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Please cite the original version: Savolainen, T. (2023) A safe learning environment from the perspective of Laurea University of Applied Sciences safety, security and risk management students and staff. HELIYON, e12836.

doi: 10.1016/j.heliyon.2023.e12836

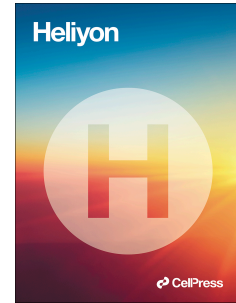
Available at: <https://doi.org/10.1016/j.heliyon.2023.e12836>

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Journal Pre-proof

A safe learning environment from the perspective of Laurea University of applied sciences safety, security and risk management students and staff

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PII: S2405-8440(23)00043-9

DOI: <https://doi.org/10.1016/j.heliyon.2023.e12836>

Reference: HLY 12836

To appear in: *HELIYON*

Received Date: 1 April 2022

Revised Date: 31 December 2022

Accepted Date: 3 January 2023

Please cite this article as: , A safe learning environment from the perspective of Laurea University of applied sciences safety, security and risk management students and staff, *HELIYON* (2023), doi: <https://doi.org/10.1016/j.heliyon.2023.e12836>.


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Manuscript title: A Safe Learning Environment from the Perspective of Laurea University of Applied Sciences Safety, Security and Risk Management Students and Staff.

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Author's name (typed)	Author's signature	Date
Timo Savolainen		21.3.2022

A Safe Learning Environment from the Perspective of Laurea University of Applied Sciences Safety, Security and Risk Management Students and Staff.

Abstract

Safety and security (S&S) can be seen as a multidisciplinary topic of study where the audience varies from psychologists to engineers [3]. Safety can be approached from an objective perspective. However, there is also the subjective side of the same phenomenon [37, p. 31-35]. In this paper, it is argued that the S&S phenomenon has many dimensions, which is the main reason why the interview was used as the data collection method here. This makes it possible to describe and uncover the multiple aspects of a safe learning environment. Interviews were analysed by using content analysing methods. All the interviewees had an S&S background and represented different professional perspectives, e.g., police officers or nurses. The main finding of this study is that the social skills, teaching tools, resources, information flow, and S&S knowledge of the staff have a major impact on the safety of learning environments. According to the literature review and interviews were done in this work, schools should have a risk-based comprehensive safety and security management system in place. One can assume that such a system combined with effective leadership will lead to a safer school environment. This paper argues that if an organisation concentrates only on one aspect of safety or even if they have a comprehensive risk-based S&S system in place but there is no leadership that appreciates safety as a core value, it is hard for the organisation to create a safe school environment with a satisfactory safety level for its users.

Keywords: Learning environment, risk management, safety, security

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1.0 Introduction

This study examines the features of a safe and secure learning environment according to the safety, security, and risk management (SSRM) students, and the personnel of Laurea University of Applied Sciences (Laurea UAS). The focus lies on people who have a strong safety and/or security background due to either their career, previous education, or both. They were chosen for the interviews in order to discover a holistic view of the safety phenomenon in schools.

According to Saunders, Lewis, and Thornhill, 'Ontology refers to assumptions about the nature of reality' [52]. Creswell describes the ontological assumption by answering the question of where the researcher asks from themselves what the nature of reality is [10]. 'Ontology concerns the ideas about the existence of and relationship between people, society and the world in general' [12]. This paper looks at the world with a constructive worldview and the epistemological approach deployed will be interpretive. The assumption is that all individuals have different opinions and conceptions about what safety means and what makes the school a safe learning environment. The reason for this is that safety seems to have many dimensions and aspects, which is why one could argue that it needs to be studied from different perspectives. Even though, safety as a phenomenon also has an objective side [37,6], which one can realise when something bad happens, this study recognises the influence of the people on this phenomenon. The assertion is that even though safety as a phenomenon has an objective side, one can only find the deeper meanings of safety by investigating the profound reasonings why something is safe and what is safe from the individual's subjective perspective.

When talking about the concepts of safety and security, Advanced Learner's Dictionary of Current English [45, p. 1035-1036] describes safety as a state of being safe and protected from danger or harm whereas security means to be safe from attack/attackers. This distinction divides the safety phenomenon into two different categories called safety and security. Scholars usually discuss security issues when they focus on a situation that has been intentionally produced and has been intended to be harmful to the organisation or people. Safety issues, on the other hand, are discussed when a situation is compromised because something unintentional has or might happen to the people or the organisation [40, p. 22]. However, these two different aspects of the same phenomenon can easily be mixed, because it is not always clear if the situation is intentionally produced or not. The problem with these definitions arises for instance when an individual is intellectually handicapped and does something that endangers the safety or security of someone or something in educational environments. The act might seem to be intentional but because of the age, diagnosis or learning disabilities of the person, the act can also be interpreted as unintentional. This is the reason why in this paper the author uses mainly safety as the term and does not take a stand on whether the act is intentional or not.

According to Yorio, Edwards and Hoeneveld, an individual's subjective perspective on safety is also affected by the national culture along with institutionalised values, which creates a socially constructed framework for what is locally considered meaningful and rational [64]. Domalewska, Gawlik-Kobylińska, Yen, and Thiparasuparat have described how cultural background can influence students' opinions about safety, what could be done to make the atmosphere safer in a school, and what is the role of teachers and students in it [11]. More specifically, their article compares the views of Polish and Vietnamese students on school safety. The paper implies that to make the environment safe there needs to be an atmosphere of trust. Teachers' "good" leadership skills promote organisational safety culture and a safe atmosphere even though the "good" leadership style might differ a lot between these two cultures e.g., Vietnamese students appreciate a more authoritarian leader compared to Polish students [11]. This means that for the Polish students 'it is important that the teacher is respectful, supportive, open, is not biased nor judgmental, and encourages class participation.' Whereas from the Vietnamese students'

perspective teachers can 'build a safe space if they are informative, knowledgeable, respectful and supportive.' [11, p. 41]. Their study, which provides a temporal snapshot of the opinions of Polish and Vietnamese students, statistically confirms that national culture can play a big role in how people perceive what makes the school atmosphere safe. However, the world is in constant change, and even local cultures change over time [19]. In other words, what is considered at one time culturally, locally, organisationally and/or individually meaningful, rational, and safe changes as our individual and collective knowledge increases, time passes, and the environment becomes different? By studying individual conceptions of safety in schools, it is possible to understand the phenomenon in-depth and identify risks that can have big unwanted consequences for the learning environments. In other words, this study takes the position that there is a common reality, but in issues of safety and security, it is shaped by people's educational backgrounds, perceptions, and experiences.

This study aims to answer firstly how SSRM students and the staff in Laurea UAS, who have a safety and security background, experience safety in learning environments. The main reason why this study focuses on the experiences of Laurea UAS faculty members and students is that the school has a long tradition of over 20 years of being the only higher educational institution that offers SSRM studies in Finland. Secondly, it seeks to map the features of a safe and secure learning environment and what school management should know to make the right decisions from the S&S perspective.

Next, this paper discusses the issues of safety and security in learning environments. It shows how wide safety as an academic discussion topic is and what issues and themes are related to it. The literature review provides a conceptual framework for safety. It also uncovers how different scholars define safety as a phenomenon, and what are the topics closely related to it. After that, the paper goes through in more detail how the study was conducted i.e., data collected and analysed as well as what were the limitations of the methods chosen for this study. At the end of this paper, the findings and discussion section are delivered.

2.0 Safety and Security in learning environments

Many authors have investigated safety and security (S&S) and learning environments from different angles, e.g., Jones, Axelrad, and Wattigney have studied learning environments from a health and safety perspective [31]. School violence and its long-term consequences are also popular topics, which have been studied e.g., by Johnson [30], Johnson, Burke and Gielen [29], and Espelage, Low and Polan [16], Ervasti [13], among others. Wallace and Ménard talk about the negative impact of violent victimisation on friendship networks [61]. Martikainen's doctoral thesis discusses educational safety and security management from an organisational perspective, whereas Waitinen looks at it more from a physical learning environment and safety culture perspective [40,60]. Lindfors writes about what happens during lessons in Finnish comprehensive schools [38]. Nielsen asserts that for improving safety culture, training and double-loop learning seem to be the key to progress [43]. Piispanen reviews learning environments in general in her doctoral thesis and one of her main findings is that a good learning environment is a safe environment [48]. However, she does not go further into investigating what a safe learning environment means, which is one of the main reasons why this research paper is written.

When we look at the safety and security of educational institutions, it all starts with the law and what has been agreed on about safety in educational institutions. In Finland, from section 9 of the Act on Vocational Education and Training, one can see that a safe learning environment is

everybody's entitlement [1]. The same is also stated in The Basic Education Act [59]. However, the question of what a safe learning environment stands for remains somewhat unclear. This means that first, one needs to define what learning environments denote before one can define what a safe learning environment means.

According to Piispanen learning environments can traditionally be divided into four parts, which are psychological, social, pedagogical, and physical environments. The psychological learning environment consists of the mood and the atmosphere of learning. The social learning environment includes teachers, pupils, students, friends, and all learning networks that interact with each other. The pedagogical learning environment includes nearly everything, which is related to teaching design, such as the teaching methods and the choice of teaching materials. The physical learning environment includes places where teaching and learning take place [47,48.] In other words, one can argue that a safe learning environment means an actual combination of psychological, social, pedagogical, and physical dimensions where an educational institution and its members are safe and protected from unintended and intended danger or harm caused by others. This study uses Piispanen's modified allocation of learning environments (psychosocial, physical, and pedagogical) as the theoretical framework for the interviews [48].

2.1 Comprehensive Safety, Security and Risk Management

Aven and Renn argue that there is no agreed definition for the term risk. They say that one can describe it as an expected value or uncertainty of an event [4]. In most cases, different authors see risks as a combination of consequences and probability of dangerous instances [27,24,4]. Boholm [6, p. 12-15] agrees that a risk has two aspects: likelihood and consequences, but she also states that risks are socially constructed. According to her, risks are inherently related to values, norms, morality, rules, agreements, and institutions, which automatically gives safety a subjective nature too.

Risk can also have a positive aspect [27] e.g., by investing in new manufacturing facilities a company can increase its output and sales. However, this article looks mainly at the negative side of the risks from the educational institutions' perspective even though one can argue that everything is connected to cash flow, and resources. By mitigating risks, an organisation creates more economic value, which implies that continuity and compliance are the foundation of every organisation. One example of this right now in Finland is the future consequences of Covid-19, which can be quite severe for higher educational institutions. The reason for this is that if students do not get internships, they do not graduate on time, which means that higher educational institutions do not receive state funding as much as they got before. Finnish Universities have no tuition fees for EU students and most of the costs are covered by government funding, the amount of which mainly depends on the graduation of the students and the quality of the teaching [41].

The risk management process is based on Deming's cycle (Plan, Do Check Act) (see: Figure 1) and one main part of it is risk assessment where the organisation identifies, assesses, and evaluates risks. Another crucial part of the risk management task is to allocate the ownership of risks and take actions to mitigate them. Risk management directs any organisation in a controlled way towards its safety and security goals. In addition, it also observes and reviews the progress [27]. Risk management activities are part of the management systems [28].

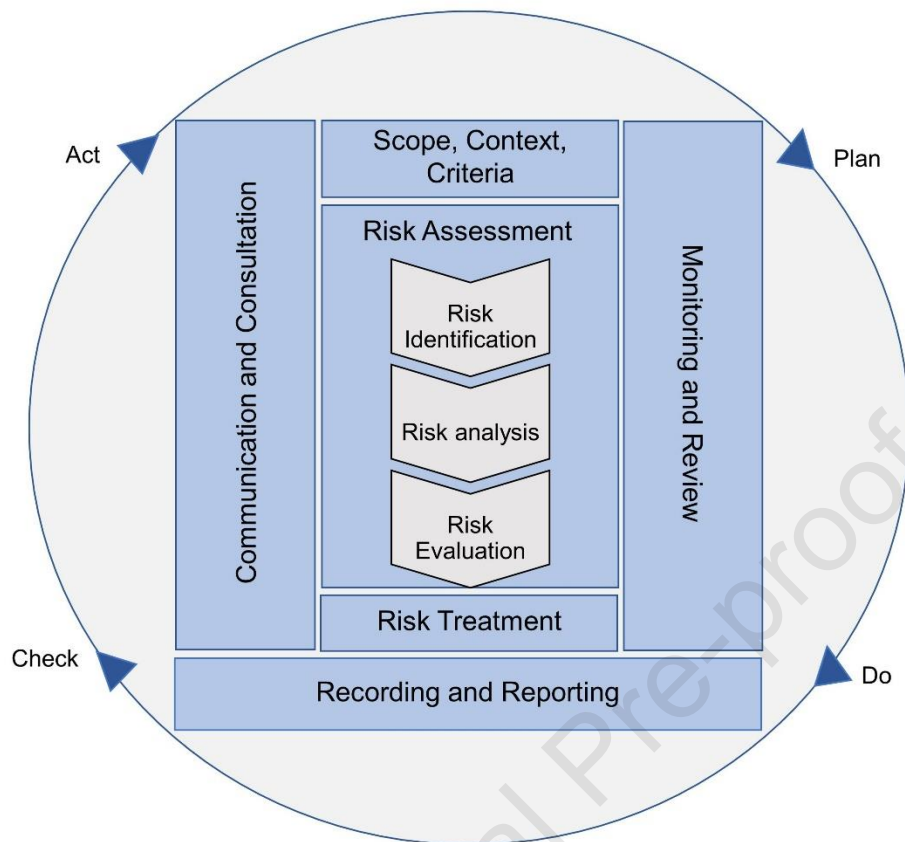


Figure 1. Modified Risk management process Source: ISO 31000 [27, p. 16]

In other words, an organisation's first task is to choose the scope e.g., strategic, operational, programme, project, or other activities for the risk management process (RMP). Second, it should assess the risks. The organisation may use different tools to identify, analyse and evaluate the risks. For identifying risks one can use questionnaires, interviews, or statistics as data collection methods as well as for the other parts of the assessment. In the end, the organisation needs to give a risk treatment to all assessed risks. Risk treatment means that the organisation either increases the risk in chasing benefits or tries to mitigate or eliminate it because of the consequences. It can also change the probability of the consequences or share the risks with some other organisation e.g., through contracts or by buying insurance [27]. The measures that can mitigate or even eliminate the risks can be very diverse changing from technological to environmental and social [28, p.34-35].

Different organisations can have various types of safety, security, and risk management systems, which can run numerous different risk management processes at the same time all aiming to enhance safety and improve processes to ensure the business continuity of the organisation. In addition, even the management systems need to be evaluated from time to time to find out if the organisation is missing something by following the Deming cycle principles. In other words, some organisations may only need to look at general risk management guidelines [27] with a particular focus on e.g., occupational health and safety management systems [24] while others need to integrate quality [25], environment [21] and occupational health and safety management systems [24] into a larger integrated management system. The easiest way to look at this issue is to

compare e.g., a typical publicly funded business school and a privately owned chemical plant. For the chemical plant more integrated approach to the management system from a safety and risks mitigation perspective is much more important than for the business school. The fact that a chemical plant has a lot of toxic chemicals implies that it would benefit more from a larger integrated safety management system that looks very closely at environmental safety risks compared to business schools, where toxic chemicals are almost non-existent. In the case of the business school, one can assume that the focus on safety management systems should be on functions, which may have serious negative impacts on the continuity of schools' main processes and are directly connected to the research as well as education functions e.g., occupational health and safety management systems [24] from learning environment perspective or any subsection of SSRM that is presented in table 1 according to the unique needs that the school has. Thus, by focusing on the main processes the business school management can ensure that they will continue to educate and develop leaders and founders of organisations who will create value for their stakeholders and society in the future. As stated by Domalewska et al. the key to high-quality education services that produce these valuable future professionals and leaders is a safe learning space [11]. This is the central reason why learning spaces in school i.e., learning environments (psychological, social, pedagogical, and physical environments) are considered in risk management processes as a part of the whole safety management system.

The basis of comprehensive safety, security, and risk management (Comprehensive SSRM) is the risk management process [22-24, 27-28]. Various authors and organisations divide Comprehensive SSRM into parts in different ways, because every organisation has a different meaning attached to it. However, usually one can find ten different parts from it, which are related to the following aspects: occupational health and safety, information security, crime prevention, environmental safety, premises' security, contingency planning, personal security, rescue operations, safety and security of production and operations and security of operations abroad. [8,32,34,37,40,55,56,60]. The only main difference to Comprehensive SSRM for educational institutions is that they give special focus on safety and security from the student welfare perspective too [60]. In Table 1 it can be seen how Waitinen defines the subsections of SSRM in educational institutions [60].

Table 1. Subsections of Safety, Security, and Risk Management. Source: Waitinen [60, p. 65]

Subsections of SSRM	Description of the content
Occupational health and safety	<ul style="list-style-type: none"> • ensure the safety and health of the employees of the educational institution • maintain and, if necessary, actively improve the working capacity of staff • legislation • objectives and activities shall be compiled into the organisation's action programme for occupational safety
Student welfare	<ul style="list-style-type: none"> • promoting student learning and balanced growth and development • aims to prevent, identify, mitigate, and eliminate learning barriers, learning disabilities and other problems related to study as early as possible • Bullying Prevention Plan to Prevent Psychological Problems and Exclusion
Personal security	<ul style="list-style-type: none"> • aim to reduce unintended and intentional risks posed by people to the organisation's activities • student safety, visitor safety, alarm systems, deputies/substitute teacher, quality processes, including the criminal background checks of those working with people below the age of 18 year • safety and security of activities outside the educational institution (camps, excursions, and summer schools etc.)
Safety and security of facilities	<ul style="list-style-type: none"> • structural security (e.g., fences and gates, locking, burglary protection, security structures and real estate engineering) • security surveillance (e.g., technical surveillance, access control, crime reporting systems, security, and doorkeeper/porter services) • safety and security of before-school and after-school activities • monitoring of indoor air, ventilation and humidity in buildings, necessary notifications, and measures processes
Crime prevention	<ul style="list-style-type: none"> • prevention and control of criminal activity that threatens the educational institution from inside and outside • targets to be protected include people (visitors, staff, students), property, activities, and information • cooperation with authorities, means of managing criminal risks and activities in criminal cases • structural safety as a basis for crime prevention
Information security	<ul style="list-style-type: none"> • maintaining, ensuring, and developing confidentiality, integrity and availability of data processing and data transmission • administrative and technical information security, security of data set, confidential information, protection of data transfer, hardware and software security, physical security, operational reliability • information security strategy and guidance comparable to city level
Safety and security of school operations	<ul style="list-style-type: none"> • educational safety (machinery, equipment, workspaces, protective equipment, chemicals, electricity, fire, exercise equipment, yard areas, operation on the territory of the educational institution) • security of activities outside the educational institution (camps, excursions, trips to workplaces) • ensuring disturbances do not occur and recovery from disruptions • crisis plan, post-damage control plan • rules and regulations of the educational institution, instructions, and responsibility for supervision • cooperation with occupational safety and health administration
Environmental safety	<ul style="list-style-type: none"> • ecological sustainability, anticipating environmental expectations for air, water and soil conservation, noise control, waste management, hazardous substances • legislation
Contingency planning	<ul style="list-style-type: none"> • ensure continuity of school operation under normal conditions, abnormal conditions, and emergency conditions • preparedness for major accidents in the nearby regions and problems caused by nature. • interface to municipal contingency planning • in emergency conditions, the Ministry of Education and Culture is responsible for maintaining the educational system of the country running as the situation requires
Rescue operations	<ul style="list-style-type: none"> • proactive risk management (e.g., fires, leaks, explosions, emissions, environmental damage, crimes) • in-house control • rescue planning (fire and evacuation safety and sheltering indoors), structural fire protection, arson prevention, fire extinguishing equipment and systems, fire alarms, training, supervision when working with fire e.g., welding
Security of operations abroad	<ul style="list-style-type: none"> • ensuring the security level of staff and students abroad (international activities, EU exchange, field trips, camp schools) • taking into account legislation, culture, language, religion, operational environment, travel safety, insurance

Generally speaking, the goal of risk-based Comprehensive SSRM activities is to protect the organisation's assets, such as image, personnel, information, and property. Every organisation's safety needs are different, which is the reason why they prioritise different subsections of SSRM. [8]. It can then be assumed from an organisational point of view, that educational safety and security is quality work, risk management and ensuring that the school's operations are not disturbed, which can be managed through different quality, safety, and security management systems [40].

Next, the paper shows how the primary data were collected and analysed in this study. Idea is to describe how SSRM students and S&S experts of Laurea SSRM staff define safety and security and what is needed to make school environments safe.

3.0 Methods

In this section, the aim is to show how, why, and where the study was conducted. The section is divided into five subsections as follows: research setting, respondents, data collection, data analysis and limitations of this study's methods. The first subsection seeks to explain why Laurea UAS was chosen, what kind of a programme Laurea UAS's SSRM programme is, where interviewed respondent of this study either teaches, has taught or studies and where the actual interviews were conducted. The second subsection describes in more detail what type of S&S background the interviewees have. This helps, (with the information from the first subsection) to see why the raw data, from where the results, discussions, and conclusions are derived, improves the credibility of the whole study. The third and fourth subsections explain how, why, and what kind of methods were used to collect and analyse the data. The final fifth subsection discusses in more depth the issues of validity.

3.1 Research setting

This study was conducted at Laurea UAS because it has a long tradition of over 20 years of being the only higher educational institution that offers SSRM studies in Finland. Almost all other universities and higher educational institutions offer specialised security education e.g., Police University College and the University of Jyväskylä. The only university of applied sciences in Finland where one can study similar SSRM studies as at Laurea UAS is South-Eastern Finland University of Applied Sciences, which was established in 2017 [33.]

At Laurea UAS in addition to safety, security and risk management studies, the programme includes the most important contents of business administration. The school argues that to be an expert in safety, security, and risk management, one needs to understand the basics of business, entrepreneurship, customer service development, management, supervision, finance, and corporate law, among other things. The main purpose of the SSRM studies is that the student will gain a comprehensive understanding of what safety, security, and risk management concept means at societal, corporate, and individual levels [35.]

All Individual semi-structured interviews were conducted by using the ZOOM video conferencing platform because of the COVID-19 restrictions at Laurea UAS premises and based on the interviewees' preferences. Due to the high workload of the participants especially for those who

e.g., studied SSRM studies at Laurea UAS and worked e.g., as a police officer at the same time, the best suitable place for conducting the interviews was at home using ZOOM after studying and working hours.

3.2 Respondents

The educational background of the respondents was either vocational college, baccalaureate, bachelor's, master's, licentiate or PhD and their S&S work experience varied between two and thirty-six years. The age of the interviewees varied from twenty-three years to sixty-two years. Many of the interviewees had multiple different kinds of S&S experiences and were employed by various educational, safety and security organisations (e.g., healthcare, police, and rescue service). Two respondents were also S&S entrepreneurs. The common factor for all the respondents was that they were either safety, security, and risk management students or staff who are responsible for teaching and/or planning S&S activities at Laurea UAS. In other words, students who did not have previous S&S experience were excluded from the sample of this research.

3.3. Data collection

The primary data for this study was collected through semi-structured interviews with open-ended questions because this data collection method is flexible and it provides in-depth information about the phenomenon [20, p. 204-207, 14]. The researcher had some questions that helped the interviewees to understand the topic that was discussed. These questions helped interviewees to elaborate their views and take an as open approach to the topics or themes as possible. The goal was to study what is their individual understanding of safety and security in schools because S&S by its definition can have a different meaning to different people as mentioned before at the beginning of this paper. By interviewing people, who have various safety and security backgrounds, the researcher was able to map the common factors and noticeable exceptions from the content that seems to be important and have an impact on the safety of a learning environment as a whole. Investigating individual perceptions of S&S gave a deeper understanding of why different aspects of safety are important for school management.

This study's interviews took over six months. The researcher used a purposive and convenience sampling method as Singleton and Straits suggest and the final sample was based mainly on the researcher's network, which includes different experts in education, safety, and security as mentioned in the previous subsection [54]. The contact information of the interviewees was provided by Laurea UAS and from that list, the researcher chose the interviewees. The purpose of the sampling was to achieve meaningful variation. This helped to obtain a wide range of views from the experts who work and/or study in the safety and security field at Laurea UAS. More precisely, the researcher mapped and categorised a sample of interviewees who varied in terms of profession, age, and work experience. The total population of the study was 281 (268 students and 14 staff members). Altogether, the sample size of this research was 20 (11 students and 9 staff members). The duration of the interviews ranged from 32 minutes to 62 minutes.

The basic structure for the semi-structured interviews was developed based on the S&S and learning environment literature. The example questions focused on the safety aspects of the learning environments and were divided into three different themes: pedagogical, physical, and psychosocial according to Piispanen's work [47,48]. One of the questions was also concentrating on special needs students because today's learning environments are more inclusive than before. In other words, the researcher was asking: What do you think poses or may cause challenges or dangers from the perspective of a pedagogical, physical, and psychosocial learning environment? In addition, the researcher asked, how have the needs of special needs students been considered from the safety perspective in different learning environments according to your own experience (including all schools as well as special schools)? In nearly every interview meeting the researcher asked other follow-up questions as well e.g., "Why?", "Could you elaborate?", or "What do you mean by that?" The interviewees had the possibility to read the questions beforehand at home to be able to ask if there was something that they did not understand. This was important because some of the interviewees did not have an educational background working as a teacher even though some of them were also working as an instructor in a commercial organisation or as S&S experts for the Finnish government. The main reason why the topics and example questions were shown before the actual interview was to make sure that the interviewees would understand Piispanen's concept of different learning environments and special needs before answering [48]. Before the actual interview, the topics of the main four questions were reviewed again to make sure that the interviewee understood the terms used in the semi-structured interview as well as possible. Even though the interviews were semi-structured, and the questions gave a theme, the actual interaction of the situation was very close to a free conversation as in unstructured interviews and the interviewees elaborated their views and answers a lot. The researcher created the questions and conducted the interviews in Finnish because both the interviewees and the interviewer were native Finnish speakers. The researcher got permission from Laurea UAS and the interviewees to conduct and record the interviews. The recordings were afterwards transcribed into a written text without marking the silence breaks between the answers and other emotional expressions because the focus was on content rather than on form. It is said that when the focus is more on content, which means finding the themes and most typical answers from the data, the task is to concentrate more on what the interviewee has mentioned rather than how, to whom, and why something is said [51].

3.4 Data analysis

In this study, content analysis methodology was used for finding answers to what makes the learning environment safe. This method is said to be flexible and widely used in social sciences [e.g., 62]. The analysis was mainly done by following Tuomi and Sarajärvi's three-step process where the raw data is first fragmented into small parts, then conceptualised and finally rearranged into a new wholeness [58]. However, in this study, it was done with the distinction that the initial coding and conceptualisation of the data to categories were already partly done when the questions of these semi-structured interviews were developed deductively based on Piispanen's work [47,48] and special education need concepts. In other words, the following major four categories, safe psychosocial, pedagogical, physical, and special needs learning environments were already embedded in the questions. Before the writing process of the recordings into fully

transcribed form, the researcher listened to the interviews a couple of times from the computer focusing exclusively on what the interviewees said because the focus was on content, and it also helped with the whole transcription process. The researcher also read the transcripts couple of times and tried to 'enter vicariously into the life of participants and feel what they are experiencing' as Corbin and Strauss [9, p. 96] suggest doing. After that, the initial coding continued, which meant looking for paragraphs and other natural pauses under each question that according to Corbin and Straus can usually represent a new theme emerging from the text in the transcriptions [9].

Albeit the material was already pre-grouped into categories according to different types of learning environments, the researcher approached the text after the initial coding with line-by-line coding as Corbin and Strauss proposes to do to verify initial interpretations [9]. In this phase, the researcher used a hybrid approach to the in vivo-coding process, which meant that he used both predetermined codes such as safety, violence, bullying, special, needs, etc., and inductive codes e.g., skill, resource, and guideline. Predetermined codes were based on the literature and the aims of this research. The inductive codes emerged from the answers of the interviewees. Microsoft Word's Text highlight Color and Navigation functions were used to help in finding out the codes and regrouping the data under the same categories, which meant that the coding took an even more detailed path by looking for explanations of what makes the learning environments safe from the interviewee's perspective.

After the line-by-line coding and categorising the actual analysis took a more detailed phase, which meant constant comparisons of different answers of the interviews to each other. The aim was to parse and search for similar arguments from the transcript documents. This approach to the analysis made it clear that many interviewees understood the learning environments slightly differently as they elaborated on their answers during the interview. Many respondents combined the psychosocial and the pedagogical learning environment into a single concept at least by some level e.g., they saw social skills as a pedagogical skill. However, the message between the lines that explained why the learning environment might become unsafe started to unfold. The colour-tag system and line-by-line coding that is widely suggested by different authors e.g., Creswell and Flick, helped the researcher to group similar types of data more accurately together and at the same time make sure that the data was valid [10,7].

In summary, after the transcription of these semi-structured interviews, the analysing continued with open coding phases, which were preparation, organisation of data and reporting. The emphasis was on comparing the data continuously to the categories or the merged themes from the interview questions, pondering more detailed questions, writing down notes and using colour-tags beside the transcription documents to connect e.g., what the interviewees were actually meaning when they were explaining what kind of atmosphere, events, the structure of buildings, lectures, people, artefacts etc. makes different learning environments safe and how they might affect each other. The answers as can be expected started to repeat themselves after several interviews (hereafter #17 of 20 interviews), which also meets Francis, Johnston, Robertson, Glidewell, Entwistle, Eccles & Grimshaw's estimation of saturation point given in their article [18].

At the end of the day, the results were divided into same four main categories according to the questions, which were developed before the actual interviews took place. However, the open coding process meant continuous evaluations of the same type of concepts across all transcripts by using respondents' own words for the first level-codes and then using the colour-tag system with notes for emerging sub-themes. In addition, the open coding helped to see what factors could have the biggest impact on safety, and what kind of overlapping there can be between some learning environments according to the participants. After the data collection and analysis, the researcher translated everything including the answers and quotes into English. The literal accuracy and the validity of the translations were checked by Laurea UAS's language department. This way the essential meaning of the translations was as accurate as possible. The interviews were kept anonymous to obtain trustworthy information about sensitive security and safety topics.

3.5 Limitations of this study's methods

To validate this study's data the respondents were kept anonymous and given enough time to prepare for the interviews. This helped to build trust and understanding of the interview process, which allowed the researcher to devote enough time to communicate and collect in-depth data about S&S of learning environments that many consider a sensitive subject. In addition, the sampling was done in such a fashion that the respondents had a good understanding of S&S as a phenomenon, which meant that only those who had previous S&S experience could be chosen for interviews and at the same time the variability based on age, work experience and educational background was extensive. The researcher also gave to the respondents a clear description of what the different terms meant e.g., psychosocial learning environment and what the objective of this study was before the interviews began. To ensure the creditability of the raw data the researcher used questions comparable to "Could you elaborate?" or "What do you mean by that?" during the interviews as mentioned in the data collection section. Every phase of the study was done as accurately as possible, especially the planning of the interview questions, writing of transcriptions, and coding. The saturation point of data was reached after 20 interviews.

It could be argued that the major limitation of this study is that it is conducted by one person. In other words, the analysis would have been more credible and plausible, if more researchers had taken part in the analysis and coding phase. However, because the safety and security phenomenon in schools is a sensitive topic, especially to the participants of this study, who mostly were public servants knowing that the data is processed only by one person is important to them. In other words, the argument is that for participants it is much easier to trust and tell more openly and in-depth about the S&S issues that schools might have if they know that the only one person whom they have told about these issues handles the raw data they helped to generate. In this case, the assertion is that the study is even more credible because only one person collected and analysed the data.

Another limitation that one can argue is that the method is not reliable, and the results cannot be generalised because in this study the researcher used purposive and convenience sampling. However, Yin [63, p. 51] says, 'In this sense, the case study, like the experiment, does not represent a "sample," and in doing case study research, your goal will be to expand and generalize theories (analytic generalizations) and not to extrapolate probabilities (statistical generalizations).', which describes quite accurately what has been done in this study. In other words, the main aim was not to contribute statistically generalisable results but to find out credible

and plausible in-depth knowledge on what makes different learning environments safe according to those Laurea UAS SSRM students and staff who have experience with the S&S due to their previous background in education and/or work life and make SSRM recommendations for school management in general based on those results.

The common problem in communication is that people may become misunderstood when they speak or interpret each other's body language. This is the limitation for all qualitative research and is the case also in this study. According to Yin [63, p. 185], the limitations with interviewees' responses can be that they 'are subject to the common problems of bias, poor recall, and poor or inaccurate articulation.'

4.0 Results

This section describes the most common factors of safe and secure learning environments according to S&S experts of this study. The results of the coding process and grouping are presented in table 2 as categories. The table describes the main features of the themes, which were emerged from the transcript interviews and how they overlap with different categories. In addition, it demonstrates that the psychosocial and pedagogical learning environments seem to have the largest impact on the safety of the learning environment as a whole.

Table 2. The most common safety and security factors in learning environments.

Categories	Themes for a safe learning environment
Pedagogical learning environment	Theme 1: Leadership, comprehensive SSRM and planning practises
Pedagogical learning environment	Theme 2: Comprehensive Instructions and guidelines
Pedagogical and Physical learning environment	Theme 3: Comprehensive teaching materials, methods and space
Pedagogical and Psychosocial environment	Theme 4: Inclusive atmosphere
Pedagogical, Psychosocial, and physical environment	Theme 5: Understanding of special needs of all students
Pedagogical learning environment	Theme 6: Adequate resources in general

It can be claimed that the interviews revealed [e.g., interviewees A, B and E] that dangerous situations may occur when people do not have good instructions, planning, and a working atmosphere in general, which can lead to frustration and demotivation of the students and staff. It seems that to have working instructions that take safety into account, a school organisation should have risk-based comprehensive safety and security management systems in place [Interviewee G]. This would help the organisation meet the compliance requirements of e.g., the Rescue Act and Occupational Safety and Health Act [50,44]. Both Acts require organisations to take actions to minimise risks.

Interviewee F also argued that by having working risk-based comprehensive safety and security management systems in place educational institutions can achieve safe psychosocial, pedagogical, and physical learning environments. Many interviewees also mentioned risk assessment as an important factor in making schools safer [interviewees A, B, D, F, G, H, I, J, K, L, M, N, O, P, R]. A few of the interviewees emphasised the challenges that the special needs

students might have and bring to the class from a safety perspective [interviewees B, C, G, J, L, M]. Every participant saw that resources including e.g., money, time, skills, and knowledge seem to be major factors when creating a safer learning environment. Interviewee M pointed out an interesting view according to which information and communication management might be the key factor behind a safe learning environment. The logical interpretation could be that without information or knowledge about how to work or act safely, the school cannot have working and a safe learning environment. In addition to this, even though, if the organisation has the information, it may be possible that no one knows where the information is and this can have a negative impact on the individuals' sense of security. In other words, knowledge seems to be at the core of a safe environment in every organisation and SSRM systems are one approach to gaining that knowledge to mitigate and manage the risks.

Interviewees L and A pointed out the importance of training in creating safe learning environments. Interviewee L emphasised that if the management is committed, risks have been assessed and plans are done, the organisation must also train to make the environment safer. In other words, if the organisation only collects safety information and does not train - safety knowledge and skills within the organisation are not created and because of that, the safety of the psycho/social learning environment will not be improved either.

Next, this paper shows more in-depth what interviewees thought when the researcher asked them about the psychosocial, pedagogical, and physical learning environments. The focus of the content analysis was to examine what can or may cause risks in different learning environments, what is important in creating a safe learning environment and why. The researcher also asked whether the needs of special needs students have been considered from a safety perspective in different learning environments.

4.1 Safety of psychosocial learning environment

Many of the interviewees considered the psychosocial learning environment to be a very important part of a safe overall learning environment [Interviewees A, B, C, D, E, G, L, M, N, O, P, Q, R, S.] Based on the coding and grouping phases this element of learning environments got the most attention from the interviewees. According to interviewees [A, G, L, N, O, P and Q], the importance of a good atmosphere in the class was especially essential from a safety perspective. In their view, the interaction between teachers and students is a very important factor. Many interviewees perceived bullying in both a physical environment as well as in social media and other e-platform as a real threat to the psychosocial learning environment. [Interviewees J, L, M, O, P, Q.] Interviewees J and K saw diversity and its acceptance as an important factor for the safety of a psychosocial learning environment. '*Marginalisation is a root cause... for radicalisation*' as interviewee J stated. In other words, if a young person is marginalised and does not have friends, he or she might get involved in a criminal gang that provides a social network, which the young person does not have. This then creates a spill-over effect for overall safety and in the school environment as well. [Interviewee J.] As a police officer, he also sees that, on the one hand, people today are more tolerant, but on the other hand, extremism is also increasing, which in this respect increases insecurity in schools.

In inclusive environments where the educator is faced with special needs students and/or members of different cultures, the key to a safe psychosocial learning environment is the trust between the educator and the students [interviewees B and E]. In addition to this, interviewee D said that because nowadays '*special needs students are often included in 'normal' schools they*

can pose unpredictable challenges and dangers.' Pure violence seems to be a problem, too. For example, interviewee D mentioned that he as a police officer has been called to go and secure the school where the student has become violent, and the teachers have not been able to handle the situation. Interviewees C, B and J also saw violence as a challenge. Interviewees B, who works as a nurse, and D emphasise the importance of training and education against violence. Some of the interviewees mentioned that extreme violence, such as school shootings, is a risk that might also need more attention [e.g., interviewees N and P]. The data from the interviews suggests that plans and instructions mitigate the risks that can affect the safety of a psychosocial learning environment [e.g., interviewee I] and a working safety culture ensures that these safety instructions will be used [Interviewee O].

4.2 Safety of a pedagogical learning environment

The main challenge for a safe pedagogical learning environment seems to be managing and planning the lessons. Good instructions and planning are the key factors in designing a safe pedagogical learning environment according to every interviewee. One could argue that the most interesting theorem of the interviews was when interviewee M pointed out that information is the foundation for all safety work. He e.g., said that *'First place should be where to find the information. If I step into students' shoes and roles, I need to get access to the information...In my opinion, it is the acquisition of information and the security of obtaining information'*. When the researcher asked about challenges and the important points of the pedagogical learning environment from him, his main point was that without knowing where the information is unsafe situations can be created and thus the psychological environment can become challenging. Interviewee M also argued that the pedagogical skills of the teacher and their skill to show where the student can find the information can make a difference in the quality of the student's psychological well-being. In other words, social skills seem to be a major part of a safe pedagogical learning environment, which connects the pedagogical and psychosocial learning environments tightly together. Especially interviewees J, K and Q emphasised that a teacher's task is to choose the teaching methods and tools that support psychosocial safety and increase students' sense of security. Danger seems always arise when the teacher gives group assignments. There is a possibility that the students may not be on the same page, and that may even lead to threatening behaviour and a poor atmosphere. [Interviewee K.] Interviewee T was concerned that if planning is not done rigorously it can create a risk of violence.

In other words, it can be interpreted from the interviews that the teacher may use pedagogical skills to influence students' motivation, which creates a feeling of safety and a sense of security. Especially the interviewees A, E, G, and I emphasised this. However, the question of how one can motivate people to act safely in different dangerous situations remains to be unanswered. Interviewee N raised an interesting point from the pedagogical perspective when he said that *'After all, the teacher knows his or her students for sure and quickly senses what kind of a group it is.'* To put it in another way, by understanding the psychosocial environment of the class the teacher can choose methods that are most appropriate also from a safety perspective. Many of the interviewees emphasised the importance of resources, both time and the teachers' skills in terms of teaching and S&S skills for creating a safer learning environment [e.g., interviewees B, D, G, F, L, N, P, R, Q, S and T.]

4.3 Physical learning environment

The safety of the physical learning environment was probably the easiest topic for all interviewees to elaborate their answers about. However, because of the emergence of online learning environments and new pedagogical solutions, the line between pedagogical, psychosocial, and physical learning environments was somewhat blurred for the interviewees during the whole interview. However, it seems that traditional facilities and fire safety seem to be under control in all educational institutions e.g., as Interviewees B and H argued. In addition, when one looks at what usually may bring challenges to the safety of a physical learning environment are objects such as laptop computer chargers' cords and other artefacts that a student can stumble upon in the classroom. However, most of the safety and security concerns seem to be linked with online learning environments and bullying as mentioned earlier. It seems that especially when working in a virtual learning environment, communication skills are important. This is well illustrated by the fact that in a virtual learning environment, one can easily tell a joke that some students find offensive. The problem here is that the lecturer does not always see from these platforms who writes, which may encourage students to write obscene things. [e.g., interviewee K.]

Some of the interviewees mentioned that they have noticed challenges when one works or studies only by using online platforms. That is, it may decrease students' motivation and create frustration. Frustration then may lead later to other challenges according to e.g., interviewees A, C and P. Interviewee A describe this best by saying that *'... if the e-learning environment is used too much e.g., the whole school is run on an e-learning platform, it will be difficult to find your own motivation for it and you will not understand the subject well enough and develop your own skills'*. Interviewee D also mentioned that one of the security challenges of the e-learning environment is how easily it can be used for doxing and phishing. He also emphasised that the challenges of the traditional physical learning environment are *'how overcrowded it is, how tidy the place is ... If we are talking about a laboratory, then there can be found probably equipment that may be used either intentionally or unintentionally to harm other people. We can then talk about the risk of an accident or even the threat of violence'*. Interviewees C and H also emphasised that in a safe physical environment, classrooms should have as little fragile material as possible and no obstacles in corridors. Interviewees I and M also mentioned that sometimes as simple a thing as a broken office chair can be a very dangerous item in a classroom. Both had experienced risky incidents with broken furniture.

One of the biggest challenges to safety in physical learning environments seems to be if the place where the teaching and learning happen changes often. Different places and platforms have different dangers, and it is important to be prepared for them in advance from a safety perspective. [e.g., interviewees E and L.] Interviewees G, T and I emphasised that a safe physical learning environment should be built for their users and a good example of this is when interviewee T stressed that too large and open facilities are not suitable for special needs students with ADHD or Autism. Interviewee F emphasised that *'systematic good holistic long-term safety and security management produce all these manifestations of safety in this interview Because it produces psychological, social, and pedagogical safety and security, it then must also produce physical safety and security'*. In other words, planning, guidelines, and risk management activities seem to be a central part of creating a safe physical learning environment from all interviewees' perspectives. Interviewee H talked about the importance of following The National Building Code of Finland, and fire safety controls but her main emphasis was on the importance of a safety culture. In other words, school management should give adequate resources for safety and

security work, and it should be incorporated into the organisational culture. The teacher should feel safe in the facilities, which then creates overall safety. The physical security and safety of the place where teaching happens may influence people's behaviour towards each other. [Interviewee H.]

4.4 Safety of special needs learning environments

When addressing special needs students i.e., individuals with intellectual, mental, emotional, or physical disabilities and learning difficulties, some of the interviewees could not impress their stance. They had no experience working or studying with them. However, those who had some experience with special needs through their work or their close ones had some interesting observations. Some of the interviewees thought that special needs students are now considered better than before, whereas some of the interviewees emphasised that more attention is still needed. However, everyone agreed that special needs students are a very important group. For example, interviewee A said that *'Today, I think, different people have been taken into account well, e.g., hallways have no obstacles, people with different kinds of learning disabilities are given more time in exams ...and e-learning environments have created a quite different situation, which 10-15 years ago was not a reality.'* On the other hand, many feel that special needs students are not considered well enough, which can affect everyone's sense of security. This stance is well illustrated by interviewee B when she mentioned that *'we sometimes take too big risks... I now reflect on my own child's situation. My child's class have a special need pupil, and he/she sometimes gets pretty upset and no one does anything. Because of this special need pupil, other classmates live in fear because they do not know what happens if that "one" there gets nervous.'* Interviewees D, E and L also pointed out that special needs students need more attention in schools.

Interviewee D emphasised the importance of resources, especially for special needs. The challenge is *'how much time the teacher has, which can also depend on the size of the class. If you have 30 students, it's obvious that the situation is completely different if you have 10'*. Interviewees E and G considered that the individual needs of all students are important in general. Interviewee E described this by saying, that e.g., in the army *'if someone is extremely scared of heights, then she/he is not forced to climb on the roof.'* And in addition to that the interviewee P, who studied all her studies in Swedish before Laurea UAS, mentioned they had extra personnel to help pupils whose Finnish language skills were not good enough, which on the other hand was a good example of special support in 'normal' school settings.

Even though special needs were a somewhat unfamiliar subject to interviewee G, he pointed out that in general discussions with people who work with special needs students it seems obvious that there are many challenges. Students are often treated as one big group and individual needs are forgotten. He said that *'This is also supported by the fact that my own daughter has worked as a personal assistant for special needs students in a school and she has told that even in primary schools pupils have multiple problems.'* [Interviewee G.] On the other hand, interviewee F provided a good example of how they have taken special needs students into account before they built a new university campus area. She said that *'we nominate people from a wide range of backgrounds to risk assessment teams and... these projects always involve a student union, which I then consider representable of the student's specific needs ... there are also counselling psychologists who have again brought out needs that I as a safety and security professional had not before even thought of or identified. Visually impaired and hearing-impaired people have also been involved in the risk assessment processes.'* [Interviewee G.]

Some of the interviewees gave a deeper analysis when they described different challenges that special needs students might have and how educational institutions are prepared to answer them. For example, interviewees H and J said that the needs of special students have been taken into account to varying degrees. Dyslexia has been the only thing in interviewee H's own work that is considered in terms of special needs education. Problems are many times identified but information on how to deal with the safety of people who have learning disabilities is not easy to find, especially in online environments [interviewees H and J]. For example, teachers do not have enough resources to subtitle videos. Activity-based office thinking where one can customise the environment according to the users has also taken place in school learning environments. However, in practice, it often means that the facility is not suitable for anyone. [Interviewee H.] The interviewee I raised the concern of money, time, and other resources, which Interviewee J's answer supports. Interviewee J as a father of a special needs child said that *'In my own experience, in a special needs support group there are almost unbelievable differences in different municipalities... within a radius of 20km... Inclusion means many times savings. Yep, transfer special needs students to a normal school but the support functions do not follow the student. The differences in resources between different municipalities are large'*. Other interviewees, who were parents of a young special needs person, thought that there is a need for paying more attention towards the safety of special needs students in educational institutions in general [interviewees I, L and M].

Even though some interviewees found challenges in different learning environments from the special needs students' perspective, one can argue that nowadays at least physical handicaps are usually considered in schools. This is supported by Interviewee O's argument when he implies that at least on new campuses special needs are considered from the physical handicap perspective.

5.0 Discussion

In recent years there have been many attempts to create a general understanding of what makes the school environment safe, especially in the psychological and educational field [e.g., 2,7,15,36,42,49]. Usually, researchers emphasise the importance of a positive school climate when they address safety issues in schools. For example, Bradshaw et al. say that 'School climate is a multifaceted construct which incorporates issues related to safety, student engagement, and the school environment.' [7]. They also argue that there is evidence for a comprehensive approach to school safety and suggest that schools should develop systemic approaches to it. Nickerson et al. discuss what kind of places are safe for learning. They argue that researchers, policymakers, and the general public do not have a consensus about what creates school safety, and how to accomplish the goal of making schools safe [42]. Their recommendations for promoting psychological safety are e.g., implementing social, emotional, behavioural, and mental health supports, and preparing school safety planning as well as preparedness initiatives.

Epstein et al. raise concerns that students with disabilities have difficulties getting an internship because of the safety concerns of patients in nursing environments. This creates a discriminative situation, which does not promote an inclusive and supportive learning environment [15]. Barragán-Medero and Pérez-Jorge raise SOGIE [sexual orientation and gender identity/expression]-related violence concerns. They argue that 'there is a need to make schools safer places for LGBT [lesbian, gay, bisexual, transgender] students' [5]. This can also be seen as a discrimination and safety issue in schools. Akdag et al. found in their study that special school institutions do not have a sufficient level of school safety and the technological infrastructure is

not satisfactory [2]. Savolainen and Airo have similar findings. They said that 'many special needs students have sensory abnormalities, which is one of the main reasons why for example soundproof classrooms are important. For the same reason, there is a need for rooms where students can study individually. Dedicated spaces for dedicated tasks seem also to be important from the safety and security perspective.' [53].

Larson et al. focus on school climate and argue that models like Positive Behavioral Intervention may also hold promise for positive effects in low and middle-income countries' schools [36]. Prashanti and Ramnarayan focus on the importance of pedagogical aspects of learning environments, and more precisely on the importance of relationships between students and teachers in establishing safe learning environments [49].

As one can see the focus on recent academic discussion seems to be moving towards comprehensive approaches to making school environments safe. However, many of the recent studies still focus mainly on one aspect of safety e.g., psychological well-being and there are no suggestions for specific models that could help in practice develop school environments safer from a more holistic perspective. The results of this paper contribute to these discussions by creating a new generic model that can answer more in-depth the question of what makes the school environment safe at the organisational level. At the same time, the model promotes individual safety multi-dimensionally.

In other words, the results of this study and recent literature give a reason to assume that some schools, in general, might not have any risk management system and processes in place and if they do, they could use the system more efficiently by approaching it from the user's (students, special needs students and faculty) and different learning environments perspectives. It is generally known that all educational institutions are moving towards inclusive environments, which means that all learning environments should then be designed and built from the heterogenous special needs students' perspectives. The assumption here is that if intellectually, mentally and/or physically handicapped persons find the school environment safe from all threats, they can attend all classes, use all e-platforms, and take part e.g., in evacuation exercises as well as other safety training modules then there is a good probability that everyone else also feels safe and the environment is safe. In other words, the school would then be psychosocially and physically accessible for all.

In addition, this study draws attention to the importance of safety knowledge and knowledge transfer in general. In other words, if students and school staff do not know what safe work and activities mean in practice, the school environment is not as safe as it could be. If people do not find information in general, it may lead to poor psychological well-being. It seems that risk management processes can be used to create and transfer this safety knowledge to both students and school staff. Based on the results of this study, as mentioned earlier in this section, a model of safe educational institutions (Figure 2) was built. The model describes how the risk management processes create safety information, how it leads to an increased school management's commitment to safety issues and how this acquired new safety information can lead to a safer school environment through different stages.

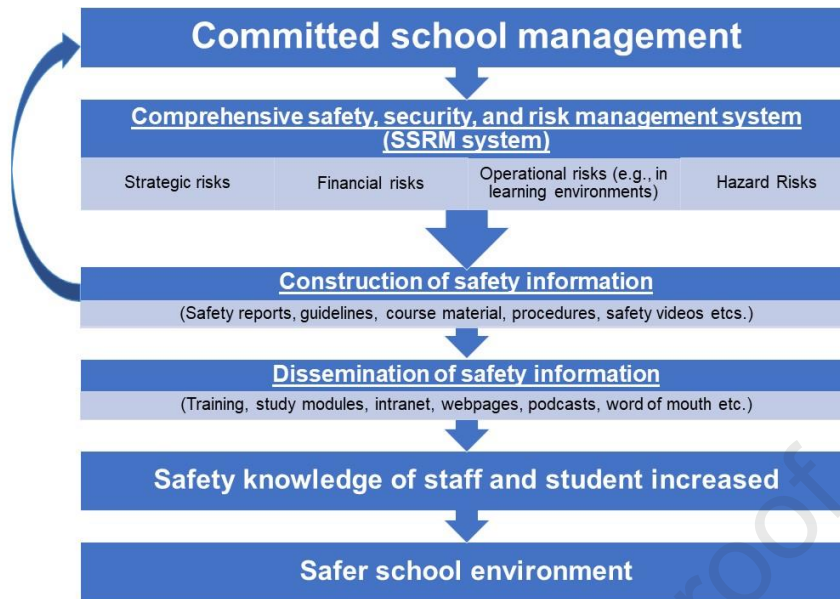


Figure 2. Model for a safe educational institution

Surprisingly, interviewees had a bit different emphasis and wordings on safety and security issues even though it could be assumed that they should employ the same paradigm due to their Laurea UAS background. To give an example, police officers were more concerned with violent acts, whereas rescue people talked more about fire hazards. People with military backgrounds concentrated more on rules, guidelines, and regulations. Nevertheless, one can build a constructionist view from the results of the interviews, which means that all dimensions of learning environments are linked to each other. According to the synthesis of the interview results, teachers' pedagogical, social, and especially safety skills as well as knowledge contribute to the creation of a safe psychosocial atmosphere in the classroom and e-learning environments. Physical security of the classroom also affects the psychological sense of safety as it creates an image of a safe physical environment, which one could argue to be an important aspect of safety work from a safety culture aspect. For example, especially in the USA schools have traditionally used closed-circuit televisions (CCTV) to improve the physical security of the classroom, even though it creates a trade-off between security and [57]. However, one aspect of security that should be examined more is violence and bullying in all of its forms, which may be a result of an individual's social groups and mental imbalance or lack of well-being, as argued by Bradshaw et al. [7]. According to Peled nowadays cyberbullying seems to be harming students' psychosocial well-being [46]. Madrid, Lopez, Dans, Fry, Duka-Pante, and Muyot are discussing making safer schools by preventing child sexual abuse [39]. Therefore, it can be asserted that two of the main contexts that every school management first must consider in their risk management process are violence and bullying when they are focusing on operational risks of the risk management process (see: Figure 2).

Nevertheless, based on the results of the interviews and literature presented in this paper, it can be argued that the way educational institutions can meet the safety requirements of the government, have a safer school environment for all of its users and improve it continuously, is to have a risk-based comprehensive S&S management system in place, a working safety culture and the information (including safety information) arranged in such a way that it can easily be

found. In other words, if the safety culture is not working and people are not motivated, systems do not work either. People need to be motivated to act safely so that they can appreciate the safe atmosphere. Good leadership, creating a safety culture and keeping people informed seem to be the main ingredients that make this all happen. In summary, if an educational institution has a risk-based comprehensive safety and security management system in place and the safety culture working as a result of enough resources being allocated, the leadership of management and teachers, the institution has a solid foundation for a safe and secure learning environment and is then able to continuously improve it.

6.0 Conclusion and recommendations

This article can be seen as a relevant continuum to safety literature because it demonstrates how S&S experts perceive the safety phenomenon with different emphasises. It shows the links between S&S management, leadership, and safety culture not only by investigating what the literature says about it but also by showing how different S&S experts describe it from the educational institution's perspective. The study indicates that the risk-based comprehensive S&S approach should be administered under working leadership, and it should be allocated enough resources to make the learning environment safe because it helps the organisation to modify its risk management procedures as the world changes. These three are the main factors that school management should pay attention to when they are making decisions about enhancing safety for all the people using the school facilities and other learning environments including people who need special support. Investigating the safety of the learning environment by studying the individual conceptions of the safety experts gave in-depth information about the mechanisms behind the phenomenon. This study discusses and provides a view on and suggestions for how educational institutions could approach complex and multidimensional safety issues by integrating dimensions of learning environments into the risk management processes. However, due to the nature of qualitative research and the study design, it is not possible to infer causality or verifications. This paper in other words only shows what and why some aspects of the learning environment and risk management can be important from the safety and security perspective of educational institutions. Researchers from different disciplines should study school safety as a phenomenon because only in that way a better understanding of what safety is and how it can be enhanced in schools can be formed.

Declaration of Interest

There is no known financial, or personal interest/belief that could affect the objectivity of this research. The research was conducted outside of working hours without external funding.

Acknowledgements

I would like to thank and acknowledge the support of Laurea University of Applied Sciences for providing the contact information for the interviews and the coworker Ilona Rönkä from the Laurea UAS language department and Eveliina Hytönen for checking the translations and language. I would also like to thank Estonia Business School professor Olav Aarna, Jukka Veikko Mäkinen and fellow PhD-students for brainstorming sessions, which helped me to do this research.

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Journal Pre-proof

Ethical approval for interviews

Prior to conducting the study, the researcher applied for research permission from the Laurea University of Applied Science's Ethical Approval Committee. The researcher also asked all interviewees for consent to collect information and record the interviews.

Signature:



Timo Savolainen

Date signed: 1.4.2022

Place: ESPOO/Finland