. The expression of positive emotions was unspecified compared to the expression of negative emotions. The students most often referred to positive emotions as "nice." It has been found that, even among adults, the evaluations of different positive emotions correlate strongly, so the term "nice" can refer to many kinds of positive emotions [28].

Some students in this sample seemed to have systematically positive or negative views. For example, some always said that they had a nice day and felt good regardless of what happened during the day. By contrast, some students felt bored every day regardless of the activities. According to research [17], boredom may be related to demands that are either too low or too high compared to a student's beliefs in their abilities. When a student feels unable to meet the demands placed on them, boredom may serve as a function of behaviorally or mentally escaping from the uncomfortable situation ([17], p. 94).

The experience of boredom increases the likelihood of thoughts and activities that are irrelevant from the perspective of the learning task, and when the teacher is not guiding the activities, learning may not happen. One reason for receiving invariable answers is that some students may not have found IVB to be inviting and, therefore, wanted to complete the task quickly without investing in or considering their answers. The sample size was small because the first author is also the teacher of the class, and it was not possible to recruit other classes to participate and to provide smartphones for them. In addition, this piece of research was the teacher–researcher’s attempt to gather information about the exceptional situation concerning this particular group.

In their negative evaluations, some students referred to unclear instructions. Remote teaching does not always allow the teacher to detect non-verbal cues regarding whether students are following instruction or if the teacher has lost their attention. With respect to online learning, it has been emphasized that students should know exactly what the teacher is teaching and what they are expected to do [12]. Project work may seem like an appropriate way of organizing remote study, but the instructions may be too broad, and the students may lack sufficient support. It has also been suggested that the teacher should find ways to break complex tasks into smaller parts and offer feedback that enables students to adjust their approach before turning in the final assignment [12]. The structure offered by the teacher makes the learning environment predictable and helps students regulate their academic behavior more efficiently, ensuring that they are not adrift with open-ended and multifaceted tasks [29]. Further, in a typical primary classroom, spoken instructions are common, but studying remotely requires students to follow written instructions. Teachers are recommended not to leave students alone to their own devices. Teachers should be available at scheduled times and should personalize and enrich written instructions with recordings whenever possible [12]. A flow-like state is the result of an optimal relationship between challenge and skill, and the teacher plays a key role in adjusting the challenge aspect according to the students’ skills, based on the teacher’s observations.

Some students also referred to equipment and networks that did not function properly. Research in an Indonesian context and a Pakistani context found similar results [2,19]. From the perspective of equity, it is crucial that the school provides students with appropriate conditions for studying, irrespective of their families’ socio-economic backgrounds. The Finnish school system has been ranked as one of the most equal systems in the world, but once support from the school institution is diminished when students study from home, the socio-economic gap begins to widen in terms of support for learning and appropriate infrastructure. It has been proposed that ensuring access to audiobooks and online read-aloud resources offers possibilities to students without access to books [30].

Remote learning in the middle school context has been examined, and authors have argued that if remote learning, even during a crisis, manages to follow the principles of organization, positivity, purpose and engagement, then it is possible to benefit from the possibilities that emerge from the new situation [30]. Based on an extensive meta-analysis, it has been argued that the teacher has the most influence in terms of generating good learning results [31]. When developing online learning solutions, it is crucial to concentrate on enhancing student–teacher interaction as well as on possibilities for customizing the support provided by the teacher according to the students’ different needs. In the context of the current study, teachers were essentially forced to employ digital tools in learning, but despite the exceptional situation, the students’ experiences can be taken into account when designing the future of digital learning. Digital tools may be useful to support the participation and interaction of students with special needs with their classmates [32], but all students require support to meet their challenges.

5. Implications for Practice

We argue that, by employing the video blogging method, it is possible to gather information about students’ emotions, which the teacher can take into account when planning remote teaching sequences. Through video blogging, it is possible to get all the

students' perspectives. A video blogging situation is private, and there is no pressure, similar to what there would be if the students were asked to tell their opinions directly to the teacher. The question of how to enhance interaction between students and their teacher in online teaching is a topic for future development projects. Students' views must be acknowledged as a starting point for this development work. Since many of the negative emotions that the students expressed were related to difficult tasks, unclear instructions and dysfunctional devices, the first steps in improving the quality of remote teaching can be quite simple and mechanical. In other words, to support positive emotions in remote learning, it should be ensured that all students have equipment that works, and the daily schedule and the structure of each lesson should be coherent and clear. The students should also know where they can ask for help, if needed. The tasks should be adjustable in order to enable every student to experience competence. Apart from these, what many students were most eagerly waiting for when they would return to school was meeting friends. Support for feelings of belonging might be one key to improving the quality of remote learning.

6. Limitations

The sample size of this study was small due to the exceptional situation, which was somewhat unpredictable. More research with a larger sample is needed to gain generalizable results about the relation between emotions and digital learning. However, this piece of research offers a glimpse into students' experiences of an unforeseen situation in Finland.

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Institutional Review Board Statement: The research is in line with the European Code of Conduct for Research Integrity of All European Academies (ALLEA) and follows the general ethical guidelines of scientific studies set by the Finnish Advisory Board of Research Integrity (TENK). Ethical review and approval were waived for this study, because no specific evaluation at the Faculty of Educational Sciences is needed for the type of research that is introduced in the manuscript, which aims to improve education, which has been designed in the framework of the national-level curriculum, and in which the activities and reflections related to the research can be considered normal classroom activities.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study and their guardians.

Data Availability Statement: Due to the research permissions, data sharing is not possible. However, possibilities for secondary analysis of the data can be negotiated with the authors.

Conflicts of Interest: The authors declare no conflict of interest.

Research Ethics: Ethical standards were followed in the conduction of this study. The IVB activities were the normal curriculum-based practices of the class. Consent to use the data that originated from these activities was obtained from the guardians of the students. The guardians were openly informed that the results of the study would be employed to further develop instructional methods and teacher education. The students were told the following: The data would be transcribed; an analysis would be conducted without the students' names; the teacher-researcher would not recognize students from the data; the videos would not influence the students' grades in any way; and the data would be treated confidentially and kept in a safe place at the university. The researchers did not watch the videos.

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