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“Terror victims are probably not the easiest to follow up”: students’ perception of learning and teaching in the aftermath of trauma

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ABSTRACT

In August 2011, Norwegian schools welcomed survivors of the Utøya massacre to a new school year. Based on interviews with 135 students who went back to school weeks after experiencing extreme trauma, this study investigates their perception of schooling and learning. Sixty percent of the students reported a variety of reduced academic functioning, and they were not prepared for the learning impairments they faced. Their stories indicate that neither were the schools. Rather, schools appeared to be trauma sensitive only to certain aspects of the trauma-induced effects on schooling: A variety of actions aimed at enhancing school well-being were implemented, however few educational measures to assist and restore impaired academic functioning were reported. The students blamed themselves for reduced academic performance, and had few expectations with regard to teachers helping them academically. The findings are discussed in the context of influential pedagogical ideals in Norwegian and Scandinavian schools.

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Introduction

The negative impact of trauma on cognition is increasingly recognized. The awareness of the effects in educational contexts derives from the recognition and acknowledgment that a large number of children experience violence, abuse, and neglect, and that these experiences might be reflected in their academic performance (Cole et al., 2005). Along with a growing awareness of an individual’s trauma trajectory, an accompanying interest in systemic responses to trauma has emerged (Champine et al., 2019; Hanson & Lang, 2016; Overstreet & Chafoulea, 2016). An outgrowth of this interest is a heightened focus on ensuring that all service systems, including schools, are aware and responsive to the potential impact of trauma. The aim of this study is to investigate adolescent survivors of the Utøya massacre’s perception of schooling and learning in the aftermath of the massacre.

The neurocognitive domains most commonly affected by trauma are episodic memory, attention, executive functioning, and speed of information processing—with the severest effects observed in immediate verbal memory and attention/working memory (see Malarbi et al., 2017; Scott et al., 2015). Post-traumatic stress disorder (PTSD)-related cognitive deficits are generally described as mild and temporary cognitive impairment (American Psychiatric Association, 2013). Several studies have investigated how trauma influences academic performance and functioning. A

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systematic review of research from 1990 to 2015 (Perfect et al., 2018) included 83 quantitative studies, with the focus on school-related outcomes of trauma exposure and traumatic stress symptoms in students. The review found that youth with cumulative or severe exposure to traumatic events were at significant risk of impairments in cognitive functioning, and of experiencing academic difficulties. However, there has been less research on how changes in academic functioning are experienced by the students themselves, and how impaired academic performance can be dealt with by providing educational measures.

Despite the growing support and presumably increased implementation of trauma-informed measures and approaches in Western schools, evidence to support this approach is lacking (Maynard et al., 2019). This is partly explained by the absence of rigorous evaluations, and by an opacity as to actual practice in schools that claim to use trauma-informed approaches. Several studies have noted teachers' uncertainty about their own role, and how to go about supporting and teaching traumatized students (e.g., Alisic, 2012; Alisic et al., 2012; Champine et al., 2019; Hulgin et al., 2020; Røkholt et al., 2016). Hence, international scholars have called for research to better understand the effects of trauma on learning and schooling, and to develop trauma-informed practice. In this study, we address such questions by making use of an inductive approach to the educational stories of 135 trauma exposed students in order to investigate their perception of school and learning after the massacre. We ask: *How do trauma exposed students perceive impaired learning, and how can we understand their perception as framed by influential pedagogical ideals?*

Our aim is to understand the informants reported learning situation in light of their educational context. The school system they were taught in was not fully trauma informed. Hence, we seek explanations in terms of influential pedagogical ideals and concepts. We argue that the meanings of student, knowledge, and learning are logically consistent and rational within the Norwegian system of pedagogical ideals, ideals that are shared in many Scandinavian and Western school systems, and that our informants' perception of the situation can be understood as products of such a rationality. However, as the preconceived idea of the student was no longer fitting for most of the interviewees after the trauma, a tension occurred in their self-understanding as students. We understand the informants' perceptions as products of such a tension, and that this self-understanding prevented them from seeking support in the process of restoring lost learning capacity.

Trauma informed education

A widely used definition of the systemic trauma informed approach is that of the American Substance Abuse and Mental Health Services Administration (SAMHSA, 2014). SAMHSA's goal is "to build a framework that helps systems 'talk' to each other, to understand better the connections between trauma and behavioral health issues, and to guide systems to become trauma-informed" (2014, p. 3). SAMHSA defines a program, an organization, or a system as trauma informed if it "recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system; and responds by fully integrating knowledge about trauma into policies, procedures, and practices, and seeks to actively resist re-traumatization" (SAMHSA, 2014, p. 9). Notably, the definition does not call for systems or schools to employ therapeutic treatment, but rather to provide an environment within the system that is fully informed and aware of the impact of trauma.

Only during the last decade have external programs been established in Norway to assist schools and other institutions which are in the process of becoming trauma informed. Professional networks, such as CACTUS (cactusnettverk.no) and TraumeBevisst (TraumaAware) (traumebevisst.no) have emerged with the aim of promoting knowledge and awareness of trauma impact on the individual and measures to meet trauma-affected individuals. The Norwegian debate has been on organizational issues: Does accumulated knowledge on trauma imply re-prioritizing recourses from health specialist services to the arenas where children and youth are in their daily life—kindergarten and schools (Albæk & Milde, 2017; Nordanger & Braarud, 2017; Olsen,

2017), or should trauma awareness be viewed as relating to more general questions of sociopsychological development (Nordanger, 2021)?

Hence, the development of a trauma-informed school was on the starting blocks at the time of the massacre. However, and maybe for this reason, the Minister of Education sent two letters to Norwegian schools after the July 22 attack in order to assist them in handling the traumatizing event. On 2 August 2011, a letter was sent to all schools in Norway, urging them to contribute to all students' feelings of safety, as well providing advice on how to talk about the events of July 22. On 3 March 2012, a second letter was sent to schools with students who had survived the Utøya attack (Norwegian Directorate for Education and Training, 2012; Schultz et al., 2014). These schools were encouraged to be flexible in dealing with students' needs and feelings as the court case against the perpetrator was about to start. The letter explained that those unable to complete upper secondary within the normal three years, and those who had experienced dropping grades, might apply for higher education "under special circumstances." In short, the focus of the letters was twofold: They were intended to restore feelings of safety and school well-being, and also suggested ways of facilitating assessment and application processes for higher studies. However, these letters did not explain how trauma might affect the students' ability to study and learn, or how teachers should address such problems. Rather it seems to be the case that questions concerning learning and academic functioning in the aftermath of trauma were considered to have been answered either by general pedagogical ideas, or by specialized services such as the educational psychological service (PPT) and the child psychiatry service (BUP).

Influential pedagogical features of the Norwegian schools—a system of metaphors

In order to elaborate on the influential pedagogical ideas of the Norwegian educational system we turn to the national curriculum that the students were taught as part of The Knowledge Promotion Reform (2006). As in most Western societies, the Norwegian curriculum is adapted to the norms of the Organization for Economic Co-operation and Development (OECD), where ideals of free individuals making free choices are in accordance with an economic rationality—and thus feature goal orientation, an extensive use of tests and measures for learning outcomes, an emphasis on basic skills, and cross-curricular competences (Foros, 2012; Møller & Skedsmo, 2013; Nergård & Penne, 2016; Oftedal Telhaug et al., 2006). Along with a growing number of voices that are critical of such a rationality, scholars of trauma-informed education describe this adoption as a negative trajectory as "its roots are in normative educational ideologies, individualistic and pathology-based science and, most important, neoliberal influences" (Hulgin et al., 2020, p. 158).

Though in line with such critical perspectives, our study makes use of a phenomenological approach to understand the school environment, and the interviewees as framed by a specific systemic reasoning. The cognitive-oriented linguists and phenomenological philosophers Lakoff and Johnson (1999) see any reasoning, pedagogical or not, as deeply rooted in metaphorical systems. "Reason is not completely conscious, but mostly unconscious. Reason is not purely literal, but largely metaphorical and imaginative" (p. 4). According to Lakoff and Johnson our conceptualization of the world is largely metaphorical in which some culturally distinct metaphors make up the primary building blocks:

We acquire a large system of primary metaphors automatically and unconsciously by functioning in the most ordinary of ways in the everyday world from our earliest years. We have no choice in this. Because of the way neural connections are formed during the period of conflation, we all naturally think using hundreds of primary metaphors. (1999, p. 47)

The nature of metaphors is twofold—they exist in our everyday conceptualization of the "world" with a form and a meaning. The phonological word might remain the same even if the meaning gradually changes along with cultural or political shifts. Such a change of meanings is also the

case for pedagogical concepts (Jenssen & Lillejord, 2009). When a system of thought continues to determine actions after the meaning of the “original” concept has changed, important details and nuances might disappear, while the basic concepts remain as a coherent and logical metaphorical system, even when it has little social mooring in the reality it is intended to describe (Popkewitz, 2005).

Combinations of primary metaphors provide frames for reasoning on a systemic level at the same time that they might control how the participants of the system think and act (Lakoff & Johnson, 1999, p. 60). This phenomenological approach predicts that these ideas might be hidden, naturalized, or self-evident to the actors, but are their grounds for reasoning, nonetheless. Such a metaphorical system might be described as a double-edged sword (Lakoff & Johnson, 1999, p. 537). It provides us tools for reasoning, but these tools might limit our perspectives if we seek to understand complex phenomena when the metaphorical system does not reflect realities. A sudden change in a body of students represents such a complex reality.

The idea of the student

Since the first national school reform was implemented in Norway in 1939, the meaning of the concepts *student* and *learning* has been shaped by the US pragmatist John Dewey’s ideas of a democratic and liberal school where students would learn by doing. The Norwegian school researcher B. B. Gundem (1998) finds clear traces of Dewey in the Norwegian curricula after 1939.

Dewey tied activity and experience closely together. Reform pedagogy has continued this legacy. The motto “learning by doing” meant that activity was related to experiences of cognitive type[s] like curiosity, wondering and problem-seeking behavior. Outer activity should stem from internal activity. (p. 318; *our translation*)

What Gundem describes is the meaning of the learner—which is the fundamental idea for Dewey. The ideal of the problem-seeking student whereby the process of learning stems from within—the student’s need or motivation to find answers to self-invented hypotheses—still determines the methods used in Norwegian schools. “Scientific research methods”—like group or problem-based project work, a strong belief in dialogic, student-oriented, negotiating, and democratic teaching that was introduced in the 1939 reform—remain key methods in Norwegian schools and teacher training, and are favored as they are predicted to stimulate an (already) curious student. Although the 2006 reform changed assessment practices, these teaching methods continued (Foros, 2012; Oftedal Telhaug et al., 2006).

Knowledge and learning—a highly constructive view

The ideal of the self-driven student is still a powerful metaphor in Norwegian learning culture as in many Western schools, and it resonates well with current neoliberal norms for student behavior—self-regulation, goal-orientation, freedom, responsibility, and control. A change in the meaning of the concept of *knowledge* implemented in the 2006 reform, might even have strengthened and added meaning to the metaphor of the problem-seeking and curious student. In the former 1997 reform competences were tightly linked to academic content—the subject curricula listed epistemic content that the students should know, such as lists of names, periods, achievements, and so on. In the 2006 curriculum that our informants were taught under, the link to academic content became of a vaguer nature. In the preparatory documents for the reform, it is explained that the curriculum design should be goal-oriented—not about knowledge, but focusing on work processes, activities, and skills:

Goals should no longer contain formulations about what the students should know, have insight in, etc., but should be formulated so that it becomes clear that they are about what students/apprentices should be able to do or master in connection with their knowledge and skills as developed through working on the subject. (Norwegian Directorate for Education and Training, 2005, p. 10; *our translation*)

In this sense, the meaning of the concept knowledge has shifted from something existing within each subjects' frame to something that is to be construed or discovered by and "inside" the student (Holmberg et al., 2019, p. 20). This shift logically affects the meaning of learning, and promotes teacher facilitation rather than teacher dissemination (Dale, 2010). When knowledge is no longer a given, but is to be created by each learner, learning naturally becomes the individual learner's responsibility to a stronger degree than suggested in Dewey's student-oriented teaching (Foros, 2012; Skarpenes, 2005, p. 419).

It is with this theoretical backdrop we address our research questions which are: *How do trauma exposed students perceive impaired learning, and how can we understand their perception as framed by influential pedagogical ideals?*

Method

Participants and procedures

All informants of this study were students at secondary schools or universities at the time of the massacre. On 22 July 2011, they attended the annual summer camp of the youth organization of the Norwegian Labor Party at Utøya—a small island of 26 acres—where the 564 participants experienced an ongoing life-threatening situation as a rightwing terrorist started a shooting spree that lasted for more than one hour. Sixty-nine people were shot and killed, and many more were injured. All experienced traumatic exposure, and 47% of the participants reported clinical levels of post-traumatic stress (Dyb et al., 2014). Post-traumatic stress reactions in survivors were significantly associated with general mental health problems, functional impairment, and reduced life satisfaction four to five months after the terrorist attack (Dyb et al., 2014). Strøm et al. (2016) found that the grades of Utøya survivors were lower one year after the attack, and lower than the national average.

Our study includes data from two survey waves on the survivors of the Utøya attack: 14–15 months (wave 2) and 30–31 months after the attack (wave 3). In total there were three waves, aimed at mapping the degree and nature of post-traumatic stress reactions in youth (see Dyb et al., 2014). The interviewees had participated in the first wave and was re-invited to participate in wave 2 and 3 first by postal invitations and subsequently contacted by telephone. The surveys provided mainly quantitative data, but for a selected number of informants attending school, waves 2 and 3 included an open-ended question concerning school experiences. The first part of the interview guide for wave 2 included several open-ended questions in addition to our school question. In wave 3, the school question was the last question of the interview guide. Both interview guides gave instructions to stimulate free narratives, where features that the interviewees emphasized in their educational stories should be followed up in a semi structured manner. If the informant had difficulty answering or answered the questions briefly, interviewers were encouraged to help the informant by asking follow-up questions in line with the instructions under each question. As such, the interviewees chose the themes of the interviews, though restricted to what was related to the trauma-event. The guides gave the interviewers instructions along the way, and a tentative timeframe of 10 min was listed for wave 2 while no timeframe was indicated for wave 3. In wave 2, the question was: *Please tell me how the past school year was for you in terms of good and bad. I'm thinking especially in terms of your experiences from 22 July 2011.* In wave 3, the question was: *Think back to your school situation after 22 July 2011. Please give examples of how your experiences from July 22 have affected your schooling.* It is the answers to these questions we draw on in this study.

Our study includes 135 interviewees who tell their stories in retrospect: 67 were interviewed in wave 2, and 68 in wave 3. Informants who had been interviewed in both waves were excluded from wave 2 in order to avoid duplications. In wave 2, informants attending the second and third years of upper-secondary school were selected for the school question. In wave 3, informants were selected as a purposive sample, and were assigned to the interviewers according to geographic proximity;

this includes informants attending both secondary school and higher education. The average age was 19.5 years, and more boys than girls are represented (60–40%). The informants were attending schools in all parts of Norway.

All participants were interviewed face to face. The interview guide gave instructions for stimulating free narratives concerning the broader school situation, and to ensure that aspects of learning and social environment were included. All interviews were audiotaped and transcribed verbatim. The study was approved by the Regional Committees for Medical and Health Research Ethics, South-East and North. Interviewers were followed up by the two authors, who discussed experiences and made sure the interview guide had been followed. The answers recorded lasted from two minutes to more than half an hour. Due to the narrative and semi-structured nature of our interviews, explicit information on learning impairment might not have been given, even if the informant had experienced this.

Analysis

Each author worked separately with the transcripts before discussing and conceptualizing phenomena that emerged in the empirical data. Themes for analysis were derived from examining informants' self-observed changes in academic performance, and the reported measures provided by schools and teachers to meet the survivors' needs. The thematic analysis approach was employed when formulating analytic categories (Braun & Clarke, 2006). Academic achievement or performance was defined as the extent to which students achieved their educational goals, whereas academic functioning refers to the cognitive process of learning. School functioning means a combination of the survivors' perceived academic performance, academic functioning, and their well-being at school. Inspired by Pianta and Hamre's distinctions for measuring teachers' classroom behavior (2009), we distinguished between psychosocial support and classroom organization that seemed to be implemented to calm feelings of stress, grief, anxiety and so forth (well-being), and instructional support addressing learning (academic functioning and performance). The analysis is particularly focused on the reported instructional support.

The two authors have a background in educational psychology, traumatology, and education. Both live in Norway and were indirectly affected by the massacre, which has been recognized as a national trauma. A process of continual and deep self-examination was initiated to enlighten our pre-understanding and our own role and influence during the analysis (e.g., Berger, 2015). Particular attention was paid to our professional beliefs, theoretical orientations, and our emotional responses to participants' adverse experiences.

Results

Of our 135 interviews, 82 (61%) informants reported having concentration problems more than two months after the attack, explained as a result of poor motivation and/or sleep, or grief and/or depression, or feelings of paranoia/fear of new attacks when attending school. The analysis is based on the stories of these 82 informants. Their stories are framed by descriptions of chaos of two kinds. First, school as an actual place was perceived as chaotic—it could be a possible site of a new attack, a place where they lacked control over the surroundings, where school buildings were crowded and had limited escape routes, and where there was a confusing and unpredictable time schedule with a constant change of classrooms, as well as long school days with an early start. In these accounts, the schools, with very few exceptions, did make adjustments and adaptations, for instance by being flexible as regards attendance, switching to classrooms with easy exit possibilities, offering seats close to a door or window, making “resting rooms” available and so on.

The second aspect of feelings relating to chaos concerns academic functioning. The descriptions of chaos center on different tasks involved in extracting and using information and content from

and in written or oral texts. The interviewees described learning impairments that were in accordance with the recognized trauma impact on cognition, such as difficulties with:

- memorizing and extracting information from printed texts (not decoding texts, although reading speed was reported to decrease significantly)
- comprehending orally presented academic content, but also information about organizing procedures
- organizing content and adding relevant, necessary information to written assignments

The impairments mainly involved problems in learning and memorizing new subject content, and no longer benefiting from study skills and techniques effectively used before the massacre. Another central problem reported was lack of perseverance in performing tasks that took more than a few minutes. The typical concentration span mentioned for the most severe period was three to five minutes, whether reading, listening, or writing. Except for the options of taking tests orally rather than in writing, extended deadlines for handing in assignments, and not being graded in certain subjects, there were few reported instances of educational measures aimed at addressing these impairments. We will substantiate this pattern by presenting the most frequent measure reported.

Meetings – a main response to trauma exposed students

The most frequently reported systemic response were meetings with heads and teachers at the beginning of the school year, and/or with follow-up meetings, and/or regular meetings throughout the first year. The interviewees expressed gratefulness for these meetings, though their purpose seemed to be unclear:

And the school showed lots of understanding and tried as far as possible to arrange everything. We had monthly lunch meetings with the principal and the management to ... just to talk really. (Wave2)

- What about offers of follow-up, how have those conversations been?
There have been nice conversations, they're all nice people, and it's always good to have a conversation. (Wave3)

Yes, we felt that they were interested in a dialog about it, if you can put it that way. (Wave2)

And then I had a teacher who said she'd talked with the other teachers so I could leave the classroom when I wanted, to get fresh air, or to cry or to take a break or whatever, I'd only have to tell them if I felt everything was too much. (Wave3)

I had two meetings with the head, where he said, "anything you need, just come to us" and he was trying to be very understanding. I realize that it's hard for people to know what to do in such a situation, it's new to everyone. (Wave3)

In the interviewees' accounts, the meetings came across as having five prominent features. First, the meetings seemed to be perceived as signals of empathic understanding, exemplified by phrases such as "nice people, nice conversations," "just to talk," and "a lot of understanding." Second, the meetings often left the responsibility for the information flow to the students by agreements like "let us know if you need anything." Third, the interviewees reported on topics of a facilitating and practical nature. Fourth, none reported on impaired learning or dropping grades as topics for the meetings. Fifth, the descriptions of the meetings with heads and teachers were framed by a naturalized understanding of the students' own responsibility for learning. In the following, we will elaborate on this last feature.

"Fixing it myself"

The typical narrative of the accounts was structured around three phases: a prior state before the trauma with no learning impairments, a low point when learning was impossible several months

after the trauma, and a phase of restoring lost learning abilities. In the accounts of the restoring phase, the students typically reported to have been left alone:

It was a difficult year. School had always been easy for me, I spent time and energy on other things, politics and things like that, and that had no impact on my school results. But all that changed last year. In late September [2012], I decided to drop two subjects.

(. . .)

[I] had always been a top student, then I almost failed the exams. That hits hard. I'd joked and laughed my way through 11 years of school. I developed lousy study techniques and learning strategies because I never needed them. And suddenly I needed them more than ever, and there was nothing.

- So you had to learn these techniques?

Yes, it was how I spent the last school year, teaching myself study techniques. Reading, I could just forget about it, I think I read my first book now in February [2013], didn't read newspapers or textbooks. (Wave 2)

The interview excerpt describes the occurrence of impaired academic functioning, a subsequent drop in academic performance, and a negative change of self-perception. The account depicts a student alone in the process of restoring impaired academic functioning. No examples of teachers addressing learning impairments were given, and moreover, the interviewee expressed no expectation that teachers should or could help in the recovery process. The following excerpt describes the same patterns:

It was very hard to concentrate. I still have some difficulties concentrating, but it's not so bad anymore (. . .). I had great difficulties doing several things at once, having many responsibilities, and I still do, because it's hard to concentrate fully and completely on many different things at the same time. For example, when you have German and math and social studies and Norwegian and music, you have five things that are totally different, and you're supposed to concentrate and invest time and energy in all those things. Simply impossible.

(. . .)

The low point came around New Year's Eve [2011–2012], . . . it was like a bookshelf that started to give way and the books started to lean over and then, suddenly all the bookshelves collapsed—it was in those days where everything was in chaos. That's how it felt, everything felt wrong and threatening and . . . strange. So in a way I had to rebuild the library. Doing this is one of the things I'm most satisfied with, how I handled this and managed to rebuild myself from ground zero. In a way I've gained a lot of self-confidence and belief in myself . . . willpower and stuff like that . . . because I managed to fix it.

- You have fixed it yourself. Did you have someone who supported you in this process?

Yes . . . no, not in this process, I was mostly by myself in this process. But after that, it was my psychologist, and mom and dad that helped me.

- How has the school been in all this?

They've been very supportive. They let me drop getting grades in many subjects, so I didn't have to think too much about that. There was so much chaos, many things to think about. So that helped very much. That's one of the best things they did, so I could simply get some time off during that period. But otherwise, I don't know. (Wave 3)

The trajectory is the same as for the former interviewee who experienced sudden impaired academic functioning, overwhelming feelings of chaos, and gratefulness to school and teachers for facilitation by lessening the workload and expectations. Like the former one, this account depicts a lonely project where restoring impaired learning was expressed as a responsibility of the student himself. To what extent can we trust the accounts to be accurate when we lack the teachers' reports? The accounts of the restoring phase might point in a direction; the responsibility expressed for "fixing it myself" is not presented as criticism of the system or the teachers, but rather as a naturalized understanding of responsibility. This responsibility is expressed in the majority of the accounts:

- But what did you need, what did you think was the best for you?

No, I don't really know. It's a performance-based grading system, so they couldn't have "fixed" better grades for me, even though they knew me, and knew I had much better grades last year. They certainly knew I could

have done a lot better, but if I submitted an assignment that was good for a B or a C, they couldn't give me a better grade. (Wave 2)

- Academically, have you received any extra follow-up?

No.

- No. . . ?

Nothing there. The teachers have had big problems with this, and I understand them well, it's not easy, terror —I mean, terrorist victims as students are probably not the easiest to follow up. (Wave 2)

Our data contain few reports on teachers addressing drops in academic performance, and furthermore, the interviewees had few expectations that the teachers should or could help them. Instead, we see that the informants took on considerable responsibility for dealing with their impaired academic performance themselves. In the following accounts, the lack of ability to perform according to expectations are denoted and described as *defeat* which indicates the students' disappointment in their own performances, and the perception that it was their own responsibility for restoring their impaired academic functioning.

I think that for me, it feels, no matter what I've been through, I feel that it is . . . it's a bit too easy for me to say, "I will not take that test" when the teacher would just accept it. But then the other students would start to wonder, "Well, is it because you don't care, or is it because you are bad in exactly this topic?" Right? [. . .] The point is that I didn't use it at all. There is something about being defeated; I mean not to be able to do what the others can. (Wave 3)

I had difficulties saying that I was struggling then, or that I was tired, to my family, teachers, and to people generally. I thought it was a bit like defeat . . . so many months or many years after, to say that I am still struggling. (Wave 3)

Strategies directed toward academic functioning

Altogether, our 82 informants depicted the schools' response to trauma the same way, and most gave more than one example of pedagogical measures provided. Strikingly, there were only seven accounts of teachers who intervened in the actual learning process directly aimed toward academic functioning. We now turn to this.

Eventually, he stopped giving me homework. I just had to give him a basis for setting my grades.

- How did you do that?

In different ways. In history and religion, I found a topic I could write about, and so I wrote a long essay. Not an exam, but it was a big job. First, when I had decided the topic, I wrote down everything I had to include, and then wrote only a batch at a time, always making sure first to get the flow so it wouldn't be obvious that I'd written in batches.

- So you got greater leeway in what you did and how to do it?

Yes, I didn't have to do the homework and other assignments and stuff like that, so I could focus on writing the essay in batches. (Wave 2)

The teachers have been very good at adapting things, in terms of written and oral work, so I can show what I actually know, but also when it comes to how much work it is actually necessary to do, as long as I knew the subject content. There are some things I haven't had the energy and concentration to be able to finish, but that hasn't necessarily been a problem, as long as I can show that I know the content, that I am able to learn it. They've been very good, like "What is it that is really important to get done?" It was pretty much work I didn't do that the others did. But as long as I could show that I was learning, it was okay. (Wave 3)

The school was very straightforward about the help they offered. I got to talk with a counselor every Monday about what had to be done in school and how the week was going to be. And we had an arrangement about occasional study days, to catch up with schoolwork and stuff. Then we [three Utøya survivors attending this school] could stay home in order to do schoolwork, and we took up that offer quite a lot. (Wave 2)

The accounts depict schools and teachers that did not lower their expectations in relation to the students' academic performance. Educational measures seem to be implemented in order to keep the learning process going, for example by exploiting the three-to-five-minute concentration

span, but under strict and careful surveillance and supervision. The students could work independently, choose where and how to work, but with topics within core aspects of the subject. Students were helped to prioritize a reduction of the workload without losing sight of the defined learning goals. Certainty as to the *where* and *what* reduced the chaotic aspects of the regular school schedule, and made it possible to work when concentration was possible. These measures seem to have opened the way for great individual flexibility as regards “getting the work done,” at the same time as making sure that the learning process was not halted.

Discussion

The aim of our study was to investigate how trauma-exposed students perceive impaired learning, and how we can understand their perception as framed by influential pedagogical ideals. The reported educational measures provided imply a system that both recognized and responded to trauma, as well as working to prevent re-traumatization. We have identified three distinct patterns: First, measures were of an organizational, facilitating, and empathic nature that imply a school particularly sensitive to the well-being aspects of schooling. Second, given the reduced academic performance and impaired academic functioning (problems with comprehending, remembering, and handling texts and information combined with a short concentration span, and subsequently dropped grades, failed exams, and delays in educational course), strikingly few interviewees reported on instructional responses regarding cognition and learning. This was not expressed as a critique of the schools, but rather as low expectations that schools and teachers could help in the process of restoring impaired academic functioning or could keep the learning going. Further, a strong sensitivity toward the students’ own responsibility for failing academic performance was expressed in the interviewees’ accounts. How can we understand these three patterns? In the introduction, we argue that in schools that are not trauma informed, the rational encountering of trauma-exposed students most likely will be framed by general pedagogical ideas and ideals. Hence, it is the tension between trauma-informed approaches and influential pedagogical ideas that we are addressing in our discussion.

We have argued that the Norwegian school system relies on “scientific” teaching strategies in accordance with the ideal of the problem-seeking, self-driven, and curious student. We have also pointed to the Norwegian curriculum as relying on a highly constructive view of knowledge that also fixes the core of the pedagogical system in the curiousness and the students’ sense of responsibility. The interviewees’ sensitivity towards their own responsibility for academic performance resonates with the influential pedagogical ideal of the students’ “inner motor.” However, it does not resonate with their descriptions of their own learning capacity, nor with descriptions of the neurocognitive effects of trauma. Hence a dilemma occurs for the interviewees: Prominent ideas of a pedagogical system can be perceived as an internally logical metaphorical systems (Lakoff & Johnson, 1999). As frames for thinking such metaphorical systems provide the actors with a coherent understanding of “what’s going on” in school, but with the risk that reasoning within the system’s rationale might prevent thinking in other more contextualized ways. Our data indicate that the interviewees were no longer able to perform the expected learning behavior but nonetheless continued to reason within the primary metaphors of the system.

We cannot infer from the students’ stories how the heads and teachers reasoned, but the accounts of pedagogical measures indicate that the teachers reasoned within the same metaphorical system. Despite knowledge on how trauma might impact learning, the field of trauma still has limited knowledge on what pedagogical measures to implement, how extensive the interventions should be, and for how long they should last. However, a general advice is that teaching should be adjusted so that the student might compensate for reduced learning and work capacity and problems with concentration and attention. The basis for such adjustments should be individually mapped needs. In most cases, the schools seemed to partly facilitate such mapping by initiating meetings with the students. However, the great majority of stories depict measures in the aftermath

of these meetings that seemed to be aimed at improving well-being and maintaining a problem-seeking behavior by reducing feelings of chaos related to school attendance. To a much lesser extent, these meetings seemed to initiate measures that reflected that the preconditions for learning had changed. Any interventions seemed to be of a practical and organizational nature, including empathic dialogs, but with little dialog on cognitive aspects of the learning process, with the consequence of separating the role of the student from the role of the learner. Rather, the interventions seemed to reflect a rationale whereby even these students were viewed as self-driven and responsible for constructing knowledge content, but not in line with the impacts trauma frequently has on learning and cognition or with the impairment the interviewees reported. Further, these educational measures uphold a reasoning where the responsibility for learning is left to the student, as would be the case if the student was curious and self-driven.

Facilitating and empathic strategies may prove risky. First, even though the interviewees expressed gratitude, the focus of the meetings with heads and teachers seemed to be unclear—as is demonstrated by phrases used, such as “just to talk really,” “they were interested in a dialog about it.” Second, empathic responses seem to be casual. Meetings with the heads and teachers normally ended with “anything you need, just come to us.” As the informants had few expectations of the teachers as regards helping in the learning process, impaired academic functioning might not be dealt with when the responsibility for initiative was left to the students. Third, empathy might be short-lived. In a 2018 qualitative study on identity alterations in survivors of the Utøya attack, many informants reported that schools and teachers expected, incorrectly, that the effects of the attack would disappear in a few months (Skarstein & Schultz, 2018). Accordingly, teacher empathy was reduced after this period. Fourth, the same study finds that grades and learning outcomes also concern aspects of well-being, as important identity markers for previously well-performing students. Getting lower grades framed them in the unwanted identity of a victim. In such cases, not addressing academic functioning should be considered an expression of limited understanding.

Only seven out of 82 informants reported the use of a variety of educational measures that seemed to be aimed at safeguarding both well-being and academic functioning. These measures reflect a recognition that the preconditions for learning had changed — for example by the exploitation of the “three-to-five-minute” concentration span, combined with a flexibility on how and where to learn academic content. These measures meet the traumatized students’ potential for learning which indicates that there had been student/teacher dialog on learning impairments. The strategies included instructions as to what to learn and agreements with the students on how and where to study, but the academic work was followed carefully, and students had to show that they were working and learning subject content. Moreover, the learning process was not dominated by sociocultural learning strategies where knowledge is construed in the interaction of the classroom. These measures seemed to help to reduce feelings of chaos, and ensured that the learning process was not halted. These students were not left alone in the learning process.

The restricted systemic responses reported in our data have relevance not only in a trauma context. It seems to be the case that the great freedom and responsibility given in a student oriented, dialogic, democratic, and goal-oriented school do not benefit any student that is not able to perform behavior predicted by this pedagogical system. Within a system where teachers are not provided with teaching strategies to address non-curious students, teachers might be left in an empathic and facilitating role. Though, our data includes a few accounts of teachers that intervene when the learning process stops. These strategies allude to different teacher roles described in literature on Western schools. For instance, the term “adaptive learning experts” (e.g., Bransford et al., 2000; Hattie, 2009) is determined on the basis of high levels of flexibility in strategies that allow teachers to innovate when ordinary teaching is not sufficient. If students are not learning, new strategies are implemented to assist students in achieving learning goals. The American cognitive psychologist and educator J. Bruner (1996) warns against reasoning within only one educational metaphor, as does the Canadian education researcher C. Bereiter (2002). Educational actions in the classroom must always be under examination and discussion because the meaning of conceptions like student,

knowledge, and learning, or what Bruner calls “folk pedagogy,” will control pedagogical actions in the classroom. Pedagogy is not innocent; it is a medium that carries its own message. The ideological framing must be unmasked in order to provide flexible and contextual teaching.

Strengths and limitations

Our study design has provided unique qualitative data on how 135 Norwegian youth experience and explain their school functioning after exposure to traumatic stress. The large sample offers a broad picture, with in-depth examples that highlight predominant tendencies and patterns of self-understanding as students and learners. The study does not only cast light on trauma-informed teaching, but also on a system of thought that casually frames any student in a role that might or might not fit reality, with costs for the ones that do not. However, this study also has its limitations. The interview data describe the students’ experiences. Their accounts of pedagogical interventions show how it was perceived, not how it was planned or intended by the schools. Further, we cannot be sure that all self-observed changes of academic functioning have been caused by post-traumatic stress. Moreover, some variation in interview style was observed among the interviewers, and the interview prompts invited informants to describe their general school functioning after the Utøya trauma. That 61% of our respondents reported self-observed learning impairments following the traumatic event should not be taken as a prevalence estimate; rather that they chose learning impairment as a major topic for the interview.

Conclusions

In the aftermath of the Utøya attack, the survivors faced a challenging task maintaining their learning process. The informants were not prepared for this struggle, and their stories indicate that neither were the schools they attended. Rather, the educational measures reported seem to be rooted in a pedagogical system that defines the student as an active problem-seeking, hypothesis-building and -testing learner. In such a system, teacher professionalism becomes largely a matter of methods to stimulate the curiosity of the self-driven student. The interviewees were not unmotivated, but their post-Utøya learning capacity had changed to such an extent that they could no longer conduct problem-seeking behavior. They seem to be framed, and framed themselves, in ways that obstruct remaining in a learning mode where no one is to be blamed but themselves. Within this pedagogical system, they are left on their own in the learning process.

Our data reveal a pattern of teaching strategies that indicates two teacher roles. The dominant role is that of the *facilitating and empathic teacher* who implements strategies aimed at safeguarding school well-being. Such strategies potentially separate the student from the learning role, and support aimed at securing the learning process is not implemented. This leaves the students in the role of a victim of terrorism, rather than a learner of school subjects. By contrast, the (less frequent) reported role of the *adaptive teacher* does not compromise the learning aspects of schooling, as the post-Utøya role is not separated from the role of learner. By not framing the students within only one educational metaphor, these teachers keep the learning process going: Under strict and careful supervision, they identify and stimulate the remaining learning capacity of their traumatized students.

Implications for practice and future research

When teaching trauma exposed students, teachers would need to understand how traumatic stress can impair school functioning in order to conduct trauma sensitive teaching. Teachers should not compromise the academic aspects of the teacher role, and trauma exposed students should be regarded as learners of subjects even if the preconditions for learning have changed. In deciding appropriate measures, emphatic and organizational measures should be distinguished from

measures aiming at academic functioning and secure that all are implemented. Students' academic functioning and learning capacity needs to be mapped, and teaching strategies should be adopted to meet students' needs, even if this means easing up the favored social constructive perspective on the learning processes. Also, the findings in this study indicate that a significant number of the students needed long term trauma sensitive teaching – 14–31 months after the traumatic event.

More empirical research is needed on the use of adapted measures to stimulate, maintain and recover academic functioning of trauma exposed students. Further, more qualitative research on how trauma exposed students experience their learning situation, and what systemic responses are implemented to support these students needs would be a valuable supplement to the empirical literature.

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