

School-based disaster preparedness: a route to societal resilience?

The case study of Ljungby municipality, Sweden

ANDRA-IUSTINA COVACIU | DIVISION OF RISK
MANAGEMENT AND SOCIETAL SAFETY | LTH |
LUND UNIVERSITY, SWEDEN



**School-based disaster preparedness: a route to societal
resilience?**

The case study of Ljungby municipality, Sweden

Andra-Iustina Covaciu

Lund 2020

School-based disaster preparedness: a route to societal resilience? The case study of Ljungby municipality, Sweden

Student: Andra-Iustina Covaciu
Supervisor: Marcus Abrahamsson

Number of pages (words): 89 (14898)

Illustrations: Figure 1 (adaptation of Brand from Wood, 2011), all other figures (the author)

Keywords: disaster risk management (DRM), school-based disaster preparedness (SBDP), climate change adaptation (CCA), societal resilience, students-aimed SBDP.

Abstract

Children are valuable resources when it comes to disaster preparedness and they should no longer be seen as vulnerable. Since they spend about five days a week in school for almost the whole year, it is natural to consider preparing them for hazards while there. The purpose of the present research is to explore the perceived importance and feasibility of implementing school-based disaster preparedness (SBDP) in Sweden by the means of a case study of Ljungby municipality. Through the means of semi-structured interviews, questionnaires and secondary data, the author aims at understanding how the respondents - students and school staff - perceive SBDP, whether they see it as useful for their schools and how this type of disaster preparedness can contribute to their municipality's resilience. The study concludes that the respondents understand the importance of SBDP and would like the administration to focus more on creating crisis plans for each school, as well as on both a short- and long-term strategic preparedness. In addition, a shift in focus from training only staff to including students as valuable resources and considering their levels of preparedness is noticed, as well as the need to increase the awareness regarding the available SBDP items in each school. The existent crisis plans might need additional consideration in order to ensure their adaptability to schools' needs, capacities, lessons learnt and locations. Further studies are needed in regard to whether students-aimed SBDP can be used for creating a sustainable SBDP culture within communities, municipalities and later on, entire countries.

© Copyright: Division of Risk Management and Societal Safety, Faculty of Engineering, Lund University, Lund 2020.
Avdelningen för Riskhantering och samhällssäkerhet, Lunds tekniska högskola, Lunds universitet, Lund 2020.

Riskhantering och samhällssäkerhet
Lunds tekniska högskola
Lunds universitet
Box 118
221 00 Lund

<http://www.risk.lth.se>

Telefon: 046 - 222 73 60

Division of Risk Management and Societal Safety
Faculty of Engineering
Lund University
P.O. Box 118
SE-221 00 Lund
Sweden

<http://www.risk.lth.se>

Telephone: +46 46 222 73 60

Acknowledgements

First and foremost, since the idea of the present project emerged during my summer internship with Vanuatu Red Cross Society, I have to start by thanking the staff in Vanuatu who accepted me and treated me as an employee, rather than an intern, providing me with all the information I needed. Special thanks go to Lindah Peter and Sandrine Benjimen, my supervisors during the internship.

Moreover, I really want to thank my amazing supervisor, Professor Marcus Abrahamsson for his valuable comments, time, expertise, and encouragement throughout the whole process.

I would like to thank Peter Månsson, Maria del Mar Morales Burkle and Jonas Gutheil for their inputs, making the final touch to this paper.

Since nothing would have been possible without the participating schools and informants, I want to thank the staff and students from Sunnerbogymnasiet, Kungshögskolan and Astradskolan in Ljungby municipality, Sweden, as well as the employees of the Children- and education administration ¹of Ljungby, especially Jenny Wikby who facilitated my communication with the schools. I would also like to thank Tobias Wagner, former student of the Disaster Risk Management and Climate Change Adaptation programme, current employee of Ljungby for inspiring me to focus on this interesting community.

I would also want to take a moment to thank my friend, Lísá, who helped me grasp the difficult Swedish concepts and words during the transcription process.

And now, moving to the ones who supported me the most – my family. I will start with my main supporter, the one who helped me get the internship in Vanuatu and provided me with extremely valuable comments on my work, my father, Florin. A special thank you to my mother, Adriana and my brother, Dan for always being there for me, encouraging me and showing interest in my work. The rest of my family, my grandparents and aunt receive thanks for motivating me to work faster and more efficient.

Last but not least, I thank my boyfriend, Robert, who has been by my side in the whole process, inspiring me to overcome all challenges I faced and always being there to cheer me up.

¹ sv. Barn- och utbildningsförvaltningen

List of Abbreviations

ACR	Another Call Recorder
CCA	Climate Change Adaptation
CDE	Consortium for Disaster Education
CPR	Cardiopulmonary Resuscitation
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
FA	First Aid
IFRC	International Federation of Red Cross and Red Crescent Societies
MSB	Swedish Civil Contingencies Agency (in Swedish: Myndigheten för Samhällsskydd och Beredskap)
NGOs	Non-Governmental Organisations
SBDM	School-Based Disaster Management
SBDP	School-Based Disaster Preparedness
SDM	School Disaster Management
UNISDR	United Nations International Strategy for Disaster Reduction
VRCS	Vanuatu Red Cross Society

Table of Figures

Figure 1. Relationship between vulnerability, disaster and hazard. Source: adaptation of Brand from Wood (2011).	5
Figure 2. Breakdown of respondents – OBS. only answers included in data analysis	8
Figure 3. Qualitative Dataset: Living in the municipality	8
Figure 4. Qualitative Dataset: Working	9
Figure 5. Interviews' schedule	10
Figure 6. Quantitative Dataset: Disaster	20
Figure 7. Qualitative Dataset: Importance of SBDP	21
Figure 8. Qualitative Dataset: Useful plan	21
Figure 9. Qualitative Dataset: Municipality's focus	22
Figure 10. Quantitative Dataset: Types of disasters	23
Figure 11. Qualitative Dataset: Climate change impacts	23
Figure 12. Qualitative Dataset: Gudrun	24
Figure 13. Quantitative Dataset: Likelihoods	24
Figure 14. Qualitative Dataset: Relevance	25
Figure 15. Quantitative Dataset: Other hazards	25
Figure 16. Quantitative Dataset: Hazards' effects	26
Figure 17. Qualitative Dataset: Pre-hazards questions	27
Figure 18. Quantitative Dataset: Personal experience	27
Figure 19. Quantitative Dataset: Willingness	28
Figure 20. Qualitative Dataset: Training	29
Figure 21. Quantitative Dataset: Information & knowledge	29
Figure 22. Quantitative Dataset: Information & knowledge required	30
Figure 23. Qualitative Dataset: SBDP activities	31
Figure 24. Qualitative Dataset: Safe locations & exit routes	31
Figure 25. Qualitative Dataset: Fire drills	32
Figure 26. Qualitative Dataset: Available information	32
Figure 27. Qualitative Dataset: Caregivers	33
Figure 28. Quantitative Dataset: Own preparedness	34
Figure 29. Quantitative Dataset: Input	34
Figure 30. Quantitative Dataset: Skills	35
Figure 31. Quantitative Dataset: Key resource	36
Figure 32. Quantitative Dataset: Other resources	37
Figure 33. Qualitative Dataset: Own input	37
Figure 34. Qualitative Dataset: Roles and responsibilities	38
Figure 35. Qualitative Dataset: Individual support	38
Figure 36. Qualitative Dataset: FA and CPR	39
Figure 37. Qualitative Dataset: SBDP items	40
Figure 38. Qualitative Dataset: Speakers	40
Figure 39. Quantitative Dataset: Information	41
Figure 40. Qualitative Dataset: Necessity	41
Figure 41. Qualitative Dataset: Next steps	42

Summary

Children are no longer to be seen as victims in hazards, but their adaptability and readiness to change should be used as resources in disaster preparedness. Considering that their formal education is provided in schools and they spend a considerable amount of time there, it is acknowledged that introducing school-based disaster preparedness (SBDP) in the curriculum can represent a way to achieve resilience in societies.

The present thesis aims at exploring the perception of SBDP in Sweden, by the means of a case study of Ljungby municipality. The paper focuses on answering the following research questions:

- *What is the informants' perceived importance of SBDP for Ljungby municipality and what are, according to them, the main SBDP aspects that the municipality should direct its attention to?*
 - *What SBDP measures have been taken by Ljungby municipality and what used and unused capacities for preparedness exist in the participating schools? and*
 - *In what ways can students-aimed SBDP contribute to the resilience of a municipality/society?*
- which are answered through 16 semi-structured interviews, a questionnaire completed by 50 students and analysis of secondary data, such as crisis plans and relevant documents from the Swedish national authorities. Based on the results obtained through data collection and analysis, the paper concludes that the respondents are aware of SBDP's importance and that either due to the desire to become better prepared or the current pandemic, they have clear expectations on the municipality in terms of future development and the need to focus on both short- and long-term planning. Moreover, the need to include students in SBDP activities and trainings was acknowledged by most of the respondents, with consideration to their age and abilities, as well as the importance to adapt the crisis plans to the schools' needs and capacities, in order to ensure sustainability.

Since students-aimed SBDP is a new topic, it is concluded that further studies should be conducted on how this measure can help create a long-lasting disaster preparedness culture within communities, municipalities and later on, entire countries.

Table of contents

- 1. Introduction** 1
 - 1.1. General background* 1
 - 1.2. Previous research* 1
 - 1.3. Why is SBDP important?* 3
 - 1.4. Research purpose, aim and questions* 3
 - 1.5. Paper’s delimitations and limitations* 3
 - 1.6. Background concepts and terms* 4
 - 1.7. Thesis outline* 5
- 2. Methodology**..... 7
 - 2.1. Case study and selection of cases* 7
 - 2.2. Data collection* 7
 - 2.3. Semi-structured interviews* 8
 - 2.3.1. Interview guide** 10
 - 2.4. Online questionnaire* 11
 - 2.5. Data analysis* 12
 - 2.5.1. Secondary data** 12
 - 2.5.2. Primary data** 12
 - 2.6. Research quality* 13
 - 2.6.1. Limitations** 13
- 3. Conceptual framework** 16
 - 3.1. Societal resilience* 16
 - 3.2. DRM as a mean for achieving societal resilience* 16
 - 3.3. Preparedness in DRM* 17
 - 3.4. SBDP – emergent themes* 17
 - 3.5. The Comprehensive School Safety Framework – an incremental approach to preparedness* 18
 - 3.5. A summary of the framework*..... 18
- 4. Results** 19
 - 4.1. Awareness, personal experiences and the municipality’s focus* 19
 - 4.2. Own preparedness* 28
 - 4.3. Current situation in schools* 35
- 5. Discussion** 43
 - 5.1. Ljungby municipality and SBDP* 43
 - 5.2. Measures taken and available capacities* 45
 - 5.3. Students-aimed SBDP and (societal) resilience* 48

<i>5.4. Current SBDP in Sweden</i>	52
6. Conclusions	53
List of references	55
Appendices	65
<i>Appendix A – Information sheet (in Swedish)</i>	65
<i>Appendix B – Bilingual interview guide</i>	67
<i>Appendix C – Informed consent template (in English)</i>	69
<i>Appendix D – Bilingual questionnaire</i>	70
<i>Appendix E – Answers to interviews (supplement)</i>	72
<i>Appendix F – Answers to questionnaire (supplement)</i>	76
<i>Appendix G – Coding of Qualitative Data</i>	77
<i>Appendix H – Coding of Quantitative Data</i>	78
<i>Appendix I – Original data used for the word clouds</i>	79
<i>Appendix J – Timeline of Corona outbreak discussion</i>	81
<i>Appendix K – Crisis plans’ analysis</i>	82

1. Introduction

1.1. General background

We have all heard the name Greta Thunberg² and some of us might even have noticed her impact on the world. Whether we agree with the way she forwards her message or not, she is a child and her amazing work for climate questions has proven one more time that children are our future and they should always be taken into consideration when talking about sustainability, resilience and adaptation. The author got to experience the importance of children in disaster risk management (DRM) during a summer internship with Vanuatu Red Cross Society (VRCS) through one of their main projects - International Youth Cooperation Project aimed at *strengthening resilience of communities through school-based disaster risk reduction awareness* (VRCS, 2019: 1).

Sweden is the country mainly discussed within the paper, with Vanuatu being used in framing the paper's topic, since the inspiration for the paper came during the author's internship in this Pacific state. Two very different states, situated on opposite sides of the world, with the latter being "one of the world's most vulnerable countries to natural hazards" (GFDRR, 2017), and the former not as vulnerable, but with its exposure to natural hazards "expected to increase as a result of climate change, population increase and urbanisation" (MSB, n.d.). Thus, regardless of the contrast between the two countries, they share common burdens, such as climate change, children's vulnerability and issues of societal resilience. Sweden has been chosen for the present thesis as a result of the author's willingness to bring the lessons learnt during the internship into the Swedish context, in order to understand what SBDP implies here and whether societal resilience can be reached through its means. In the last couple of years, Sweden has been making efforts to improve its resilience by, inter alia, focusing on clarifying "where the boundary between citizen and government responsibility lies" (Bergström, 2017: 32).

1.2. Previous research

To the best of the author's knowledge, there is no study addressing SBDP in Sweden, but there have been a couple of studies conducted on the topic in different countries around the

² Greta Thunberg is "a Swedish climate activist ... who (in 2018) started a school strike for the climate outside the Swedish Parliament that has since spread all over the world and now involves over 100,000 school children" (TEDx, 2019).

world, such as South Africa ([Mamogale, 2011](#)), United States of America ([Kupietz, n.d.](#); [Tigges, 2008](#)), the Philippines ([Merchant, 2015](#); [Ecolin-Campilla, 2016](#)), Portugal ([Delicado et.al., 2017](#)), New Zealand ([Ronoh, 2017](#); [Tipler, 2017](#)), Kenya ([Dube & Orodho, 2016](#); [Onyango, 2011](#)), Turkey ([Yilmaz, 2014](#); [Ozmen, 2006](#)) and Bangladesh ([Ziauddin, 2016](#)). The aforementioned studies do not particularly focus on students' preparedness, but rather on the importance of different educational actors, ranging from school principals to auxiliary staff and caregivers, as well as the power of communities in building school preparedness.

Asia seems to be the continent where most SBDP studies have been performed and throughout the literature review conducted, the author came across a comprehensive document on school safety practices in the region, based on case studies of Bangladesh, Myanmar, Cambodia, Indonesia, Laos, the Philippines and Thailand ([World Vision, 2016](#)). The document encompasses good practices, challenges and lessons learnt, as well as the role of different non-governmental organisations (NGOs) and governmental institutions in the implementation of the practices within schools. This compilation represented a great starting-point in developing an overview of different countries' approaches to SBDP and the importance they place on developing strategies for improving DRM procedures in the aforementioned states.

However, it is worth mentioning that hundreds of articles and studies have been written on the topic of disaster preparedness, but most of them tend to rather focus on it outside school hours, emphasizing either *the importance of communities in building strong preparedness mechanisms and strategies* ([Karvinen et.al., 2016](#); [Jurilla, 2016](#); [Allen, 2006](#); [Motoyoshi, 2006](#); [Pandey & Okazaki, 2005](#); [Hashemipour et.al., 2017](#)), *the psychological perspective on the topic* ([Sattler et.al., 2000](#); [Mishra & Suar, 2012](#); [Brooks et.al., 2016](#)) or *preparedness for a specific category of people*, e.g. nurses, elderly, humanitarian actors ([Labrague et.al., 2018](#); [Veenema et.al., 2015](#); [Wakui et.al., 2016](#); [Nourozi et.al., 2016](#); [Selvaraj & Sandaran, 2019](#); [Eriksen et.al., 2017](#)).

The present study is intended at filling the gap in the literature on SBDP in Sweden, while going beyond focusing only on students, but also on the importance of principals, school staff and caregivers on educating the students and preparing them to respond.

1.3. Why is SBDP important?

The importance of SBDP is given not only by the fact that children's education is primordial when it comes to their development, but also that the current amount and frequency of natural hazards generate the need for new strategies to reduce their negative impacts. In addition, in 2011, the United Nations International Strategy for Disaster Reduction (UNISDR) declared children and youth as being the "most affected by disasters each year" (UNISDR, 2011: 1), so it is essential for children to know how to react in case a disaster emerges, in order to decrease their vulnerability and turn them from passive victims into essential contributors to disaster risk reduction (DRR).

1.4. Research purpose, aim and questions

Drawing on SBDP theories and practical experiences from Vanuatu, the purpose of the present thesis is to explore the perceived importance and feasibility of implementing SBDP in Sweden, as well as to discuss how this can be achieved. The research is carried out as an instrumental case study of a Swedish municipality, *Ljungby*. In order to be able to address the research problem, the thesis aims at answering the following research questions:

- *What is the informants' perceived importance of SBDP for Ljungby municipality and what are, according to them, the main SBDP aspects that the municipality should direct its attention to?*
- *What SBDP measures have been taken by Ljungby municipality and what used and unused capacities for preparedness exist in the participating schools? and*
- *In what ways can students-aimed SBDP contribute to the resilience of a municipality/society?*

1.5. Paper's delimitations and limitations

The present thesis will focus on gathering an in-depth understanding of the situation in one of the state's municipalities and does not aim at launching into any comparisons. However, the conclusions might be applicable to other countries facing similar situations since they will be provided with ideas on how to implement or improve SBDP practices, based on the information received from the participating schools.

In terms of limitations, since the present paper uses a case study, semi-structured interviews and a questionnaire as research methods, it must be mentioned that the limited number of cases included in the research might impact the applicability of the results to other

municipalities or countries, regardless similarities. More about the data collection methods' limitations will be discussed in Chapter 2.6.1.

1.6. Background concepts and terms

This section outlines the concepts and terms collected during the initial background research which have been considered relevant for the present discussion. These are DRR, school disaster management (SDM), SBDP, climate change adaptation (CCA), societal resilience as well as the difference between natural hazards and disasters.

DRR is understood as referring to the policies and strategies aimed at “preventing new and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development” ([UNISDR](#), 2016: 16). Under this broad concept, there are different types of disaster management phases that one can look into in order to understand it better: mitigation, **preparedness**, response and recovery ([Coppola](#), 2011: 10; [Alexander](#), 2012), but also a wide range of areas where DRR strategies are developed, e.g. health and nutrition, food, shelter, education etc. ([World Vision](#), n.d.).

In the present thesis, the focus will be on education, namely SDM which aims at “protecting students and teachers from harms, minimising the effect of damage and ensuring that children can continually receive education, and cultivating and sustaining safety culture” ([Wang](#), 2016: 225).

The thesis will focus on the second phase of DRM, preparedness, from an educational perspective – SBDP. Since the concept has no clear definition in the reviewed literature, the following definition of preparedness was used in defining the concept: “the knowledge and capacities developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters” ([UNISDR](#), 2016: 21). Therefore, the concept of SBDP can be understood as *the ability of schools and its members to organize, take active part in and plan DRR actions aimed at minimizing the impacts of current or incoming disasters on the educational establishment, students, parents and school staff.*

For the scope of this research, CCA is understood as “the process of adjustment to actual or expected climate and its effects in order to moderate harm or exploit beneficial opportunities.” ([IPCC](#), 2012: 556).

In terms of societal resilience, the definition provided by [Becker](#) (2014) will be used in the present paper, since it is the one that corresponds best to the author’s understanding of the term – “an emergent property determined by the ability of the human-environment system [in this case, the society] to anticipate, recognize, adapt to and learn from variations, changes, disturbances, disruptions and disasters that may cause harm to what human beings value” (p.150).

As for the difference between natural hazards and disasters, [Figure 1](#) speaks a thousand words, underlining that there are no natural disasters, but that disasters are seen as results of natural hazards affecting vulnerable populations, which lack the resources and capacities to manage the emergent situations.

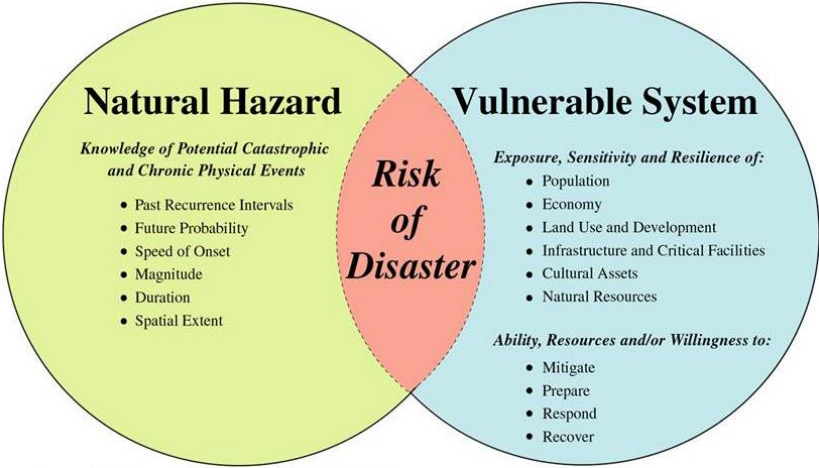


Figure 1. Relationship between vulnerability, disaster and hazard. Source: adaptation of [Brand from Wood](#) (2011).

The conceptual framework of the present thesis will be described in more detail in Chapter 3, together with a short clarification of the chosen case.

1.7. Thesis outline

While Chapter 1 mainly focused on introducing the thesis’ s topic, research problem, aim, limitations and delimitations, as well as the methods, concepts and materials used in the paper, the next chapters will dig into description of methodology and methods, conceptual clarifications, presentation of results and discussion, all of these leading to the thesis’s conclusions and providing answers to the research questions. The present paper proceeds with Chapter 2 where the methodology and data collection methods used for the thesis, together with key assumptions, limitations and data sources are presented. In Chapter 3, conceptual clarifications are outlined, while Chapter 4 mainly focuses on the presentation of the results

obtained during data analysis. In Chapter 5, the meaning of the results in relation to the research questions is discussed, followed by the thesis's final conclusions in Chapter 6.

2. Methodology

This chapter outlines the methodological approach taken for conducting this research, collecting the data, assessing its reliability and validity, as well as presents the limitations and assumptions associated with it.

2.1. Case study and selection of cases

Case studies are seen as “tools to better understanding the social world” (May, 2011: 219) because of the in-depth analysis one has to conduct when choosing this method. Since it is beyond the scope of the paper to analyse the situation in every Swedish municipality, *Ljungby* was chosen for “offering a vantage point from which to draw broader conclusions about societal trends and developments” (May, 2011: 221).

In 2005, Ljungby was seriously hit by Storm Gudrun (42 m/s wind speed) and it was “here that the damage was worst” (SOU, 2007: 92) in Sweden. Moreover, the municipality has recently been affected by increased water levels in river Lagan, as a consequence of unexpected high quantities of precipitation over the last couple of months. This has resulted in high risks of floods for both citizens and the electric power plants located nearby the river (SVT, 2020). Nevertheless, the temperature in the whole country is expected to increase by 1.8 - 4.0 degrees Celsius by 2100 (SOU, 2007: 12), increasing Ljungby’s vulnerability. Acknowledging the former aspects increased the author’s interest in the area and enhanced the case selection. Based on Stake’s claim (2008) that “achieving the greatest understanding of the critical phenomena depends on choosing the case well” (p.129), it was considered that Ljungby, according to its aforementioned characteristics and historical background, might represent a relevant case that could be illustrative for further generalizations.

2.2. Data collection

SBDP is not a new concept, but it has not been analysed in relation to CCA, so the thesis’s research topic is still untouched by scholars. Even though there is not much literature on SBDP in the Swedish context, the author used, as secondary data, the participating schools’ crisis plans, as well as a couple of documents from the Swedish Civil Contingencies Agency (MSB) in order to understand how Sweden is currently dealing with the issue, as a starting-point in narrowing down the research and answering the research questions (see Chapter 5).

The primary data was collected through 13 semi-structured interviews with school staff and 3 semi-structured interviews with Ljungby’s Children- and education administration’s employees. In addition, an online questionnaire was completed by 50 students from the three participating schools (see *Figure 2*). The reason behind choosing to conduct both qualitative and quantitative data collection lies in the desire to expand the understanding of the concept of SBDP, as well as obtain a wide range of information regarding school preparedness in Ljungby not only from students, but school staff and administrative employees.



Figure 2. Breakdown of respondents – OBS. only answers included in data analysis

2.3. Semi-structured interviews

The 16 interviews were between 15 – 40 minutes long and the interviewees have been sourced from the aforementioned schools (see *Figure 2*). All interviews were conducted via telephone, since the interviewees seemed more responsive in setting up the appointments via phone, rather than Skype. Most of the interviewees have lived in the municipality for more than 20 years (see *Figure 3*) and 67 % of them have worked at their current workplaces for less than 10 years (see *Figure 4*).

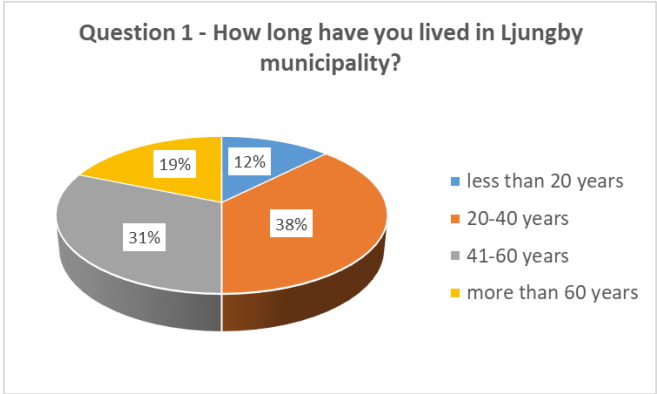


Figure 3. Qualitative Dataset: Living in the municipality



Figure 4. Qualitative Dataset: Working

The interviewees were selected based on the following criteria:

- All employees of Ljungby's Children- and education administration, choice motivated by the desire to understand how civil servants working with educational questions understand SBDP and its current state in Ljungby.
- 13 staff members, including school principals from the 3 schools participating in the study. The staff were chosen by the school principals (previously interviewed), based on the following criteria: diversity (the wider the variety of the employees, the better), availability and willingness to participate, while the school principals had been contacted by the gatekeeper and accepted the invitation to participate in the study. The gatekeeper was one of the employees from Children- and education administration, with the role of facilitating the communication between the data collector and the potential respondents.

INTERVIEWS' SCHEDULE

DURATION < 20 minutes => 30 minutes

Institution	Position	Interviewer	Interview date	Duration
School 1	Staff	Andra Covaciu	2020-02-11	
Children and Education Administration	Staff	Andra Covaciu	2020-02-17	
Children and Education Administration	Staff	Andra Covaciu	2020-02-19	
School 2	Staff	Andra Covaciu	2020-02-24	
School 1	Staff	Andra Covaciu	2020-02-25	
School 1	Staff	Andra Covaciu	2020-02-27	
School 1	Staff	Andra Covaciu	2020-02-27	
School 1	Staff	Andra Covaciu	2020-02-28	
School 1	Staff	Andra Covaciu	2020-02-28	
Children and Education Administration	Staff	Andra Covaciu	2020-03-05	
School 2	Staff	Andra Covaciu	2020-03-06	
School 2	Staff	Andra Covaciu	2020-03-11	
School 2	Staff	Andra Covaciu	2020-03-12	
School 3	Staff	Andra Covaciu	2020-03-16	
School 2	Staff	Andra Covaciu	2020-03-16	
School 2	Staff	Andra Covaciu	2020-03-18	

Figure 5. Interviews' schedule

2.3.1. Interview guide

The first contact with the interviewees was established via e-mail, through an information sheet in Swedish (see *Appendix A*), containing a brief introduction of the author, the thesis's scope and background, as well as information regarding confidentiality and anonymity, a request for participation and the author's contact details.

Before beginning the interview, permission to record the discussion was re-confirmed with the interviewees, after describing the scope of the project once again. The informants were promised anonymity but also informed that their titles might appear in the final paper, if they agree so through the informed consent that was sent to them after the interview. The audio recording was done via the mobile telephone recorder application "Another Call Recorder - ACR" and only verbal responses were included in the data analysis.

The interviews were opened with a short introduction of the project, its aim, the interviewer's background and anonymity clauses. The introduction was followed by two ice-breaking questions, regarding the time the interviewee has lived in the municipality and worked at his/her current working place. Two general questions were then asked in order to understand what the interviewee's general idea on SBDP is, as a way to smoothly move into the discussion on past experiences and awareness. More specific questions regarding training of staff, current situation in schools and local context were later forwarded, supported by follow-up questions when the need to guide the interviewee back to the initial question

emerged. Certain questions had been tailored throughout the interviews, in order to encourage the interviewee to provide details on unexpected or interesting responses. Last but not least, two ending questions regarding schools' future plans and own contribution to SBDP were asked before thanking the interviewee for his/her participation in the study. At the end of the interview, the interviewees were informed about the consent that was to be sent to them via e-mail and required to fill it in and send it back to the interviewer in due time.

The interview guide is provided in *Appendix B*, while the informed consent template can be found in *Appendix C*.

2.4. Online questionnaire

In addition to the aforementioned qualitative method of data collection, an online questionnaire was created and distributed to students from the three participating schools (see *Figure 2*). The distribution of the link to the questionnaire was facilitated by the school principals who agreed, after finalising the interviews to share the questionnaire with a selected number of students. The selection was made based on students' availability and willingness to participate.

Besides the well-known advantages of an online questionnaire, i.e. the expedition of "data processing and analysis and (elimination of) the need for cumbersome and expensive transfer and tracking of forms, data entry, and verification" ([Cooper et.al., 2006: 10](#)), this method of quantitative data collection was chosen based on the following reasons:

- Legal considerations (when interviewing children, legal consent from parents is required)
- Increase in response rate (the questionnaires was sent to students by the principals and had to be filled in during mentor hours or classes)
- Anonymity
- Access to real-time results.

The questionnaire was used in order to gather primary data regarding students' view and understanding of SBDP, as well as identify their level of awareness on the topic. It was aimed at exploring students' understanding of the term "disaster/catastrophe", their own experiences with disasters, willingness to learn more about disaster preparedness, assessment of their capacities, as well as the tools and skills provided by the school.

The online questionnaire was created using the software Survicate, specialised in survey building. It consisted of a mixture of questions, ranging from closed (multiple choice, rating scale, Likert scale and matrix questions) to open-ended questions where the respondents were given the opportunity to freely express their concerns, describe their experiences, mention necessary skills and tools, as well as explore their inner fears. Out of consideration for potential response errors and aiming at mitigating them, most of the questions were marked as mandatory, excepting the follow-up questions, requiring a clarification for choosing the option “other” to the previous question. For those questions that allowed multiple choices, this was clearly stated in the beginning so that the respondents would not limit to one answer only. The structure of both the Swedish and the English versions of the questionnaire can be found in *Appendix D*.

A total of 69 students answered the online questionnaire, but only 50 answers have been included in the data analysis, since the other 19 were incomplete and could have affected the accuracy of the results.

2.5. Data analysis

2.5.1. Secondary data

The analysis of the secondary data described in Chapter 2.2. was done in relation to the results obtained from the primary data, in order to provide answers to the research questions. The material was used in Chapter 5, for the discussions, as a means of understanding the respondents’ perceived importance of SBDP, as well as comprehending the availability of resources that schools can use in providing students and staff with more information and tools to increase the level of SBDP.

2.5.2. Primary data

As for the primary data, the two datasets were treated separately during the coding procedures, but the results were jointly reported in Chapter 4, in order to facilitate the discussion in Chapter 5.

The analysis and interpretation of the interviews was conducted by manually transcribing the interviews and then organising the responses according to three main categories – “Awareness, personal experience and the municipality’s focus”, “Own preparedness” and “Current situation in schools”. In order to extract the outputs, an online text analyser was used and the categorisation of the responses was manually done, after

separating the answers based on their respective question through a software called Weft QDA, which allows classifying data into categories while reading the text. All responses were then organized in an Excel spreadsheet and within the same document, the graphs and diagrams for the results were created – see [Appendix G](#) for an illustration of the open-coding method.

The questionnaire’s analysis was done by the means of the same three main categories and an Excel spreadsheet. In this document, all answers have been collected and divided into different themes, in order to be able to create pie charts and other types of graphs to visualise the data and present the results – see [Appendix H](#) for an illustration of the method.

2.5.3. Limitations

An important limitation regarding data analysis for the present paper was language. The author chose to conduct the interviews in Swedish, in order to provide the interviewees with a more comfortable space to express themselves and obtain the most out of the interviews, while the paper was written in English. Even though language is understood as “a constitutive act rather than just a medium for information exchange” ([Welch & Piekkari](#), 2006: 418) and the author still stands strong behind the decision of conducting both the interviews and coding in Swedish, certain disadvantages to cross-language research could be noticed during data analysis, such as loss of conceptual equivalences, altered meanings of the words and aspects left out during coding due to difficulties in translating ([Squires](#), 2009).

In addition, it has to be mentioned that the meaning given to certain words during coding might be subjective and slightly different from what the interviewees aimed to express, due to the fact that “almost any utterance in any language carries with it a set of assumptions, feelings, and values that the speaker may or may not be aware of but that the field worker, as an outsider, usually is not” ([Phillips](#), 1960: 291).

In order to address these limitations, the author focused on explaining the process to the readers (see 2.5.1. and 2.5.2.) and clarifying how these problems have been addressed.

2.6. Research quality

2.6.1. Limitations

Eight criteria have been identified by Tracy (2013) as being crucial in conducting good qualitative research and they refer to the research being “on a worthy topic...conducted with

rich rigor and sincerity – that is, transparency of methods – and credibility; that the research resonates with a variety of audiences and makes a significant contribution; that it attends to ethical considerations; and finally, that the study have meaningful coherence” (in [Merriam & Tisdell](#), 2015: 240).

Since the present thesis uses a case study, semi-structured interviews, and questionnaires as research methods, it must be mentioned that the limited number of cases included might impact on the generalization of the results, regardless of similarities between municipalities.

The limitations regarding interviews identified during the research refer to the interviewees’ fear to give answers that are socially undesirable, the interviewer’s lack of ability to notice body language and the time-constraints (some of the interviewees tried to rush through the interview due to busy schedules). The first limitation was addressed through ethical considerations, guaranteeing the interviewees both verbally and through the means of the informed consent that their answers will be anonymized, and they will not be identified based on their comments in any way and by anyone later during the study or if it is to be replicated ([SRA](#), 2003). As for the second limitation, the interviewer aimed at noticing vocal inflections, considering that “everything that is said must be said in some way – in some tone of voice, at some rate of speed, with some intonation or loudness” ([Wengraf](#), 2001:25) and use these remarks in the interviews’ transcriptions in order to see whether there is a pattern when it comes to specific questions in terms of pauses, rapid speech and silence. In regards to the third limitation, the interviewer aimed at addressing it through being clear, both in the beginning of the interview and the initial e-mail, about the expected duration of the interview and asking follow-up questions when the answers were too short or not clear enough. In addition, all interviewees were informed about the scope and background of the study, in order for them to be able to make a reasoned decision of whether to participate or not.

In terms of online questionnaires, some limitations such as item nonresponse, lack of background information regarding the respondents and the fact that “researchers do not interact with the respondents during the survey and thus cannot probe or oversee the data being collected” ([Cooper et.al.](#), 2006: 2) could be identified. Handling missing answers was done through making the questions mandatory and those still incomplete were then removed from the analysis since it was considered that they might affect the results. As for the lack of background information on the respondents, it was considered that this is not of high priority,

and even though certain information regarding their background could be used for better understanding their answers, this aspect was considered to be beyond the scope of the present paper. Moreover, the lack of interaction between the researcher and the respondents was considered an advantage in the present case, due to the sensitivity of the subject and the difficulties that might have emerged in answering the questions through a face-to-face interview. Last but not least, the questionnaires were filled in by children and their vulnerability ([Creswell, 2013: 55](#)) was addressed through guaranteeing complete anonymity in filling out the questionnaires and lack of possibility to connect any answers to a particular respondent.

In order to ensure the validity and reliability of the study, the thesis was based on different data collection methods and focused on triangulating data and information from a wide range of sources.

3. Conceptual framework

The present chapter outlines the terminology and frameworks that have been used as starting-points in narrowing down the research questions as well as understanding whether a municipality can enhance its preparedness, reduce disaster risks and become resilient by the means of SBDP.

3.1. Societal resilience

Based on the context it applies to, the concept “resilience” has been understood in various ways, either as the ability of a system to “return to normalcy” ([Pendall et.al.](#), 2010: 72) or flipping “from one equilibrium to another” ([ibid.](#): 73). Moreover, a third approach to resilience refers to it as “the ability [of a system] to keep adapting” ([Alexander](#), 2013: 2712), an approach that implies a continuous change and no predefined equilibrium. The definition of societal resilience chosen for the present paper (see Chapter 1.7.) has been preferred over others because it represents a complex and comprehensive approach to resilience, including the “capacities [a society needs] to be able to develop and maintain our communities and society along our preferred expected development trajectory and within these boundaries” ([Becker](#), 2014: 144), regardless of the experienced challenges.

3.2. DRM as a mean for achieving societal resilience

Within the present paper, DRM is understood as the umbrella framework of risk management, referring to managing the risk in an exposed population whose vulnerability is even more amplified by the occurrence of a natural hazard (see [Figure 1](#)) with the final aim of achieving resilience.

Defining risk has always been a challenge for scholars and even though there are a lot of definitions out there, researchers never tend to completely agree when it comes to choosing the most reliable explanation of what the concept of “risk” entails. However, [Aven & Renn](#)'s (2010) understanding of “risk” is the one that the author resonated best with and which seemed appropriate for the present thesis. The two see risk as “a perspective to analyse the uncertain consequences of future developments and changes in societies” (p.2). Risk includes uncertainties and inaccuracies, making it difficult for a municipality, school, person, etc. to predict it entirely. Managing risk refers to those “coordinated activities [conducted] to

direct and control an organization with regard to risk” ([ISO 31000](#), 2009: 2), with a lot of phases that need to be included in order to ensure its usefulness, such as “communication and consultation, establishing the context, risk assessment,(...), risk treatment, monitoring and reviewing” ([ISO 31010](#), 2009: 8).

3.3. Preparedness in DRM

The second phase of DRM, preparedness is understood as crucial in hazards since it focuses on minimizing “hazards’ adverse effects through effective precautionary measures that ensure a timely, appropriate, and efficient organization and delivery of response and relief action” ([Coppola](#), 2011: 251).

3.4. SBDP – emergent themes

As SBDP has not been discussed a lot before, but rather included in the general discussion on disaster preparedness, there were not many frameworks regarding schools’ preparedness that could be used for the present thesis. However, a relevant document from the Consortium for Disaster Education (CDE) Indonesia has been used in understanding the broad emergent themes of SBDP and narrowing down the scope of the study to a discussion on municipalities and communities, schools, staff, students, and caregivers. In addition to this document, Priority 3 of the Sendai Framework for DRR asks for investing in DRR for resilience through strengthening “disaster-resilient public and private investments, particularly through structural, non-structural and functional disaster risk prevention and reduction measures in critical facilities, in particular **schools** and hospitals and physical infrastructures...” ([UNISDR](#), 2015: 19). During the last couple of years, Sweden has been working towards achieving the priorities of the aforementioned framework and acknowledging the importance of schools as impacting “societal development through increasing the knowledge base of the country as a whole” (MSB, 2017: 21).

According to the author’s understanding, SBDP refers to schools’ capacity to actively participate and plan DRR actions that are focused on lowering the impacts of disasters on the educational establishments, students, caregivers and school staff. It is important to understand that SBDP is not limited to school premises, but that schools represent the place where the first stones of preparedness are laid, the students’ capacity in managing disasters is enhanced and their safety is ensured through information, transparency and reliability of sources.

3.5. The Comprehensive School Safety Framework – an incremental approach to preparedness

Building on the previous discussion on SBDP including not only school staff but all actors directly or indirectly part in the educational process, the framework created by the International Federation of Red Cross and Red Crescent Societies (IFRC) comes in handy with a series of objectives, activities and plans that are focused on schools' preparedness and that are supposed to be "aligned to national, subnational and local disaster management plans" (IFRC, 2015: 11).

The framework focuses on three main pillars: safe infrastructure, SDM and risk reduction education, aiming to "protect learners and education workers from death, injury and harm in schools; plan for educational continuity in the face of all possible hazards and threats [and] safeguard the education sector investments and strengthen risk reduction and resilience through education" (*ibid.*: 13). Finally, IFRC focuses on underlining the importance of increased awareness amongst all those involved in the educational process and argues that when this is achieved, "a culture wherein school communities are motivated to take initiatives on disaster management planning and working up to higher levels of safety" (*ibid.*: 14) is created. All these elements have been essential in the data analysis, providing the author with different angles from which to approach the topic.

3.5. A summary of the framework

To summarize, the framework used for the present thesis consists of a compilation between the aforementioned concepts and the main ideas behind them, being aimed at underlining the inclusion of not only students and school staff in the SBDP process, but of all actors involved in the educational process.

Even though DRM plays the role of the overarching framework for the present thesis, it is broken down into phases and steps, so that the main focus lies in preparedness and the capacities of municipalities, schools and other educational actors to manage and address risks, in order to achieve resilience.

4. Results

In this chapter, the findings derived from primary data are presented. The approach was to combine the quantitative data resulted from the questionnaire and the qualitative input from the interviews, all findings being then discussed in Chapter 5 with conclusions drawn in Chapter 6. When the discussion refers to both interviewees and students, they are named “respondents”.

This chapter is divided into three parts, based on the thesis’s research questions, with the first part looking into the respondents’ personal experiences, crisis awareness levels and expectations on the municipality. The second part of the chapter digs deeper into respondents’ own preparedness, looking at, inter alia, the training and information sessions attended, the SBDP activities organised in schools, as well as the skills and tools developed and required in order to deal with crises. Last but not least, the third section deals with the respondents’ perception of the current situation in schools, in order to understand what the available resources are, whether they are used or not and how the systems in place work, both in terms of human resources and accessible information.

For these three sections, the results were not reported in the order the questions were asked, but rather based on the category they best fit in. The results obtained from questions regarding respondents’ perceptions, experiences and their expectations from the municipality were included in Chapter 4.1., while Chapter 4.2. mainly focuses on reporting the data concerning respondents’ knowledge, tools and skills required for SBDP, as well as their availability to learn more and share their expertise with others. For Chapter 4.3., the data reported refers to the human and technical resources available and the current level of disaster preparedness education in the participating schools.

4.1. Awareness, personal experiences and the municipality’s focus

While the first question addressed to the students regarded their understanding of the concept “disaster/catastrophe”³, the interviewees were given the chance to talk about disasters as they understand them, without any additional clarification from the interviewer, a decision taken with the aim of getting as broad a perspective upon the topic as possible. More than 60 % of the students considered that a “disaster” implies something bad happening, with 28 % of them claiming that it affects a large number of persons. On the other hand, some of the students

³ Translated from Swedish: ”katastrof” – as the term used in the original questionnaire

used the words “crisis”, “chaos”, “disaster” and “catastrophe” interchangeably, while others gave certain examples of “disasters” they have heard of, such as the Corona virus outbreak or the Indian Ocean earthquake. 6 % considered that a disaster implies death, while the same percentage of respondents claimed that the concept refers to a lack of preparedness of the people affected. Last but not least, the students choosing “Other” named the idea of a worst case scenario, an accident or bad weather (see *Figure 6*).

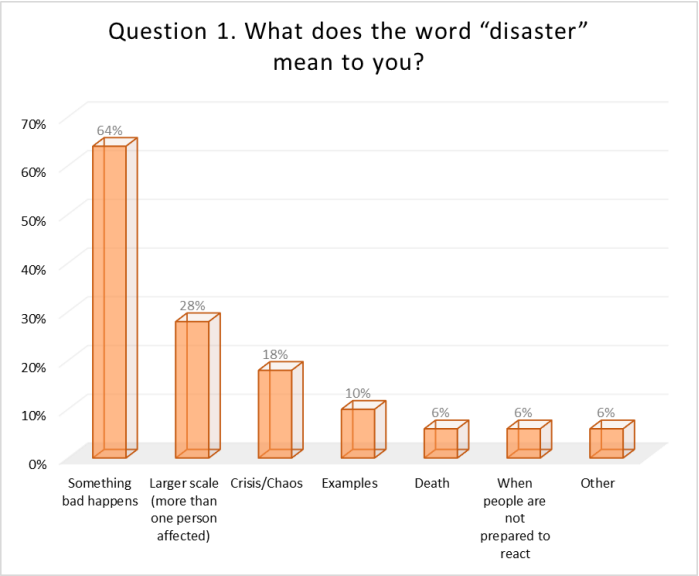


Figure 6. Quantitative Dataset: Disaster

Further on, the interviewees were asked why municipalities should focus on SBDP and more than 80 % of the respondents considered that it is essential to know what to do when a crisis emerges. The interviewees also agreed that it is both natural hazards and other type of events that might be relevant when talking about SBDP, as well as that it is important to be aware that crises might happen and be “mentally ready to react” (see *Figure 7*). In order to know how to react when a hazard strikes, all of the interviewees agreed that it is useful to have a school-based disaster management (SBDM) plan, the so-called “crisis plan” (see *Figure 8*).

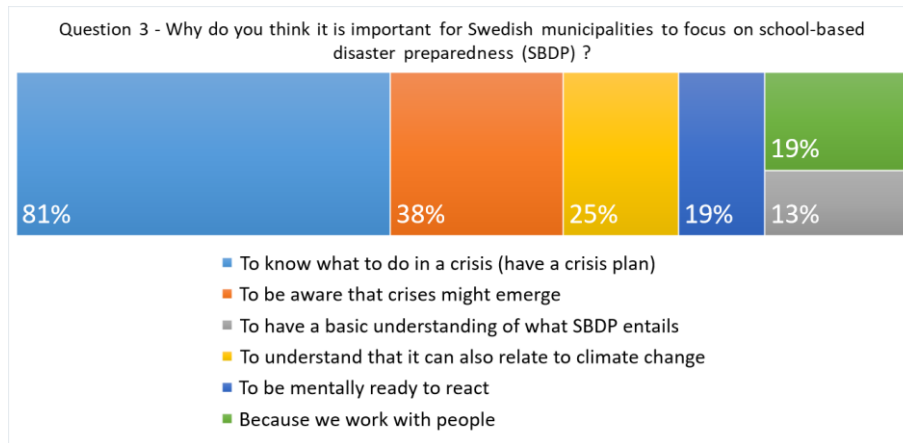


Figure 7. Qualitative Dataset: Importance of SBDP

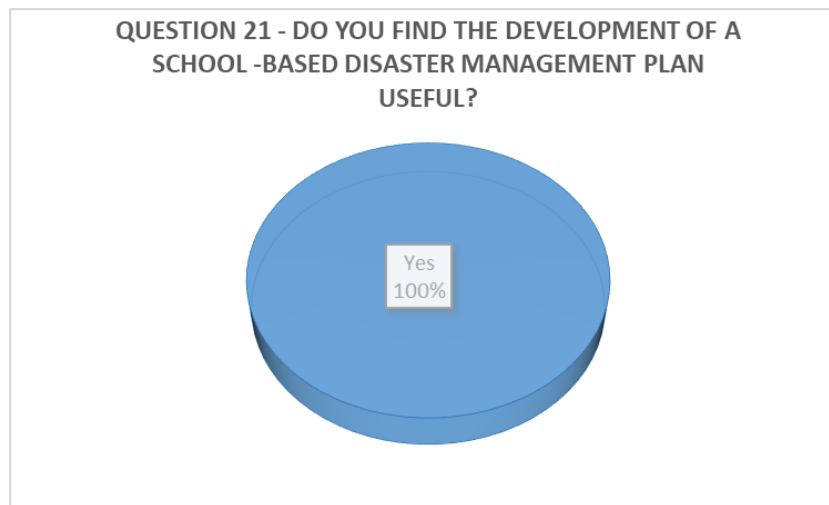


Figure 8. Qualitative Dataset: Useful plan

When asked what the municipality should focus on in terms of SBDP, 63 % of the interviewees claimed that it should make sure that each school has an up-to-date crisis plan available and that staff is aware of what needs to be done when a hazard strikes. 44 % of the interviewees considered that it is essential to think strategically and work systematically with the issues at stake, while 38 % named other aspects that are important in terms of municipality’s approach to SBDP, such as “students”, “security” and “acute diseases”⁴ (see *Figure 9*).

⁴ Translated from Swedish: ”eleverna”, ”säkerheten”, ”akuta sjukdomar i dessa tider”

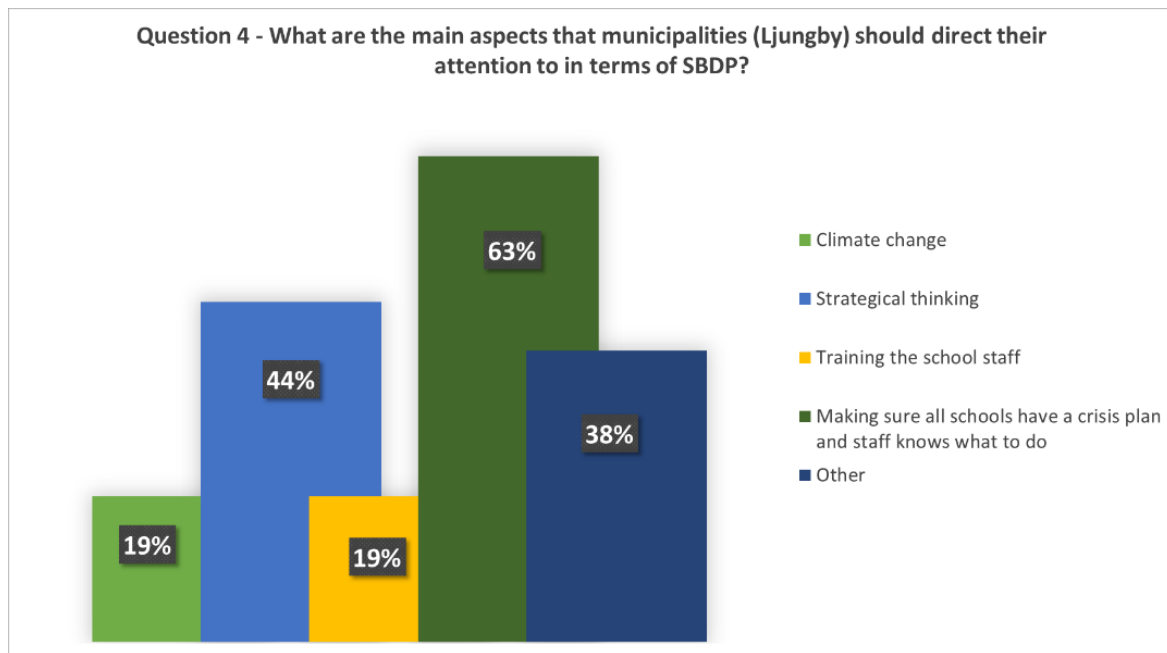


Figure 9. Qualitative Dataset: Municipality's focus

The students' awareness was later tested by asking them to name hazards that they know of. More than half of the respondents (26 out of 50) focused on natural hazards, giving different examples, either as particular historical events (i.e. the Chernobyl disaster), as general types of natural events like storms or floods or just by answering "natural hazards". As for the large amount of respondents that focused on epidemics & pandemics, half of them (11 out of 22) mentioned the Corona virus outbreak, while the others focused on either generally naming "epidemics/pandemics" or giving examples, i.e. the Spanish flu. "War" was another common answer, with 15 out of 50 respondents choosing to either name historical events (i.e. World War I) or mention "war" in their list of answers. Students were also aware of antagonistic events as another type of hazard, with 10 of them mentioning "terrorist attacks" or naming particular acts of terrorism, such as 9/11 or school shootings (see [Figure 10](#)). As for the answer "other", this included a wide range of hazards, either more related to students' lives, economic crisis or industrial emissions.

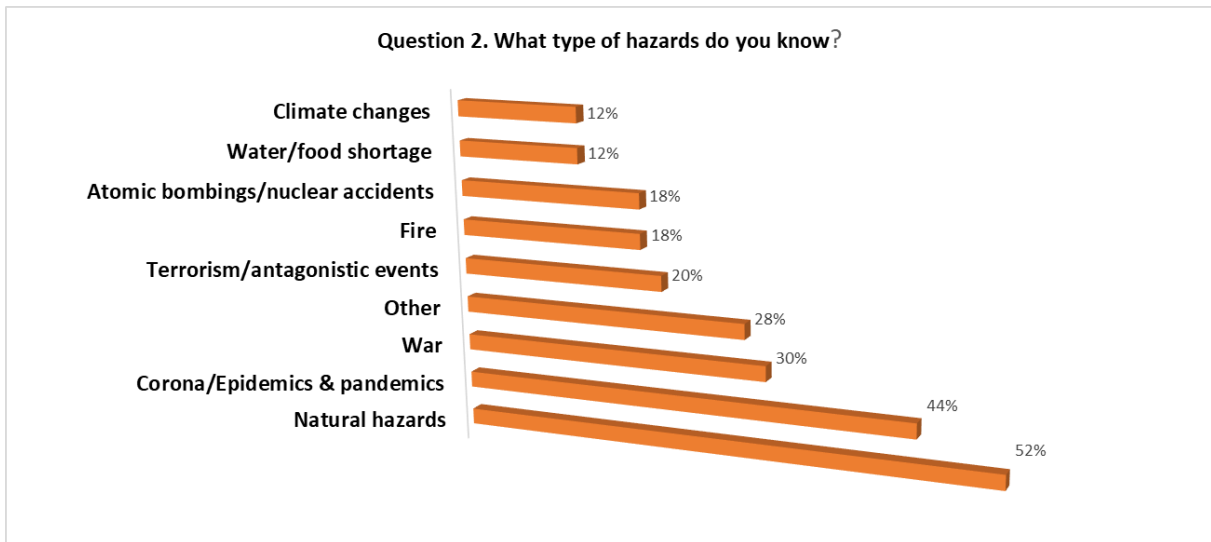


Figure 10. Quantitative Dataset: Types of disasters

A discussion on natural hazards and climate change was initiated with the interviewees, as a complement to the aforementioned question directed to the students. The main problem identified by the majority of respondents (81 % - see *Figure 11*) was floods, with the river Lagan, that flows through the city, reaching extremely high water levels during the last couple of months. The interviewees also named strong winds, storms, and drought, but they did not consider these events to be as problematic as floods.

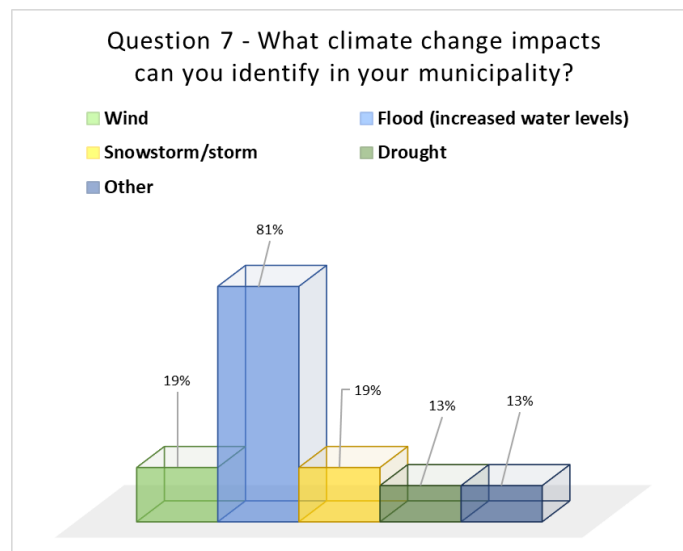


Figure 11. Qualitative Dataset: Climate change impacts

Since one of the main hazards affecting Ljungby was the 2005 Storm Gudrun (see Chapter 2.1), the interviewees were asked about the educational impact of this natural hazard on their schools. While 44 % of the respondents considered that it had a major impact

(i.e. students and staff living in the rural area could not travel to schools, schools used as evacuation center), 19 % claimed that the consequences were minor and 6 % did not notice any effects at all. However, 31 % of the interviewees could not answer the question (see *Figure 12*) since, due to different reasons, they were either not working in schools at that time or were living in another city.

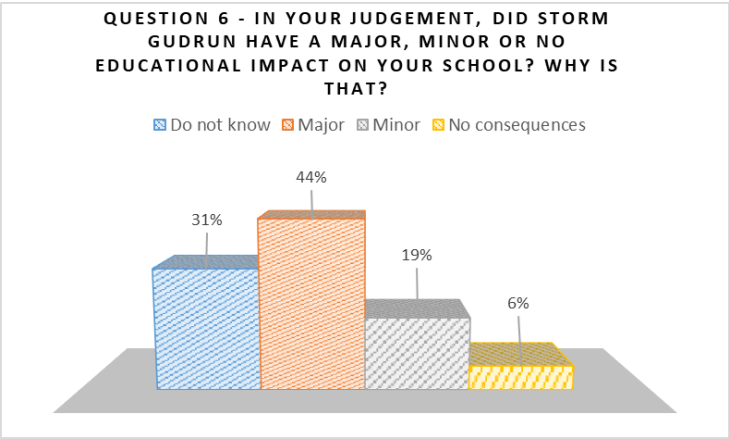


Figure 12. Qualitative Dataset: Gudrun

Moving back to students’ personal awareness, after giving them the chance to name hazards that they know of, they were presented with a list of hazards and asked to choose how likely it is for these events to affect their schools (see *Figure 13*). A similar question was asked during the interviews, when the interviewees were presented with a more complex list of events and asked to name which of those are relevant and can be problematic for their schools (see *Figure 14*).

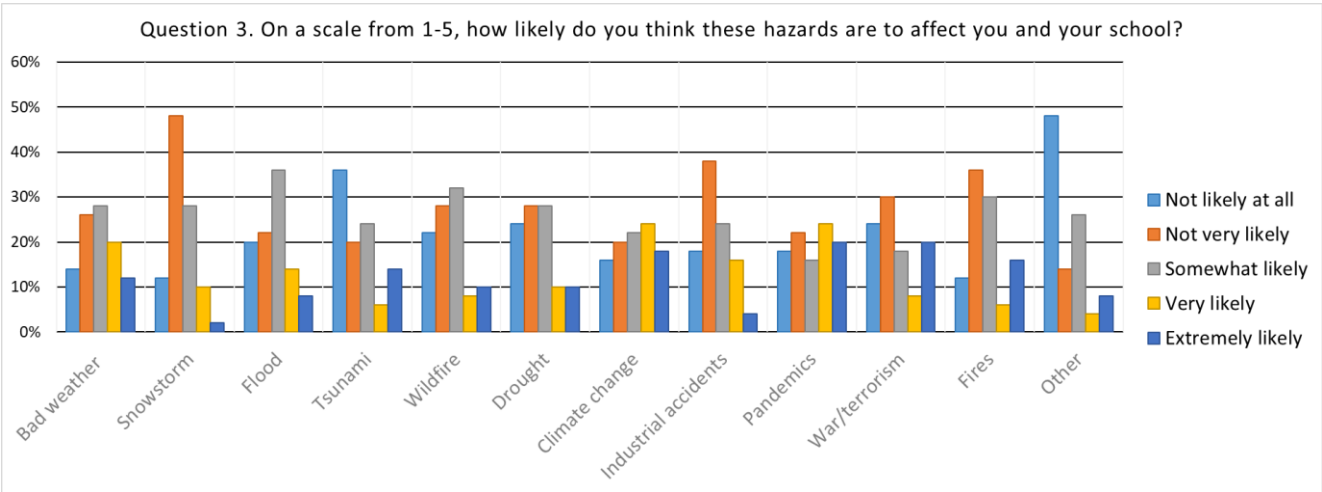


Figure 13. Quantitative Dataset: Likelihoods

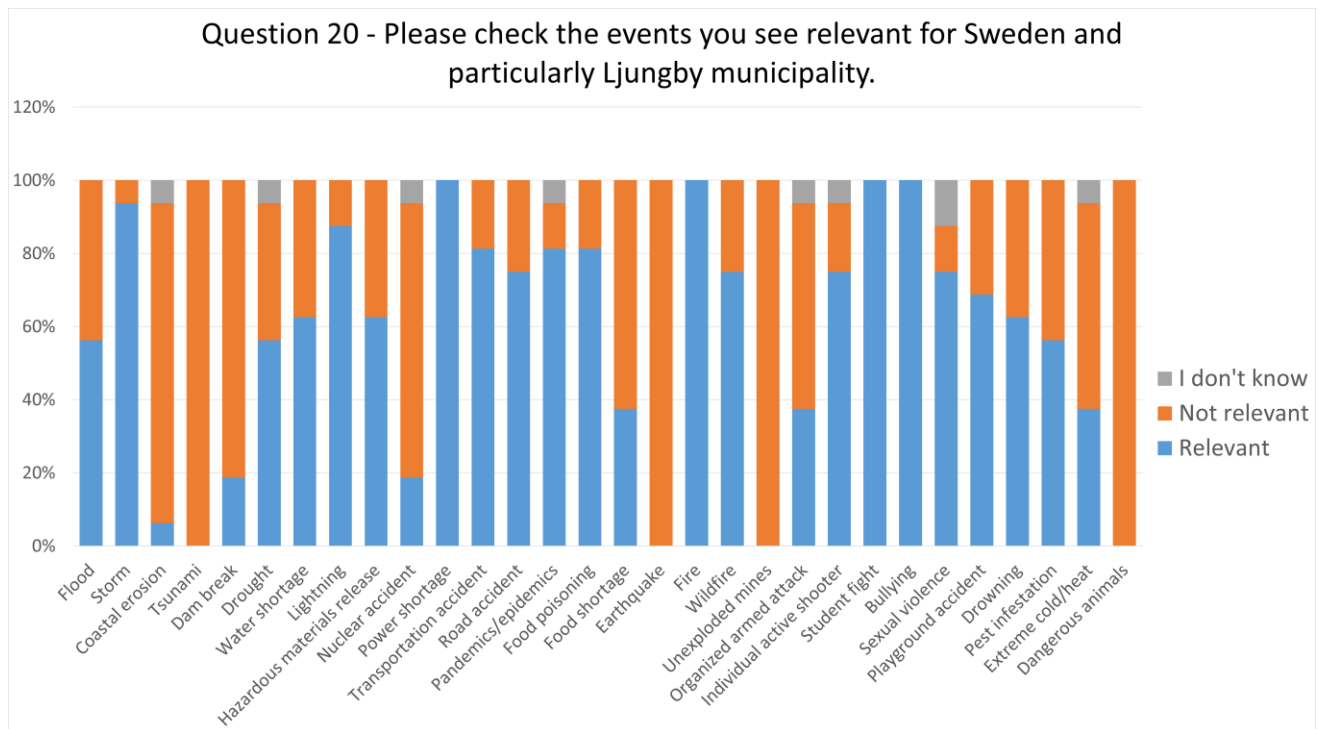


Figure 14. Qualitative Dataset: Relevance

While both the students and interviewees considered pandemics as relevant for their schools, students argued that war/terrorism and climate change are also main hazards that are extremely likely to affect them. On the other hand, the interviewees focused more on natural hazards (i.e. storms, lightning, fires) and student-related issues, such as student fighting and bullying. Floods and fires might affect the schools, but their likelihood is not considered high by the students, as opposed to how both events are perceived by the interviewees. The most unlikely events to happen, according to the students and staff are tsunamis and earthquakes, due to the geographical location of the municipality.

All of the respondents were given the chance to name other hazards that they might find relevant, but only the students took the opportunity and came up with a list of events, summarised in the word cloud below (see [Figure 15](#)).

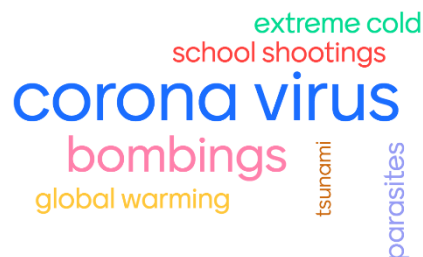


Figure 15. Quantitative Dataset: Other hazards

Building on the same topic and with the aim of understanding how the students perceive the effects different hazards might have on schools, a multiple-choice question was asked through the questionnaire. As it can be seen in *Figure 16*, most of the students (58 %) considered that hazard-caused diseases are the most relevant for their schools, closely followed by food poisoning and unsafe premises (52 %), as well as students feeling insecure & scared (50 %). Almost half of the respondents chose water contamination (46 %), school attendance (44 %) and access to school establishments (40 %) as important effects on the schooling situation, while only about 1/4 or less of the respondents considered that academic performance and schools being used as evacuation centres might become problematic when a disaster strikes.

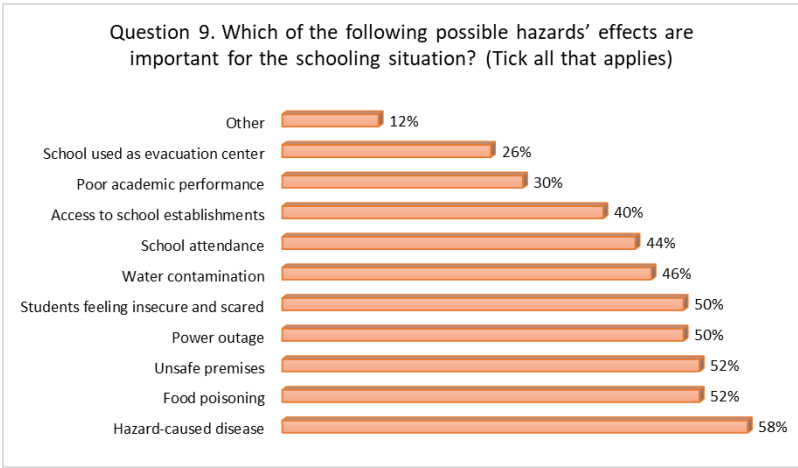


Figure 16. Quantitative Dataset: Hazards' effects

The aforementioned responses have been augmented by the interviewees' answers when asked to think about what aspects are important to be considered before a disaster strikes, when it comes to schools and students. Here, the previously mentioned concerns about security and safety appeared under the following question "What do we do with the students?", with 38 % of the interviewees considering that it is extremely important to have a plan for this, before a hazard emerges. According to the interviewees, it is also very important to know what the available human resources within the schools are (31 %), where should both students and staff go when a crisis happens (25 %) and how should the caregivers be informed about the situation (25 %). Last but not least, 19 % of the staff were concerned about who to contact and what to do first, while only 13 % considered checking the guidelines of the crisis plan (see *Figure 17*).

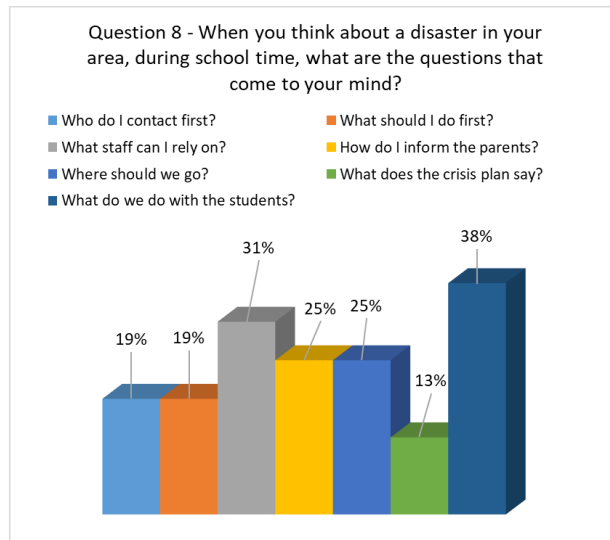


Figure 17. Qualitative Dataset: Pre-hazards questions

Before moving into discussing the respondents' own preparedness, the fifth question of the questionnaire dug into students' personal experiences, asking whether they have ever been affected by any of the hazards mentioned in Question 3 (see [Figure 13](#)).

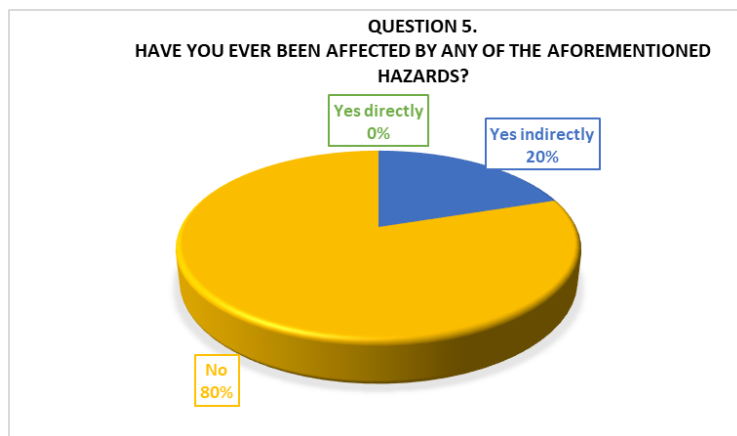


Figure 18. Quantitative Dataset: Personal experience

Even though none of the students has ever been directly affected, 10 of the 50 students have been indirectly affected (see [Figure 18](#)), either by storms (4 out of 10) or other natural hazards – “We have recently experienced drought and it made us focus on water-saving through, for example, collecting rainwater and use it to flush the toilet”⁵ (extract from

⁵ Statement translated from Swedish: ”Vi upplevde en torka nyligen, den påverkade oss på så vis att vi helt enkelt var tvungna att vara vattensnåla ex. genom att samla regnvatten och använda det för att spola med.”

the follow-up question - Question 6, asking for a description of the experienced hazard) – see *Appendix F*.

4.2. Own preparedness

When questioning students' willingness to participate in different activities or share information with other students, most of them did not seem willing to perform any of the aforementioned actions to improve their preparedness and schools' capacities (see *Figure 19*), with only between 24-34 % being able to visualise themselves participating in SBDP activities, passing SBDP information to younger students and encouraging their schoolmates to learn more about the topic. More than half of the students (52 %) claimed that they are not willing to share information with younger generations.

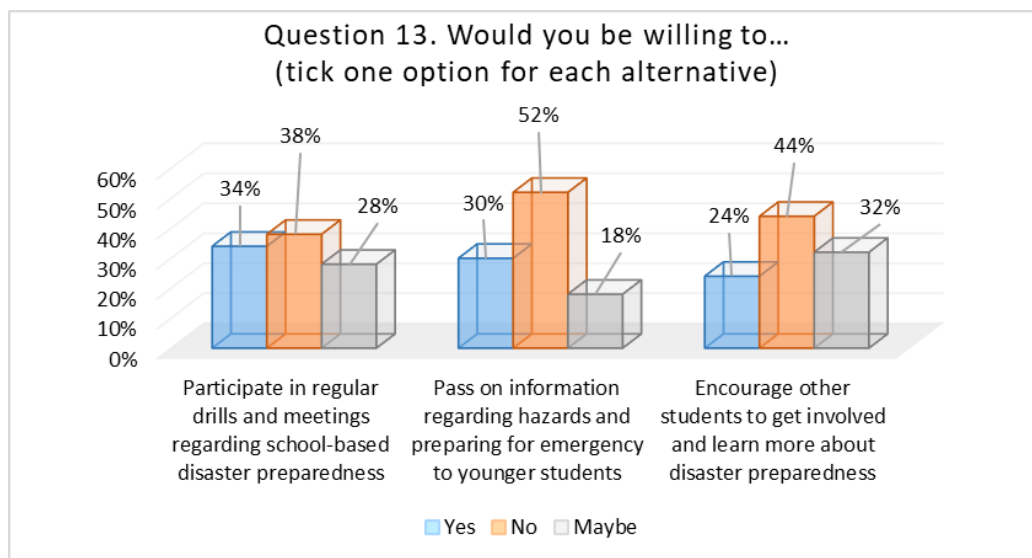


Figure 19. Quantitative Dataset: Willingness

Interviewees' preparedness was also discussed by the means of a question regarding whether they have attended any DRR trainings. Out of the 16 respondents, only 6 have participated in educational sessions with focus on crisis management, while half of them have not received any training in DRR and 2 of them have gained practical experience through their work (see *Figure 20*).

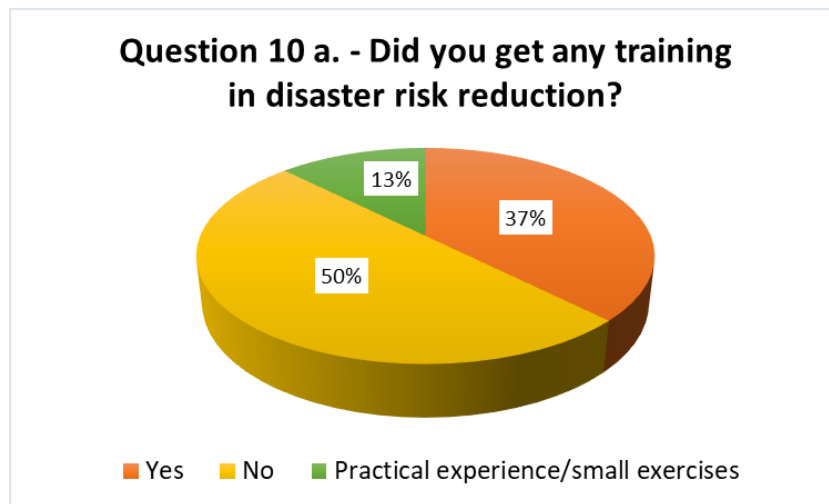


Figure 20. Qualitative Dataset: Training

As for whether students feel ready to respond to an emergency, 62 % of the respondents consider that they do not have the information and knowledge that might be required in such a situation (see *Figure 21*), arguing that they are lacking an overall picture (22 %) of what to do (44 %), where to go (15 %), as well as “how the school is dealing with crises and how it thinks students should deal with crises”⁶ (37 %) – see *Figure 22*.

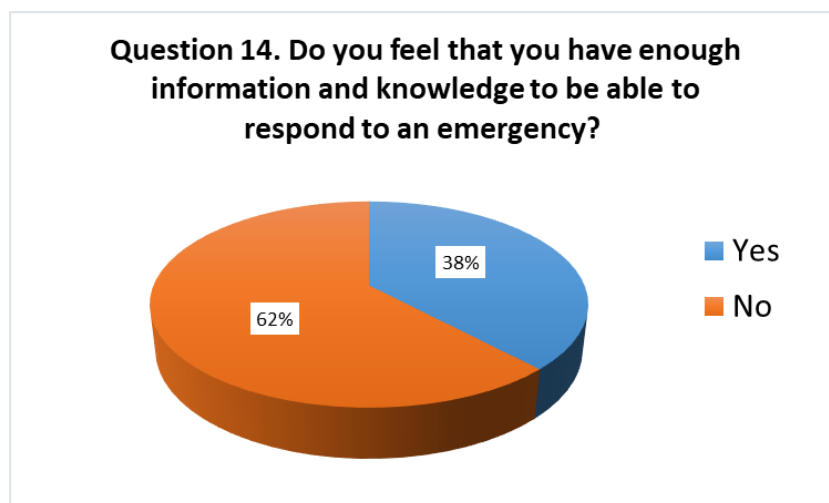


Figure 21. Quantitative Dataset: Information & knowledge

⁶ Statement translated from Swedish: “[...] hur skolan hanterar kriser, hur skolan tycker att eleverna ska hantera krissituationer”

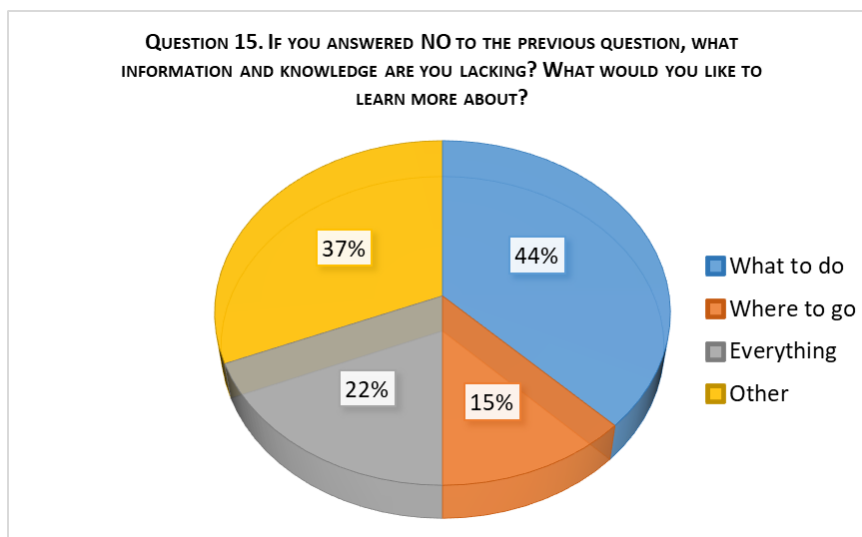


Figure 22. Quantitative Dataset: Information & knowledge required

The information gathered by the means of Questions 14 and 15 in the questionnaire was supplemented by the answers received from the interviewees in regard to what SBDP activities have been conducted within their schools in the last couple of years. Almost half of them named fire drills (26 %) and watching movies or reading written information (23 %), as main activities. While 19 % of the interviewees claimed that a certain amount of training in threat and violence management has been provided to both students and staff, only 1/4 of them mentioned roleplay activities or theme days organised within the municipality or schools (see *Figure 23*). As for those who named “other” activities, these implied reading books, updating crisis plans or learning the “run-hide-fight”⁷ technique. However, according to the interviewees’ answers, it was mainly staff who participated in most of these activities, students being active only during fire drills, watching movies and threat and violence management training – see *Appendix E* (Question 5b).

⁷ Translated from Swedish: “fly-göm-slåss”

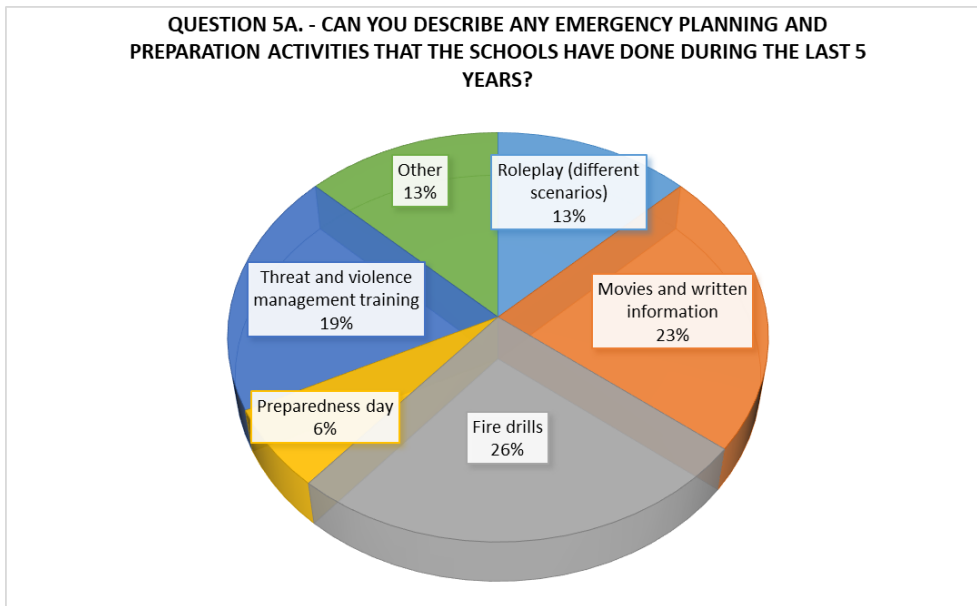


Figure 23. Qualitative Dataset: SBDP activities

On the other hand, all of the interviewees claimed that students know where to go in case an event happens, and 94 % of them considered themselves fully aware of infrastructure (see *Figure 24*), as a result of conducting fire drills regularly within their schools (see *Figure 25*).

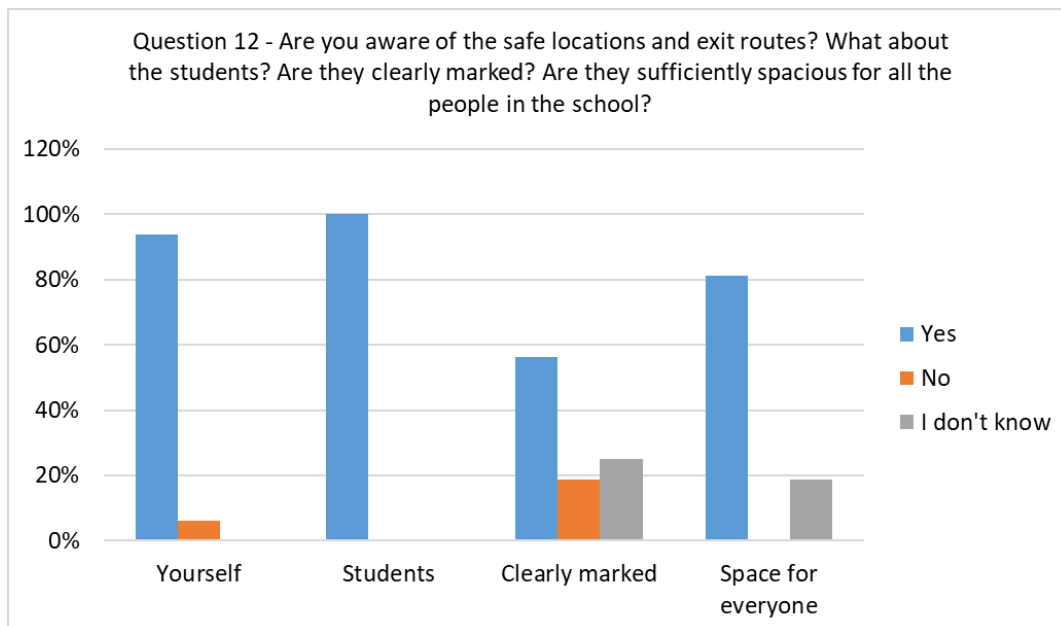


Figure 24. Qualitative Dataset: Safe locations & exit routes

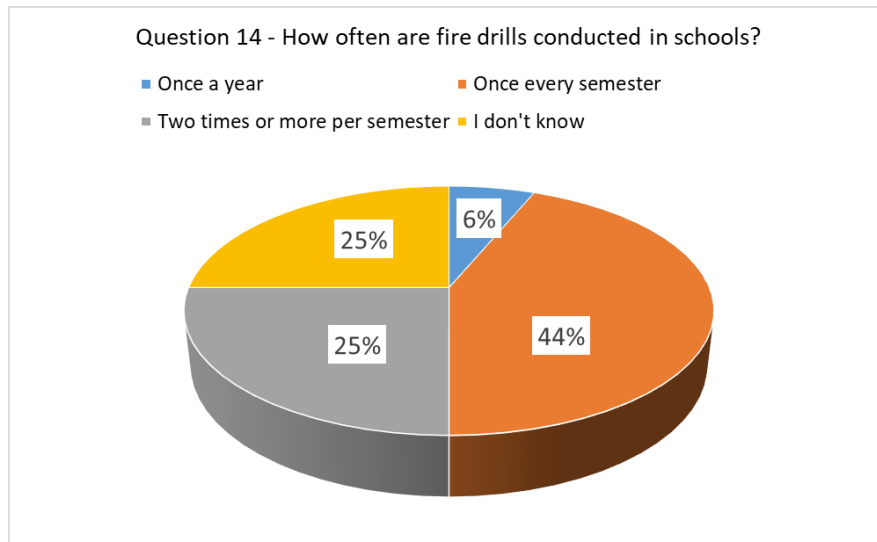


Figure 25. Qualitative Dataset: Fire drills

The numbers indicated by *Figure 21* (regarding students' perceived capability to respond to emergencies) seem to be complemented by the answers received when staff was asked where students can find information regarding crisis management (Question 16). As shown in *Figure 26*, most of the interviewees named their learning platforms where both students and parents have access to information regarding different plans, activities and news, but none of the respondents named any school meetings where they discussed about SBDP or any other type of formal disaster preparedness structure. Furthermore, the majority of the interviewees claimed that it is students' responsibility to access the platform and search for this information, if interested to find out more about disaster preparedness. Nevertheless, some of the interviewees were not sure whether this information exists, since they were not aware of any crisis management plans, finding it difficult to assess whether students might have access to information or not.



Figure 26. Qualitative Dataset: Available information

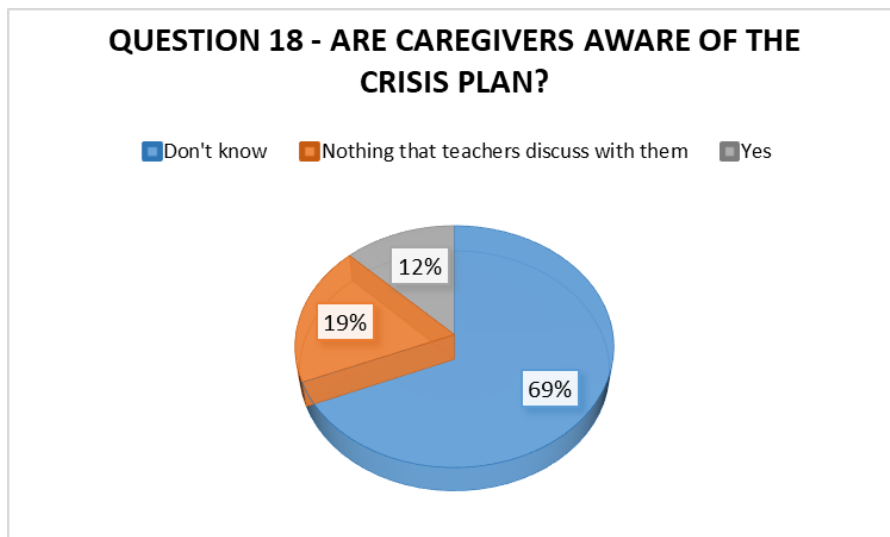


Figure 27. Qualitative Dataset: Caregivers

In the case of caregivers, 69 % of the interviewees do not know whether these are aware of the crisis plan or not, with 3 out of the 16 (see *Figure 27*) arguing that this is not something that teachers discuss with them during formal meetings, but that they rather focus on the “fair and equal treatment plan”⁸ – see *Appendix E* (Question 16).

By the means of the 16th question, the students had to dig deeper in their own preparedness and emotions by assessing the uncertainty of the future and their capacities to deal with crises as well as how they feel about climate change. 82 % of the respondents do not attend trainings on emergency preparedness, while only 1 student out of 50 attends meetings regularly. Not many students have taken any preparedness measures at home, as recommended by the “If crisis or war comes” booklet⁹, with 60 % of them stating that they never apply these measures within their households, and only 20 % doing it every once in a while. The impacts of climate change on their municipality and lives is a hot topic amongst students, with 46 %, respectively 40 % being concerned about these issues. While 37 of the students think about hazards every now and then, 8 are doing it a few times a month. On the other hand, even though 70 % of the students think about their abilities and capacities in dealing with a hazard, only 36 % would consider attending additional lectures on emergency preparedness at certain times, while 20 % of them might be willing to do it rarely (see *Figure 28*).

⁸ Translated from Swedish: ”likabehandlingsplan”

⁹ Available at: <https://www.dinsakerhet.se/siteassets/dinsakerhet.se/broschyren-om-krisen-eller-kriget-kommer/om-krisen-eller-kriget-kommer---engelska-2.pdf>

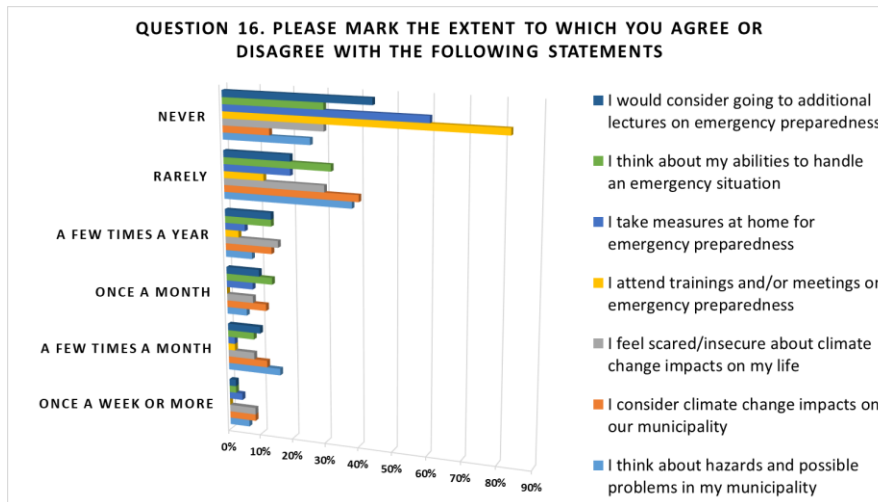


Figure 28. Quantitative Dataset: Own preparedness

When it comes to how they can contribute to improving SBDP in their schools, almost half of the students (44 %) do not know what they can do, arguing that getting more information seems to be the way through which an increased level of SBDP can be reached. This is followed by getting to know more about the emergency shelters that exists within the school (13 %), helping each other (11 %) and “questioning schools’ disaster preparedness since they never have taught us how to deal with a crisis”¹⁰ as alternative ways to increase the disaster preparedness within their schools – see *Appendix F*. 3 out of the students who answered this question considered that, in a crisis, it is important to act quick and calm (see *Figure 29*).

Question 17. How can you help improving disaster preparedness in your school?

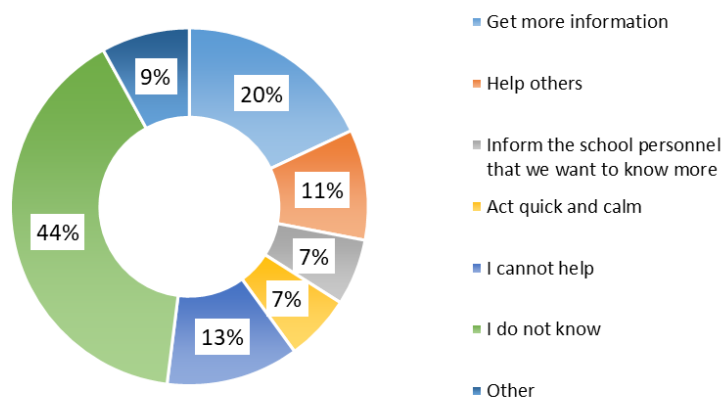


Figure 29. Quantitative Dataset: Input

¹⁰ Translated from Swedish: ”ifrågasätta skolans krisberedskap då de aldrig har lärt oss hur man hanterar en kris”

Giving the lack of knowledge that was underlined by the answers to the previous question, it was hard for the students to assess their needs for dealing with an emergency within the school are. However, 21 % of them were able to mention that keeping calm is key, as well as having knowledge regarding how to act (16 %) and the practical skills (10 %) required for responding to a crisis. In addition, cardiopulmonary resuscitation (CPR) and leadership skills were considered important by 3, respectively 4 students (see *Figure 30*), while some chose to name other aspects, such as willingness to help.

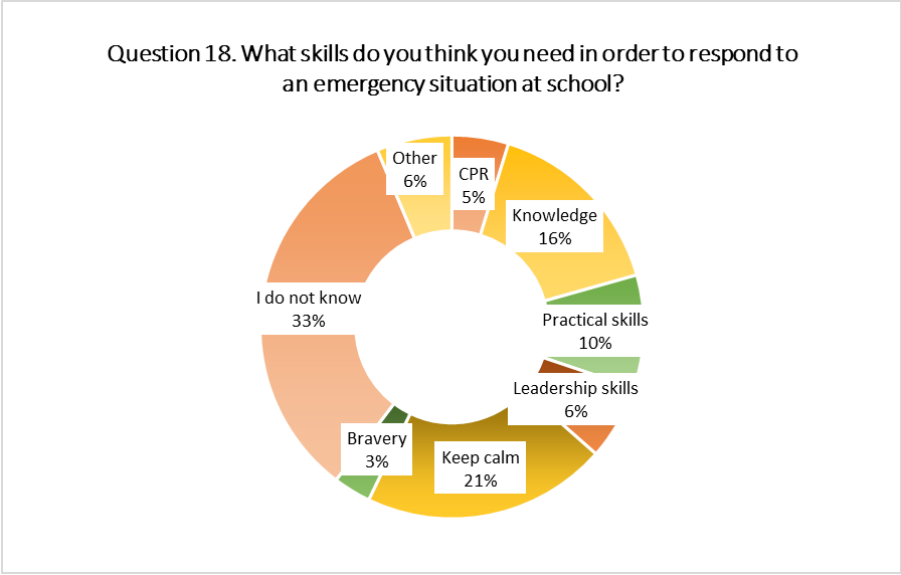


Figure 30. Quantitative Dataset: Skills

4.3. Current situation in schools

Questions 7, 8, 11 and 12 of the questionnaire mainly focused on understanding the situation within the participating schools with Question 7 being aimed at understanding who students acknowledge as being key resources in reducing the risks of hazards. It is important to mention that they were given the chance to tick as many options as they liked for this question.

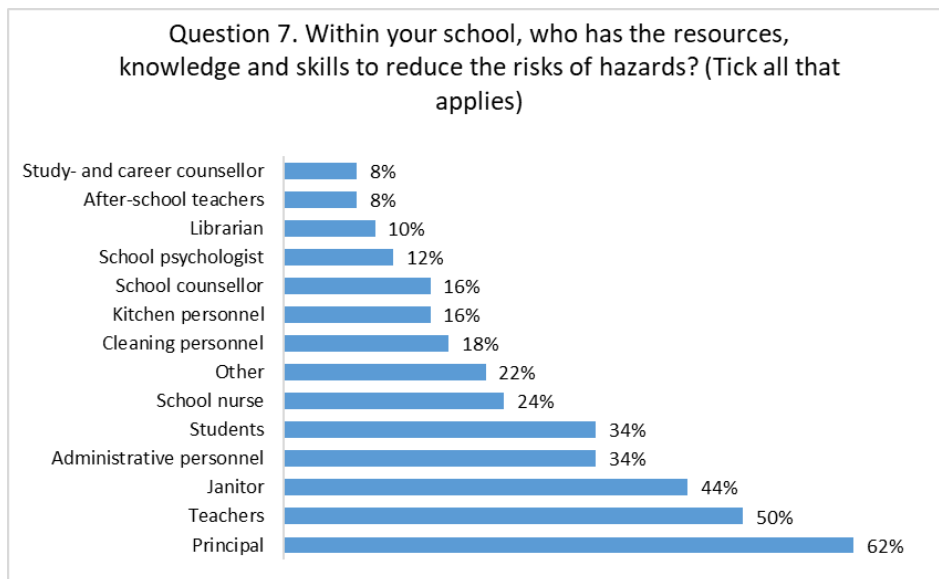


Figure 31. Quantitative Dataset: Key resource

More than 60 % of the students considered that principals are the ones who have the necessary resources, skills, and knowledge to reduce the risks within their schools, closely followed by teachers and janitors. 17 out of 50 students considered themselves and their schoolmates as being resourceful when it comes to reducing risks, with the same number of respondents naming the administrative personnel as important in reaching this aim. The after-school teachers and study- and career counsellors were not ranked as high as the other school staff, being last on the list, right after school nurses, cleaning personnel, school counsellor, kitchen personnel and librarians (see *Figure 31*). The students were also given the chance to name other people that they consider capable of reducing the risks within the schools (Question 8) and their answers are summarised in *Figure 32*. 4 out of 10 considered that there is no one who can “minimize catastrophes” or “influence whether there is a storm coming or a terrorist that starts shooting around”¹¹ (answers to Question 8), while 2 students considered that the firefighters can help reduce the impacts of hazards. The others each named another answer, as shown in the word cloud below.

¹¹ Translated from Swedish: ”minska katastroferna”, ”jag tänker att ingen kan påverka om det kommer en storm eller om det kommer en terrorist och börjar skjuta”

god electricians
no one
firefighter
president

Figure 32. Quantitative Dataset: Other resources

In their turn, interviewees were asked to name what their input in increasing students' awareness and preparedness might be. 50 % of them claimed that they can offer help and support, as well as keep the students informed and updated. One of the interviewees made clear that it is essential to “base yourself on facts and be as objective as possible towards the situation”¹² - see *Appendix E* (Question 23). While 25 % of the interviewees considered that they should be clear and structured, 13 % mentioned being calm, offering appropriate study conditions and describe their own experiences or talking to the principals about SBDP importance as possible ways through which students' awareness and school's preparedness can be enhanced (see *Figure 33*).

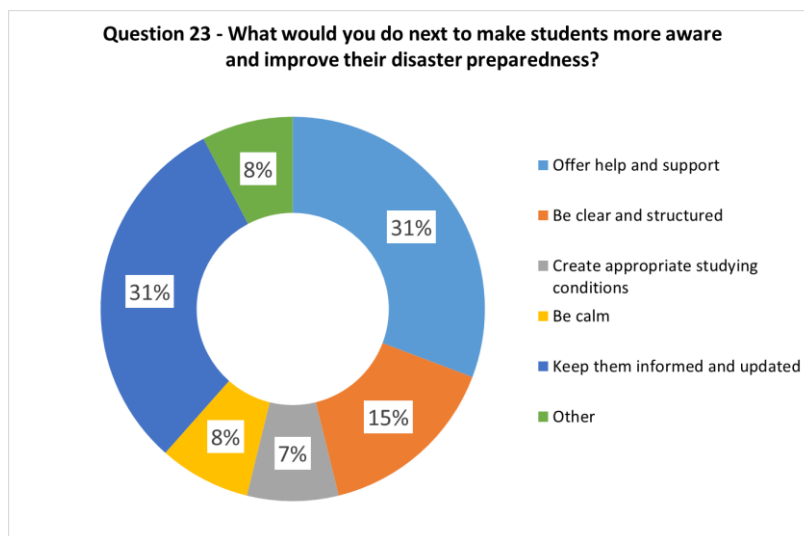


Figure 33. Qualitative Dataset: Own input

In terms of whether it is clear or not who is in charge when a crisis emerges, the interviewees considered that this is well-stated in the crisis plan, with 68,75 % of the respondents considering that the roles and responsibilities are clear, and only 12,5 % not

¹² Translated from Swedish: "försöker vara så saklig och nyanserad som möjligt"

being sure whether is the principal or someone else in charge when a crisis emerges (see *Figure 34*).

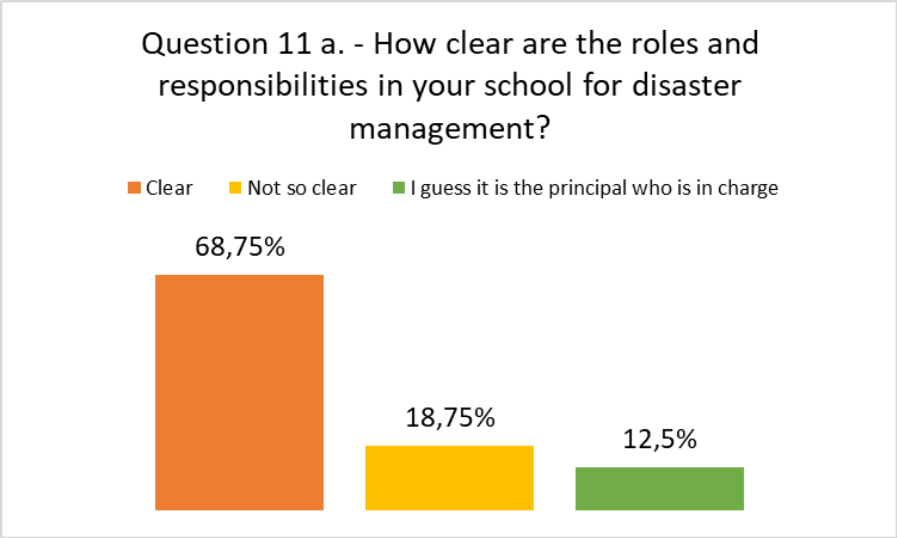


Figure 34. Qualitative Dataset: Roles and responsibilities

In addition, 75 % of the interviewees argued that there are enough people within the schools that can provide support to both students and other staff during crises (see *Figure 35*) and according to them, almost all staff is trained in first aid (FA) and CPR, with only few exceptions when it comes to new employees who might not have had the opportunity to get trained yet (see *Figure 36* and *Appendix E* – Question 19).

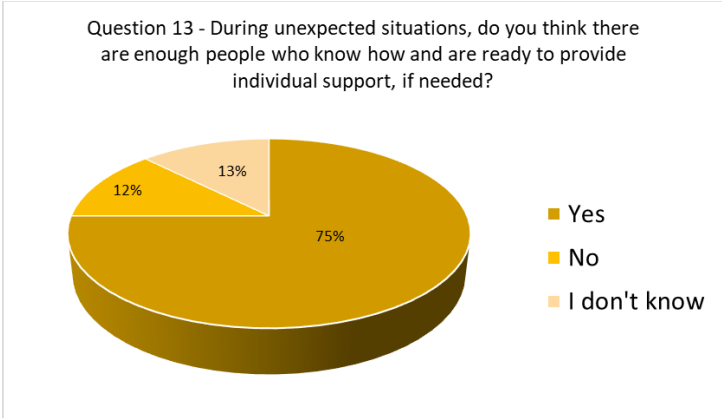


Figure 35. Qualitative Dataset: Individual support

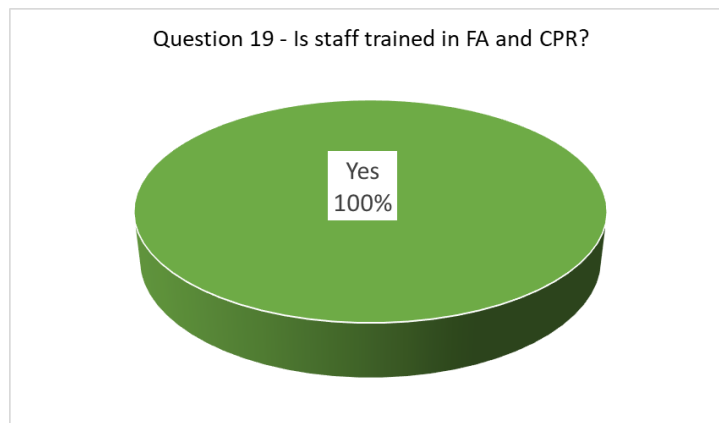


Figure 36. Qualitative Dataset: FA and CPR

Besides discussing the available human resources within the schools, the interviewees were asked to name whether they have certain SBDP items available in schools and given the chance to add to the list provided. All of the interviewees agreed that fire safety kits are available in schools and most of them (81 %) were also aware of the existence of FA kits. However, not many of the interviewees were able to answer whether they have generators or other equipment for alternative energy, neither whether they have big flashlights that can be used in case of a power outage (18,75 %) - see *Figure 37*. In addition, only one of the participating schools is equipped with speakers that can be used during a crisis in order to forward a message to both students and staff, while the rest of the schools no longer have such a system in place. The interviewees were also asked whether they think it might be useful to have speakers and they did not all agree on the issue, with some arguing that it might be extremely helpful to reach a large audience fast and others claiming that it might be used for wrong purposes¹³ or that there is no need for such a system since “nowadays we have computers and mobile phones so we can send signals very fast”¹⁴ - see *Appendix E* (Question 15b).

¹³ Translated from Swedish: “man får också med sig att det kan ju också utnyttjas i felsyfte vid en kris”

¹⁴ Translated from Swedish: “vi har ju våra datorer, mobiler...idag kan du skicka signaler väldigt snabbt ju”

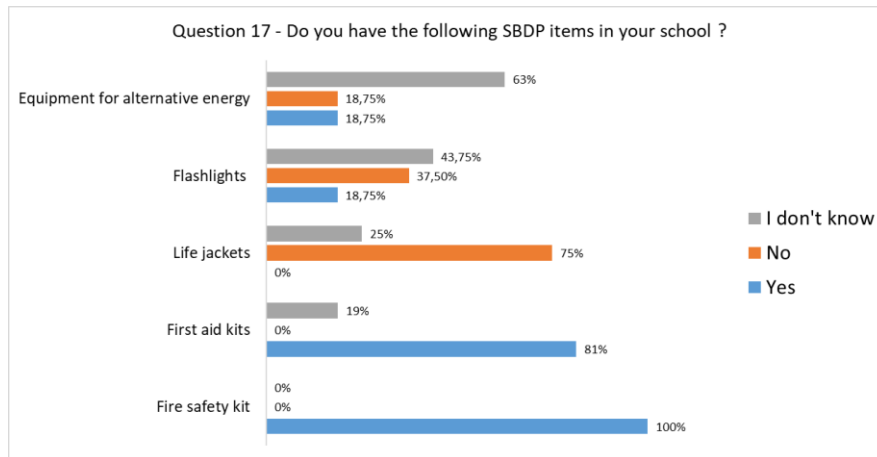


Figure 37. Qualitative Dataset: SBDP items

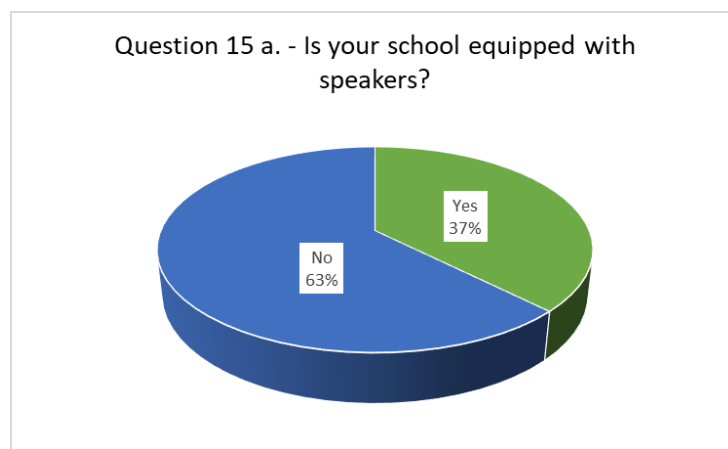
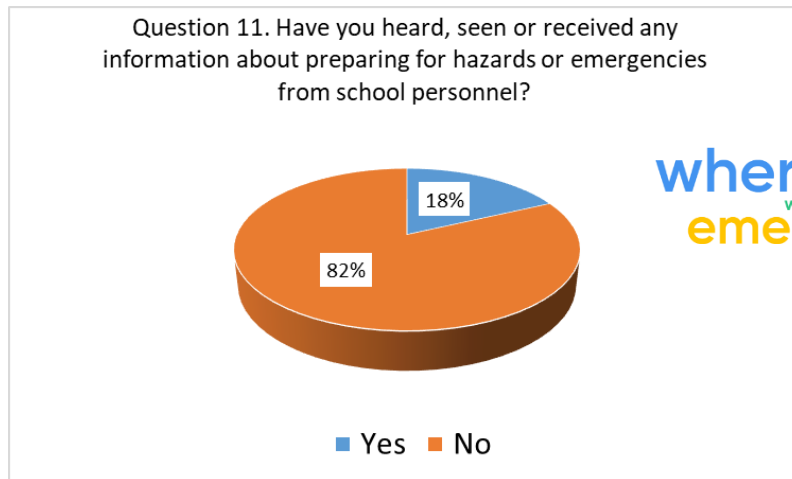


Figure 38. Qualitative Dataset: Speakers

In Questions 11 and 12 of the questionnaire, the focus was mainly on the tools and skills that the students have been “equipped” with by the schools, in order to better understand the current situation in the participating schools. 9 students confirmed that they received information regarding SBDP from school staff (see *Figure 39*), adding that this information regarded “where to go in case of fire” (4 respondents), “that there is an emergency shelter inside the school” (4 respondents) and the importance of “washing hands” (1 respondent).



where to go if fire
wash hands
emergency shelter

Figure 39. Quantitative Dataset: Information

In relation to the knowledge and information that students are lacking, the interviewees were asked whether they consider important to teach students about risks and prepare them for different scenarios. 56 % of the respondents agreed that it is necessary to do so, while 44 % were uncertain (see *Figure 40*), considering that it depends on the students' age and that it is very important to avoid increasing students' fears and anxiety. According to them, the focus should be on discussing these issues as something that might happen in the future, rather than as a current risk – see *Appendix E* (Question 9).

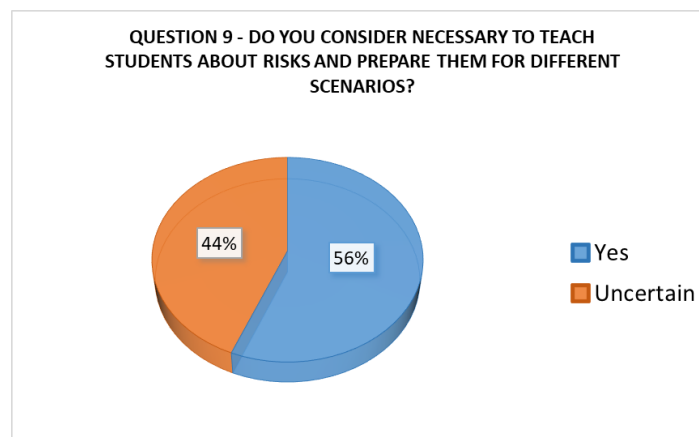


Figure 40. Qualitative Dataset: Necessity

When asked what the next feasible steps for their schools are, 33 % of the interviewees did not know whether there are any ongoing SBDP plans, while 28 % considered that it should focus on updating the crisis plans to make sure they tackle contemporary crises, such as pandemics (due to the Corona virus outbreak) as well as that they are comprehensive. 4 out of the 16 respondents mentioned that training staff is also a step that should be taken by

schools, while 3 of them claimed that the focus should be on threat and violence management, for both students and staff (see *Figure 41*).

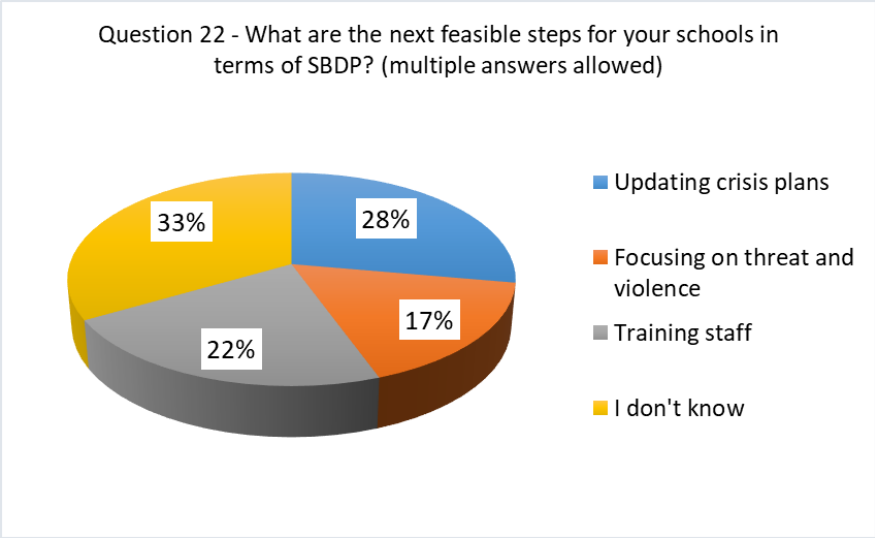


Figure 41. Qualitative Dataset: Next steps

5. Discussion

As mentioned in the beginning of the paper, children and youth are of high importance when it comes to DRM since they are considered one of the most vulnerable categories of people in disasters, together with, inter alia, “individuals with disabilities, pregnant women,(...), elderly persons (...) and the impoverished” ([Hoffman](#), 2009: 1491). Their vulnerability is acknowledged in the specialised literature and attention is drawn to the fact that they “face particular risks to their health, psychosocial well-being, protection, nutrition, as well as **access to education.**” ([World Vision](#), 2016: 1).

While previous research (see Chapter 1.2.) did not deal with students’ preparedness as the main topic, but rather with preparing schools and staff for what might happen, the present study focuses on the importance of students-aimed SBDP, based on the qualitative and quantitative data obtained during interviews and questionnaires, complemented by scientific literature and SBDP material from the three participating schools and MSB.

5.1. Ljungby municipality and SBDP

In order to understand how the respondents perceive SBDP, the author decided to firstly ask the students to define “disasters” as they know them and then name different hazards that they are aware of. As for the interviewees, they were allowed to discuss disasters from any point of view, without a clear definition being provided at the beginning of the interview, with the aim of avoiding limiting their answers. When asked why municipalities should focus on SBDP, 81 % of the interviewees considered that this is the way to be prepared for a crisis and they all agreed on the importance of developing a SBDM plan. The latter corresponds to scientific research, which argues that the well-being of students and staff can be ensured through “plans and procedures in preparation for future emergencies” ([Tipler](#), 2017: 13).

Crisis plans have been a recurrent answer during interviews and their development was seen as one of the main aspects (63 %) that Ljungby municipality should direct its attention to when it comes to SBDP, together with long-term thinking and systematic work. The scientific literature also argues for both short- and long-term preparedness and claims that these can be reached through comprehensive plans that are “addressing response needs for multiple types of crises, disasters and emergencies” (U.S. Department of Health and Human Services, 2001 as cited in [Tigges](#), 2008: 29).

By the means of the literature review, it could be noticed that no researcher argues for a “one size fits all” approach when it comes to either crisis plans or school preparedness in general, but rather for certain core aspects that should be included in any SBDM plan, regardless of where the school is located and what its capacities are: clear roles and responsibilities; maps of the school establishments, exit routes and safe locations; students and staff with special needs; available capacities and strategies for continuity of school operations (Tipler, 2017: 14-16). Some of these aspects have been mentioned by the interviewees as important to take into consideration before a hazard strikes, with 38 % of them wondering what to do with the students, what staff is available – 31 % and where to go – 25 %.

In terms of whether the respondents have been affected by hazards or not, it could be noticed that not many students have been affected by a disaster, a question relevant for increasing students’ awareness in relation to hazards. This seemed to be the best way to open up the discussion on their perceptions and make them active parts in the research, since, according to specialised literature, “children’s **perceptions** of risks and disasters are to be studied in their own **right**, not least because children’s **needs** are not necessarily met if adult requirements are satisfied” (Delicado et.al., 2017: 248).

Even though not many of the students experienced disasters, they were still aware of the likelihood of different events and most of their answers regarding what hazards are more likely to affect Ljungby municipality and their schools coincided with the interviewees’ assessment of similar events’ relevance. When discussing the effects of hazards on schools, the students seemed to be most afraid of hazard-borne diseases (58 %), food poisoning and unsafe premises (52 %). The discussion on safe school environments is recurrent in the school preparedness literature where it is argued that disaster resistant establishments “help guarantee continuity of education” (Ziauddin, 2016: 20) and therefore it should be of main importance since “where access to education is disrupted after a disaster or emergency, this can have a detrimental effect on children” (Tipler, 2017: 3).

While not many students could relate to climate change impacts, the interviewees, who had lived longer in the area, experienced the 2005 Storm Gudrun and are more aware of the water level rising’s effects on the municipality, could take a broader approach to the topic and dig deeper into discussing the continuous changes that happen in the municipality. This opened up the path to answering the second research question regarding

the measures that had already been taken by the municipality in terms of SBDP as well as what the available SBDP capacities in the participating schools are.

5.2. Measures taken and available capacities

In order to understand what measures have been taken by Ljungby municipality in terms of SBDP, the author questioned whether the interviewees received any DRR training, as well as what SBDP activities had been conducted in the last 5 years in the participating schools. According to the respondents, the focus had mainly been on fire drills, with only few activities conducted on threat and violence management, as well as FA and CPR. As school preparedness literature suggests, constant training and providing teachers with the knowledge and skills required to prepare the students are essential in creating a culture of preparedness in schools: “drills and exercises should be conducted frequently and should be taken seriously because through practice, the students and teachers will learn what to do and how to behave in an emergency” ([Dube & Orodho](#), 2016: 10).

However, out of the 16 interviewees, only 32 % have received one or another form of crisis management training. This might be a sign of the need to scale-down the training programs from a national level all the way to the regional, local and school level with the aim of implementing “comprehensive school safety with clear goals, targets, strategies, monitoring and management, and allocation of funds” ([World Vision](#), 2016: 97). 50 % of the students who answered the questionnaire considered that teachers are valuable resources when it comes to SBDP and that they are the ones who have the skills and knowledge required to respond to an emergency. However, an even higher trust was given to the principals (62 %) and this is an aspect that needs further consideration. According to specialised literature, principals are seen as key members of schools, being considered “number one person[s] for the realization of effective instruction and management of schools” ([Ozmen](#), 2006: 392). Therefore, their training should be of primary interest for the municipalities since they need to gain “leadership qualities to deal effectively and adequately with the issues on disaster mitigation, preparedness and management” ([ibid.](#)).

It is not only the training of principals that should be a priority for municipalities when it comes to SBDP, but also the focus on sustainability of efforts and resilience of schools. One of the interviewees, an employee of Children- and education administration, claimed, when asked about what municipalities should focus on when it comes to SBDP, that building new schools should be strategic and aspects such as number of entrances, exit routes

and emergency exits¹⁵ should be taken into consideration. The importance of the schools' infrastructure is also acknowledged in school preparedness literature with researchers claiming that "school administration need to protect investment in physical infrastructure and plan for reinforcement or upgrading of existing structures to become more resistant and resilient to the damaging effects of disaster" (Onyango, 2011: xvii).

According to the interviewed staff, all of the students are aware of the safe locations and exit routes and almost the same goes for the staff. However, even though it appears that everyone on the school premises can assemble in the safe locations, whether these and the ways there are clearly marked remains a problem, considering that only 56 % of the respondents argued for their visibility. This might be a point of development for the municipality, considering the aforementioned statement of the administration's employee and the need identified by the respondents.

In terms of the schools' available capacities, the author asked a series of questions regarding, inter alia, whether the roles and responsibilities for response are clear and what SBDP items exist in each school, as well as the information students received, their assessment of their own preparedness and the SBDP needs they identify. With 68,75 % of the staff arguing for having clear roles and responsibilities for crisis management within their schools and 75 % of them considering that there is enough personnel capable of giving individual support to both students and staff if a disaster strikes, it can be concluded that human resources for SBDP do not seem to be a problem in any of the participating schools. However, when asked about the available SBDP items in their schools, many of the interviewees were not able to recall whether they have seen any equipment for alternative energy, life jackets or big flashlights. Yet, most of them argued that this type of equipment might be available through the janitor, a key resource, according to both staff and students. Since this was brought up during both interviews and questionnaire, it can be argued that having only one person with access to all resources might be problematic and restrictive if, when a hazard hits, all the necessary material for coping with the crisis is to be accessed through an intermediary only.

In order to explore how students perceive their schools' capacities, the author decided to firstly understand whether children are willing to become SBDP resources. Even though specialised literature argues for the fact that "children of different ages and grade

¹⁵ Adapted from Swedish: "när vi bygger nya lokaler, nya skolor, det gör vi rätt mycket just nu, hur vi tänker på att vi bygger med, till exempel, fler ingångar, nödutgång osv. Ett strategisk tänkande behövs."

levels can play an important role in preparing schools and themselves against future disasters” ([World Vision](#), 2016: iv), the students who took the questionnaire did not feel like sharing knowledge with younger generations (52 %) or participate in trainings (38 %) and pass on information (44 %). This reticence might be due to their lack of information (62 % - see [Figure 21](#)) and therefore, schools might consider that, based on the present results, providing them with more information and making them aware of the importance of being prepared, can turn students from possible victims into resourceful actors in crisis management.

As mentioned in Chapter 5.1., it is very important to listen to children and their own assessments in order to understand how to effectively help them. Through the means of the questionnaire, students were asked how they can help improve disaster preparedness within their schools and what they feel lacking when it comes to their own readiness. The issue of available information came as an answer to both questions, with 20 % of the 50 students considering that they need more knowledge in order to be able to increase SBDP levels in their schools and with 40 % arguing that they do not know what to do so it might be hard for them to react in case a disaster strikes. Since students are aware of their needs and willing to inform the staff about what they are lacking in order to be valuable SBDP actors, it is now up to the municipality and schools to prioritize these aspects when they develop new strategies and policies for disaster preparedness. It is crucial to remember that “children spend approximately one-third of their day at school for five or six days per week for the majority of the year [and therefore], it makes sense to practice and involve them in the process of preparedness when they are at school” ([Merchant](#), 2015: 24).

Yet, it might be difficult to find the perfect formula for all students. As many of the interviewees argued, it is very important to consider the students’ age and avoid increasing their anxiety when teaching them about disaster preparedness and involving them in SBDP activities. The specialised literature argues for “creative ways to integrate DRR in extra-curricular and formal curriculum activities” ([World Vision](#), 2016: 98) and not only in consideration for students but also for keeping teachers motivated.

With 31 % of the staff arguing for keeping students informed as the best way to help them, their willingness to include SBDP in their teaching can be acknowledged. In addition, some of the interviewed staff (13 %) mentioned that they have been trained in DRR through role plays where different scenarios were tested, and these later became a starting-point in developing strategies to react to unexpected situations. The school preparedness literature argues for documenting and incorporating such methodologies “in the training for

teachers (e.g. use games, role play, songs, dance and theatre)” ([ibid.](#)), with these being then available for use in educating students. These aspects combined (teachers’ willingness, past experience and specialised literature) might represent the base for including such activities in the formal curriculum and allow students to increase their preparedness during school hours. As understood by the author, something similar is already conducted in terms of CPR for students, with this training being included in the physical education classes – “I think it is a course requirement for physical education to have CPR training”¹⁶. However, according to the respondents, this is mainly directed to students in years 7-9, so the education seems to be limited to the older students. Yet, since this is already a practice in some schools, these educational establishments can serve as examples of good practice in including more SBDP training in the curriculum of Ljunby’s schools.

The author’s understanding of the impacts this can have on the municipality and its resilience follows in the next section.

5.3. Students-aimed SBDP and (societal) resilience

One of the main points presented by MSB as a result of a research conducted on how societies can become safer was that their emergency preparedness needs to be strengthened in order for them to be able to deal “with serious extraordinary events that risk leading to society being unable to function with its ordinary resources, structures or organisation” ([MSB](#), 2014: 29). This aspect is relevant for the present discussion on the relationship between students-aimed SBDP and societal resilience, since, according to MSB, it is not only important to ensure the continuity of operations during and after a crisis, but also to gather “knowledge of particularly serious threats and risks, responsibilities, organisation and structure, resources, and methods to try and strengthen these aspects, for example through **exercises**” ([ibid.](#)).

In specialised literature, schools are seen as key resources in enforcing societal resilience “due to their existing relationships with youth and their families...[and] the potential to influence not only these specific groups but also extend that influence into the wider community by enhancing community resilience before, during, and after a disaster or emergency” ([Tipler](#), 2017: 38). Additionally, the predecessor of the Sendai Framework for DRR (see Chapter 3.2.), the Hyogo Framework for Action 2005-2015 asked for using “knowledge, innovation and education to build a culture of safety and resilience at all levels”

¹⁶ Statement translated from Swedish: “Jag tror att det står i kurskraven i idrott att de ska ha HLR utbildning”.

([UNISDR](#), 2005: 9), with UNISDR later (2007) claiming that “children taught about disasters, can pass on to their parents what they have learnt about hazards and risk reduction” (UNISDR cited in [Mamogale](#), 2011:2) and thus, enhance resilience in their communities. If this becomes a common effort within the society, then one can start talking about sustainable societal resilience, at least in terms of disaster preparedness.

However, as it appeared from the interviews, when asked what are the next feasible steps for their schools in terms of disaster preparedness, only 17 % of the 16 interviewees considered that formal training should also include students, not only staff, but argued for directing these efforts towards threat and violence management, rather than general SBDP. However, it is important to consider that this result might be due to the fact that only about half of the interviewed staff considered themselves trained in crisis management, in one way or another, and therefore they might not feel confident in teaching students. As acknowledged by [UNISDR](#) (2006), “initial teacher training and in-service training are essential if education is to result in increased hazard knowledge and changed risk behaviour that ripples from the classroom into the community” (p.10).

This entails that before focusing on introducing disaster preparedness into both the formal and in-formal curriculum, municipalities and schools should focus on training the school staff and providing them with the knowledge and tools required for them to be able to pass information to the students. It is, of course, a complex effort that requires implication from all levels, since a curriculum cannot be change at local level, but it must be set or modified by the government. However, in Sweden, “municipalities are responsible for organising most of the education from preschool to upper secondary school” ([Eurydice](#), 2020), which means that they have a certain independence in terms of structuring their schools’ educational process and therefore, Ljungby municipality can serve as a pioneer aiming to “promote the inclusion of disaster risk reduction knowledge in relevant sections of school curricula at all levels” ([Mamogale](#), 2011: 27).

But it is a long and challenging way to go, mainly because it might be difficult “to convince educators and administrators that hazards curricula is worthy of a place in what is routinely an already crowded schedule” ([Ronan & Johnston](#), 2005: 50). However, the author argues that if the decision-makers (Children- and education administration) and policy-implementers (school staff) become aware of both the short- and long-term benefits of

including SBDP in the curriculum, they will be willing to give it a try and collaborate in order to increase their municipality's resilience.

Some of the short-term advantages of including SBDP in the curriculum, according to specialised literature are “more realistic risk perceptions, lower levels of hazard-related fear, and lower levels of perceived hazard-related fear in [the] parents” (Ronan et.al., 2001 cited in [Ronan & Johnston](#), 2005: 52). Increasing students' knowledge regarding disaster preparedness might also result in higher levels of motivation in their parents when it comes to preparing their households and making them resilient to hazards ([ibid.](#)). It is also important to acknowledge that children should be seen as main actors in disaster preparedness and given an active role in risk communication, since they have so many natural skills and therefore can serve as anything from ““analysers” of risk and of DRR strategies, “designers” and “implementers” of projects, “communicators” of risk and possible management options with adults that live and interact with them, [to] “mobilisers” of resources and people” (Tanner et.al., 2009 cited in [Bonati & Mendes](#), 2014: 168).

When it comes to the long-term view on students-aimed SBDP, studies have been conducted with the aim of understanding how students who receive disaster preparedness education react to unexpected situations. It has been shown that they have an improved understanding of what can happen and tend to feel less scared and insecure (a problem according to the students answering the questionnaire – see [Figure 16](#)), due to the fact that they are getting “more realistic perceptions of the likelihood of the occurrence of a hazard, (...), and the likelihood of physical injury due to the occurrence of a hazard”(Ronan et.al., 2008: 343). In addition, it is considered that they are also better equipped from a psychological point of view to deal with stress and trauma if they are previously taught what to do and how to react to hazards ([Ronan & Johnston](#), 2005: 60). As previously acknowledged, creative methods of integrating SBDP in the curriculum are to be sought since “hazards education and intervention programs that are better able to elicit intrinsic motivation to change are more likely to produce initial as well as longer-lasting change” ([Ronan & Johnston](#), 2005: 63).

As seen from the answers to the questionnaire, students are aware of the fact that they need knowledge, practical skills and calmness when a hazard strikes, but a big number of the respondents were still struggling to identify what they are lacking in terms of disaster preparedness (33 % - see [Figure 30](#)). In addition, not many of them are willing to

attend additional lectures on preparedness (see [Figure 28](#)), even though they feel afraid and anxious when an unexpected situation emerges, as it was the case of the Corona virus outbreak, which has been a recurrent topic in both data collection methods starting from the end of February.

A timeline was created by the author in order to show how the focus of the discussions during interviews moved from natural hazards and school shootings to pandemics, as the situation of the Corona virus outbreak developed around the world (see [Appendix J](#)). While during the first four interviews, none of the respondents could relate to pandemics as representing a risk in their communities, during the 5th interview (25th of February), the interviewee acknowledged the importance of seeing pandemics/epidemics as relevant hazards for his/her school due to the actuality of the Corona virus outbreak. It was not earlier than in the beginning of March, that the discussion regarding the Corona virus became more and more recurrent during interviews, with the respondents bringing it up both in relation to the importance of SBDP for the Swedish municipalities and the SBDP activities that should be conducted in schools. The point of the present discussion is to underline the need for adaptation to changes, sustainability of procedures and strategies as well as the inclusion of all relevant stakeholders in the disaster preparedness process.

The importance of constant adaptation to changes and needs when it comes to a municipality's resilience was also acknowledged by MSB, claiming that "in order to succeed in creating the best conditions for students' own learning (own value-creating process), the school needs to have a continuous interaction with them. With a circular, open control, you take one step at a time without knowing if it is exactly the right thing to do"¹⁷ ([MSB & SKL, 2013: 26](#)). This implies that even though including a new aspect into the curriculum seems complex, it might be a long-term solution which has to be practically tested in order to see whether it is useful or not.

Examples of good practices when it comes to children-led disaster preparedness in municipalities/communities can be found in different countries around the world, such as the USA and the Philippines where it was concluded that "instilling [children] with this knowledge results in a reduction of the stress on their families, as well as their communities,

¹⁷ Statement translated from Swedish: "För att lyckas skapa de bästa förutsättningarna för elevernas eget lärande (egen värdeskapande process) behöver skolan ha en ständig interaktion med eleverna. Lösningarna är inte självklara utan ständigt under utveckling... Med en cirkulär, öppen styrning tar man ett steg i taget utan att veta att det är exakt det rätta."

by allowing them to focus on other priorities” ([Merchant](#), 2015: 3), rather than children’s vulnerability and need to extra care.

5.4. Current SBDP in Sweden

While the three crisis plans from the Swedish schools are almost identical (see [Appendix K](#)), it is important to notice that one of the schools’ plans was updated based on true stories and lessons learnt during different situations that took place within the school.

While having a look at the table in [Appendix K](#), it can be notice that the first part focuses on introducing the roles and responsibilities of the crisis group. However, no school profile is encompassed in the plans. This element, as it is shown by school preparedness literature, is important since each school is different and “there is no one answer when it comes to planning and preparing for disasters” ([Merchant](#), 2015: 16). Therefore, having a clear school profile might help in preparing and adapting a standardised crisis plan to the needs of that particular school, its students, and the existent resources.

Furthermore, the plans discuss different scenarios, but they do not bring up any plans for natural hazards and/or pandemics/epidemics (which seems to be a hot topic at the moment). In order to make sure that the plan fulfils the requirements stipulated in specialised literature, namely that it has “a comprehensive emergency management approach, part of an “all hazards” strategy, linking mitigation, preparedness, response, and recovery” ([Ronan & Johnston](#), 2005: 99), it might be worth including a wider range of scenarios, based on those situations that are likely to happen in the area.

Another aspect that should be considered in a crisis plan is a list of the available SBDP items in the school, which might increase the awareness of both students and staff regarding what resources are available, as well as clarify when these tools are to be used and where they can be found since 63 % of the respondents were not aware of whether they have equipment for alternative energy in the schools (see [Figure 37](#)).

An extremely important element of the plans is the discussion on following-up and evaluating the crises. However, this part of the document is not entirely developed, lacking a guideline on how to perform them. This might be an area of improvement, since, according to school preparedness literature, if one wants to achieve school safety, it is essential to aim at “training [the crisis group] on risk assessment, as well as in the development, implementation, **monitoring** and **evaluation** of their plans” ([World Vision](#), 2016: 98).

6. Conclusions

The present thesis was intended at exploring the perceived importance of SBDP as understood by the participants in the case study conducted in Ljungby municipality, Sweden, as well as the feasibility of implementing this type of disaster preparedness in Sweden and the methods through which this implementation can be achieved. The case study was approached by interviewing 13 members of staff from three different schools in Ljungby and 3 administration staff, conducting a questionnaire with students as respondents and analysing secondary data obtained from the schools (crisis plans) and MSB.

Firstly, it can be concluded that both the school staff and students perceive SBDP as important for their schools and municipality, either because they want to learn more and feel better prepared or because they acknowledge the actuality of different crises (i.e. the Corona virus outbreak) and feel insecure due to their lack of preparedness, knowledge and skills. In addition, the results showed that the study's participants consider that the municipality should direct its SBDP efforts towards creating and/or updating crisis plans for each school, as well as conducting a thorough and strategic preparedness that includes both short- (i.e. organising SBDP activities focused on students) and long-term (i.e. implementing building regulations for new educational establishments) strategies.

Secondly, the results showed that the SBDP measures taken by the municipality so far mainly focused on training staff, particularly principals in crisis management and did not aim at directly increasing students' preparedness, considering that this is schools' responsibility. However, the municipality is aware of the importance of implementing sustainable measures that contribute to the resilience of the schools and community, at least when it comes to building new educational establishments. In terms of existent capacities within the participating schools, they might be there, but awareness regarding their availability is limited, with the respondents claiming that it is either the principal, the crisis group or the janitor that has the best knowledge when it comes to SBDP items and their location within the schools.

Thirdly, findings related to students-aimed SBDP are consistent with research showing that students should be seen as resources when it comes to developing the resilience of a municipality and/or society, while considering their age and abilities. It is argued that children's independence during disasters can decrease families' vulnerabilities and increase communities' resilience.

Last but not least, when it comes to analyzing the crisis plans of the three participating schools, it was acknowledged that certain aspects need further consideration in order to create a comprehensive and adaptable crisis plan, which considers the needs, capacities, lessons learnt and location of the schools.

In order to enhance the chances of implementing viable SBDP programs, the findings in this study point towards the following recommendations:

- Start by training the trainers, mainly principals who are seen as SBDP key resources and staff who will later train students
- Making short- and long-term benefits of including SBDP into the curriculum clear for school staff
- Increase visibility of exit routes and safe locations
- Give access to more than one person (i.e. janitor) to SBDP items
- Include SBDP in the school curriculum
- For the crisis plans: include the school profile (needs & capacities), encompass a comprehensive set of risk scenarios, include a list of available SBDP items and their utility, stress the need for learning from experience (monitoring/evaluation)

To better understand the implication of these results, further studies should address, more in-depth, the issue of students-aimed SBDP, in order to understand how to increase students' willingness to acquire more disaster preparedness knowledge and transfer it to younger generations, in order to create a sustainable SBDP culture within their communities, municipalities and later on, throughout the whole country.

List of references

Alexander, D. (2012). *Principles of emergency planning and management*. Edinburgh: Dunedin Academic Press Ltd.

Alexander, D. (2013). “Resilience and disaster risk reduction: An etymological journey”. *Natural Hazards and Earth System Sciences Discussions*, vol. 1, pp. 2707-2716. Available at: <https://www.nat-hazards-earth-syst-sci.net/13/2707/2013/nhess-13-2707-2013.html>. Accessed on 15th of October 2019.

Allen, K. (2006). “Community-based disaster preparedness and climate adaptation: local capacity-building in the Philippines”. *Disasters*, vol. 30 (1), pp. 81-101. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/16512863>.

Aven, T. & Renn, O. (2010). *Risk Management and Governance: Concepts, Guidelines and Applications*. Springer.

Becker, P. (2014). *Sustainability Science: Managing risk and resilience for sustainable development*. Amsterdam and Oxford: Elsevier.

Bergström, J. (2017). “An archaeology of societal resilience”. *Safety Science*, vol. 110, pp. 31-38. Available at: <https://www.sciencedirect.com/science/article/pii/S0925753517301893>. Accessed on 17th of January 2020.

Bonati, S. & Mendes, M. (2014). ”Building participation to reduce vulnerability: how can local educational strategies promote global resilience? A case study in Funchal – Madeira Island”. *Procedia Economics and Finance*, vol. 18, pp. 165-172. Available at: <https://www.sciencedirect.com/science/article/pii/S2212567114009277>. Accessed on 12th of April 2020.

Brand, B., McMullin-Messier, P., Schlegel, M. (n.d.). *Unit 1: Hazards, vulnerability and risk*. Available at: https://serc.carleton.edu/integrate/teaching_materials/map_hazards/unit1.html. Accessed on 21st of April 2020.

Brooks, S., Dunn, R., Amlôt, R., Greenberg, N., Rubin, J. (2016). “Social and occupational factors associated with psychological distress and disorder among disaster responders: a systematic review”. *BMC Psychology*, vol 4 (18), pp. 1-13. Available at:

<https://bmcpyschology.biomedcentral.com/articles/10.1186/s40359-016-0120-9>. Accessed on 1st of February 2020.

CDE. (2008). *A framework of School-based Disaster Preparedness*. Available at: <https://www.preventionweb.net/educational/view/26013>. Accessed on 15th of March 2020.

Cooper, C., Cooper, S., del Junco, D., Shipp, E., Whitworth, R., Cooper, S. (2006). “Web-based data collection: detailed methods of a questionnaire and data gathering tool”. *Epidemiologic Perspectives & Innovations*, vol.3 (1). Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1343557/>. Accessed on 16th of February 2020.

Coppola, D. P. (2011). *Introduction to international disaster management*, (2 ed). Oxford: Butterworth- Heinemann (Elsevier).

Creswell, J. (2013). *Qualitative inquiry & research design: choosing among five approaches*. Washington DC: Sage Publications Ltd.

Delicado, A., Rowland, J., Fonseca, S., de Almeida, A., Schmidt, L., Ribeiro, A. (2017). “Children in Disaster Risk Reduction in Portugal: Policies, Education and (Non) Participation”. *International Journal of Disaster Risk Science*, vol. 8, pp. 246-257. Available at: <https://link.springer.com/article/10.1007/s13753-017-0138-5>. Accessed on 15th of March 2020.

Dube, A. & Orodho, J. (2016). “Level of Disaster Preparedness and Policy Implementation in Public Secondary Schools in Rhamu Town, Madera County, Kenya”. *IOSR Journal of Research & Method in Education*, vol. 6 (2.1), pp. 06-11. Available at: <https://www.iosrjournals.org/iosr-jrme/papers/Vol-6%20Issue-2/Version-1/B06210611.pdf>. Accessed on 15th of March 2020.

Ecolin-Campilla, M. (2016). “Disaster Risk Reduction Management Practices of School Managers”. *Third Asia Pacific Conference on Advanced Research*, pp. 207-217. Available at: https://apiar.org.au/wp-content/uploads/2016/09/9_APCAR_July_BRR7125_EDU-207-217.pdf. Accessed on 15th of March 2020.

Eriksen, S., Naess, L., Haug, R., Bhonagiri, A., Lenaerts, L. (2017). “Courting catastrophe? Humanitarian Policy and Practice in a Changing Climate”. *Institute of Development Studies*,

vol. 48 (4), pp. 1-14. Available at: <https://www.ids.ac.uk/publications/courting-catastrophe-humanitarian-policy-and-practice-in-a-changing-climate/>. Accessed on 15th of March 2020.

Eurydice. (17 January 2020). *Sweden – Organisation of the Education System and of its Structure*. Available at: https://eacea.ec.europa.eu/national-policies/eurydice/content/organisation-education-system-and-its-structure-80_en. Accessed on 12th of April 2020.

Global Facility for Disaster Reduction and Recovery - GFDRR. (2017). *Vanuatu*. Available at: <https://www.gfdr.org/en/vanuatu>. Accessed on 6th of May 2019.

Hashemipour, M., Stuban, S., Dever, J. (2017). “A community-based disaster coordination framework for effective disaster preparedness and response”. *Australian Journal of Emergency Management*, vol. 32 (2), pp. 41-46. Available at: <https://search.informit.com.au/documentSummary;dn=815861723271481;res=IELHSS>. Accessed on 1st of February 2020.

Hoffman, S. (2009). “Preparing for Disaster: Protecting the Most Vulnerable in Emergencies”. *UC Davis Law Review*, vol. 42, pp. 1491-1547. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1268277. Accessed on 10th of April 2020.

IFRC. (2015). *Handbook for a School-based Risk Reduction initiative*. Available at: <https://www.rcrc-resilience-southeastasia.org/document/handbook-for-a-school-based-risk-reduction-initiative-ifrc-2015/>. Accessed on 15th of March 2020.

Intergovernmental Panel on Climate Change – IPCC. (2012). *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*. Available at: https://www.ipcc.ch/site/assets/uploads/2018/03/SREX_Full_Report-1.pdf. Accessed on 2nd of January 2020.

ISO. (2009). *ISO 31000 Risk Management – Principles and Guidelines*. Geneva: International Organization for Standardization.

ISO. (2009). *ISO 31010 Risk Management – Risk assessment techniques*. Geneva: International Organization for Standardization.

Jurilla, V. (2016). "A Case Analysis of Disaster Risk Reduction Preparedness for Iloilo Province: Basis for a Comprehensive Intervention Program". *Asia Pacific Journal of Multidisciplinary Research*, vol. 4 (3), pp. 150-159. Available at: <http://www.apjmr.com/wp-content/uploads/2016/07/APJMR-2016.4.3.18.pdf>. Accessed on 2nd of February 2020.

Karvinen I, Lejonqvist GB, Kinnunen ER, Fredriksson M, Halonen R, Koski A. (2016). "A study of the community-based disaster preparedness in Kenyan rural communities". *International Journal of Health System & Disaster Management*, vol. 4, pp. 102-107. Available at: <http://www.ijhdsdm.org/article.asp?issn=2347-9019;year=2016;volume=4;issue=3;spage=102;epage=107;aulast=Karvinen>. Accessed on 2nd of February 2020.

Kupietz, K. (n.d.). *Retention of Emergency Preparedness – A Descriptive Study on the Emergency Preparedness Knowledge of Students, Faculty, and Staff at Halifax Community College*. Available at: <https://www.hsd.org/?view&did=698087>. Accessed on 15th of March 2020.

Labrague, L., Hammad, K., Gloe, D., McEnroe-Petitte, D.M., Fronda, D.C., Obeidat, A.A., Leocadio, M.C., Cayaban, A.R., Mirafuentes, E.C. (2018). "Disaster preparedness among nurses: a systematic review of literature". *International Nursing Review*, vol. 65, pp. 41-53. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28295314>. Accessed on 2nd of February 2020.

Mamogale, H. (2011). *Assessing disaster preparedness of learners and educators in Soshanguve North schools*. Available at: [https://www.ufs.ac.za/docs/librariesprovider22/disaster-management-training-and-education-centre-for-africa-\(dimtec\)-documents/dissertations/2291.pdf?sfvrsn=aefef821_2](https://www.ufs.ac.za/docs/librariesprovider22/disaster-management-training-and-education-centre-for-africa-(dimtec)-documents/dissertations/2291.pdf?sfvrsn=aefef821_2). Accessed on 15th of March 2020.

May, T. (2011). *Social research: Issues, Methods and Process: 4th edition*. Open University Press.

Merchant, A. (2015). "Children and Disaster Education: An Analysis of Disaster Risk Reduction within the School Curricula of Oregon, Texas, and the Philippines". *MA IDS Thesis Projects*. 26. Available at: <http://commons.cu-portland.edu/gradproj/26>. Accessed on 15th of March 2020.

- Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research : A guide to design and implementation*, 4th Edition. John Wiley & Sons, Incorporated.
- Mishra, S., Suar, D. (2012). “Effects of Anxiety, Disaster Education, and Resources on Disaster Preparedness Behavior”. *Journal of Applied Social Psychology*, vol. 42 (5), pp. 1069-1087. Available at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1559-1816.2011.00853.x>. Accessed on 1st of February 2020.
- Motoyoshi, T. (2006). “Public Perception of Flood Risk and Community-based Disaster Preparedness” in *A better integrated management of disaster risks: Toward resilient society to emerging disaster risks in mega-cities*, edited by Ikeda, S., Fukuzono, T., Sato, T., pp. 121-134. Available at: <https://www.terrapub.co.jp/e-library/nied/pdf/121.pdf>. Accessed on 15th of March 2020.
- MSB. (n.d.). *Disaster risk reduction for natural hazards*. Available at: <https://www.msb.se/en/Prevention/Natural-Disaster-Risk-Reduction-in-Sweden/>. Accessed on 19th of May 2019.
- MSB. (2014). *Research for a safer society – New knowledge for future challenges. MSB’s research strategy*. Available at: <https://www.msb.se/siteassets/dokument/publikationer/english-publications/research-for-a-safer-society---new-knowledge-for-future-challenges-msbs-research-strategy.pdf>. Accessed on 12th of April 2020.
- MSB. (2017). *The Sendai Framework – Swedish Disaster Risk Reduction Governance*. Available at: <https://www.msb.se/sv/publikationer/the-sendai-framework--swedish-disaster-risk-reduction-governance/>. Accessed on 17th of January 2020.
- MSB & SKL (2013). *Ta ett samlat grepp – Om trygghet och säkerhet*. Available at: <https://www.msb.se/sv/publikationer/ta-ett-samlat-grepp--om-trygghet-och-sakerhet/>. Accessed on 26th of October 2019.
- Nourozi, K., Saeli, E., Khankeh, H., Kavari, S., Rezasoltani, P., Fathi, B. (2016). “The Effects of Risk Reduction Intervention on Earthquake Disaster Preparedness of the Elderly People”. *Health in Emergencies and Disasters Quarterly*, vol. 1 (2), pp. 89-96. Available at: https://www.academia.edu/24913252/The_Effect_of_Risk_Reduction_Intervention_on_Earthquake_Disaster_Preparedness_of_the_Elderly_People. Accessed on 15th of March 2020.

Onyango, M. (2011). *Disaster Awareness and Preparedness of Secondary Schools in Homa Bay County, Kenya*. Available at:

<http://erepository.uonbi.ac.ke/bitstream/handle/11295/43570/Disaster%20Awareness%20And%20Preparedness%20Of%20Secondary%20Schools%20In%20Homa%20Bay%20County,%20Kenya.pdf?sequence=3>. Accessed on 15th of March 2020.

Ozmen, F. (2006). “The level of preparedness of the schools for disasters from the aspect of the school principals”. *Disaster Prevention and Management*, vol. 15 (3), pp. 383-395.

Available at:

<https://www.emerald.com/insight/content/doi/10.1108/09653560610669873/full/html>.

Accessed on 15th of March 2020.

Pandey, B., Okazaki, K. (2005). *Community Based Disaster Management: Empowering Communities to Cope with Disaster Risks*. Available at:

<https://www.semanticscholar.org/paper/Community-Based-Disaster-Management-%3A-Empowering-to-Pandey-Okazaki/b76c55e5d2b32d900aa765e4aefe01540ba6cffa>. Accessed

on 1st of February 2020.

Pendall, R., Foster, K. A., & Cowell, M. (2010). “Resilience and regions: building understanding of the metaphor”. *Cambridge Journal of Regions, Economy and Society*, 3 (1), pp. 71-84. Available at <https://academic.oup.com/cjres/article-abstract/3/1/71/339036>.

Accessed on 15th of October 2019.

Phillips, H. (1960). ‘Problems of Translation and Meaning in Fieldwork’, in R.N. Adams and J.J. Preiss (eds) *Human Organisation Research: Field Relations and Techniques*. Homewood, IL: Dorsey Press Inc.

Ronoh, S. (2017). *Children with Disabilities and Disaster Risk Reduction in New Zealand*.

Available at: <https://researchspace.auckland.ac.nz/handle/2292/36013>. Accessed on 15th of March 2020.

Ronan, K. and Johnston, D. (2005). *Promoting Community Resilience in Disasters. The Role for Schools, Youth, and Families*. Springer Science and Business Media.

Ronan, K., Crellin, K., Johnston, D., Finnis, K., Paton, D. and Becker, J. (2008). “Promoting Child and Family Resilience to Disasters: Effects, Interventions, and Prevention

Effectiveness”. *Children, Youth and Environments*, vol. 18 (1), pp. 332-353. Available at:

https://www.jstor.org/stable/10.7721/chilyoutenvi.18.1.0332#metadata_info_tab_contents.

Accessed on 11th of April 2020.

Sattler, D., Kaiser, C. and Hittner, J. (2000). “Disaster Preparedness: Relationships Among Prior Experience, Personal Characteristics, and Distress”. *Journal of Applied Social Psychology*, vol. 30 (7), pp. 1396-1420. Available at: <https://psycnet.apa.org/record/2001-14475-005>. Accessed on 1st of February 2020.

Selvaraj, S., Sandaran, S. (2019). “Discourses of Flood Preparedness by NGOs: Humanitarian Aid, Teamwork and Victimization”. *GEMA Online Journal of Language Studies*, vol. 19 (4), pp. 111-127. Available at:

https://www.researchgate.net/publication/337568505_Discourses_of_Flood_Disaster_Preparedness_by_NGOs_Humanitarian_Aid_Teamwork_and_Victimization. Accessed on 2nd of February 2020.

Social Research Association – SRA. (2003). *Ethical Guidelines*. Available at: <https://the-sra.org.uk/common/Uploaded%20files/ethical%20guidelines%202003.pdf>. Accessed on 10th of December 2019.

Squires, A. (2009). “Methodological Challenges in Cross-Language Qualitative Research: A Research Review”. *Int J Nurs Stud*, vol. 46(2), pp. 277-287.

Stake, R. (2008). “Qualitative Case Studies”, in Denzin, N. and Lincoln, Y. (ed.) *Strategies of Qualitative Inquiry*. SAGE Publications, pp. 119-149.

Statens Offentliga Utredningar – SOU. (2007). *Sweden facing climate change – threats and opportunities*. Available at:

<https://www.government.se/contentassets/5f22ceb87f0d433898c918c2260e51aa/sweden-facing-climate-change-preface-and-chapter-1-to-3-sou-200760>. Accessed on 9th of December 2019.

SVT. (2020). “Elkraftverk i fara vid översvämningen – väggar förstärks”. Available at: <https://www.svt.se/nyheter/lokalt/smaland/elkraftverk-i-fara-vid-oversvamningen-vaggar-forstarks>. Accessed on 13th of March 2020.

TEDx. (2019). *Greta Thunberg*. Available at: https://www.ted.com/speakers/greta_thunberg. Accessed on 24th of October 2019.

Tigges, J. (2008). “Emergency preparedness: An analysis of Iowa high school emergency preparedness plans”. *Graduate Theses and Dissertations*. Available at: <https://lib.dr.iastate.edu/etd/10947>. Accessed on 15th of March 2020.

Tipler, K. (2017). *Emergency Preparedness and Response in New Zealand Schools*. Available at: <https://mro.massey.ac.nz/handle/10179/12984>. Accessed on 15th of March 2020.

United Nations International Strategy for Disaster Risk Reduction – UNISDR. (2005). *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters – extract from the final report of the World Conference on Disaster Reduction*. Available at: https://www.preventionweb.net/files/1037_hyogoframeworkforactionenglish.pdf. Accessed on 12th of April 2020.

United Nations International Strategy for Disaster Risk Reduction – UNISDR. (2006). *Let our children teach us! – A Review of the Role of Education and Knowledge in Disaster Risk Reduction*. Available at: https://www.preventionweb.net/files/609_10030.pdf. Accessed on 12th of April 2020.

United Nations International Strategy for Disaster Risk Reduction – UNISDR. (13 October 2011). *UNISDR says the young are the largest group affected by disasters*. Available at: <https://www.unisdr.org/archive/22742>. Accessed on 9th of December 2019.

United Nations International Strategy for Disaster Risk Reduction – UNISDR. (2015). *Sendai Framework for Disaster Risk Reduction*. Available at: https://www.unisdr.org/files/43291_sendaiframeworkfordrren.pdf. Accessed on 26th of October 2019.

United Nations International Strategy for Disaster Risk Reduction – UNISDR. (2016). *Terminology on Disaster Risk Reduction*. Available at: <https://www.unisdr.org/we/inform/terminology>. Accessed on 26th of October 2019.

Vanuatu Red Cross Society – VRCS (2019). *International Youth Cooperation Project – Second Year Narrative*.

Veenema, T., Griffin, A., Gable, A., MacIntyre, L., Simons, N., Pat Couig, M., Walsh Jr., J., Proffitt Lavin, R., Dobalian, A., Larson, E. (2015). “Nurses as Leaders in Disaster

Preparedness and Response – A Call to Action”. *Journal of Nursing Scholarship*, vol. 48 (2), pp. 187-200. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26869230>. Accessed on 2nd of February 2020.

Wakui, T., Agree, E., Saito, T., Kai, I. (2016). “Disaster Preparedness Among Older Japanese Adults With Long-Term Care Needs and Their Family Caregivers”. *Disaster Medicine and Public Health Preparedness*, vol. 11 (1), pp. 31-38. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27460161>. Accessed on 2nd of February 2020.

Wang, Jieh-Jiuh. (2016). “Study on the context of school-based disaster management”. *International Journal of Disaster Risk Reduction*, vol. 19, pp. 224-234. Available at: <https://www.sciencedirect.com/science/article/pii/S2212420916300401>. Accessed on 27th of October 2019.

Welch, C., Piekkari, R. (2006). “Crossing Language Boundaries: Qualitative Interviewing in International Business”. *Management International Review*, vol. 46 (4), pp. 417-437. Available at: https://www.researchgate.net/publication/226246688_Crossing_language_boundaries_Qualitative_interviewing_in_international_business. Accessed on 4th of March 2020.

Wengraf, T. (2001). *Qualitative Research Interviewing – Conceptual Frameworks for Studying and Inferring from (Research). Interview Interaction Practice*. Available at: http://www.pm.lth.se/fileadmin/migrated/content_uploads/5_Conceptual_Frameworks_for_Studying_and_Inferring_from_Research_Interview_Interaction_Practice.pdf. Accessed on 14th of March 2020.

World Vision. (2016). *Comprehensive School Safety Practices in Asia*. Available at: https://www.wvi.org/sites/default/files/Comprehensive%20Sch%20Safety%20Practices%20Asia_Web.pdf. Accessed on 1st of February 2020.

World Vision. (n.d.). *What is disaster management?*. Available at: <https://www.wvi.org/disaster-management/what-disaster-management>. Accessed on 13th of March 2020.

Yilmaz, E. (2014). *School-based disaster education through curricular and extra-curricular activities: A comparative case study*. Available at: <http://etd.lib.metu.edu.tr/upload/12617145/index.pdf>. Accessed on 15th of March 2020.

Ziauddin, N. (2016). *A study on Earthquake Preparedness in Schools in Dhaka North City Corporation*. Available at: <http://dspace.bracu.ac.bd/xmlui/handle/10361/7850>. Accessed on 15th of March 2020.

Appendices

Appendix A – Information sheet (in Swedish)



Krisberedskap i de svenska skolorna: fallstudie i Ljungby kommun

INFORMATIONSBLAD

Mitt namn är Andra Covaciu, jag är student vid Lunds universitet där jag pluggar en Master i Katastrofriskhantering och klimatanpassning. Just nu skriver jag mitt examensarbete som handlar om krisberedskap i de svenska skolorna, baserat på min erfarenhet från sommarpraktiken i Vanuatu, en ö i Stilla havet.

Vi har alla hört namnet Greta Thunberg och några av oss kanske till och med har märkt hennes påverkan på världen. Oavsett om vi håller med hur hon vidarebefordrar sitt budskap eller inte, hon är ett barn och hennes fantastiska arbete för klimatfrågor har visat en gång till att barn är vår framtid och de borde alltid beaktas när vi pratar om hållbarhet och klimatanpassning. Betydelsen av krisberedskap i skolan ges inte bara av det faktum att barns utbildning är extrem viktig när det gäller deras utveckling, utan också att den nuvarande mängden och frekvensen av naturrisker genererar behovet av nya strategier för att minska deras negativa effekter. Under 2011 kallade FN: s internationella strategi för katastrofreduktion barn och ungdomar som "de mest drabbade av katastrofer varje år" (UNISDR, 2011: 1), så det är viktigt att barn vet hur de ska reagera i fall en naturlig fara slår för att minska deras sårbarhet och förvandla dem från passiva offer till viktiga bidragsgivare till minskning av katastrofrisker.

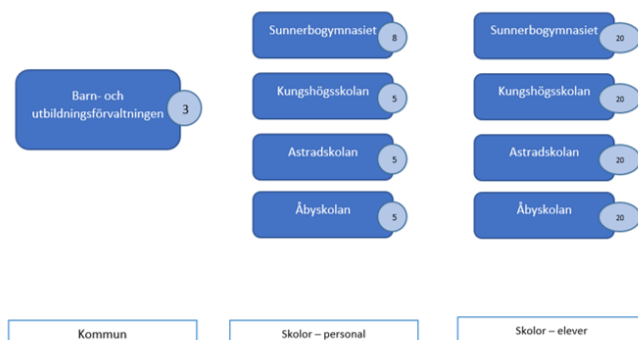
Detta informationsblad innehåller en kort beskrivning av mitt examensarbete samt en redogörelse av hur datainsamlingen ska gå till. Jag är tacksam för att ni läser detta och hoppas att ni kommer välja att vara med i min fallstudie och hjälpa till att uppmärksamma krisberedskap i Ljungbys skolorna.

Examensarbete – syfte

Syftet med det här examensarbete kommer att vara att undersöka betydelsen av krisberedskap i de svenska skolorna, baserat på lärdomarna som jag fick under min praktik i Vanuatu.

Forskningen utförs som en instrumentell fallstudie av en svensk kommun, Ljungby, belägen i Kronobergs län, och syftar till att testa om en kommun i ett land som sällan upplever katastrofer och har en stark ekonomi borde fortfarande fokusera på krisberedskap i skolan eller detta är endast ett mått för länder som är utsatta för naturrisker och som upplever ogynnsamma socioekonomiska förhållanden.

Datainsamling



Datainsamlingen kommer att göras genom att analysera planer och dokument som gäller krisberedskap i de olika skolorna som väljer att vara med i projektet samt aktivitetsrapporter från den svenska plattformen för katastrofriskreduktion. Dessutom syftar jag till att genomföra semistrukturerade intervjuer med skolpersonal och skolområdeschefer på barn- och utbildningsförvaltningen i Ljungby kommun samt skicka ut enkäter till några studenter i varje skola som är med i projektet.

Jag skulle vilja börja med att intervjua de tre anställda på Barn- och utbildningsförvaltningen i Ljungby för att en helhetsbild av krisberedskapen i kommunens skolor. Sedan skulle jag vilja gå vidare och intervjua en del av personalen på ovannämnda skolor (jag har valt era skolor eftersom ni har elever som är över 15 år och då behöver jag inte någon tillåtelse från vårdnadshavare för att kunna dela ut enkät till dem). Om ni väljer att vara med och hjälpa mig med mitt projekt då har jag skrivit en lista på eventuell personal som jag vill intervjua i varje skola men den vill jag gärna diskutera med varje rektor när deltagande i projektet bekräftas.

Jag funderar på att köra flesta av intervjuerna på Skype (om det funkar för er) med tanke på både tid och kostnader till att resa till Ljungby varje gång jag ska intervjua någon.



Kontaktuppgifter



Ni kan nå mig på an0817co-s@student.lu.se om ni har frågor eller vill bekräfta er deltagande och intresse i mitt examensarbete.

Tack för att ni tog er tid att läsa informationsbladet och jag ser fram emot att höra från er!

Appendix B – Bilingual interview guide

Topic	Question in Swedish 	Question in English 
Ice-breaking/Introduction	1. Hur länge har du bott i Ljungby kommun?	1. How long have you been living in Ljungby?
	2. Hur länge har du arbetat på den här skolan?	2. How long have you been working in this school?
Overall research questions	3. Tycker du att krisberedskap i skolan är viktig för svenska kommuner? Om ja, varför?	3. Do you think it is important for Swedish municipalities to focus on school-based disaster preparedness (SBDP) and if so, why?
	4. Vad borde kommunerna huvudsakligen fokusera på när det gäller krisberedskap i skolan?	4. What are the main aspects that municipalities (Ljungby) should direct their attention to in terms of SBDP?
Past experience and awareness	5. Kan du beskriva några utrymningsövningar eller aktiviteter som ökar skolans beredskaps som har genomförts de senaste 5 år? Vem brukar delta i sådana aktiviteter?	5. Can you describe any emergency planning and preparation activities that the school has done during the last 5 years? What stakeholders are normally involved in these activities?
	6. I vilken utsträckning har orkanen Gudrun haft utbildningsmässiga konsekvenser på din skola/skolorna i Ljungby kommun: stora, mindre eller inga? Varför?	6. According to you, did Storm Gudrun have a major, minor or no educational impact on your school? In what way?
	7. Vilka klimatförändringarna påverkar din kommun? t.ex. temperaturökning, förändringar i nederbörd, ökade halter av växthuseffekter, stigande vattennivåer, osv.	7. What climate change impacts can you identify in your municipality? i.e. warming temperature, changes in precipitation, water supply, reduced agricultural yields, water levels, pollution, others (please specify).
	8. Om du tänker på en kris i ditt område/din skola under skoltiden, vilka frågor dyker upp i ditt huvud som viktiga att ta hänsyn till i förväg?	8. When you think about a crisis in your area/school, during school time, what are the questions that come to your mind as important to consider before the crisis happens?
Training/teaching	9. Anser du att det är viktigt att lära elever om katastrofrisk och förbereda dem för olika scenarier? Om ja, varför? Om nej, varför inte?	9. Do you consider necessary to teach students about disaster risk and prepare them for different scenarios? If yes, why? If not, why not?

Topic	Question in Swedish 	Question in English 
Training/teaching	10. Har du fått någon utbildning i krishantering? Om ja, när och hur relevant tyckte du att den var för dig och ditt arbete i skolan? Om nej, skulle det vara bra att genomgå en sådan utbildning? Vad skulle den fokusera på?	10. Did you get any training in disaster risk reduction? If yes, when and how relevant did you find it? How did you apply it in your classrooms? If not, would you find it useful? What should it focus on?
Current situation in schools	11. Hur tydliga är rollerna och ansvaret för krishantering i din skola? Står dem någonstans? Hur ofta revideras de? Har ni en krisgrupp?	11. How clear are the roles and responsibilities in your school for disaster management? Are they written somewhere? Do you revise them from time to time? Do you have a school disaster management committee?
	12. Känner du till utrymningsvägar och återsamlingsplatser på skolans område? Känner eleverna till de platserna? Är platserna och vägarna tydligt markerade? Får alla som finns på skolans område plats där?	12. Are you aware of the safe locations? Are children aware of the safe locations? Is this place clearly marked? Is it sufficiently spacious for all the people in the school?
	13. Tycker du att det finns tillräckligt med personal som har kunskap och beredskap att ge individuellt stöd vid behov?	13. During unexpected situations, do you think there are enough people who know how and are ready to provide individual support, if needed?
	14. Hur ofta genomförs brandövningar på er skola?	14. How often do you conduct fire drills in your school?
	15. Är skolan utrustad med högtalarsystem? Tycker du att det är användbart i en nödsituation?	15. Is your school equipped with speakers? Do you find such a system useful?
	16. Var hittar eleverna information angående krishantering? Läroplanen, lärarnas initiativ, skolmöte eller fritidsaktiviteter, annat?	16. Where can students learn/get information about crisis management? Regular curriculum, teacher initiatives, school assemblies, after-school meetings or other?
	17. Har ni något av de följande på er skolan? <ul style="list-style-type: none"> ■ Brandsläckare, brandfilt osv. ■ Första hjälpen väskor ■ Flytvästar ■ Stora ficklampor ■ Generatorer ■ Övrigt (specifera) 	17. Is your school equipped with any of the following? <ul style="list-style-type: none"> ■ Fire safety kits ■ First aid kits ■ Life jackets ■ Big flashlights ■ Equipment for alternative energy ■ Other (please specify)

Topic	Question in Swedish 	Question in English 
Current situation in schools	18. Är vårdnadshavarna medvetna om krisplanen?	18. Are caregivers aware of the crisis plan?
	19. Är personalen utbildad i första-hjälpen och HLR?	19. Is staff trained in FA and CPR?
Local context	20. I Vanuatu fokuserar krisberedskap i skolan på naturkatastrofer, såsom orkan, jordbävning, torka, tsunami, översvämningar, jordskred och vulkanutbrott. Vad anser du vara relevant för den svenska skolan när det gäller katastrofhantering? Markera i listan de aspekter som är relevanta för Sverige, särskilt för Ljungby kommun och lägg till allt som är viktigt men ännu inte finns på listan.	20. In Vanuatu, school-based disaster preparedness focuses mainly on natural hazards, such as cyclone, earthquake, drought, tsunami, flooding, landslide and volcanic eruptions. What do you consider relevant for the Swedish context in terms of risk education? Please check the events you see relevant for Sweden and particularly Ljungby municipality and add anything that you feel it is important but does not exist on the list yet. The list is in Appendix L.
	21. Anser du att en krisplan är nödvändig på en skola?	21. Do you find the development of a school disaster management plan useful?
End questions	22. Vilka är nästa steg för din skola när det gäller krisberedskap?	22. What are the next steps for your schools in terms of SBDP?
	23. Vad kan du bidra med till dina elevers krisberedskap?	23. What would you do next to make students more aware and improve their disaster preparedness?

Appendix C – Informed consent template (in English)



Informed consent form

Andra-Iustina Covaciu
Msc Candidate, Disaster Risk Management and Climate Change Adaptation

Master's degree project - Informed Consent Form

Thank you for your interest and willingness to participate in the present research aimed at underlining **the importance of school-based disaster preparedness (SBDP) in Sweden**, based on the lessons I have learnt during my two-months internship in Vanuatu, an island-state in the Pacific Ocean. This Master's degree project represents the practical application of the theoretical knowledge gained during the *Master programme in Disaster Risk Management and Climate Change Adaptation* at Lund University, Sweden.

Your participation in the present research implies attending a semi-structured interview and providing answers to the interview questions. The interview is expected to take approximately 45 minutes and the responses will be recorded, with your consent. However, none of the information that will be retrieved during the interview will be quoted under your name. The data collected will then be transcribed, analyzed and reported in the degree project. With your permission, your position/title might be included in the final report, without any connection to your workplace.

If you have any questions, please feel free to contact me directly. You can withdraw from the study at any time.

Student information

Name: Andra-Iustina Covaciu
Position: Msc Candidate, Disaster Risk Management and Climate Change Adaptation, Lund University
E-mail: an0817co-s@student.lu.se

Supervisor information

Name: Marcus Abrahamsson
Position: Head of Division, Associate Professor at the Division of Risk Management and Societal Safety, Lund University
E-mail: marcus.abrahamsson@risk.lth.se



I,..... (First- and last name), hereby agree to participate in the present research and interview for the aim of the Master's degree project.



Please select the statements that you agree with:



- I agree to the interview being recorded.
- I agree to mentioning my position/title in the final report.



Signature: _____ Date: _____

Appendix D – Bilingual questionnaire

Topic	Question in Swedish 	Question in English 
Awareness and personal experience	1. Definiera ordet "katastrof".	1. What does the word "disaster" mean to you?
	2. Vilka katastrofer känner du till. Lista ner dem.	2. What type of hazards do you know? List them out.
	3. På en skala från 1-5, hur troligt tycker du att det är för de nedannämnda katastroferna att påverka dig och din skola? <ul style="list-style-type: none"> • Dåligt väder (t.ex. storm, ösregn) • Snöstorm • Översvämning • Orkan • Skogsbrand • Torka • Klimatförändringar • Industriella olyckor • Pandemier • Krig/terrorism • Bränder • Övrigt (ange nedan) 	3. On a scale from 1-5, how likely do you think these hazards are to affect you and your school? <ul style="list-style-type: none"> • Bad weather (i.e. storm, heavy rainfall) • Snowstorm • Flood • Tsunami • Wildfire • Drought • Climate change • Industrial accidents • Pandemics • War/terrorism • Fires • Other (please specify)
	4. Om du valde ÖVRIGT på föregående fråga, ange vilka katastrofer du tänkte på.	4. If you chose OTHER as answer to the previous question, please mention which hazards you thought of.
	5. Har någon av de ovannämnda katastroferna påverkat dig någonsin? (Markera alla alternativ som gäller). <ul style="list-style-type: none"> • Ja, jag har varit direkt påverkat av en eller fler av de ovannämnda katastroferna (d.v.s. skada). • Ja, jag har varit indirekt påverkat av en eller fler av de ovannämnda katastroferna (d.v.s. besvär, kunde inte återvända hem) • Nej, jag har inte varit påverkat av någon av de ovannämnda katastroferna 	5. Have you ever been affected by any of the aforementioned hazards? <ul style="list-style-type: none"> • Yes, I have experienced it/them directly (i.e. damage, injury). • Yes, I have experienced it/them indirectly (i.e. inconveniences, could not return home). • No, I have not experienced any of them.
	6. Om du svarade JA på föregående fråga, beskriv katastrofen och hur den har påverkat dig.	6. If you answered YES to the previous question, please describe the type of hazard that you experienced and its impact on you.

Topic	Question in Swedish 	Question in English 
Awareness and personal experience	7. Vem har resurserna, kunskapen och förmågorna för att minska katastrofriskerna på din skola? (Markera alla som gäller). <ul style="list-style-type: none"> • Lärare • Elever • Rektor • Skoladministratör • Skolsköterska • Psykolog • Kurator • Studie- och yrkesvägledare • Kökspersonal • Bibliotekarie • Fritidspedagoger • Vaktmästare • Städpersonal • Övrigt (ange nedan) 	7. Within your school, who has the resources, knowledge and skills to reduce the risks of hazards? (Tick all that applies). <ul style="list-style-type: none"> • Teachers • Students • Principal • Administrative personnel • School nurse • School psychologist • School counsellor • Study- and career counsellor • Kitchen personnel • Librarian • After-school teachers • Janitors • Cleaning personnel • Other (please specify)
	8. Om du valde ÖVRIGT på föregående fråga, ange vem du tänkte på.	8. If you chose OTHER as answer to the previous question, please mention whom you thought of.
	9. Vilka av de följande katastrofeffekter är viktiga för skolan? (Markera alla som gäller) <ul style="list-style-type: none"> • Skolnärvaro • Icke tillgång till skolan • Osäkra skollokaler • Matförgiftning • Vattenförorening • Strömavbrott • Otrygga och rädda elever • Dåliga studieresultat • Skolan används som evakueringscenter • Sjukdomar orsakade av katastrofer • Övrigt (ange nedan) 	9. Which of the following possible hazards' effects are important for the schooling situation? (Tick all that applies) <ul style="list-style-type: none"> • School attendance • Access to school establishments • Unsafe premises • Food poisoning • Water contamination • Power outage • Students feeling insecure and scared • Poor academic performance • School used as evacuation center • Hazard-caused disease • Other (please specify)



Topic	Question in Swedish 	Question in English 
Awareness and personal experience	10. Om du valde ÖVRIGT på föregående fråga, ange vilka katastrofeffekter du tänkte på.	10. If you chose OTHER as answer to the previous question, please mention which hazards' effects you thought of.
School-based disaster preparedness	11. Har du fått någon information angående krisberedskap i skolan från skolpersonalen? <ul style="list-style-type: none"> • Ja, jag har varit informerad angående krisberedskap i skolan • Nej, jag har inte varit informerad angående krisberedskap i skolan 	11. Have you heard, seen or received any information about preparing for hazards or emergencies from school personnel? <ul style="list-style-type: none"> • Yes, I have been informed about hazard and emergency preparedness • No, I have not been informed about hazard and emergency preparedness
	12. Om du svarade JA på föregående fråga, beskriv vilken typ av information du fick och om du tyckte att den var viktig eller inte.	12. If you answered YES to the previous question, please describe the type of information that you received and whether you found it important or not.
	13. Skulle du kunna tänka dig... (välj ett svar – JA/NEJ/KANSKE för varje alternativ)	13. Would you be willing to... (tick one option – YES/NO/MAYBE for each alternative)
	<ul style="list-style-type: none"> • Delta i regelbundna utrymningsövningar och möte angående krisberedskap i skolan • Dela med dig information angående katastrofer och krisberedskap till yngre studenter • Uppmuntra andra studenter att engagera sig och lära sig mer om krisberedskap 	<ul style="list-style-type: none"> • Participate in regular drills and meetings regarding school-based disaster preparedness • Pass on information regarding hazards and preparing for emergency to younger students • Encourage other students to get involved and learn more about disaster preparedness
	14. Känner du att du har tillräckligt med information för att kunna agera i en nödsituation? <ul style="list-style-type: none"> • Ja • Nej 	14. Do you feel that you have enough information and knowledge to be able to respond to an emergency? <ul style="list-style-type: none"> • Yes • No
15. Om du svarade NEJ på föregående fråga, vilken typ av information och kunskap saknar du? Vad skulle du vilja lära dig mer om när det gäller krisberedskap i skolan?	15. If you answered NO to the previous question, what information and knowledge are you lacking? What would you like to learn more about?	

Topic	Question in Swedish 	Question in English 
Own preparedness	16. Markera i vilken utsträckning håller du med om följande uttalanden – 1 gång i veckan eller oftare/Några gånger i månader/1 gång i månad/Några gånger om året/Sällan/Aldrig <ul style="list-style-type: none"> • Jag tankar på katastrofer och deras eventuella effekter på min kommun • Jag tankar på klimatförändringarnas påverkan på min kommun • Jag känner mig rädd/otryggt på grund av klimatförändringarnas påverkan på mitt liv • Jag deltar i utbildningar och/eller möte som handlar om krisberedskap • Jag följer instruktionerna från broschyren "Om krisen eller kriget kommer" hemma • Jag tänker på mina färdigheter för att reagera på en nödsituation • Jag skulle kunna tänka mig delta i extra föreläsningar angående krisberedskap i skolan 	16. Please mark the extent to which you agree or disagree with the following statements – Once a week or more/A few times a month/Once a month/A few times a year/Rarely/Never <ul style="list-style-type: none"> • I think about hazards and possible problems in my municipality • I consider climate change impacts on our municipality • I feel scared/insecure about climate change impacts on my life • I attend trainings and/or meetings on emergency preparedness • I take measures at home for emergency preparedness (from the If crisis or war comes- booklet) • I think about my abilities to handle an emergency situation • I would consider going to additional lectures on emergency preparedness
	17. Hur kan du bidra till att förbättra krisberedskap på din skola?	17. How can you help improving disaster preparedness in your school?
	18. Vilka förmågor behöver du för att kunna agera i en nödsituation på din skola?	18. What skills do you think you need in order to respond to an emergency situation at school?

Appendix E – Answers to interviews (supplement)



Question 5b – What stakeholders are normally involved in these activities? (related to Question 5a)

OBS. Only the most relevant parts of the answers are reproduced below.

ID#	Answer in Swedish 	Answer in English 
1	Inget svar	No answer
2	Intervjuare: Och är det några av de här övningarna eller aktiviteterna som eleverna kunde eller har varit delaktiga i också? Intervjuoffer: Inte vad jag vet...för plötsligt dödligt våld så valde vi ju att inte engagera eleverna. Däremot de ordinarie utrymningsövningar och den byten som har med brand och brandsäkerhet det är sånt som varje skola har en plan att genomföra varje termin, i princip. Intervjuare: Vad var tanken för att inte engagera de? Intervjuoffer: Jag tror så här... men... man ville inte, man ville inte på det sättet väcka elevers... man hade mängd elever med erfarenhet på våld och man kände att man inte kunde... ville inte hantera det. Så... var det ett val man gjorde. När det gäller bussolycka, det rollspelet så kan vi säga också att vi har... när vi gör upphandlingarna, när det gäller bussar så ingår det också utbildning för eleverna... så där är de engagerade. Utrymningsövningar i buss situationer, till exempel och olycka, där är de engagerade men det har varit två separata arrangemang.	Interviewer: Are students involved in any of these activities? Interviewee: Not that I know of ... for deadly violence, we decided not to engage the students. In contrast, for the regular evacuation exercises and the changes that have to do with fire and fire safety, every school has a plan to carry out such drills each semester. Interviewer: What was the reason for not engaging the students? Interviewee: I think like this ... we didn't want to stress students in that way ... we have a lot of students with experience in violence and we felt we didn't want to handle it . So ... it was a choice we made. When it comes to bus accident, it also included training for the students ... so there they were engaged. Evacuation exercises if a bus accident happens. accident happens.
3	Det är mest lärare och personal.	It is mainly teachers and school staff.
4	Hur är det...jag tror faktiskt att det var bara lärarna, jag vet inte men jag tror faktiskt bara vara det.	How was it...I think it was only teachers, actually.
5	Nej, inte med våra elever.	No, not with our students.
6	När vi pratar om att titta på film, Youtube-klipp då är det både personal och elever som tittar på den tillsammans, oftast i sin mentorsgrupp eller mentorsklass. Och sedan när det gäller brandövningar så är det hela skolan.	When we talk about watching Youtube-videos, it was for both students and school staff, usually within their mentor groups or class. And when it comes to fire drills, they are for the whole school.
7	Det är ju alla som är på skolan.	It is for everyone within the school.
8	Nej, det är personal. Det är brandövningar vi gör med eleverna.	No, it is for the school staff. It is fire drills that we do with students.
9	Alla brukar delta i brandövningar.	Everyone participates in the fire drills.
10	Inget svar	No answer
11	Alla brukar delta i brandövningar.	Everyone participates in the fire drills.
12	Alla brukar delta i brandövningar.	Everyone participates in the fire drills.
13	Alla brukar delta i brandövningar.	Everyone participates in the fire drills.
14	Nej, det har vi inte funderat så hemskt mycket på men när vi pratar om pågående dödligt våld så vet jag att vi pratar om att...nej, eleverna hade vi inte tänkt ta med om vi hade några övningar då för det kan bli fel och du kan...personer som inte mår väl kan få dumma idéer och ...över såna övningar så jag är inte helt säkert på att eleverna behöver vara med på en sån övning.	No, we did not think too much about it. But when it comes to deadly violence, I know we discussed that it might be wrong to engage the students because it can raise certain stupid ideas and I am not completely sure that students should be part in such exercises.
15	Inget svar	No answer
16	Både för personal och elever.	Both for school staff and students.

Question 9 - Do you consider necessary to teach children about disaster risk and prepare them for different scenarios? If yes, why? If not, why not?

OBS. Only the answers categorized under "uncertain" are reproduced below.

ID#	Answer in Swedish 	Answer in English 
1	Jag är lite kluven till den om man ska göra den eller inte för det är alltid en balans där om man oroar barnen och eleverna mer med såna övningar än att man stärka dem, kan man säga.	I am both for and against this because I think there should always be a balance so that you do not scare children and students but make them stronger through the exercises.
4	Det beror lite på ålder på de, tycker jag. Och...jag tycker om att...man kanske går inte in så hårt om de är mindre för då kanske blir de rädda och tror att det ska hända imorgon, det vill man inte heller men samtidigt vill man att de ska vara lite förberedda, ja, lite grann tror jag är bra. Och sedan ju äldre de blir så kan man ta in mer.	I believe it depends on their age. And I think one should not be too harsh when talking about this because the younger students might get scared and think that the crisis will happen tomorrow, but you still want them to be prepared, at least a little bit. And then, the older they get, the more information they should receive.
5	Det är ju...när man har med barn att göra så ska man försöka vara naturligt och inte skrämman utan på ett fint sätt...någon annanstans det har hänt i världen, så att säga...man behöver inte säga...när det är små barn, vad gör man då, när det är riktigt små barn göra det till en lek kanske och för större barn som förstår lite mer, så kanske lite mer allvar.	When you work with children so it is important to act natural and do not scare them but in a nice way, explain that this has happened somewhere else in the world and if they are small, use a game to discuss what can be done and when they are older, discuss it a little bit more serious.
6	Beror väldigt mycket på ålder. Det finns ju en risk att man skrämmer upp barn, men elever som kan ha förståelse för att det här finns.	It depends a lot on their age. There is a risk to scare children, but they should also understand the risks.
9	Ja, det tycker jag nog men samtidigt får man inte skrämman upp dem men det tycker jag nog faktiskt.	Yes, I think so but at the same time, make sure that you do not scare them.
12	Ja, viss mängd. Det beror på hur gamla de är.	Yes, but it depends on their age.
13	Jättesvår fråga, jag vet inte vad jag tycker där. Ibland kan man bara skapa oro om man gör massa olika scenarier och att man har regler och rutiner på vad de ska ta vägen vid olika situationer och sånt där. Så jag vet inte.	Very difficult question. Sometimes it might just create panic and insecurity if you start talking about different scenarios, rules and routines on how to act and so on and so forth so I don't know.



Question 15b - Do you find a speakers' system useful during a crisis?

OBS. Only the most relevant answers to support the thesis's claims are reproduced below.

ID#	Answer in Swedish 	Answer in English 
1	Det kan det vara men man får också med sig att det kan ju också utnyttjas i felsyfte vid en kris, det beror på vad som har hänt. Det kan säkert vara väldigt, väldigt bra i vissa situationer, men... just när det gäller hot och våld och plötsligt dödligt våld, den typen av våld... då ska man tänka att det kan missbrukas.	It can be but it can also be used with the wrong purposes during a crisis, depending on what is happening. It can surely be very, very good in certain situations but when it comes to deadly violence, it can be misused.
3	Det finns fördelar i att ha högtalarsystem. Erfarenheten vi har är att de systemen har en tendens att fungera ett tag och sedan använder man inte dem så ofta så när man väl behöver dem så antingen vet man inte hur man ska göra eller så fungerar dem inte längre. Så att det är både och, kan vi säga.	There are advantages with such a system, but the experience shows that these systems work for a while and since they are not used very often, when you really need to use them, you either do not know how or they do not work. So, I am both pro and con for this system, to say so.
10	Jag är både och i dem tankarna för jag vet att när vi pratade om det här med våld, när det hände i Trollhättan så ville man...tyckte man på ett sätt att man skulle vilja ha högtalarsystem så att alla vet att det är någonting på gång samtidigt som den där personen hör det och då kanske agerar utifrån ett annat sätt så jag är lite kluven men jag är både och men jag tycker att det ska finnas, känner jag ändå.	I am both pro and con in regards to this because I know we discussed about violence, when it happened in Trollhättan that it would be good to have such a system but the person trying to attach might hear the announcements and act according to what the management of the crisis is so I am both for and against on this one.
11	Det vet jag inte...ja, ytterligare en apparat som ska fungera...vi har ju våra datorer, mobiler...idag kan du skicka signaler väldigt snabbt ju, beroende på situationen.	I don't know...another machine that needs to work properly. Nowadays we have computers and mobile phones so we can send signals very fast to each other, depending on the situation.
16	Skulle det kunna vara, har inte tänkt så mycket på det. För i tiden fanns det på skolorna men nu har vi ju möjlighet att nå varandra rätt så snabbt digitalt också, men...jag har egentligen ingen uppfattning av det.	It could be, I did not think too much about it. It was a common practice in schools in the past but now we have digital options to reach to each other very fast, so I really don't know.



Question 16 - Where can students and/or parents find information about crisis management?

OBS. Only the most relevant parts of the answers are reproduced below.

ID#	Answer in Swedish 	Answer in English 
1	Vi har ju en läroplattform sedan är jag osäkert på...om det kommer åt... det beror på hur rektorerna har gjort, om det har lagt ut den typen av dokument. De lägger ju ut dokument som handlar om ordningsregler och likabehandlingsplaner och såna saker... och när det gäller brandföreskrifter så tänker jag att det alltid finns uppsatt på vägen och så vidare. Men om de vill läsa liksom krisplanen och så då vet jag inte om det kommer åt den. Du får fråga rektorerna om det.	We have a learning platform, but it depends on whether the principals uploaded this type of documents or not. They have uploaded the rules and the fair and equal treatment plan and also about fire evacuation...but if students want to read the crisis plan, I do not know if they have access to it or not. You have to ask the principals.
2	Det absolut bästa svaret man kan ge är 1177.	The best answer one can give is 1177.
3	Krisplanerna finns ju på skolan och det är där de hittar det i första hand. Sedan ligger ju inte allt, allting ligger inte ute offentligt, öppet hur som helst därför att det handlar ju också om att skydda mot en fiende på något sätt så att lokalt sätt kan man få det via rektorn eller sin lärare.	The crisis plans are available in schools and there is where the information can be found, in the first place. But not everything is public because it is a matter of protecting the information from "enemies" so that they can get the plan from the principal or teachers.
4	Jag tror...jag ska kolla den, men jag tror att det kan gå in och läsa den på vårt intranät. Jag tror det i alla fall, men jag är inte säker.	I think...I have to check this out, but I think they can access our intranet and read it there, but I am not sure.
5	<i>Det är en lite annorlunda situation, jag jobbar på SFI och vi kommer ofta inte så långt informationen så vi har möjlighet att ge dem lokalkunskap eller så...nej, vad jag vet, står det bara mest intill de här, att de kan läsa själva men tyvärr är det inte språket, mer än svenska, engelska så att det är ganska svårt för de att ta reda på den informationen.</i>	It is a different situation for me since I work with SFI and we do not discuss that much with the students about this...since unfortunately most of them cannot read Swedish or English so the information is not that accessible to them.
6	<i>De hittar den på vår läroplattform under deras A till Ö som den heter så kan de säkert söka på kris där och det står säkert en krisplan där.</i>	They find it on our learning platform, and they can search for "crisis" and the crisis plan will certainly show up.
7	Jag tror att de hittar den på Ljungby kommuns websidan.	I think they can find it on the municipality's website.
8	Finns på Fronter vilket är vår sida för personal, elever och anhöriga till eleverna som vi har på skolan, dvs. vårdnadshavare.	It is available on Fronter which is our intranet platform.
9	När vi pratar om de här stora kriserna då som vi har...nej, eftersom vi har ingen direkt krishantering för det så finns det inte heller någon direkt information om det.	When we talk about big crises so I don't think we have any direct crisis management for them so I don't think there is any direct information about it either.
10	Alltså jag har så små elever så de pratar inte om det utan de frågar oss, vuxna. Så att jag inte vet, det kan ju vara så att det ligger på Fronter eller Ljungby kommuns hemsidan, finns det säkert så man kan hitta.	I work with really small children so when they wonder something, they ask us, the adults. So I don't know for the other students, it surely is available on Fronter or the municipality's website.
11	Vi har ju en likabehandlingsplan och där finns information...den går vi igenom varje läsår med eleverna.	We have a fair and equal treatment plan and there they can find information...that one we check every academic year with the students.
12	På vår läroplattform.	On our learning platform.
13	Vi har ju vår läroportal, Fronter, och där finns ju all form av information och dokument som gäller. Sedan är det klart, om det vill prata med någon så kanske kuratorn är någon som har lite mer koll på det.	We have our learning platform, Fronter and there they can find information and documents. If they want to talk to someone, they can probably turn to the school counsellor who probably has the best knowledge about it.
14	Jag tror inte vi har lagt ut något sånt. Det vi gör är att varje år vi har en check-lista för våra mentorer. Jag ser här att eleverna har tillgång till krisplanen, nu när jag gick in på websidan.	I don't think we have uploaded something of this nature. Every year, the mentors go through a check-list with the students where they explain what is to be done, but now, checking the website, I see that students have access to the crisis plan.
15	Vi använder oss utav ett datasystem där vi lägger upp all information och där har vi alla våra planer och dokument som både elever och föräldrar kommer åt och personal då.	We use a learning platform where we upload information and where all plans and documents are available for students, parents and staff.
16	I första hand på kommunens hemsida. De har tillgång till krisplan, både föräldrar och elever, den ligger på en skolplattform så de har tillgång till krisplanen men information om krishantering ligger på kommunens hemsida.	In the first place, on the municipality's website. Both parents and students have access to the crisis plan on our learning platform but information about crisis management can be found on municipality's website.



Question 19 - Is staff trained in FA and CPR?

OBS. Only the most relevant answers to support the thesis's claims are reproduced below.

ID#	Answer in Swedish 	Answer in English 
1	Såna utbildningar som går vid en viss intervall, men jag skulle säga att en hel del av dem har fått en sån utbildning vid något tillfälle...sedan byter vi personalen också så det är svårt att säga hur många som har fått det.	That type of trainings that are conducting at a certain interval of time...but I would say that most of the school staff had been through such a training at a certain point. Then, we change staff, as well so it is hard to say how many of those working nowadays has already been trained.
2	Det finns ju rutiner för detta. Var fjärde år, plus det är ju ett kunskapskrav så den personalen som hanterar de här sakerna, är det kunskapskrav för 7-9arna att kunna HLR	There are routines for this, every fourth year and it is also a requirement for staff working with years 7-9 to be able to perform CPR.
8	En del av elevhälsan är det och en del av personalen är det. Vi har haft utbildning. Sedan är det nyanställda då, vi har nyligen haft HLR utbildning som våra idrottslärare har hållit i då.	Parts of the student health staff and parts of the school staff are trained. We just had a CPR training, but there are also new employees that might not have received any training yet.
14	Delvis, kan man säga.	Partly.
15	Nyanställd personal kanske har inte hunnit uppdatera så får en utbildning men vi försöker ha den med jämna mellanrum så.	The new employees might not have been trained yet, but we try to organise these trainings regularly.
16	Ja, men inte fullt ut.	Yes, but not all of the staff.

Question 23 - What would you do next to make students more aware and improve their disaster preparedness?

OBS. Only the answers from the category "other" and the original version of the one quoted are reproduced below.

ID#	Answer in Swedish 	Answer in English 
6	Att jag pratar med dem och diskuterar med dem och försöker vara så saklig och nyanserad som möjligt. Och svara på deras frågor.	Talk to the students and base yourself on facts as well as be as objective as possible towards the situation.
9	Att prata med rektorn och påpeka att jag tycker att det skulle vara aktuellt att ha en krisplan för yttre, lite större kriser då.	Discuss with the principal and underline that I think it is important to have a crisis plan for bigger crises, as well.
14	Bidra med min erfarenhet.	Use my experience.



Appendix F – Answers to questionnaire (supplement)

Question 5. Have you ever been affected by any of the aforementioned hazards? (Tick all that apply)

- Yes, I have experienced it/them directly (i.e. damage, injury)
 Yes, I have experienced it/them indirectly (i.e. inconveniences, could not return home)
 No, I have not experienced any of them (**go to question 7**)



Question 6 - If you answered YES to the previous question, please describe the type of hazard that you experienced and its impact on you.

OBS. Only the answers fitting the aforementioned requirement are reproduced below.

ID#	Answer in Swedish 	Answer in English 
6	Dåligt	Bad
17	Till exempel ifall de vart snöstorm så har bussarna nån gång åkt i diket så jag inte kunnat åka in till skolan	For example, when there was a snowstorm and the busses drove into a ditch and I could not arrive to school
19	Jag fick panik och grät samtidigt som jag ringde mina föräldrar.	I panicked, cried and called my parents.
26	mycket regn	A lot of rain
40	storm, kunde inte komma till skolan	Storm, I could not come to school
41	Det brann i en papperskorg och vi fick inte gå hem fastän vi hade slutat.	There was a fire in a garbage bin and we could not go home even though the school day was over.
44	När det var storm föll träd över vägen hem, så bussen fick vända. 2018 års torka gjorde att vi knappt, mycket knapt fick tillräckligt med mat till hästarna. Dåligt väder och halka har gjorde att en stor lastbil körde av vägen och blockade trafiken, vi blev 2h sena till skolan.	When there was storm and trees fell down, the busses had to turn around. In 2018, the drought resulted in food shortage for the horses. Bad weather and slipperiness resulted in a big truck driving out of the road and blocking the traffic so we were 2 hours late to school.
46	Vi upplevde en torka nyligen, den påverkade oss på så vis att vi helt enkelt var tvungna att vara vattensnåla ex. genom att samla regnvatten och använda det för att spola med.	We have recently experienced drought and it made us focus on water-saving through, for example, collecting rainwater and use it to flush the toilet.
49	Storm har bl.a orsakat skador på mitt hem, vi har fått fixa taket och planteringar förstördes. Jag cyklar till skolan och när det är storm har min cykel ramlat ett par gånger, vilket har medfört i trasig cykel lyse som jag har fått byta.	Storm has, inter alia, resulted in damages to my house, we had to fix the roof and the crops were destroyed. I normally cycle to school and when there was a storm, I fell a few times and this resulted in a destroyed bike that I had to replace.

Question 17 - How can you help improving disaster preparedness in your school?

OBS. Only the answers from the category "other" are reproduced below.

ID#	Answer in Swedish 	Answer in English 
11	Få en nyckel till skyddsrummet.	Getting a key to the emergency shelter.
13	Få veta mer om skyddsrummet på skolan.	Getting to know more about the emergency shelter available in the school.
19	Hoppa av gymnasiet.	Dropping out of high school.
20	Ifrågasätta skolans krisberedskap då de aldrig har lärt oss hur man hanterar en kris. Informera lärare, mentorer och rektor att vi elever skulle vilja ha mer kunskap om hur man hanterar diverse kriser.	Questioning schools' disaster preparedness since they never have taught us how to deal with a crisis. Inform teachers, mentors and the principal that we, as students, would like to receive more information about how we should deal with different crises.

Appendix G – Coding of Qualitative Data

Arkiv Start Infoga Sidlayout Formler Data Granska Visa Hjälp Dela Kommentarer

Klistra in

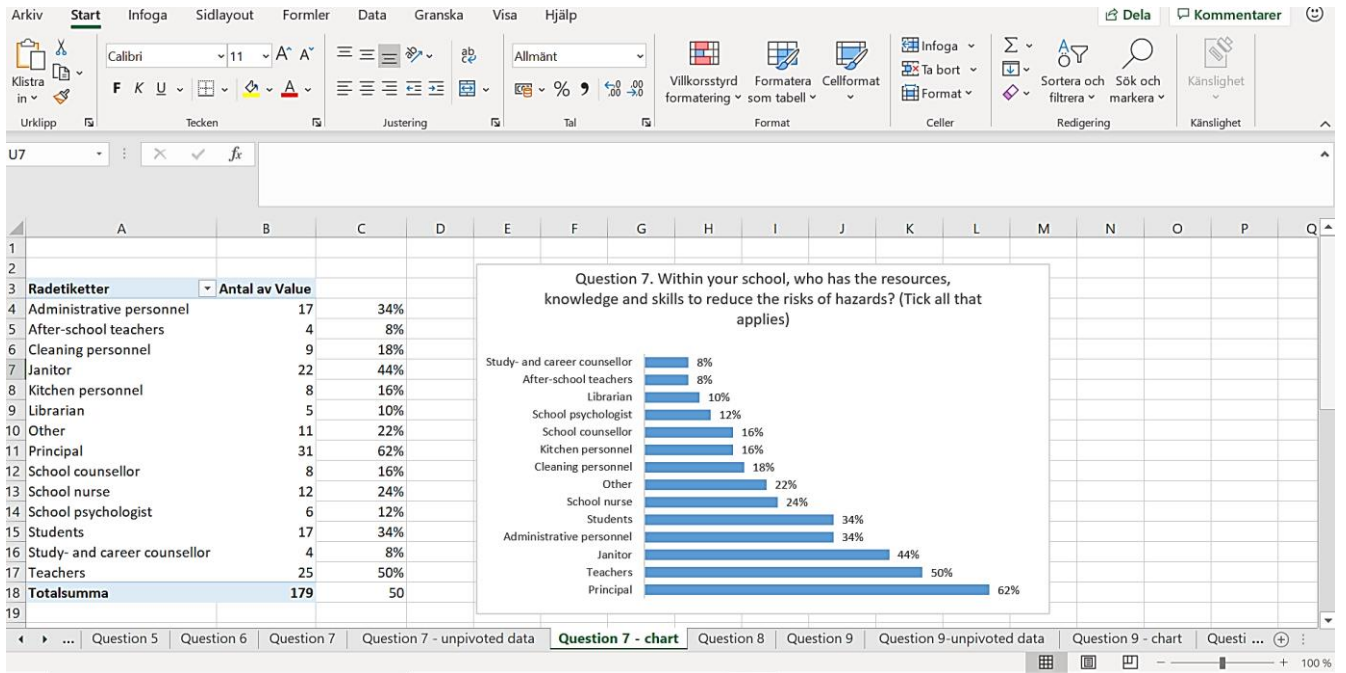
Urklipp Tecken Justering Tal

J2

ID #	Q1	Q2	Q3	Q4	Q5a	Q5b
					<p>desk-top övning som gäller skolskjutsolycka, vi samlades, beredningstjänsten, några stycken och så lästes vi att det hade hänt en bussolycka och jobbade utifrån det då så när vi gjort några olika scenarion också...men då var det inte några externa med för...när vi gjorde bussolycka då hade vi länstrafiken och då hade vi fler med. Men vi har gjort bara med en liten grupp. Lite fler scenarion och då tror jag att vi valde...vad valde vi då? Det var ju elavbrott, det är en så central grej, det påverkar väldigt mycket...om det blir ett sådant. Sedan tror jag vi hade det här - plötsligt dödligt våld också... för det pratades mycket om det i Sverige...det här att det kan komma någon utomstående och gå in på en skola och skada personal och elever.</p>	
	Pendlar till Ljungby 3 år och 3 mån			1 kriser som är kopplade till väder och klimat - mycket blåst, regn, torka; skolskjuts		
2	5 år och 64 ett halv			hålla hög kompetens och en bra medvetenhet i organisation om vad en kris är och hur man hanterar det; återkommande kvalitetsarbete för att få krisberedskapen att vara hög; systematiska arbetet	<p>Rollspel... med bussolycka som fokus. Information och rollspel om plötsligt dödligt våld har genomförts det togs fram ett material, tillsammans med polisen som diskuterades i olika sammanhang. Det var både på regional och på lokal nivå. Och det där materialet användes sedan ute i verksamheten så vi utbildade ju...i stort sätt all personal kring just den här frågan när det gäller dödligt våld filmer och skriftlig information. Eller bussolycka hade vi då rena rollspel med olika aktörer - de aktörerna som finns i vår organisation, på rektorns nivå och entreprenörs nivå, uppdaterats krisplanerna på förskolorna och skolorna ut efter en mall som togs ut av en grupp som har jobbat med att få en samsyn på en krisplan...hur det ska se ut... för plötsligt dödligt våld så valde vi ju att inte engagera eleverna. Däremot de ordinarie utrymningsövningar och den byten som har med brand och brandsäkerhet det är sånt som varje skola har en plan att genomföra varje termin, i princip.</p>	
3	63	4		1 med, till exempel, få ingångar, nödutgång osv. Ett strategiskt tänkande behövs.	Centralt har man jobbat med såna desk-top övningar där vi har blivit och testat på olika sorters övningar.	
				just om det händer något, om några går bort i klassen att det finns något...hur går vi då. Sedan tänker jag om det är något attentat eller något sånt så måste det finnas en	<p>Det är mest lärare och personal. AC så ni har ingenting som är inriktad mot eleverna eller inte så mycket fall 03. Inte som vi från stadshall har fokuserat på utan det är rektorerna i så fall som har jobbat den biten.</p> <p>Hur är det... jag tror faktiskt att det var bara lärarna, jag vet inte men jag tror faktiskt bara vara det. AC i det vara så att det är bara personalen som deltar i såna aktiviteter eller har ni aktiviteter för eleverna också? Ni... Nu jobbar jag i sänkskolan som speciallärare men vi har ju ingen direkt så med det...men jag tänkte att de övriga har ju det, att de har något tillfälle, annars när vi har gjort det så är det bara perso</p>	

Overview Question 1 - graph Question 2 - graph Question 3 Question 4 Question 5a Question 5b Question 6 - graph Question 7 Question 8 Question 9 Qc ... + 53 %

Appendix H – Coding of Quantitative Data



Appendix I – Original data used for the word clouds



Question 3. On a scale from 1-5, how likely do you think these hazards are to affect you and your school?

	Not likely at all ← → Very likely				
	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Bad weather (i.e. storm, heavy rainfall, wind)					
Snowstorm					
Flood					
Tsunami					
Wildfire					
Drought					
Climate change					
Industrial accidents					
Pandemics					
War/terrorism					
Fires					
Other					

Questionnaire

Question 4 – If you chose OTHER as answer to the previous question, please mention which hazards you thought of.

OBS. Only the answers that appear in the word cloud (Figure 15) are reproduced below.



ID#	Answer in Swedish 	Answer in English 
3	Om vi blir bombade	Bombings
4	Tsunami	Tsunami
9	Bombade och kyla	Bombings and extreme cold
13	Om coronaviruset muteras och blir farligt istället	Corona virus
19	Knivdåd eller dödsfall i massor	Killings
20	Global uppvärmning	Global warming
21	Skolskjutning eller vattenförorening	School shooting or water shortage
24	Konflikter	Conflicts
28	Mord	Killings
33	Corona	Corona virus
36	Skjutningar	Shootings
38	Corona	Corona virus
41	Kanske inte en katastrof, men mögel och parasit-problem	Parasits

Question 7. Within your school, who has the resources, knowledge and skills to reduce the risks of hazards? (Tick all that applies)

- Teachers
- Students
- Principals
- Administrative personnel
- School nurse
- School psychologist
- School counsellor
- Study- and career counsellor
- Kitchen personnel
- Librarian
- After-school teachers
- Janitors
- Cleaning personnel
- Other

Question 8 – If you chose OTHER as answer to the previous question, please mention whom you thought of.

OBS. Only the answers that appear in the word cloud (Figure 32) are reproduced below.



ID#	Answer in Swedish 	Answer in English 
18	Jag tänker att ingen kan påverka om det kommer en storm eller om det kommer en terrorist och börjar skjuta	No one
20	Presidenter	President
22	Brandmän	Firefighter
25	Ingen	No one
28	Brandmän	Firefighter
31	Elektriker	Electricians
33	Ingen	No one
34	Man kan inte minska katastroferna, i så fall utsläpp och så	No one
45	Gud	God

Question 11. Have you heard, seen or received any information about preparing for hazards or emergencies from school personnel?

- Yes, I have been informed about hazard and emergency preparedness
 No, I have not been informed about hazard and emergency preparedness (go to question 13)

Question 12 – If you answered YES to the previous question, please describe the type of information that you received and whether you found it important or not.



OBS. Only the answers that appear in the word cloud (Figure 40) are reproduced below.

ID#	Answer in Swedish 	Answer in English 
9	Ja vi fick veta vad ett bomb rum fanns, men det är alltid låst... så inte så viktig	Emergency shelter
13	Att det finns en skyddsrum i skolan	Emergency shelter
16	De visade ett skyddsrum	Emergency shelter
19	Vart man skulle gå	Where to go
21	Vi har en bombbunker och om det brinner ska vi gå ut.	Emergency shelter and where to go if fire
27	Vi har blivit tillsagda att tvätta händerna innan vi går in i matsalen för att minska smittrisk. Detta gör nog inte så mycket skillnad men det är bättre än ingenting.	Wash hands
33	Var man ska gå när det brinner	Where to go if fire
40	Ex plats vid utrymning vid ev. brand	Where to go if fire
46	Vi blev informerade om vart vi skulle befinna oss, vilket är bra att känna till för att minska panik då något skulle ske.	Where to go

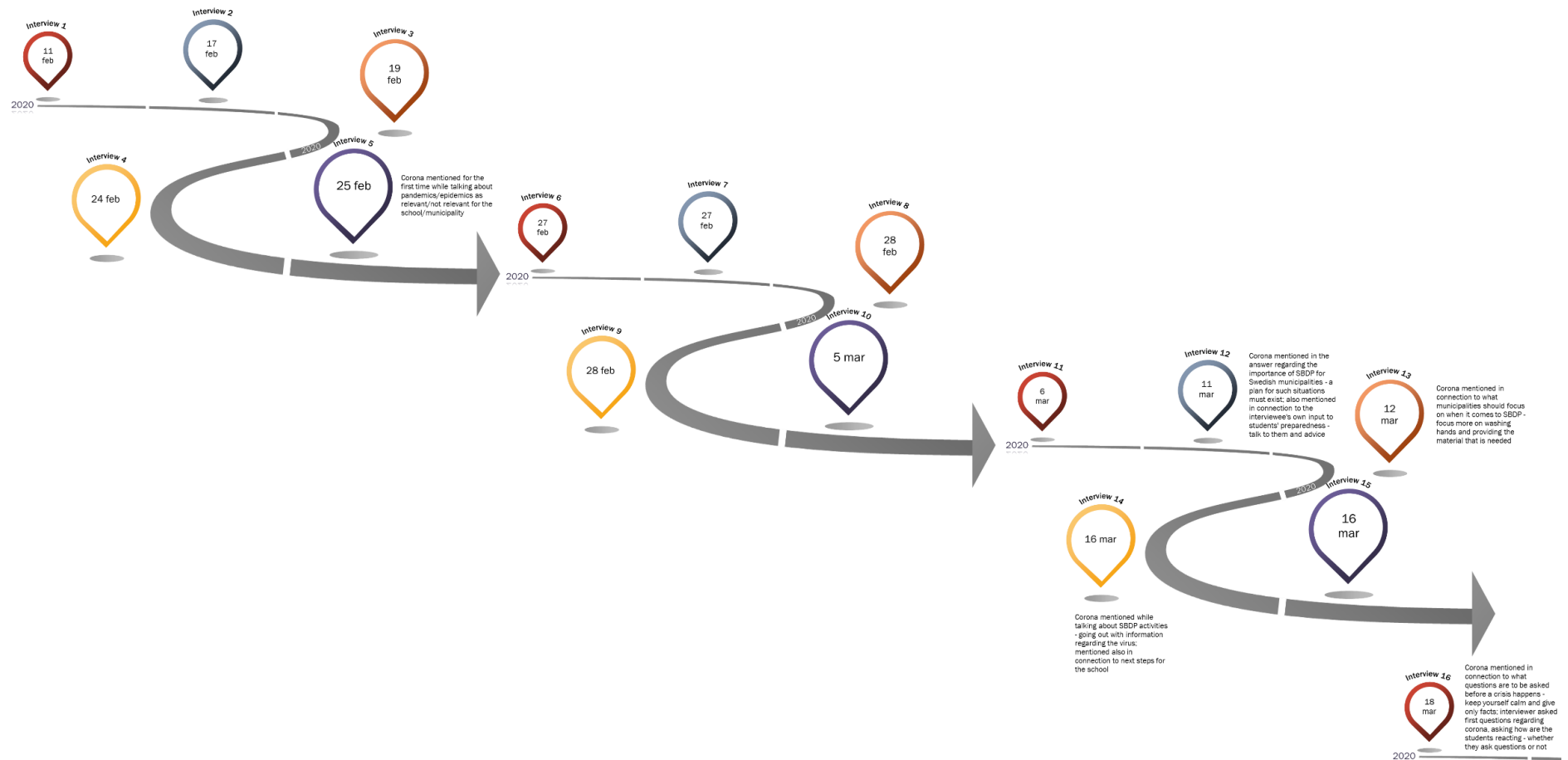
Interview

Question 16 – Where can students learn/get information about disaster risk reduction?

OBS. The summarized version of the answers that appear in the word cloud (Figure 26) are reproduced below.

ID#	Answer in Swedish 	Answer in English 
1	Läroplattform	Learning platform
2	1177	1177
3	Krisplanen	Crisis plan
4	Läroplattform	Learning platform
5	Annan situation – SFI	Other material
6	Läroplattform	Learning platform
7	Kommunens hemsida	Municipality's website
8	Läroplattform	Learning platform
9	Ingen direkt information	-
10	Läroplattform eller fråga lärarna	Learning platform (or ask teachers)
11	Likabehandlingsplanen	Other material
12	Läroplattform	Learning platform
13	Läroplattform	Learning platform
14	Check-lista för mentorer i början av varje nytt läsår	Check-list for mentors in the beginning of every new academic year
15	Läroplattform	Learning platform
16	Kommunens hemsida	Municipality's website

Appendix J – Timeline of Corona outbreak discussion



Appendix K – Crisis plans’ analysis

School 1 Sweden	School 2 Sweden	School 3 Sweden
<p>Crisis group:</p> <ul style="list-style-type: none"> • contact details, • roles and responsibilities, • check-list in case something happens • evaluating the situation • media and communication • important phone numbers for acute situations • information for all school staff 	<p>Crisis group:</p> <ul style="list-style-type: none"> • contact details, • roles and responsibilities, • check-list in case something happens • evaluating the situation • media and communication • important phone numbers for acute situations • information for all school staff 	<p>Crisis group:</p> <ul style="list-style-type: none"> • contact details, • roles and responsibilities, • check-list in case something happens • evaluating the situation • media and communication • important phone numbers for acute situations • information for all school staff
Serious accident or death during school time/after-school hours for students and staff	Serious accident or death during school time for students and staff	Serious accident or death during school time for students and staff
<p>Suicide</p> <ul style="list-style-type: none"> • of student • check-list for student suicide – based on true story • of staff 	<p>Suicide</p> <ul style="list-style-type: none"> • of student • of staff 	<p>Suicide</p> <ul style="list-style-type: none"> • of student • of staff
Serious school bus crash with injured or dead people	Serious school bus crash with injured or dead people	Serious school bus crash with injured or dead people
Sudden information regarding serious illness with risk of fatal outcome	Sudden information regarding serious illness with risk of fatal outcome	Sudden information regarding serious illness with risk of fatal outcome
Student went missing	Student went missing	Student went missing
Student losing close relative	Student losing close relative	Student losing close relative
Fire	Fire	Fire
Bomb threat	Bomb threat	Bomb threat

Threat and violence <ul style="list-style-type: none"> • threat of violence • sudden deadly violence • maltreatment outside schooltime – based on true story 	Threat and violence <ul style="list-style-type: none"> • threat of violence • sudden deadly violence 	Threat and violence <ul style="list-style-type: none"> • threat of violence • sudden deadly violence
Police interrogation	Police interrogation	Police interrogation
Follow-up and evaluation	Follow-up and evaluation	Follow-up and evaluation
Annexes: <ul style="list-style-type: none"> • Crisis management with students • Crisis management in classrooms • Letters and press releases • Crisis box – content • Poetry • Literature • Municipality’s crisis management structure 	Annexes: <ul style="list-style-type: none"> • Crisis management with students • Crisis management in classrooms • Letters and press releases • Crisis box – content • Municipality’s crisis management structure 	Annexes: <ul style="list-style-type: none"> • Crisis management with students • Crisis management in classrooms • Letters and press releases • Crisis box – content • Municipality’s crisis management structure