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Preparedness in school- lessons learned and the way forward

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In recent years, there has been a significant increase in violent incidents in Norwegian schools. At the same time, many threats of school shootings and bombings have been posted in the digital domain, targeting various schools in Norway. Norwegian schools and police authorities have issued guidance on contingency planning for severe incidents in kindergartens and educational institutions. The guidance specifies that institutions must plan their preparedness and exercises based on a risk and vulnerability analysis. However, although responsibilities are specified, the guidance does not stress the need to include teachers and pupils in preparedness planning. Thus, this paper aims to study how preparedness planning incorporates teachers and pupils at schools and how inclusion in preparedness planning impacts the school climate. Data stems from three studies examining the degree to which school staff and pupils are confident in handling unforeseen incidents, focusing on incidents involving ongoing life-threatening violence (Norwegian abbreviation: PLIVO). All studies conclude that the preparedness work is limited to the school's management and administration. Teachers and pupils are not engaged in preparedness work. These findings show a need for further development work within relevant pedagogy and curriculum development in schools, where preparedness is included in a new bow-tie diagram. Good emergency preparedness in schools can positively influence the school climate and promote health, inclusion, well-being, learning, and the capacity to respond to an incident/accident. Norwegian schools are required by law to facilitate a safe and sound school climate, making preparedness essential for building and maintaining a good school climate. Our studies indicate that pupils want to be part of the preparedness but are not involved in the preparedness work. Involving pupils in emergency planning may broaden their perspective, positively impact emergency planning, and prepare them for responding to an incident/accident.

Keywords: Preparedness, School, ongoing deadly violence, participation, leadership, pedagogy

1. Introduction

Ongoing life-threatening violence (Norwegian abbreviation: PLIVO) is not a new phenomenon in the Nordic countries but is rare (Nilsson, 2015). This means that the probability of PLIVO is low, but the consequence side is large, implying a risk to consider. In Norway, there has been one school shooting (Torgersen, 2009). Looking at Sweden and Finland, there have been more ongoing life-threatening episodes. Most research on PLIVO has been conducted outside the Nordic countries (Böckler, 2013; Daniels et al., 2010; Daniels &

Page, 2013; Kruke, 2022). Daniels & Page (2013) found several similarities regarding schools that were exposed to school shootings and found that the entire school was in a state of denial regarding pupils being a serious threat. The study showed that what was the main factor for shootings that were executed and the ones averted was that other pupils warned and broke “the code of silence” (Daniels & Page, 2013). Wang & Degol (2016) have stressed improving the school environment to improve the pupil's performance and to reduce problematic behavior. In Norway, some earlier studies have demonstrated that teachers and pupils/students are less involved in the preparedness work but that both teachers and pupils/students want to be involved in preparedness work (Voster, 2013; Astad, 2016; Moen, 2017).

Picture 1 PLIVO exercise in Norway

At the same time, good interaction between the emergency services and schools requires knowing each other's tasks and systems. There is currently a weakness in the PLIVO and school interaction. A study by Frigstad et al. (2024) shows that the Norwegian Police Academy does not teach subjects about primary school curricula or pedagogical thinking. The same applies to schools, whose curricula contain nothing about the police system and tasks. To achieve effective interaction, more insight into each other's curricula, pedagogical practices, and systems is required (Frigstad et al., 2024, p. 113).

1. Aim of the current paper

The current study aims to report on studies conducted regarding PLIVO, what lessons have been learned, and what the way forward should be. This paper is based on a qualitative study on ongoing life-threatening violence, pedagogy, and preparedness (Lyng et al. (2022), a quantitative study on preparedness work in schools (Lyng et al. 2024a), and a qualitative study on the student´s role in school preparedness work (Lyng et al. 2024b).

2. Results

2.1. *Results Study 1*

2.1.1. *Expectations, requirements and Responsibilities*

The students expect that the teachers know what needs to be done during PLIVO incidents and that they must take control and let the students know what to do and how to do it. The students in the survey do not know the contents of the emergency plan at the school they attend but expect the plan to contain what it should. Among the teachers, there is variation in knowledge about the content of emergency plans (Lyng et al. (2022). Some express that it is up to the teachers to familiarize themselves with the content and that they do not have the competence required regarding PLIVO. A common denominator for all interviewees in this survey is that they have relatively high expectations of response time from the police and emergency services. It doesn't seem like they have thought through a PLIVO scenario or equivalent, where the personnel at the school stand alone in the crisis in what Kruke (2012) describes as the golden hour (the time before the emergency

responders arrive at the scene of the incident or accident and take control) which, according to the police's measurements, can take 15–30 minutes (Løfqvist et al., 2015) depending on availability of personnel, time of mobilization and response time - distance between the police patrol or the police station and the place of the incident. However, the informant in the study answered that they expect the police to be in place within 5–10 minutes Lyng et al. (2022). This means a discrepancy exists between perceived response time and what can be expected.

2.1.2. *Participation and Involvement*

There are some divided opinions about whether students should participate in exercises and a desire to avoid creating unnecessary fear or traumatizing experiences. But, as one teacher in the survey expressed, the fear of the students' reactions can be overestimated. However, neither teachers nor students seem to be involved. The students expressed that they have no insight into the details of the emergency plans and are thus unaware of what is expected of them in a PLIVO scenario. However, they have some experience with weaknesses in the emergency plans. They have, for instance, experienced a lack of telephone coverage in parts of the school building at one school. Thus, there is no possibility of being notified or notified if an incident should occur. We consider this a sign that pupils can be valuable contributors to the response and, thus, to the design and adaptation of emergency plans. This is in line with what is pointed out by Daniels et al. (2010), Gjerustad et al. (2016) and Voster (2013).

2.1.3. *Participation and involvement*

The headmaster at the school, who had set up an emergency response group, said that the school was updating the emergency plans because of a threat to another nearby educational institution. The principal himself had initiated a review of the school's preparedness system. The municipality was not part of this update. Therefore, it may seem that it will be up to the schools to ensure that emergency plans are up-to-date and follow national (Udir, 2024) and municipality guidelines. This relates to the context that it seems it is up to teachers to acquire the necessary competence in the preparedness field (Lyng et al., 2022).

2.1.4. *How can education play a part in preparedness work*

Lyng et al. (2022) argue that an increased focus on preparedness is essential but can also positively affect other areas. Preparedness, prevention, and the school environment mutually influence each other. Increased preparedness leads to better prevention and a better school environment; a better school environment leads to increased preparedness and prevention, and so on. The readiness to react constructively to threats from the environment in a way that minimizes the negative consequences of the impact on the health and safety of individuals and the integrity and functioning of physical structures and systems (Perry & Lindell 2003). Preparedness is about putting us in a position to handle the events we cannot prevent (Kruke 2015). Prevention is avoiding unwanted events such as incidents, accidents, and crises.

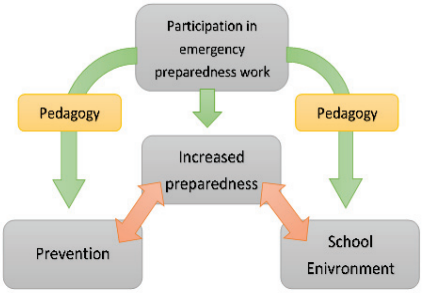


Figure. 1. The reciprocal relationship between preparedness and the quality of the school climate (Lyng et al., 2022).

Participation in preparedness work positively affects all three parameters, and together, it thus functions as a feedback model. Lyng et al. (2022) argue that the question is not *whether* pupils and

teachers should be involved but rather *how*. This will be further answered in part 2.3.

2.2. *Results Study 2*

Study 2 was a questionnaire based on a strategic sample with 81 respondents from four different schools. The main proportion of the respondents in the survey were teachers, 73,8 % (N=59), and other employees, 27,2 % (N=22). The latter group comprises leaders, administration, and other professional personnel (Lyng et al., 2024a).

The survey results show that most respondents have some or good knowledge of their schools' emergency preparedness plans. 19.7% report having little or no knowledge. 65.5% of the respondents agree that schools review emergency preparedness plans with all staff. Thus, most staff have reviewed the preparedness plans, but this study did not investigate how and how often this is done. Approximately 30% of the respondents know whether the school has an emergency preparedness group (Lyng et al., 2024a).

A summary suggests that most have a good understanding of the emergency preparedness work at their schools, but a relatively high percentage have too little knowledge. The results show that over half of the respondents (58.0%) feel confident or very confident in carrying out the actions outlined in the emergency preparedness plans if an unforeseen event occurs. At the same time, a majority (59.3%) feel insecure or very insecure about carrying out the actions in the preparedness plan in the event of a PLIVO situation.

By thoroughly understanding the emergency preparedness plans, staff will feel more confident in acting and making good decisions, providing students with a greater sense of security. In the event of a severe intentional incident (PLIVO), school staff and students would be among those affected. A great deal of responsibility falls on those affected; as mentioned, teachers carry a significant burden in such a situation. Although it is unlikely that the emergency preparedness plans can be followed to the letter, they will help to prepare people better if such an incident occurs. Having an emergency preparedness plan familiar to the staff can significantly impact how each employee and the school can handle a crisis (Schulz & Raundalen, 2008). PLIVO incidents demand a lot from school staff. If such an event occurs, such as a school shooting, staff must know what to do, including understanding the available escape routes, where to seek safety, how to barricade themselves, and where to hide until the incident is over. Escape routes and hiding places should be well known through the emergency preparedness plans to facilitate sound decision-making if the incident occurs. Conversely, if staff do not know how to reach safety, this can lead to fatal consequences. Suppose staff does not feel confident executing the plans during a PLIVO incident. In that case, it may affect the sense of security for both teachers and students, thus impacting the quality of the school climate, according to Wang & Degol's (2016) characterization.

There was also an open field in the questionnaire that five respondents filled in (Lyng et al., 2024a):

"One should be more prepared for unforeseen events. It is stupid to sit and wait for a school shooting and then lay down clear routines afterward! You must be careful and practice for such incidents, even if you hope it never happens".

On the other hand:

"There is mostly a focus on fire situations and the like. When it comes to exercise. We have had a PLIVO exercise with employees and fire/ambulance. It is not customary to involve students in such a process. In my opinion, one should avoid American conditions where one prepares in detail for extreme incidents of violence - we do not have such incidents. We may risk cultivating the idea in society. Our school does not have violence problems, except individual pupils in specially adapted education".

We think these two quotes illustrate three factors that are worth considering. 1) there is room for more involvement. 2) To what extent pupils should be involved in training is not fully considered. 3) The police influence how the school considers the involvement of pupils and teachers in crisis preparedness planning and exercises. However, more studies are needed to map what this guiding advice from the police is. That said, the findings of this study are supported by the findings of Voster (2013), Astad (2016), and Moen (2017).

2.3. *Results Study 3*

Like Lyng et al. (2022), this study (Lyng et al. 2024b) is based on a qualitative study with principals, teachers, and pupils from two Norwegian schools. The results indicate that pupils are aware of issues related to ongoing life-threatening violence (PLIVO), although they also claim that this is not something they think about often. Pupils at both schools highlight several examples of incidents categorized as PLIVO threats or similar incidents with some transfer value. It is worth noting that none of the schools have included the pupils in planning the preparedness work or previously informed them about the preparedness plan. The pupils in this study assume that teachers are aware of the plans and know how to act in a crisis, but they are more unsure whether substitute teachers or pupils are equally informed about the plans. At both schools, pupils say that they experience pupil participation and that the school and teachers are concerned about this. They point to several
examples, such as class democracy, the pupil council, and the teachers' practice of obtaining feedback on teaching and pupils' wishes. In Norway, class democracy is essential, and the word “medvirkning” is important, which is also important in work life. “Medvirkning” are sometimes translated into the term empowerment. However, there are similarities, but “medvirkning” is seen as a value and not only as a tool. We, therefore, choose the word participation for the remainder of the text. The pupils emphasize the importance of well-being, learning variation, and the need for support and facilitation. At both schools, it is reported that the pupils are not included in the planning or evaluating of the exercises in which they participate. During the interviews, they expressed a desire to be involved in the evaluation after the exercises, as they have more feedback and suggestions for improvement. Pupils have reflected on the effectiveness of the exercises and suggested changes that could improve future exercises. We must allow pupils to participate in the entire exercise process, as the benefit lies in more than just the execution. This includes planning, goal setting, and evaluation. If the exercise is not carried out well, with objectives and evaluation, it will be challenging to benefit from the work (DSB, 2016). Exercises are intended to examine and test plans critically and are also essential learning arenas (Engen et al., 2021). Exercises help to focus on emergency preparedness work in general, which is why we can say that they help to build up pupils' safety competence if they are included in the entire exercise (Lyng et al., 2024b).

Both principals describe a fast and efficient communication system at their schools. As mentioned, the newer school has installed its alert system for such scenarios. This system makes it possible to send messages via alarm systems throughout the school, and classrooms are equipped with detectors that send a silent alarm to the principal's office. This notification system is based on the principal being present in his office so that it is possible to hear the alarm. Pupils do not share the same view of a fast and efficient communication system and question whether the school's notification systems are sufficient. The pupils give an example from when they accidentally tested the alarm system. It was a button that would only be pressed in case of danger. However, the pupils reported that it took at least 10-15 minutes before a teacher came and asked what had happened (Lyng et al., 2024a).

Both principals highlight fire drills as something they work a lot on. According to one principal: *"The fire drills are automated; we are good at that."* Only the management team at both schools evaluates these fire drills. The informants agree that pupils could have been included in the evaluation but have no answer about why they were not included earlier.

Table 2. Four levels of inclusion.

Four levels of inclusion in emergency planning		
Level 1	No inclusion	Pupils are omitted. They have no knowledge of plans and low-security competence within the given topic.
Level 2	Become familiar with	The pupils are familiar with the plan and know what to do if a situation arises.
Level 3	Work with preparedness	Pupils have been included in exercises or discussions on current topics.
Level 4	Evaluation of preparedness	Pupils can give feedback, provide their input, and participate in evaluating the work done on the given topic.

Table 1 shows different participation levels, as illustrated in Figure 2.

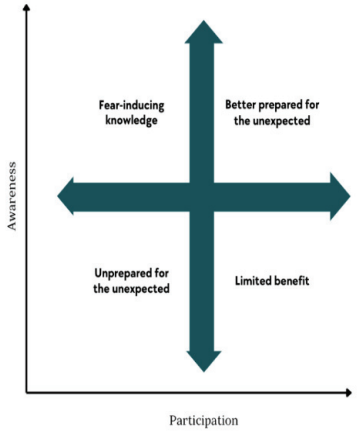
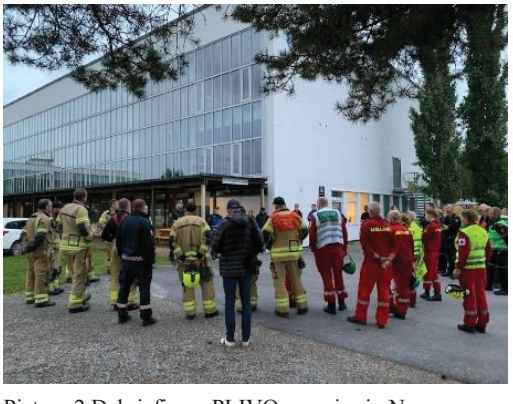


Figure 2. Levels of participation and awareness concerning the unforeseen (Lyng et al. 2024b).

All studies report that there is room for more participation and involvement. However, striking the right balance might not be easy and should be investigated more carefully.

3. Discussion

We have seen from the three studies of us that there is room for more participation and involvement. However, there is a limit to involving students and pupils directly in sharp training, as illustrated in picture 1. That could be *too* stressful. On the other hand, making the pupils and students *too* distant from PLIVO would mean that they might be unsure or not feeling secure. So, striking the right balance is the challenge. However, more involvement is needed. Pupils and students might be the first to pick up signals, i.e., a posting on social media, and must be willing to break the code of silence. Teachers also should be more involved since they frame the class environment and are essential for the well-being of the pupils and students. Working with preparedness should be viewed broadly, and seeing that it would be beneficial from a broader perspective (Lyng et al. 2022). PLIVO might be seen as abstract and less likely to happen, representing a pedagogical problem.



Picture 2 Debriefing a PLIVO exercise in Norway

We also see that the studies referred to in this paper lack the proper perspective of the police (Voster, 2013; Astad, 2016; Moen, 2017; Lyng et

al., 2022; Lyng et al, 2024a; Lyng et al, 2024b). That could be a limitation of the research and must be addressed. It is also essential to learn from exercises and address improvements. PLIVO has a low probability. However, the consequence side is substantial and must be addressed accordingly. However, threats and violence are a severe challenge in Norwegian schools today, and this preparedness and handling should be investigated as well. Are there similarities in their experiences from "day-to-day" violence and threats that could be implemented in the work on PLIVO preparedness? Are there experiences from preparedness work that could be used on "day-to-day" violence and threats?

In addition, all the studies have been short on experiences then and there (Voster, 2013; Astad, 2016; Moen, 2017; Lyng et al., 2022; Lyng et al., 2024a; Lyng et al., 2024b). It is advisable to investigate a school that is starting to implement or revise its preparedness, follow the work, and see how pupils/ students and teachers can be more involved than today.

4. Conclusions and recommendations for further work

We see room for improvement concerning participation and involvement in the case of pupils/Students and teachers. They want to be involved and typically assume first to meet the unforeseen in the classroom. This article summarizes experiences regarding PLIVO work in Norway. More studies and work are needed.

We see a need to address more common forms of violence and threats since we assume there are also benefits regarding PLIVO. We need studies on organizations revising or implementing preparedness work to see how pupils/students and teachers could be more involved. In addition, other staff at work, like cleaners and janitors and how, could be involved. You will not know who will be the first to meet a threat. There must be studies involving the police and their perspective. What are their recommendations and experiences? This has not been well enough covered and must be adequately addressed.

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