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**Behavioral Threat Management: Prevention of Severe
Targeted Violence in Educational Institutions**

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Käyttäytymisperusteinen uhka-analyysitoiminta: Vakavan ja suunnitelmallisen väkivallan ehkäisy oppilaitoksissa

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Oppilaitoksiin kohdistuva vakava ja suunnitelmallinen väkivalta on noussut viime vuosina yleiseksi huolenaiheeksi useissa kehittyneissä maissa, erityisesti Yhdysvalloissa ja Euroopassa. Tämä johtuu suurimmalta osin lukuisista eri oppilaitoksiin kohdistuneista vakavista väkivaltaisista hyökkäyksistä, kuten kouluampumisista. Samalla on käyty runsaasti keskustelua, mitä ongelman suhteen tulisi tehdä. Merkittävä osa keskustelusta on kuitenkin keskittynyt yhteiskunnan yleisiin ongelmiin, haasteisiin ja kulttuurisiin muutoksiin, reagoitimalleihin kouluhyökkäyksen jo käynnistettyä sekä tilanteen jälkikäteiseen toimintaan. Edellä mainittujen kysymysten ympärille on perustettu varsin huomattava määrä erilaisia kehitysprojekteja. Vain ani harva näistä projekteista on kuitenkin keskittynyt ”taktisen” ja operatiivisen tason ennaltaehkäisyyn, kohteena erityisesti tilannesidonnaisen vakavan ja suunnitelmallisen kouluväkivallan ehkäisy.

Tämä opinnäytetyö on soveltava konstruktiivinen tutkimus käyttäytymisperusteisesta uhka-analyysitoimintaprosessista oppilaitoksissa. Tutkimus sitoutuu laajempaan toimintatutkimukseen suomalaisessa koulutusjärjestelmässä, jonka tarkoituksena olisi syventää tietoa prosessin soveltuvuudesta em. järjestelmään. Tämän tutkimuksen tavoitteena on kehittää suomalaiseen koulutusjärjestelmään soveltuva käyttäytymisperusteinen uhka-analyysi- ja hallintamalli. Toisin sanoen tarkoitus on luoda prosessimalli vakavan ja suunnitelmallisen kouluväkivaltaan liittyvien uhkien tunnistamiseksi, arvioimiseksi ja hallitsemiseksi. Tutkimusmenetelminä on käytetty kirjallisuusanalyysiä sekä asiantuntijoiden teemahaastattelua.

Tämän tutkimus pyrkii täyttämään sen suhteellisen lyhyen aikajänteen, joka jää lasten kasvattamisen ja aikaisen puuttumisen, sekä itse hyökkäyksiin liittyvien turvallisuustoimenpiteiden ja reagoitimalleiden väliin. Menetelmä on nimeltään käyttäytymisperusteinen uhka-analyysitoiminta. Tutkimuksessa esitetty argumentaatio pyrkii todistamaan menetelmän käytökelpoisuuden. Kyseinen ennalta ehkäisyyn tähtäävä lähestymistapa pyrkii tunnistamaan ja hallitsemaan tilanteita, joissa oppilas muodostaa vakavan väkivallan uhan oppilaitoksille. Oppilaitoksen vakavan ja suunnitelmallisen väkivallan ennalta ehkäisyyn kehitetty moderni käyttäytymisperusteinen uhka-analyysi- ja hallintamalli integroi riskienhallintastrategian väkivallan kehityspolkuun. Uhka-analyysitoiminnan ja -hallinnan strategia sisältää sekä moniammatillisen lähestymistavan että viranomaisyhteistyön ulottuvuudet. Edellisten lisäksi mallissa koko prosessi on sulautettu oppilaitoksen perustoimintamalleihin ja -rakenteisiin.

Avainsanat: käyttäytymisperusteinen uhka-analyysi, uhka-arvio, suunnitelmallinen väkivalta, oppilaitos, koulu, väkivallan ennalta ehkäisy,

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Severe violence in schools and other educational institutions has become a rising concern in many developed countries in recent years, especially in the U.S. and Europe. This is due to the devastating violent attacks that have occurred across a wide range of western educational institutions. There has been a lot of discussion about how to deal with this issue. However, a large part of the discussion has been directed towards general problems in the society, cultural changes and of course how to react to the attacks when they occur and what to do afterwards. These questions have initiated a notable amount of different development projects. Consequently, not many of these projects have been concentrated on the tactical and operational level of prevention, specifically on *precise and timely prevention* of severe targeted school violence.

This thesis is a report of constructive research on behavioral threat management process of educational institutions. It is tied to a larger aim of an action research project within the Finnish educational system to learn more about the implications of the process. The goal of this thesis was to develop a model of the behavioral threat assessment and management process for educational institutions in the Finnish educational system; In other words to recognize, assess and manage risks concerning the occurrence of severe violent behavior in school-like environments. The model was constructed through utilization of comprehensive literature analysis and thematic expert interviews.

This paper is meant to fill the gap – the relatively short timeframe – between reactive security measures implemented during and after an attack and the early intervention measures tackling the origins of risk related to school attacks. The preceding argumentation documents that there is an effective way to fill this gap; it's called behavioral threat management. This proactive approach seeks to identify and manage students *posing* a threat of severe targeted violence.

Furthermore, within the developed contemporary threat management model, the pathway to violence is incorporated for the first time to the risk mitigation strategy in the context of targeted school violence. The strategy encompasses both multi-professional and cross-organizational cooperation in the assessment and management processes. Additionally, the whole process is embedded to the standard operating procedures of a school.

Key words: Behavioral Threat Management, Threat Assessment, Targeted Violence, Educational Institutions, Schools, Violence Prevention

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Hope Is Not a Threat Management Plan

1 Foreword

I would like to express my gratitude to the staff of Crisis Management Center of Finland, especially Director Ari Kerkkänen, Head of Human Resources Juho Särkilä and Senior Human Resources Officer Timo Järvenpää for providing some necessary resources for this project. I would also like to thank Police Commissioner Paulus Meijers and Chief Inspector of Police Gerrit Jan van Gelder at EUPOL for their support on this project. Respectful acknowledgment is also paid to Senior Lecturer Tiina Ranta at Laurea University of Applied Sciences for sparring me with the approaches and viewpoints on this thesis.

I want to present a significant tribute to the Board of Directors and the members of the Association of European Threat Assessment Professionals (AETAP) for their valuable input of the field of threat assessment and management especially in Europe with the cooperation of all the respected colleagues in North America and Australia.

I'm also very thankful to Margaretha Foundation of Finland for their support to this effort. Their quest to promote the education and wellbeing of the children of our society is appreciated. Their altruistic approach on helping others is acknowledged and highly respected.

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Sincerely Yours,

Peter Sund, CIP, BBA, VT
Helsinki, Finland
November 2009

2 Introduction

Imagine a case example of a student named Tom who told a classmate that he is going to kill a fellow student in his class. The classmate had already heard about several highly publicized school shootings, so he told his teacher what Tom had said. The teacher informed the principal, who had to decide how to proceed. Consider the hypothetical responses of three schools A, B, and C:

- School A: the principal confronted Tom with the alleged threat, and he admitted making the statement. The principal then responded according to the school zero tolerance policy. According to this policy, a student who threatens to kill someone must be suspended from school. The police were notified and a crime report was submitted.
- School B: the principal also confronted Tom with the alleged threat, and again he admitted making the statement. The principal consulted an official list of warning signs used to identify violent students. The warning signs included items such as, “low school interest and poor academic performance,” “social withdrawal,” “excessive feelings of isolation and being alone,” “excessive feelings of rejection,” “feelings of being picked on and persecuted,” and “uncontrolled anger”. After consulting with Tom’s teacher, the principal concluded that Tom fit the profile of a dangerous student. Tom was suspended from school and referred to the municipal mental health services.
- School C: the principal and other school staff had implemented a contemporary threat management model. The principal interviewed Tom about the alleged threat, and when Tom admitted making the threat, the principal asked some questions about Tom’s intent, including how and why he would carry out the threat. The school psychologist conducted a clinical interview with Tom and met with his mother. Other members of the student welfare team talked to the classmate who reported the threat, other students who were present, and the intended victim of the threat. After consultation with the local police, and based on all of this information, the principal concluded that Tom made the threatening statement in anger and frustration because he was being bullied at the classroom, but that he did not have a plan or serious intent to carry out the threat. Tom was apologetic and remorseful, and now recognized that there was a more appropriate way to cope with bullying. Tom was not suspended from school. (Cornell 2003¹.)

Understanding severe violent behavior in school-like environments won’t make you a “profiler”...but it will help you to notice and think about the warning signs of a potential attack. And it may startle you about how much you can help through sound observation, good judgment and utilizing your institution’s process to record your assessment, escalate it appropri-

¹ Altered from original story to be suitable for Finnish educational system.

ately and participate in any intervention that officials determine may be necessary. (Ranzazzo 2009.)

2.1 Starting Point

Severe violence in schools and other educational institutions has become a rising concern in many developed countries in recent years, especially in Australia, Canada, the U.S. and Europe. This is due to the devastating violent attacks that have occurred across a wide range of western educational institutions. At the same time there has been only a little discussion about these attacks in Finland. To put it a bit bluntly, it appears that there has been a national consensus that Finland is a safe haven amidst all the threats lurking in the “big world”. Our schools were considered safe and secure. The common perception was that severe violent attacks do not occur in our schools. Even considering the fact that in the wake of all other school shootings around the world, fear over violence in schools had prompted increased requests for psychologists, educators, and law enforcement professionals to assist in preventing future school violence incidents (Reddy et al. 2001).

All this was changed instantly at about noon on 7.11.2007 in Jokela School center, combined junior high school and secondary school. On that day Pekka-Eric Auvinen killed 8 and wounded 11 people inside the school premises. The whole Finnish society was shocked to its core. Then it was said that this kind of horrible disaster couldn't happen again, it was just a single horrendous occurrence. However, less than a year later on 23.9.2008 in Kauhajoki education center, combined vocational school and University of Applied Sciences, student Matti Saari killed 10 and wounded 3 people inside the school premises. Now the message was different: Every possible and imaginable thing had to be done to prevent these attacks from happening. Many suggestions were made and many strategic projects were launched – in total around 115 (Mol 2009). Not many of these projects were concentrated on the tactical and operational level of prevention, specifically on *precise and timely prevention*.

It is without a shadow of a doubt that we need reactive measures when something is already happening. Also it is for certain that we need long-term prevention methods like psychological support and treatment for disorders and disturbances in childhood development and support for the families in the upbringing of our youth. With that said, it is also imperative that we implement *proactive methods to recognize and manage risks of severe violent behavior* when they are on the brink of actualizing into disasters. It is exactly the same thing when we put sensors far out to the sea to get an early warning of an approaching tsunami in order to have time to manage it properly. If the sensors are next to our beaches, we will be much too late and the only thing to do is to have a crisis plan for minimizing casualties and damages. Also, if we think that we can control the sea in a way that it wouldn't even produce a tsu-

nami, we would be terribly unrealistic. There will always be potential danger of a tsunami. We need to understand where, when and how they occur to set the sensors in correct places and distances to get an appropriate early warning for effective management of the situation. This is the core of this thesis – *to illustrate a picture of an appropriate early warning system in educational institutions regarding severe predatory violence.*

Threatening and worrying students do and will exist in the future too. Are all these students dangerous? Do all dangerous students express threats? What should the school do in a worrying or potentially dangerous situation? Prevention of unwanted incidents of all kinds is and has always been at the center of the security and safety operations of educational institutions. Jokela Task Force (2009, 110-111) stated very clearly that schools should also have a method of assessing and managing expressed threats. One kind of method could be something where key professionals would convene and use existing information of the offender to compare it to known facts and traits of other similar offenders. Why all this? Partly – sad to say – “because case studies show that parents are often as unprepared as school officials to acknowledge their child’s warning signs or that children’s friendships with troubled kids could affect them” (Randazzo 2009).

However, at the same time like the former executive director of Finnish Central Association for Mental Health Jussi Särkelä (2008, D3) has stated: “Our modern society is suffering from kind of an over-psychologization when every little deviancy in us is stated as a mental illness”. When we look around and hear the discussions going on, this is probably a true observation. One newspaper reported that, one month after Kauhajoki several adolescents were sent for involuntary mental treatment after discovering *more or less* realistic plans of an attack in schools (Ilta-Sanomat, 2008). He was also accurately foreshadowing when he expressed his concerns that the investigative boards of the school shootings would loudly declare that mental services should be boosted, security training in schools should be increased, and the availability of weapons should be minimized. This was exactly what happened.

Some people have blamed the Internet and the virtual way of life for these incidents. Certainly that is a naive and over-simplified perception. But at the same time we have to face the fact that many of the attackers, having been more or less socially alienated, had found social interaction in cyberspace at least to a certain extent. Feelings of hate do need a pressure release, and some social medias have offered a way to obtain support for those feelings – unfortunately they haven’t worked as a defusing method, but rather have functioned as a place for these feelings to percolate (I: Saari). To some, it could also be that they have discovered a method of preparing their “operational plan” and delivering the “final statement” to the public. As humans are “group animals” by nature the fundamental question is: “What happens if a person ends up in a bad group?” (I: Vartiainen). Additionally, one risk factor of

the Internet is also that the social networks in cyberspace are not depending on physical location and that Internet-based social medias and others of that kind totally abolish physical distances! All the ideas, thoughts and other information travel in milliseconds to anywhere on the planet. And this *is* the world our children have been born in.

2.2 Essential Terms and Concepts

How would one talk about horrendous violent crimes in our schools often viewed by the public as inconceivable acts of random and gruesome violence of which our own children are the victims? There are some basic terms, which have to be defined in order to further the understanding of these events, this thesis and its goals and objectives. These concepts are expressed in the topic of this paper and by so construct the total framework for the task at hand. These concepts are behavioral threat management, severe targeted violence and educational institutions. Much consideration has been put in to find the suitable terms to really describe this phenomenon.

Behavioral threat management can be shortly defined as risk assessment of potential violent act carried out by certain individual and implementation of suitable control mechanisms. It is crucial to understand that risk assessment in all its forms always projects to the future and is basically describing the likelihood of something occurring. However, knowing the future is very difficult, sometimes impossible. This is why *all* risk assessment needs to be systematic by their nature. O'Toole (2000) states that for dealing with threats a clear, consistent, rational, and well-structured system is vitally important. Occurrence of a violent act depends clearly from the *person* carrying out something and basically means that there are only two considerations in distinguishing the threat beforehand: a person *making* a threat and a person *posing* a threat. Sometimes both components are present in the same case, but sometimes only one of them is present. This is the fundamental idea of behavioral threat assessment. Depending on these components, the suitable control mechanisms vary significantly. As an example a person who is *only* making a threat, the control mechanism could be just to let the situation cool down and end on its own. But on the other hand with a person making and posing a threat, even very robust control mechanisms, such as apprehension of the person might be necessary.

Severe targeted violence can simply be defined as a violent attack involving advanced planning and preparation against an individual or individuals with the intent of causing death or serious injury. According to Marttunen & Salmi (2008, 210) murder (all degrees), manslaughter, aggravated assault and all attempts of above-mentioned crimes are usually considered as serious violent acts in a criminological sense and so refer to severe violence. This of course is applicable only in regards to the violence occurring in educational institutions excluding sex-

ual violence. The defining element of targeted violence is that the attacker selects a target prior to the violent incident. In some instances of targeted violence, the target may not become a victim; for example, the target may avoid injury (e.g., if the attacker is a poor shot) or the target may not be at the site where the attacker believes the target to be. In others, the target may be one of several victims or may be the only victim. In still others, the target may be an institution or facility. But each case would be an instance of targeted violence if a target was known—or was knowable—prior to the incident. (Reddy et al. 2001.) In this thesis a person planning and engaging in severe targeted violence is referred as the *attacker*.

In this thesis the term prevention means operational control of the assessed situation on a tactical level. It involves practical measures concerning the potential attacker. Operating on a tactical level means excluding the strategic management of school safety and security issues from the line of work. As mentioned earlier the prevention here is supposed to be timely and punctual, addressing individual risks recognized and assessed. It could be compared to managing general heart diseases. We all know that the strategic prevention of heart attacks involves influencing people to live a healthy life; eating healthy, avoiding smoking, exercising regularly, sleeping enough and not stressing oneself too much. It is very important to follow these things too. But, when somebody is feeling and exhibiting the *first symptoms* of a heart attack, at that point, timely prevention methods are the ones required. Eating healthy does not do any good anymore. It is time for tactical level control methods. Sometimes the best response might be just to lie down and wait it out, sometimes taking nitro tablets, or sometimes calling an ambulance. These are naturally just examples by medically untrained person, but the point is that there are different prevention measures in different points of time.

Educational Institutions are used to refer to the variety of different schools and other establishments of learning where this kind of severe targeted violence could occur. Basically the main excluding factor is the age of a potential attacker. Case studies are showing that the age of an attacker in an educational institution is between 11-21 years. 85% of the attackers are between 13-18. (Vossekuil, Reddy & Fein 2000, 6; Ministry of Justice 2009, 84.) This means that the focus of this thesis is in all educational institutions where the students are between the ages of 11-21 years of age. Although this data establishes this specific age group it does not rule out the possibility that the next attacker will fall in a different age group. Therefore respective attention should be paid to universities and others where the students are also a bit older than that. On the other end of the scale there is apparently no need for much concern because even though younger children might have homicidal thoughts and feelings, their *ability* to conduct effective attacks is in total very minimal.

2.3 Goal and Objectives

The purpose of a thesis is to create, develop and increase the knowledge and know-how for both working-life and also for broader research and development projects. A thesis of university of applied sciences masters program, in its best, produces new knowledge cross-scientifically and develops the real-life working environment even further by new innovations. (Laurea 2007.)

The goal of this thesis is to develop a model of the behavioral threat assessment and management process for educational institutions in the Finnish educational system; In other words to *recognize, assess and manage* risks concerning the occurrence of severe violent behavior in school-like environments. As mentioned earlier, it is about setting up an early warning system for these kind of particular risks. The logic behind this idea is based on basic risk management. Firstly, only recognized threats can be assessed. Secondly, only assessed threats can become risks and then be managed properly. This model is not intended in any means to exclude, override or eliminate any other problem solving methods possibly already utilized. On the contrary it is very important that schools have for example functioning anti-bullying and conciliation programs to support the management of other issues than school attacks in schools (I: Savolainen).

When we talk about recognizing threat, we need to distinguish credible threats from the non-credible ones. The meaning of non-credible threat in this case is something, which might cause fear or anxiety but does not have relevance concerning reality. And when it comes to the threat caused intentionally by certain individuals, to understand that the threat does not have to be expressed in any particular way. Sometimes it might even be actively concealed. Not all threatening people are dangerous, but also not all dangerous people are threatening.

Assessing threats in the traditional way has always been about trying to find out how likely these threats are to occur, and if occurred, how severe the consequences might be. When it comes to behavioral threat assessment the emphasis moves radically towards to the likelihood, as the consequences are almost always ultimately severe - serious injury or loss of human life. And it is also because the likelihood becomes much more complex compared to intuitive valuing in other more general areas in risk assessment. This is true in any form of forecasting of human behavior individually. Humans are considered to have *freedom of choice* through thinking and reasoning. Regardless of the arguments that the brain ultimately is somewhat mechanical, the complexity is always overwhelming.

Managing known risks is mainly the implementation of suitable control mechanisms or sometimes accepting the risk as it is and seeing how it develops. In many cases the first two steps

are forgotten and only reacting by implementing some kind of measures, suitable or not, to the situation. Too often these measures are also based solely on assumptions, gut-feelings and poor judgment colored by fear and anxiety. One important factor of the *embedded* system is to be aware of the total range of different control mechanisms, which of them are disposable in each case and which are known to inflict desired effects.

It is important to mention that a Laurea University of Applied Sciences led development project is running parallel with this research project and it does have some overlaps to this thesis. The working title of the project is: Security of Higher Educational Institutions 2009 (suom. Korkeakoulujen turvallisuus 2009) and it is funded by the Ministry of Education. As said, there are links between this research study and the Security of Higher Educational Institutions 2009. However, there are also some noticeable differences. First of all, this thesis is concentrating *solely on prevention* of severe targeted violence in educational institutions. Secondly this thesis is intended to cover all concerning levels of education as mentioned earlier, not just higher education. This thesis takes a step away from administrative categorizations and concentrates on the ages of the students most likely to engage to a targeted violent act in an educational institution. Thirdly, this thesis is written in English with the intent of contributing to the discussion of school security and safety within European states and other states as well. And it is the final aim that the Task Force of School Safety and Security under the mandate of Ministerial Working Group of Internal Security and Safety would continue with the implementation of the findings of this study and further develop the model in the Finnish educational environment.

2.4 Restrictions and Exclusions

Generally the thesis of universities of applied sciences is working-life-oriented, process-like, concentrating on applied science and aiming to produce new knowledge and innovations. The knowledge gained is used in solving practical problems and challenges by developing new approaches, procedures, models and also further new knowledge, not so much just applying plain scientific knowledge solely to real-life situations. (Laurea 2007, 3.)

Referring to the goals and objectives of this thesis, there are some restrictions to the final product: The model of the threat assessment and management process in educational institutions in the Finnish educational system. Firstly, the final product is descriptive in its nature. Regardless of the fact that the model can be detailed, at the same time it is somewhat generic. The approach for the development is deductive. The goal is to “paint” an overall picture of the requirements, elements and operation of the system. This leaves some room for appropriate individual adjustments and changes in different real-life applications. The core-

idea is to understand the key factors of the model and then custom-fit it to the cultural and operational fabric of the organization.

Secondly, the model is somewhat restricted based on the assumption of the existence of certain functional elements in the school system. The model has been designed according to the Finnish educational system and assumes that there are, for example student health care, student welfare and crisis management elements in place in the respective school or other educational institution. It is clear that schools do differ in many ways and they might have very different approaches on how to organize their functions. However, it is a quite undisputed fact that most educational institutions do require some kind of supporting element to manage their student health, safety and welfare issues. As this thesis is more generalized to the construction of the model, however restricted to Finnish educational system, it most likely is not a big concern to custom-fit it to other educational systems and institutions.

Even though the goal is to develop a threat management model for severe targeted violence, the model is only extending to the preventative function of the risks concerned. This thesis does not deal with issues during an attack, responding to it or the issues after an attack. It also does not concentrate directly on issues relating to socialization and education on society's level. As stated earlier the timeframe of interest here is the point of an ideation of an attack until the last moments before the attack.

This paper also excludes the legislative aspects and issues on threat management. It is a known fact that there are several legislative proposals and actions taken to tackle the overall issue of student wellbeing and school security. For instance the Ministry of Education has proposed together with the Ministry of Social Affairs and Health a new law to ease the multi-disciplinary cooperation, to gather together the current dispersed legislation and to strengthen the student health service in total. The new law would bring together the tasks of educational, health care and social service professionals. (MoE 2009.)

This thesis is intended to be pre-planning for action research based development project. The exclusion of certain parts or descriptions of the action research process are discussed in chapter 3 in more detail. The most important aspect is that this paper is supposed to serve as a part of planning of the action research phase one. Added by a practical action plan the phase one will be completed. The action plan usually consists of the analysis of physical, material and mental resources, observation method, implementation method and reflection method. These plans cannot however be produced until a certain target organization is chosen and necessary agreements have been met.

2.5 Structure of the Paper

The knowledge of a master's thesis can be divided in three levels of requirements:

- Knowledge in practice, in which the purpose, goal and process description is essential
- Knowledge of practice, in which the analysis based on theoretical information, methodical knowledge and precise documentation is essential
- Knowledge for practice, in which the development of working-life, its strategies, tactics, techniques and procedures are essential (Laurea 2007, 5.)

These requirements are met in different chapters of this thesis. The level of "knowledge in practice" is discussed in chapter two. The level of "knowledge of practice" is discussed in chapters three to seven. The level of "knowledge for practice" is discussed in chapters eight to eleven.

The paper consists altogether of twelve chapters. The first chapter consists of the foreword for the reader. The second chapter leads the reader into the subject and helps to orientate oneself to the context. It introduces the overall goal and objectives of the paper and talks about the story behind the endeavor. The core terms and concepts are also defined and explained in order to be able to get into depth with the paper. The development method is described in the third chapter. There are also discussions about the basic assumptions and rationale of choices made.

The following chapters four, five and six offer definitions and background information on the main terms of the paper. The idea is to set a theoretical framework to the threat assessment and management model. Concepts like violence, organizational security, risk management, and behavioral threat management are discussed. Also some other threat assessment approaches are scrutinized. The chapter six strives to find distinctions between them and examines the applicability of them in school-like environments. Chapter seven summarizes the findings of expert interviews. Chapter eight introduces the model of behavioral threat management in educational institutions and talks about issues related to its functions. The first issue is the fundamentals of contemporary behavioral threat assessment. Second is the assessment of concerns, then the intervention and mitigation strategy. In this chapter the multi-disciplinary approach, student welfare and crisis management teams, public authority cooperation and the role of the parents and guardians are introduced. In chapters nine and ten the scientific and practical value of the paper are discussed. Chapter eleven compresses everything discussed earlier into a nutshell as conclusions and finally in chapter twelve a peek is taken to future research possibilities.

3 Description of the Development Method

There are two distinct research methods used in this thesis. The paper follows the principles of action research, but focuses only on the first steps of the method, the planning phase or maybe even better would be “pre-planning”. More precisely it focuses on constructing the theoretical model for the behavioral threat assessment and management process embedded in educational institutions. Basically it means that the analysis of physical and material resources, observation method and implementation including reflection phase are excluded from this report. Due to the timeframe available for the report it is not possible to run through the process in its entirety. The second part of the process would be important to be commenced widely in different kinds of educational institutions to gain knowledge of the feasibility of the model itself. Thus, what all this basically comes down to is that a great emphasis is put on to the initial “thinking” phases of the action research process.

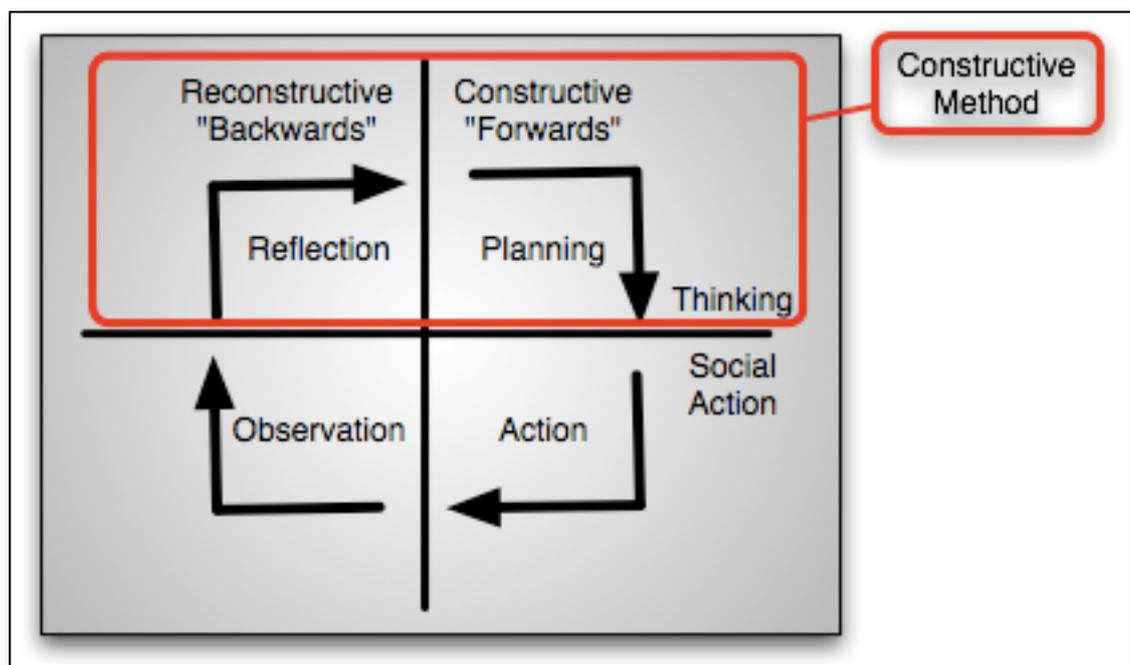


Figure 1. The cycle of action research (Heikkinen 2006, 79)

Since the emphasis of the action research cycle is on the planning, a specific constructive research method is used to develop the plan. A reflective approach is being used to portray a picture of what kind of protective measures are in place in school environments. More about action research is in chapter 3.1 and about constructive research method in chapter 3.2. As mentioned above the schedule prohibits the whole process being run before the deadline of this paper. A key issue is to keep in mind that the goal of this thesis is to develop a model of the behavioral threat assessment and management process embedded in educational institu-

tions. The final and best results are of course derived after a total cycle, but nicely executable, reliable and high-quality plan i.e. model is the first and important step of the process.

This kind approach can be described as the triangulation of different research methods. Triangulation in this sense means using several different research methods to make the picture of the phenomenon more comprehensive. Even though the triangulation of research methods does share some critique, it is believed that it still benefits the research in total. (Eskola & Suoranta 1998.) Especially when this paper cannot utilize the final results of full cycle action research. To have a high-quality model to start with, it was logical choice to try to strengthen the model by using more than one research method.

3.1 Action Research

3.1.1 The Definition of Action Research

There is actually no real consensus found in regards to the definition of action research. However the basic principle is that it strives to change the way things or us work or operate for the better. The goal is not only to find out how things are right now, but also to explore even better solutions for things. Action research as a concept is in a way very similar to the concept of case studies. The opportunity is given for the researcher to define it to suit it to the task at hand. There is no right or wrong way to conduct the research. Action research as a scientific research method is under constant change (Aaltola & Syrjälä 1999, 17).

The literature offers several definitions for action research:

“Action research is a method of exploring an idea in reality with the objective to change or develop it, to produce real change to the situation.” (Kemmis ym. 1981, 2).

“Action research is a group or individuals exploring the possibilities how to develop their operational conduct and the way how to react to the effects of these changes in a systematic way.” (Ebbutt 1985, 170).

”Action research is an examination method to solve different kinds of practical issues, to improve social conventions and to achieve deeper understanding about their nature for instance in working environments.” (Metsämuuronen 2000; Syrjälä 1994).

3.1.2 Action Research Process

Kemmis divides action research process into four phases (Suojanen, 2008):

1. Planning
2. Action
3. Observation

4. Reflection

However, it is critical to take notice of the fact that the purpose of these phases is to follow each other in a cycle or spiral-like formation (Figure 2) so that the resulting sequence becomes a process. After phase four the next step is always step one again. The idea is that the full cycle acts as a basis for next cycle and offers direction to it (Suojanen 2008).



Figure 2. Sequenced action research process in a spiral form (CELT 2003)

The process of action research can also be viewed like Heikkinen et al. (2006, 7) are presenting it in Figure 1. The figure exhibits both elements, towards the future and towards the past in the same process. It is about moving forward and also backwards. This means that in action research there are always both constructive and reconstructive components present. It is also noteworthy that the process is actually divided between thinking and social activity.

Suojanen (2008) states that before actually starting any planning (Phase 1) a few conditions must be met:

- The aim of the research is to develop a certain social aspect, group activity, particular project or an object or product
- The research process follows the cycles of planning-action-observation-reflection
- The members of the project participate actively on all phases of the project
- The whole process is documented and reported accordingly

In regards of action research, there always has to be an object of development or other issue of that nature. In working life the object can be production, economical, environmental,

social, technical or a quality issue. The source of the issue can be either material or intellectual in nature. Action research has to link to its environment. It could be the change in operational theatre as a cause or need to start an action research process. The goal of the process can be to develop practical procedures, to enhance the knowledge and understanding of the research group or to develop a model, system or a framework for a certain application. To put it simply the purpose of action research is to transform theory into practice. To develop a specific educational process or a product or a construct is seldom the only aspect in research project. Often they exist simultaneously in the same project. A good example of this are learning organizations, in which the goal is to both educate its members and similarly develop different operations in the organization to better suit its goals and purposes. (Suojanen, 2008.)

3.2 Constructive Research Method

In constructive research, there is always the issue of the form of validation. The conclusions have to be objectively argued and defined. This may involve evaluating the “construct” being developed analytically against some predefined criteria or performing some benchmark tests with the prototype. The term “construct” is often used in this context to refer to the new contribution being developed. Construct can be a new theory, algorithm, model, software, or a framework. (Wikipedia.) Putting special emphasis on the argumentation of the choices made during the construction of the model and also being extra vigilant on different definitions are aimed to solve these issues. Construction of the model is based on analyzing, compiling and merging different practices of general risk management, threat assessment and management, school safety and security, cooperation structures and methods of authorities and operational psychology.

This paper is aiming for the model to be finally carried out in a real-world environment. This is why it was natural to choose a constructive method as the research strategy for the planning phase (Järvinen & Järvinen 2000, 12, 102). The method of gathering information was divided into two approaches; Firstly searching through the literature and secondly interviewing experts of the respective field. This approach has been discussed also by Järvinen & Järvinen (2000, 153-171). The overall picture of the systems and procedures, experiences and views serve as a basis of new constructions. In this paper portraying that picture and analyzing it is the reflective (phase 4) part of action research process. In other words, the process in this case starts from the reflection phase.

The literature consisted of mostly different threat assessment approaches in schools in different countries, case studies, school security and safety publications, general risk and threat assessment literature, forensic psychology papers and other studies. The key word here is

constructive, meaning of course that the goal is to construct something new utilizing existing basic scientific research and practical knowledge. In other words this paper belongs to the field of applied research and development.

| Orientation of Scientific Knowledge | | | | Orientation of Practical Knowledge | | |
|-------------------------------------|------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| | | | | → | | |
| Basic research | Further development of the results of basic research | The implementation of the results of basic research | Applied research aiming to produce new scientific knowledge | Applied research based on scientific knowledge but not aiming to produce new scientific knowledge | Practical development project partly or solely based on scientific knowledge partly or solely consciously | Practical development project not connected to scientific knowledge |
| → | | | | → | | |
| | | | | → | | |
| → | | | | | | |

Table 1. The category of the thesis in the orientation of knowledge (Kyrö 2003, 3)

Kyrö (2003) has introduced the orientation of knowledge in a model where the one end is pure scientific knowledge and the other is practical knowledge (Table 1). Placing this research project into the model, it sits quite naturally into the category of applied research project not particularly aiming to produce new scientific knowledge. However, it is aiming to produce new *practical knowledge* through refinement and modeling. The contribution is discussed further in chapter 8.

3.2.1 Objectivity and Subjectivity

As this paper is based on the theory of action research some issues like objectivity and subjectivity need to be addressed. Typically pure action research faces denial to be “real science” because it’s based on intervention. The concept of intervention is problematic in aspects of science but specifically the question here is the fact of the researcher taking part in the process itself. Consequently the researcher cannot refrain being objective anymore, but more subjective or even biased to certain things. However objectivity is never a simple thing. An individual is always attached to his/her background and history and how it actually affects to the action and decisions of that individual is difficult to observe and witness. Just the philosophy of the science one has grown up with, has to have an effect on the thinking process

and possible decisions. The challenge of objectivity therefore is not only a problem with action research but with all scientific research.

The proprietary scientific objectivity has gotten more and more qualitative methods and reporting procedures onto its side in which the subjectivity of the researcher is being recognized. It is stated that in these new research methods and approaches the line between knowledge, esthetics and ethics is blurred. However the importance to evaluate the quality of scientific contribution is never disputed, but new approaches need to be acknowledged too. It is critical to broaden the view of scientific research. Of course while the view is being broadened the resolution deteriorates. Just like zooming in a picture with a camera. (Heikkinen et al. 2006, 145, 150.) The issue of objectivity is also partly mitigated in this thesis by paying attention to the reasoning and decision making processes and reporting them carefully with analytical and logical approach. This is why the constructive research method has been introduced in order to support more systematic approach to the reflection and planning phases.

3.2.2 Reliability

The fundamental questions in scientific research are reliability and validity. “Reliability means the possibility to repeat the results of measurements. In other words reliability means the ability to produce non-random results.” (Hirsjärvi et al. 2002, 213.) This is very interesting from the action research perspective because it always involves an intervention to the examined object and also has the researcher itself involved in the process. This certainly affects the possibility to acquire repetitive results again and again. So regarding the reliability action research, it seems not to be able to count itself to the noble group of “real science”.

On the other hand the question of reliability is the ability of the research to produce non-random results. This seems to totally different than to be able to repeat the same results over and over again. A well-conducted action research process certainly does not produce totally random results. This means that action research could still be in the league of “real science”. There probably is not much disagreement with the fact that action research process is very difficult to be repeated as exactly same as last time. If one would only make science from repeatable phenomenon, the loss of knowledge would definitely be great. The definite goal here is to get results of non-random by nature using systematic and logical argumentation with benchmarking information from other studies. Repeatability of course depends highly in which environments the action and observation phases would be commenced.

3.2.3 Validity

Validity is defined as the ability of a research method or instrument to measure exactly what it is meant to measure (Hirsjärvi et al. 2002). Generally validity means the solidity of the conclusions derived from the research data. In other words that the research is actually examining and measuring what it was planned to study. Validity is a very important factor of quality in the research project because it refers to possible systematic problems of the methodology or the conclusions of the study. Validity can be divided into internal and external validity. Internal validity alludes to the systematic solidity of the research. External validity alludes to the overall generalization of the results in its respective context. To achieve a high level of validity the research needs to score good “points” in both areas.

3.3 Interviews

“When studying human beings why not utilize the benefit of the subjects being able to talk about matters concerning themselves?” This is how Robson started his writing about interviews in 1995. (Hirsjärvi et al. 2002.) So, additionally to the literature analysis a thematic expert interview method was used to give more resilience to the research and to the model itself. Thus, it is important to keep in mind that through expert interviews it is generally possible to obtain valuable information about the subject and also get more practical details not necessarily reported in written publications. Particularly since there has been a lot of development projects and discussion going on in the respective field, which not many of them have been published in any written form yet. This kind of method was considered to be useful in supporting the literature analysis. Interviewing being very flexible method is its biggest benefit also in this case (Hirsjärvi et al. 2002). Hirsjärvi and others mention many other advantages of interviews, of which at least the following suit well to this research too:

- The possibility of an individual to present thoughts individually, subjectively and freely and by so creates signification to the subject discussed
- The area of interest is not very well studied
- It is very well known that the area of interest will generate complex and multi-dimensional answers
- There is an ambition to clarify the some of the thinking and discussion going on
- And there is an interest to add depth to the information at hand.

And since these interview were concerning some leading experts of their respective fields, the risk of interviewees trying to please the researcher or otherwise giving socially acceptable answers was very small. This fact also supported the approach.

There are several different methods of interviewing: structured, semi-structured, thematic and open interviews. Last mentioned has other names like free or deep interview, informal or

even unstructured interview. In structured interviews the questions, their order and possible answers are the same for everybody. In semi-structured interviews the answers are given with the interviewees' own words. Thematic interview allows even more flexibility because the questions might vary in their order and composition but still keeping within the selected theme. In open interviews the discussion flows naturally and the interviewer examines the thoughts, perceptions, feelings and opinions of the subject very gradually. (Hirsjärvi et al. 2002.) As stated earlier the most suitable method of thematic interview was selected and the core themes or topics were formed. The idea was to find out what kind of general qualifications and qualities would the experts set for preventing and managing risks of severe targeted violence in educational institutions, and also to identify relevant stakeholders.

The key questions of interest forming the themes of the interviews were:

1. When thinking about the severe targeted violence in educational institutions and the management of these risks, what are important factors of it in any professional point of view?
2. How should the management of these risks be organized in total exceeding all organizational boundaries?
3. Who are the stakeholders and what roles should they have in the process?

3.3.1 The Experts Interviewed

Besides the more detailed and in-depth information about the subject of the research, the goal was also to cover several different views of the matter itself and was used as the underlying principle of the selection of the interviewees. To recognize different views of the subject a method of identifying "vantage points" was conducted. Basically it means to look at different sides of the subject to see who might have a view on it. The method can help to see a little more when one can think how a phenomenon looks like from the front, back, both sides, below and above.

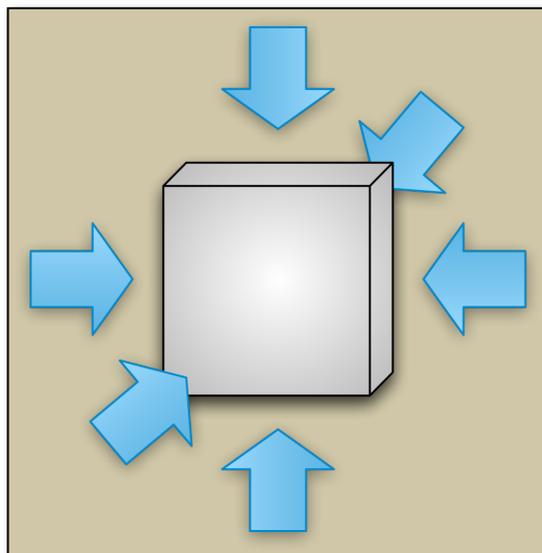


Figure 3. Six vantage points of a phenomenon

The following main views were identified:

- Threat recognition and assessment
- Protection
- Mental help
- Medical help
- Education

Threat recognition and assessment refers to the view of risk assessment. Protection refers to the “hard” security such as protective measures by the police. Mental and medical help refer to the psychological and psychiatric assistance and support. Education refers to the structure and organization of teaching and education, i.e. the way schools and other educational institutions operate in principle and on a daily basis.

All the experts interviewed were selected representing at least one of the views described above. The experts are introduced below by their name, position and some relevant background information. Comments by the experts are presented in the text where applicable with a capital letter “I” and their last name (I:lastname).

- **Superintendent Marko Savolainen: Police Department of the Ministry of the Interior, Supreme Command of Finnish National Police.**
Superintendent Savolainen is responsible for school shootings in the crime prevention team of the Police High Command. He is also the representative of the police in the task force of school safety and security set by the Working Group of Ministers for Internal Security. The task force is responsible for the direction of the revision project

of national school emergency plans and the guidelines for managing expressed threats in schools.

- **Psychologist Salli Saari, Docent of Psychology: Department of Psychology at Helsinki University, Finland.**

Docent Saari is a psychologist of Finnish Student Health Service (FSHS) and is the Head of Major Disaster Psychological Crisis Teams of the Finnish Red Cross. She is also the chairman of European Federation of Psychologists Association's (EFPA) standing committee of disaster, crisis and trauma psychology.

- **Psychologist Jens Hoffmann, Doctor of Psychology: Researcher and lecturer of Department of Forensic Psychology at University of Darmstadt, Germany.**

Dr. Hoffmann is acknowledged for his scientific contribution and expertise in the field of behavioral threat assessment. He is the Head of Private Institute of Psychology and Threat management for police, school psychologists and educational experts. Dr. Hoffmann is also the President of Association of European Threat Assessment Professionals (AETAP).

- **Psychiatrist Heikki Vartiainen, M.D., Ph.D.: Associate Professor of Psychiatry and forensic Psychiatry.**

Dr. Vartiainen is the Medical Director of Finnish Prison Service (VAHO) and has worked with violent offenders over 20 years within the Psychiatric Hospitals and other institutions in Finnish Prison Service.

One might raise a question why there is no educational specialist interviewed. There are several reasons for this decision. Firstly, the research is delivered to the educational institutions themselves as a basis and a continuing point for real social action with educational experts and professionals involving the action research process. Secondly, the educational system of Finland is familiar to the researcher because of the background as a certified vocational teacher. Thirdly, it was not expected for an interview to offer any more detailed information about the educational system or the organization of schools versus what the literature analysis already offered.

3.3.2 Conducting Interviews

Interviews were conducted at the point when literature analysis was done and an overall view of the threat assessment and management in schools were formed. The initial step was to contact the experts. They were provided with a summary of the research project: its goals, methods, background, researcher himself and the topics addressed in the interview. All interviews were conducted by personal face-to-face meeting. A date was set for the interview giving the experts enough time to prepare them as they saw fit.

The interviews followed open discussion under the preset topics. In this way the researcher could take part in the discussion by asking further questions about the topic, rephrasing, detailing and confirming given information. The approach could potentially cover also some aspects not already known by the researcher. From each interview the minutes were recorded simultaneously to form a part of the research data. The audible speech itself was not recorded or transcribed, because the role of the data was to give support the literature analysis and possible some additional details. The findings of the interviews are summarized in chapter 7.

3.4 Basic Assumptions

There are a couple of basic assumptions regarding this thesis and its goals. One very fundamental one is the theory of targeted violence being a form of human interaction (see e.g. Rasimus 2002). It is based on rational and observable process of thinking and behavior. It certainly is not spontaneous in any way because an attack requires a certain timeframe from an idea to actual realization. This is considered to result in a kind of sequence of preliminary events. In other words it requires both planning and preparation and therefore reflects visible or hidden messages or “hints” of future events. This theory is mostly known as the pathway to violence (Calhoun & Weston 2003; Hoffmann 2009). This assumption does not necessarily have to rely on scientific research because one can easily understand that attacking an educational institution or any other similar location simply cannot happen spontaneously. Firstly, the attacker needs a reason, a grievance of some kind; he has to see and choose violence as a means to solve the problem. Then he needs an idea of an attack, and then he needs to figure out how to do it and finally make the preparations such as acquiring weapons, travelling to the location etc. This was very well seen in the recent attack 4th of August 2009 to a health club in Bridgeville, Pittsburgh, U.S. which resulted in five deaths including the attacker. George Sodini, the attacker, kept an online diary and talked a lot of the planning and preparations done before the attack. He refers the attack as “exit” plan. He stated for example: “I should have exit plan done and practiced...I took off today, Monday, and tomorrow to practice my routine and make sure it is well polished. I need to work out every detail, there is only one shot...Total effort needed. Tomorrow is the big day.” (Sodini 2009.)

The second assumption is the supposition that basic research does offer at least relatively well-recorded, documented and examined facts about these messages, also called danger signs, which are common to violent offenders of targeted and predatory types of violence (see e.g. Otto 2000; Pollack, Modzeleski & Rooney 2008; O’Toole 2000; Dwyer, Osher, & Warger 1998; Borum, Fein, Vossekuil & Berglund 1999; Meloy 2000).

This actually leads us to a third assumption: Not all threatening people are dangerous, but also not all dangerous people threaten. Threats and dangerousness are not always the same (Hoffmann 2009). Let's take an example from a sub-category of predatory violence. One way to empirically approach the data that sheds light on the usefulness of threats in risk managing stalking cases is to study false positive and false negative rates. In this context, a false positive rate represents the proportion of subjects in a sample of stalkers who directly threatened but were not subsequently violent toward the target. A false negative rate represents the proportion of subjects who were violent toward the target but did not directly threaten beforehand. These rates, displayed as percentages, represent predictive failures, and appear in Table 2 (Meloy 2002).

| Study | Sample | False positive rate (%) | False negative rate % |
|--------------------------|--------|-------------------------|-----------------------|
| Meloy & Gothard (1995) | 20 | 73 | 22 |
| Harmon et al. (1995) | 48 | 68 | 13 |
| Kienlenetal. (1997) | 25 | 68 | — |
| Harmon et al. (1998) | 175 | 41 | 19 |
| Fein & Vossekuil (1999)* | 83 | ~ | 90 |
| Mullen et al. (1999) | 145 | 52 | 23 |
| Palarea et al. (1999) | 223 | 75 | 14 |
| Meloy et al. (2000) | 65 | 72 | 15 |

*In this study, the violence was an independent variable, rather than a dependent variable, therefore, false positive rates are unknown (the proportion of subjects who directly threatened and who were not subsequently violent).

Table 2. False positive and false negative rates of communicated threats and subsequent violence among various samples of persons who stalk and attack public and private targets (Meloy 2002.)

The fourth and final assumption is that using suitable methods it is possible to mitigate the risks of violent attacks (see e.g. Rasimus 2002). The idea behind this concept is by changing the factors in the "equation" of a possible or potential unwanted situation such an attack, the likelihood for it to occur will change. When the factors are known, the suitable countermeasure can be implemented and that will decrease the likelihood. Simple example would be for example lock the doors of a car to prevent easy unauthorized access into the car. Risk management will be discussed more thoroughly in chapter 5.1.

4 Violence

The word violence is used very loosely in both literature and speech. Often a prefix or other definitive word is put in front of the word violence to describe what kind of violence is being discussed (see e.g. Lagerspetz 1977; Rasimus 2002). Such pre-definitive words could be for instance physical, psychological, domestic, interpersonal, police or sexual kind of violence. Often the word is however used as just plain violence. Most frequently in these cases it is meant to refer to *physical violence* (see e.g. Davis 2001; Police Department of Ministry of the Interior 2004; Proctor 2003; Rasimus 2002). Legal and justified violence conducted by authorities like the police is usually referred as use of physical or deadly force (Note that the word violence is missing from the term) (Lakanen 1999, 24-35). Often the term of aggression is also linked to violence with more or less accordance. Clearly aggression is *not* just another term for violence. Aggression can have a link or a part in violence but these words are not equally comparable. Aggressive behavior might not be violent behavior or the other way round.

4.1 Concept and qualities of violence

Violence, in its nature, is something where either physical or psychological force is used to ultimately overpower or control others into doing or not doing something. Rautava & Perttu (2002, 36) see that power of control lie in human relations. Someone has power, force or control over somebody else. By a little extension to the fundamental meaning of the concept it could be said that violence is *the sum of all personal and external forces used to control others*. Personal force includes for example psychological, moral, and physical means and skills of a person. External force would for example be the economical means of a person. (Rautava & Perttu 2002.) They also quote Stets (1998) and say the force of control aspect could be anything used to restrain and rule someone's thoughts, feelings or actions. This leads us to a typology in which violence is:

- Oppressing, dominating, forcefully taken power to control
- Emotional and physical forceful actions
- In extremes total brainwashing to an extent where individual consciousness, awareness, opinions and perceptions are broken and new ones are planted instead

Certainly another extreme would be to kill somebody. Then a life has been taken by these physical forceful actions.

Lagerspetz (1998, 26) defines violence as inflicting bodily harm to somebody or forcing somebody to do something against his or her own will. This definition gives us the opportunity to see that undoubtedly physical harming of another person is violence but also using any other means of force to make somebody to do or not to do something can be violence. Clearly using

physical force fits the description but there can also be other kinds of means, such as threats or threatening behavior, to achieve the same goal.

The World Health Organization (WHO) under United Nations defines violence by following: “The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation.” (Krug, et al. 2002, 5). The critical notion is the definition ruling out any kind of non-intended harm such as traffic accidents etc. Only intended harm can be seen as violence.

Krug et al. (2002, 6) suggest that violence could be divided into three distinctive categories depending on the source of the violence. These categories would be:

- Self-directed violence
- Interpersonal violence
- Collective violence

This initial categorization differentiates between violence a person inflicts upon himself or herself, violence inflicted by another individual or by a small group of individuals, and violence inflicted by larger groups such as states, organized political groups, militia groups and terrorist organizations. These three broad categories are each divided further to reflect more specific types of violence.

Collective violence is subdivided into social, political and economic violence. Unlike the other two broad categories, the subcategories of collective violence suggest possible motives for violence committed by larger groups of individuals or by states. Collective violence that is committed to advance a particular social agenda includes, for example, crimes of hate committed by organized groups, terrorist acts and mob violence. Political violence includes war and related violent conflicts, state violence and similar acts carried out by larger groups. Economic violence includes attacks by larger groups motivated by economic gain - such as attacks carried out with the purpose of disrupting economic activity, denying access to essential services, or creating economic division and fragmentation. Clearly, acts committed by larger groups can have multiple motives. (Krug et al. 2002.)

Self-directed violence is subdivided into suicidal behavior and self-abuse. The former includes suicidal thoughts, attempted suicides - also called “parasuicide” or “deliberate self-injury” - and completed suicides. Self-abuse, in contrast, includes acts such as self-mutilation and other acts of that nature.

Interpersonal violence is divided into two sub-categories:

- Family and intimate partner violence - that is, violence largely between family members and intimate partners, usually, though not exclusively, taking place in the home.
- Community violence - violence between individuals who are unrelated, and who may or may not know each other, generally taking place outside the home.

The former group includes forms of violence such as child abuse, intimate partner violence and abuse of the elderly. The latter includes youth violence, random acts of violence, rape or sexual assault by strangers, and violence in institutional settings such as schools, workplaces, prisons and nursing homes. (Krug et al. 2002.) The violence concerned in this thesis subsides into both self-directed violence and interpersonal violence; and furthermore, into suicide and community violence. Naturally this makes the problem even more complex as just a “simple” form of violence. Even within community violence the act fits to both institutional and random acts of violence. In many cases the discussion about homicidal attacks in school-like environments is about attackers being random actors. However, this only applies to the description of victimization, not the act itself being random at all - far from it. This is discussed more detailed in chapters 3.4 and 4.3.

The nature of violence can also be the denominator for the categorization and by it there would be four different types of violence: physical, psychological, sexual or involving deprivation and neglect. Concerning violence the horizontal array in Figure 3 shows who is affected, and the vertical array describes how they are affected.

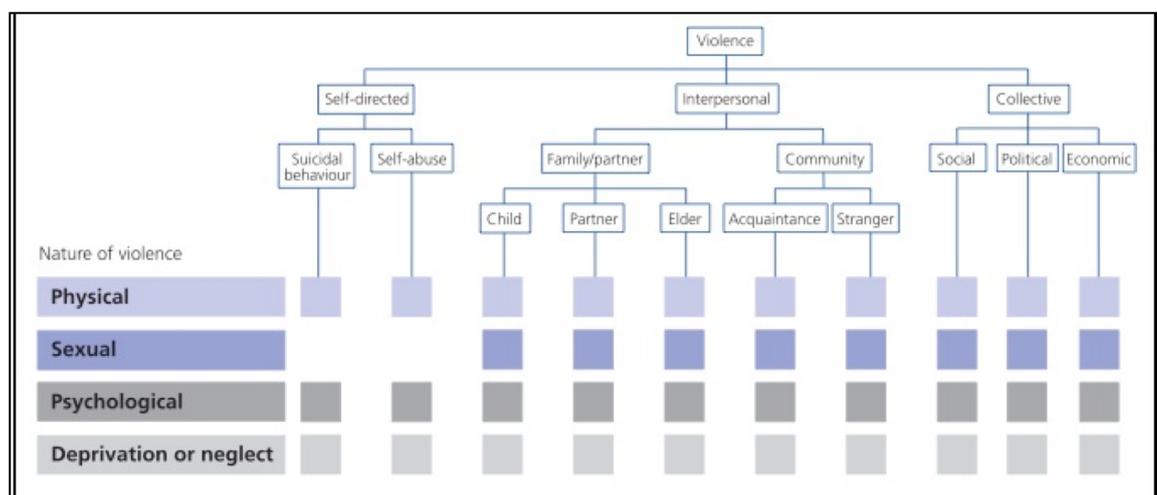


Figure 4. A typology of violence (Krug et al. 2002)

These four types of violent acts occur in each of the broad categories and their subcategories described above - with the exception of self-directed violence. For instance, violence against children committed within the home can include physical, sexual and psychological abuse, as well as neglect. Community violence can include physical assaults between young people, sexual violence in the workplace and neglect of older people in long-term care facilities. Po-

litical violence can include such acts as rape during conflicts, and physical and psychological warfare. This typology, while imperfect and far from being universally accepted, does provide a useful framework for understanding the complex patterns of violence in the lives of individuals, families and communities. It also overcomes many of the limitations of other typologies by capturing the nature of violent acts, the relevance of the setting, the relationship between the perpetrator and the victim, and - in the case of collective violence - possible motivations for the violence. However, in both research and practice, the dividing lines between the different types of violence are not always so clear. (Krug et al. 2002.)

4.1.1 The Direction of Violence

Parting from WHO's typology (Figure 3) violence can also be seen as two-directional phenomenon where violence is either directed towards oneself or towards others. Even though this kind of categorization is far more simplistic than others it still has its position in this thesis. It helps us to see that from the perspective of the offender violence is the solution of a problem (Hoffmann 2009). And when the case is like this, there are only two ways to direct it - either to oneself or to others. However, it is possible to direct the violence both in sequence by first to others and then to oneself. In its extreme manifestation this kind of behavior is often referred as *extended suicide*. In school shootings and other similar attacks the most interesting point is that even when attention is mostly given to the homicidal behaviors (killing and injuring others) of the attack, the main motivation behind it is still more suicidal. The attacker does not want to live anymore and has determined to die, but for more complex reasons such as notoriety, hate, grievance, fame or other, has decided to kill and injure others first. Sometime a person who feels they have nothing left to live for may look around to see who is to blame for their problems – and decide to harm those persons before killing themselves (Randazzo 2008; I:Saari). The attacker is often seeking a kind of reconciliation and immortality by committing a horrible act people would certainly remember.

4.2 Severe Targeted Violence

Targeted violence is a term developed to refer to any incident of violence where a known (or knowable) attacker selects a particular target prior to the act of violence (NIJ 2002). Maybe the most widespread misperception about the causes underlying violent behavior is some kind of a combination - often made by a “weekend-psychologist” or similar - of both the approaches of biological and personality traits. Approach based on *biological traits* basically claim that violent behavior is a simple product of a set genetic profile. This approach has stimulated the research even until today (Tschan 2009). However, the literature on the biological determinants of physically aggressive behaviors is intriguing in three ways. Firstly, the technologies for measuring the biological variables have developed rapidly in recent years,

resulting in a high degree of precision, while the definitions of the behaviors of interest and of the subject selection criteria remain rather vague. Second, findings resulting from animal studies are usually stronger than those resulting from investigations of humans. While this difference is usually thought to result from the complexity of the determinants of human behavior, it may be due at least in part to the precision with which the behaviors of interest are described in the animal studies. Third, the investigation of the biological determinants of physical aggression often lacks theoretical justification. It is as if subjects were studied because researchers have access to them, or biological variables were measured because the technology was available. (Hodgins & Von Grunau 1988.)

Approach based on *personality traits* claim further that under the influence of psychology and psychiatry violent and criminal behavior has been seen to be caused by certain personality traits such as antisocial personality. (Tschan 2009.) “There is, however, a growing area of research suggesting that myriad physical health conditions may be causally related to antisocial behavior through the mediating factor of central nervous system dysfunction” (Brennan et al. 1997). Quoting Meloy (1998) Tschan states further that the use of violence is determined much more by dramatic moments than by personality traits. Most violent offenders are not violent most of the time. However, keeping in mind that some of those with psychological problems are more prone to violent outbursts.

All in all, these kinds of “mechanical” or purely clinical points of view do not serve adequately in regards to prevention of severe targeted violence. Here targeted violence refers solely to any incident where an identified or identifiable perpetrator selects a target in advance of doing harm. It is distinguished from more emotional or impulsive violence, where a perpetrator acts “in the heat of the moment” (Randazzo 2008).

In general, people do not switch instantly from nonviolence to violence. Nonviolent people do not “snap” or decide on the spur of the moment to meet a problem by using violence. Instead, the path toward violence is an evolutionary one, with “signposts” along the way. A threat is one observable behavior; others may be brooding about frustration or disappointment, fantasies of destruction or revenge, in conversations, writings, drawings, and other actions. (O’Toole 2000.)

Today’s concept of the behavioral based approach is the model of the “pathway to violence” by Calhoun and Weston (2003) and with the model various stages of understanding can now be identified. *Contemporary threat assessment tools use the concept of the “path to violence” to decide whether someone is on that path and at which stage.* The original description is based on a six-step model used for public security purposes. The escalation of violence is taking place in a step-by-step process. (Tschan 2009.)

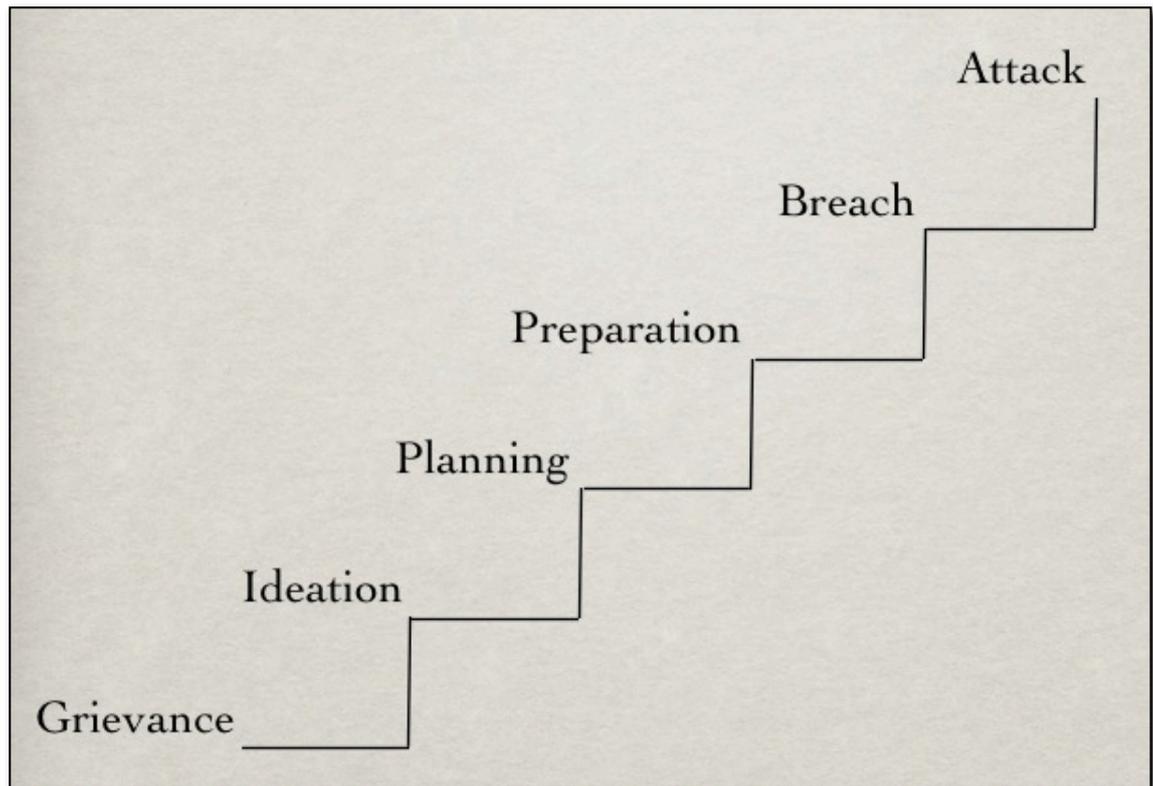


Figure 5. The Pathway to Violence (Calhoun and Weston 2003)

In the model of the Pathway to Violence the first step is the grievance; feelings of hate, despair, revenge etc. This grievance has the capability to evolve into ideation of an attack of some kind, for example school shooting or sabotage. The potential attacker sees violence as a way to solve his problems. After the idea has developed then starts the planning. Questions like where, when, how and who are being answered. This stage requires some intelligence gathering and often involves fact finding from previous attacks and possibly contacts to other potential attackers. Preparation stage is often even more visible because it involves actions to acquire necessary equipment, testing, practicing other behaviors to prepare to the attack. When everything is in order the attacker breaches the location or premises such as a school or other in order to engage with the attack. Naturally the following stage is the attack itself.

For example in the Kauhajoki School Shooting case it was learned that the initial grievance started already six years before the attack; the shooter had communicated with other school shooting offenders in order to find out the best ways in causing the most harm and fatalities. He purchased a semiautomatic handgun at the same shop where the first Finnish school shooter had bought his weapon - if the police had known these facts during the investigation which took place the day prior to the shooting, they would have realized that Mr. Saari was almost at the end of the path to violence: without any prejudice or critique, the outcome

would certainly have been different. The concept of the “pathway to violence” is based on the modus operandi of these offenders and helps to identify those who could pose a serious threat. From a preventive aspect it is important to realize, that in most cases there is plenty of time for interventions - the dots just have to be connected by collecting the information and assessing it. It should not be forgotten, that often classmates or co-workers who have spent days, months and years together with the offender - often realize that something is going wrong long before the final escalation takes place. (Tschan 2009.)

A phenomenon of “accumulation of hate”², presented by docent Salli Saari (2008), has similar - even though psychological - way of formulation. Feelings and emotions of hate and grievance grow gradually towards the unbearable, towards an escalation point. Dr. Stuart Twemlow states in Helsingin Sanomat (2009): “Nothing is more destructive to a person’s psyche, than to be humiliated and ridiculed in front of one’s equals. No other assault exceeds humiliation and ridicule being the catalyst for suicidal or homicidal rage.” This process can be regarded as preceding the above-mentioned “Pathway to Violence”. In order to really engage with a plan of extended suicide attack one logically has to have substantial grievance and lack of foreseeable solutions. Emotions of hate are overwhelming but at the same time suppressed and hidden from external world. In a way, an idea of a severe violent act can be viewed as a way out from the unbearable situation. That is where the beginning of the path to violence lies. Most people who attack others consider violence the means to a goal or a way to solve a problem. The problem may be that the potential perpetrator feels unbearably unhappy, enraged, overwhelmed, or bereft. If the person views violence as an acceptable or permissible solution, the risk of violent action increases. (Fein & Vossekuil 1998.)

4.2.1 Predatory Violence

As stated earlier the defining element of targeted violence is that the attacker selects a target prior to the violent incident. In many cases - but not all - there can be a predatory element present in the violent behavior. Predatory violence is defined as behavior where an individual engaging to a violent act behaves like “hunter” as opposition to affective violence. In predatory violence the act itself and possible results are surely purposeful; and *not preceded by autonomic arousal*, it is unemotional and carried out in the absence of an imminent threat. The evolutionary basis of predatory violence actually is hunting for prey. (Meloy 2002, 108.)

² Not scientifically established term. Originally translated from Finnish term describing the increasing feeling of hate.

Alluding to previous chapter about accumulation of hate it is important to recognize that thinking itself actually increases predatory aggression. This is because on the contrary to animals human beings do not need external stimulus but can provoke every stimulus just by pure imagination. Because of the human imagination, humans cannot stop destruction in due time. They are easily fixed on total extermination and see enemies all over the world. (Haas 2009.) This only supports the theory of the accumulation of hate and the “Pathway to Violence” as a theoretical model to perceive the phenomenon.

4.2.2 Communicated Threats Regarding Violence

Threat can simply be defined as a statement of an intention to do harm (de Becker 2007); Or as any expression of intent to harm someone (Cornell 2003). In this thesis a threat means a communicated violent intent, either delivered purposely or not. In this context threats can be viewed in many different ways. Communicated threat can be expressed either verbally or by different behaviors. Some basic cases would be for example stating out loud to kill someone, to make a gesture by drawing an imaginary knife across a persons throat or by posting violent threatening video on YouTube. Threats can naturally be manifested in written/pictorial, spoken or metaphoric manner (O’Toole 2000). They can also be categorized as *direct* or *indirect* by the type of interaction between the individuals involved (Honkasalo 1970) or by their contents as *unconditional* or *conditional*.

The case of a *direct threat* is when the threat is conveyed to the “target” from the issuer without any participation of third parties and without any noticeable delays. The most typical way of the type is face-to-face, but other means are also by letter, phone, email, fax etc. (Lakanen 1999). The case of an *indirect threat* is when the threat is conveyed through some third party. For example the person issuing the threat can tell it to the friends of the target and let them deliver it further. An unconditional threat is rather clearly a threat where no conditions are set i.e. the actions or behavior of the target are irrelevant to the execution of the threat. On the other hand conditional threat does contain the message of “if” in it. Basically it means the target does have an effect on the execution of the threat by complying with the demands or meeting the conditions set by the threatening person. Compliance can be met by doing, not doing or withstanding something. Typical expressions of the case are something like: “Do as I tell or else...” or “If you tell somebody, I will...”.

The case of metaphoric threat is when the threat is expressed using for example different symbols or other descriptive ways. These kinds of threats can be presented as well in written, verbal or non-verbal form. The key thing in any case is that the target understands the message being a threat. In principle it is very well possible that the only the person issuing the threat and the target understand that the message is threatening. (Rusanen 2005.) An exam-

ple of a metaphoric threat could be someone sending a letter to the school principal with paper splattered full with blood with no other message attached. Also possession of a weapon such as a firearm or knife on school grounds would be presumed to indicate a threat, unless subsequent investigation found otherwise (Cornell 2003). The core idea with any kinds of threats is that the threat is manifested and communicated somehow. Someone just having intimidating looks or appearance does not mean that the person is communicating a threat - even when somebody might feel threatened or intimidated (Lakanen 1999).

One very important fact to keep in mind when discussing threats is the fear or concern they might raise. Council of State bill 94/1993 (Valtionevosto 1993) states that the concern or fear has to be justified somehow i.e. the fear must be based on rational and careful thinking. Just a feeling of fear or concern not based on anything is not sufficient regarding it as criminal behavior. It is also stated that the safety and security of the target has to be in great danger. In this case the words great danger refers to both the likelihood of harm and the possible extent of casualties or damages. In this sense it could be highly beneficial if the threats would be assessed keeping in mind the criminal definitions of this kind of behaviors at least to some extent.

Threats of violence arise from feelings or ideas that range from the mean-spirited to the mesianic. Sometimes a threat is backed by the will and capacity to do harm; at other times, a voiced threat may amount to nothing but emotional “venting.” However, violent acts can be committed when no prior threat has been uttered. For professionals responsible for security, recognizing the difference between “making” and “posing” a threat is crucially important. (Fein et al. 1995.)

A communicated threat is not a guaranty or commitment.

- Gavin de Becker 2007

In order to capture the fundamental difference between threats that are readily resolved and threats that constitute a continuing danger to others, it is important to distinguish between *transient* and *substantive* threats. Transient threats are statements that do not express a lasting intent to harm someone and can be readily resolved. Transient threats reflect feelings that dissipate in a short period of time when the student thinks reflectively about the meaning of what he or she has said. Transient statements might be made in a moment of anger, but are retracted when the student calms down. Transient threats might also be made as a tactic in an argument or during an exchange of insults, or they might be intended as jokes or figures of speech. The most important feature of a transient threat is that the student does not have a sustained intention to harm someone. (Cornell 2003.)

Substantive threats are serious in the sense that they represent a sustained intent to harm someone beyond the immediate incident or argument where the threat was made (Cornell 2003). There are several indicators for these kinds of threats. They include:

- The threat has specific plausible details, such as a specific victim, time, place and method of assault
- The threat has been repeated over time or related to multiple persons
- The threat is reported as a plan, or planning has taken place
- The student has accomplices, or has attempted to recruit accomplices
- There is physical evidence of intent to carry out the threat, such as a weapon, bomb materials, a map or written plan, or a list of intended victims. (O'Toole 2000; Cornell 2003.)

When we come back to the question discussed earlier in chapter 3.4 of which people pose a threat and which only threaten, we can say that *some* people who make threats eventually do pose a threat – that is, they plan for and carry out an attack. It is important to respond to and investigate threats because a threat in and of itself can damage school or other workplace safety and wellbeing. Additionally, some people who threaten, but do not get any response may interpret it as permission to go forward with a plan. Surely some who pose a threat do not make threats beforehand. Indeed, several individuals who have killed or attacked i.e. public figures have said they did not threaten their target in advance because they wanted their attack to be successful and did not want to give their target any warning. Thus, if someone has done something to raise concern, it is unwise to then wait for them to issue a threat before gathering more information. (Randazzo 2008.) One principle is regarded very beneficial keeping in mind when dealing with communicated threats: They are in many ways similar to promises: *easy to give but much harder to keep*.

5 Educational Institutions and Security

In the quest of the educational institutions to avoid becoming the next statistic or headline, those with the responsibility to prevent school shootings have focused preventive resources primarily on increasing physical security (e.g., installing cameras and metal detectors), hiring school security officers, developing tactical plans for responding once a shooting has occurred, and implementing a range of programs such as legal education and conflict resolution. Unfortunately, these responses are not likely to be effective in preventing planned school-based attacks (Reddy et al. 2001). As it is also very unlikely for the student health care system, such as school nurses or school psychologists to be successful if they are left alone tackling this issue. Student health care professionals have expertise in addressing underlying men-

tal health issues that may be negatively impacting student performance, but *not providing overall security and safety* to the school and its members within the organization. Security management is not the primary task of school health care professionals although they do strongly support the objectives of safety and security for the students.

Media coverage and over-simplified news reporting has very likely had at least some influence to the responses mentioned above. News coverage has magnified a number of widespread but wrong or unverified impressions of school attacker. Among them are:

- School violence is an epidemic
- All school shooters are alike
- The school shooter is always a loner
- School shootings are exclusively revenge motivated
- Easy access to weapons is the most significant risk factor
- Unusual or aberrant behaviors, interests, hobbies, etc., are hallmarks of the student destined to become violent. (O'Toole 2000.)

5.1 General Perception of Security in Schools

Schools in Finland have always been regarded as safe and secure environment. They are categorized as public places and operate as low-risk organizations usually do: There is minimal control of movement, no apparent security staff, and minimal security equipment such as surveillance or building protection. The argument is not to claim that above-mentioned mechanism should be present, but to offer an explanation why the image of a typical Finnish school is quite “rosy” in a way. And the truth is also that there are not too many school security incidents reported before -until recent shootings.

Many have argued that the extensive media coverage of incidents of targeted school violence, and its disproportion to the actual prevalence of targeted school violence, has caused significant exaggeration of fear over school violence. This argument has been discussed for example by Arnette & Walsleben (1998), Brooks et al. (2000), Elliott et al. (1998), Henry (2000), Lawrence (2000), Snyder & Sickmund (1999), Stossel (1999). People seem to fear school-based homicides most; yet, statistically, these events are so rare that the epidemic of concern would seem quite misplaced. Recent studies have estimated that during the past three academic years the odds that a child would die in school (by homicide or suicide) were no greater than 1 in 1 million in United States –and some argue were closer to 1 in 2 million. (Reddy et al. 2001.)

Although these incidents are extremely rare, they are so vexing and their impact is so great that the fear they engender can often drive radical policy change, in some cases leading to

the implementation of bad policies. Accordingly, the fear of school violence as a distinct problem that schools face, and one that must be acknowledged and considered in developing and implementing prevention policy. (Reddy et al. 2001.) These statements are also supported by recent findings in Finland. After both school shootings the extensive media coverage raised instantly a huge increase in communicated threats against schools. For instance 126 threats were reported just in three weeks after Kauhajoki shooting. (Mol 2009².) At the time of the shootings in Finland there were no set policies, directions or practices on how to deal with these threats. Many stakeholders did react to the situation, but unfortunately without proper and adequate knowledge about the subject.

5.2 Organizational Security

The field of security and safety in schools and other educational institutions is very broad. The word “security” in English language has the meaning of freedom or protection from danger or worry. “Security” is also used when measures are taken to guarantee the safety of a person, thing or a value. A person can be a “security risk” by being of danger towards an organization or a person. The word “safe” is defined in English language as protecting from danger and harm, and to secure something. “Safe” also means that something is not damaged, hurt or lost; or is not likely to cause or lead to damage, injury or loss. Thus, “safety” is used to mean being safe or not being dangerous. “Safety” also refers to the ability to keep or make something or somebody safe. (Mäkinen 2005, 88.) In Finnish language there is only one word to describe both words security and safety. The word security describes better the phenomenon under examination in this thesis.

In the context of safety and security in educational institutions the term used here is *organizational security*. The term organizational security is referring to the organization using systematic and goal-supporting operating protocol to manage its internal and external security issues threatening its capabilities and resources. The protocol is utilized through leadership and security culture (Mäkinen 2005). The key sectors in organizational security are security of facilities and environment, information security and safety and security of personnel (Kerko 2001). Another, although very similar, categorization is the four-sector model presented by Virtanen (2002).

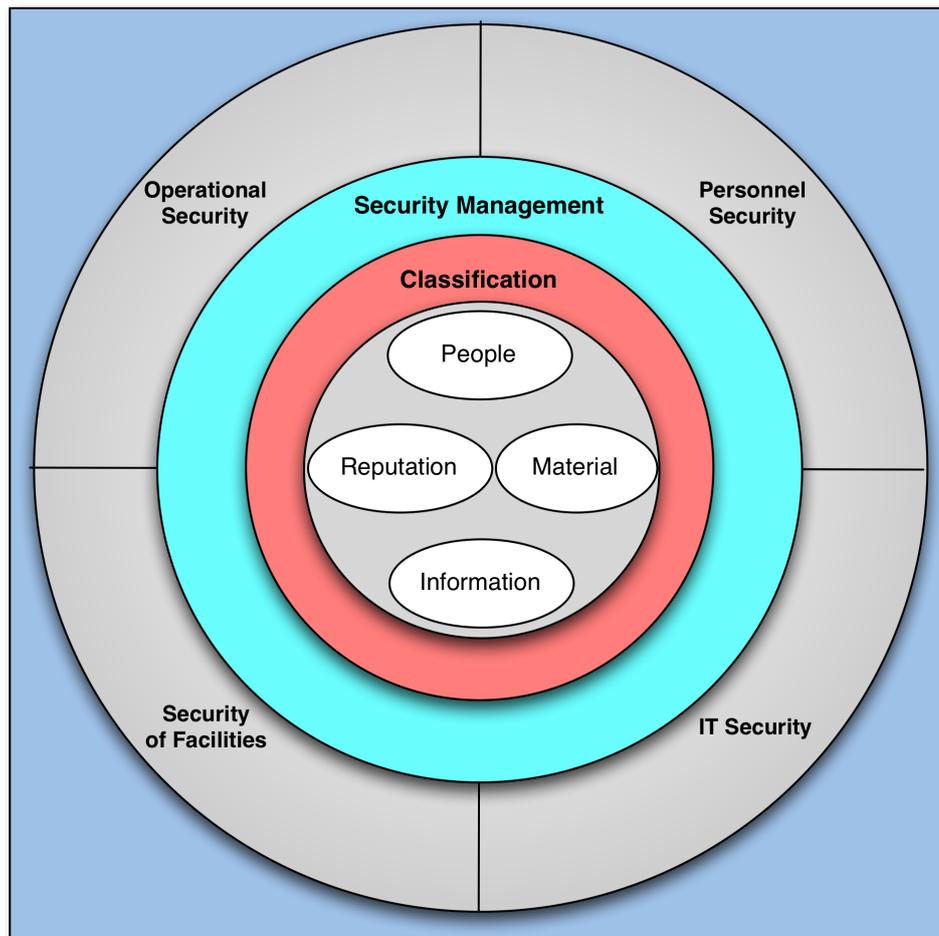


Figure 6. Four-Sector Model of Security Management (Virtanen 2002)

In the center of the model are the four assets of an organization: people³, information, reputation and material such as facilities, property and other goods. The aim of security management is to protect those assets in four different areas, which are operational security, security of facilities, security and safety of personnel and IT (information technology) security. The approach of four main sectors of security management has recognizable benefits being quite simple and clear. It also covers all the main areas where security and safety has to be present. However, this model has some shortcomings concerning its recognition of assets of an organization. Mäkinen (2007) has proposed a model with six distinguish assets of an organization (Figure 7). This model is called Cluster Strategic Security Model (CSSM).

³ Meaning all the people directly linked to the organization, such as personnel, visitors etc.

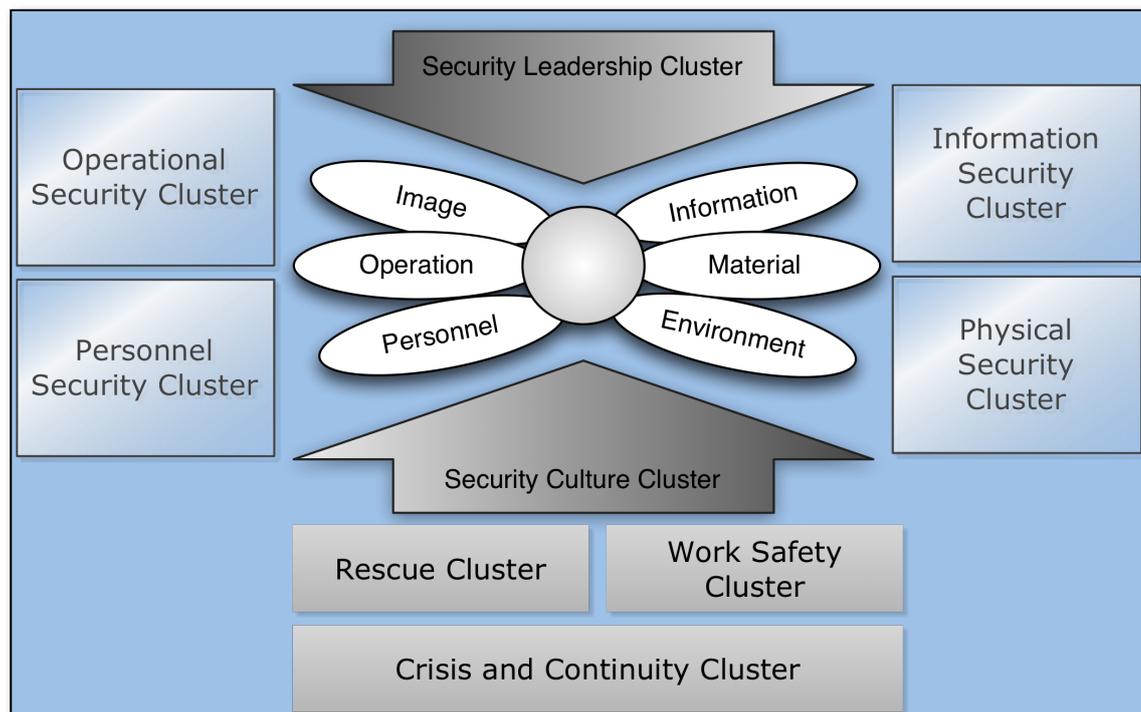


Figure 7. CSSM as an Organizational Security Model (Mäkinen 2007)

The CSSM suggests an organization having assets requiring protection of image, operation, personnel, information, material and environment. The word image means the reputation of the organization and perceptions of people about the organization. The term operation refers to the daily activity and functions of the organization. The meaning of the word personnel is all the people directly linked to the organization. Information as an asset means all the knowledge, skills and data within the organization. Material means all the facilities, properties and other goods. Environment refers to all the natural resources, nature and other surroundings.

The security leadership cluster is a natural part of the organization's strategic leadership and is adapted to the organization's other functions, and puts a special emphasis on identifying threats and risks. The operational security cluster includes all actions that detect, evaluate, identify and counter threats and risks jeopardizing the fulfillment of the tasks of the organization and related malfunctions in electronic equipment, system disturbances or other natural disasters or accidents. Information security cluster means the protection of knowledge, systems, services, hardware and electronic devices. The aim of the physical security cluster is to secure buildings and other facilities involving movement of staff, visitors and outsiders, plus security equipment and materials. (Mäkinen 2005.) The personnel security cluster traditionally aims to protect the staff and other actors working and operating in the organization from risks of violence and other crimes, health and disease etc.

Security culture signifies the values, attitudes, committed and professional personnel and updated norms and directives. It includes goal-oriented operations where a person's self assessment supports the overall security of the organization. The organizational security culture is a coalition of individual and group values, attitudes, perceptions, skills and behaviors. Communication is based on the common trust and understanding of the meaning of the term security and on a belief in the effectiveness of *preventive security*. (Mäkinen 2005, 149.) The clusters below security culture cluster are so called "input-type" because they affect the organizations culture through regulation such as enforced legislation etc.

As stated earlier the field of security and safety is very broad as are most clusters of the CSSM concern educational institutions. However, regarding severe targeted violence the relevant clusters are personnel security and work safety. These set the framework on the embedded model of behavioral threat management in schools. It is highly important to have an understanding about comprehensive organizational security and threat management's place in that context.

5.3 Risk Management

The term risk can be defined in many ways. It can be defined as the probability of an unwanted incident; or as the threat or probability that an action or event will adversely or beneficially affect an organization's ability to achieve its objectives. In simple terms risk is "uncertainty of outcome", either from pursuing a future positive opportunity, or an existing negative threat in trying to achieve a current objective (Wikipedia 2009.) In this thesis it is referring to the likelihood of an unwanted outcome of protecting selected interests i.e. causing casualties or other damages. In principle this means the amount, between minimal and extreme, of risk being derived from both, the likelihood of the incident and the extent of the possible damages. It follows the logic of causality, where an occurrence of a particular phenomenon is dependent on the existence of preceding factors to produce an outcome. In other words this is called the "cause-and-consequences" process (Figure 5).

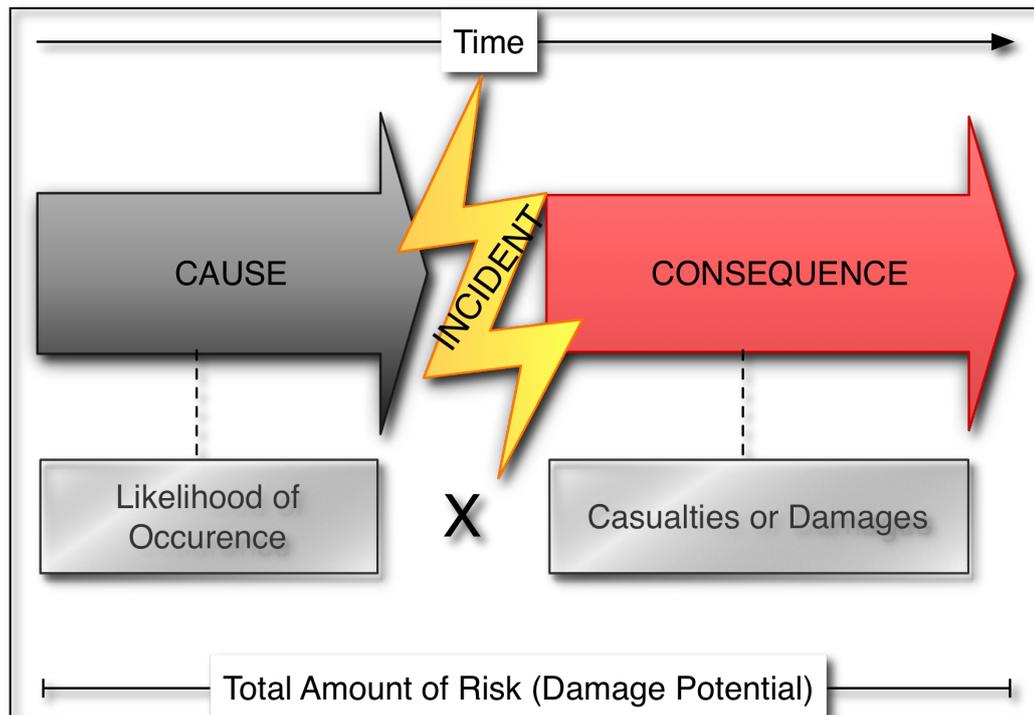


Figure 8. Cause and consequences process of risk (modified from Leppänen 2009)

Berg (1994) presents George Head's definition of risk management: "Risk management can be defined as the process of planning, organizing, directing and controlling the resources and activities of an organization in order to minimize the adverse effects of accidental losses on that organization at the least possible costs." Risk and Insurance Management Society define it by following: "Risk management may be defined as the identification, analysis and evaluation of risk and the selection of the most advantageous method of treating it." Berg argues that both definitions lack the terms "systematic" and "all risks". He suggests a definition of risk management being overall understanding of existing dangers, systematic scrutiny of the losses or damages they potentially can cause, selection and implementation of most cost-effective counter-measures.

Finnish governmental definition for risk management is formalizing it as being a process and a structure of which recognizes, evaluates and manages threats potentially preempting or obstructing of achieving preset objectives. It generally refers to the procedures of identification, assessment of likelihoods and control of all negative and unwanted issues, which may hinder reaching the goals of the organization or prohibit grasping new presenting opportunities. Planning, overseeing, guidance and goal setting are key elements in successful risk management process. (Ministry of Finance 2005.)

Breaking down above-mentioned definitions we can formulate a step-by-step process of risk management:

1. Identification of all possible dangers or threats potentially harming any of the assets of the organization
2. Recognition of the vulnerabilities of the organization
3. Risk assessment and evaluation
4. Implementation of mitigation procedures, tactics and technologies
5. Monitoring and evaluation of the mitigation strategy

The first three steps are conducted as a thinking process. Different methods such as brainstorming or others can be used. Most methods involving social interaction have proved to produce very good results on identification of dangers and recognizing vulnerabilities. The third step basically consists of phases of first assessing and calculating the total risk potential and then evaluating its meaning or impact to the organization if realized. To address the question of impact decisions of how much the risk needs to be minimized or sometimes even deciding to accept the need to be concluded. There are also other ways to deal with the risk such as sharing, transferring or avoiding it, but they are not relevant in the context of targeted violence.

The last step is then to select suitable and realistic procedures, tactics or technologies to mitigate the risk. This step naturally involves also to actually implementing the selected methods. After the implementation the effectiveness of the measures taken need to be monitored and evaluated, and changed when applicable. It is important to record the process somehow to enable the future development and management of the process.

Risk management means working to secure and maintain the continuity, wellbeing of personnel and sustainable use of environment. Risk management in total includes all the actions taken by the organization to tackle the dangers, hazards and problems; and risks and damages relating to them. High-quality risk management is conscious, methodical and systematic activity. Additionally to common sense well-established methods are adopted (Malmen & Wessberg 2001.)

5.4 The Objectives of Risk Management Regarding Targeted Violence

Continuing from the definition of the risk process, risk can also be presented in a matrix form (Ministry of Social Affairs and Health 2003). In the matrix the consequences form the columns and the likelihood form the rows. Consequences could for example be defined as:

1. Negligible - One minor Injury
2. Marginal - One severe Injury or multiple minor injuries

3. Critical - Multiple severe injuries
4. Catastrophic - Death(s)

The likelihood can be identified as:

1. Rare
2. Unlikely
3. Possible
4. Likely
5. Certain

| | Negligible | Marginal | Critical | Catastrophic |
|-----------------|-------------------|-----------------|-----------------|---------------------|
| Certain | High | High | Extreme | Extreme |
| Likely | Moderate | High | High | Extreme |
| Possible | Low | Moderate | High | Extreme |
| Unlikely | Low | Low | Moderate | Extreme |
| Rare | Low | Low | Moderate | High |

Table 3. Example of a Risk Matrix

A verbal value is also useful in defining risk levels even though they still possess a numerical value. They can be for instance something starting from low to extreme just like mentioned in the table above (Table 3). Good security can also be seen as the absence of high or extreme risk. Taking a look at general assessment of the risk of severe targeted violence, it is quite clear that the word severe does play a role in the total amount of the risk. In this context violence relates to the possibility of serious injury or death and so means that regarding to personnel security the consequences/damages could not be any worse. If a number from 1 to 5 would be given for the consequence it would certainly be 5. Now, as the table is showing that in the case of an attack the likelihood being even assessed to be rare, the total risk level would still be regarded as high. Consequently, this is clearly considered to be an unacceptable level. The objective of risk management is to minimize the risk to an acceptable level. Below is a useful statement to clarify the overall goal of risk management.

From individual point of view security is a need and a feeling based on prevalent situation and its interpretation. From organizational point of view security is a status quo where risks are under control.

- Ministry of Defense of Finland

Reddy et al. (2001) state that so far schools have been given little or no empirically based guidance on how best to assess the risk posed by a student for targeted violence in schools. They are referring to Hoagwood (2000) and Hyman & Perone (1998) by arguing that current options available to schools for responding to and preventing severe targeted violence are at best unproven and at worst carry the potential for serious harm. Reddy et al. (2001) continue that according to Hyman & Perone (1998) and Tebo (2000) also some violence prevention options, such as zero tolerance policies, have been criticized as overly punitive. They cite Cooper (2000), Morse (2000), Sewell & Mendelsohn (2000) and Steinberg (2000) when claiming that other approaches, such as behavioral profiling and computer programs that identify students at risk, have raised widespread concern among the stakeholders for their potential to infringe on students' civil liberties and to unfairly label or stigmatize certain students as "dangerous". Since these approaches have been found mostly ineffective other options need to be examined. This is the second objective of risk management in educational institutions.

If students or staff feels that expressed threats are not addressed quickly and sensibly, or if school administrators appear overwhelmed and uncertain at every expressed threat, confidence in the school's ability to maintain a safe environment will be seriously undermined. This in turn can seriously disrupt the school's educational program. Consistency in threat response can deter future threats if students perceive that any threat will be reported, investigated, and dealt with firmly. (O'Toole, 2000.) To maintain safe, peaceful and productive atmosphere in schools is the third objective of risk management (Mol 2009²).

The last objective of risk management concerning severe targeted violence is to delineate targeted violence from other forms of aggression in youth (Reddy et al. 2001). The word aggression in this case includes also other forms of violence. These forms were discussed in chapter 4. If for example emotional or impulsive violence would be mixed with targeted violence, the mitigation methods would not be effective and therefore the whole risk management process would fail.

6 Behavioral Threat Assessment

Although the field of risk assessment has made tremendous advances in the past 20 years, assessments of targeted violence continue to pose a significant challenge to law enforcement, mental health, and other professionals. These specific and critical assessments require an innovative approach. Specifically, mental health and law enforcement professionals are now being called upon, not just to assess risk for general violent recidivism, but also to assess risk for specific types of violence. Others, such as corporate security managers, human resource

professionals, school principals and counselors, also may be faced with situations of potential targeted violence. The task in such a situation is to determine the nature and degree of risk a given individual may pose to an identified or identifiable target(s). Although technologies and models have been developed for assessing risk of general recidivism and violence, assessing risk for targeted violence may require a very different approach. It is believed that a threat assessment model is most appropriate for use in assessing risk for targeted violence. Conceptually, there has been a shift from the violence prediction models, where dangerousness was viewed as dispositional (residing within the individual), static (not subject to change) and dichotomous (either present or not present) to the current risk assessment model where dangerousness or risk as a construct is now predominantly viewed as contextual (highly dependent on situations and circumstances), dynamic (subject to change) and continuous (varying along a continuum of probability). (Borum et al. 1999; also I: Vartiainen.)

Threat assessment is the term used to describe the set of investigative and operational techniques that can be used by law enforcement professionals to identify, assess, and manage the risks of targeted violence and its potential perpetrators (Fein et al. 1995). Threat assessment or protective intelligence is the process of gathering and assessing information about persons who may have the interest, motive, intention, and capability of mounting attacks against public officials and figures (Fein & Vossekuil 1998). *Behavioral threat assessment here is defined as the process of recognizing persons of potential prolonged and serious danger to others, gathering information about the situation and assessing it as an risk of targeted violence.* A threat assessment is conducted when a person (or persons) threatens to commit a violent act, or engages in behavior that appears to threaten an act of violence. This kind of threatened violence is termed targeted violence. Threat assessment is a process of evaluating the threat, and the circumstances surrounding the threat, in order to uncover any facts or evidence that indicate the threat is likely to be carried out. (Cornell 2003.)

“Because violence is the consequence of an interaction between the offender, his current life situation, the victim(s), the situation and the preceding events” (Hoffmann 2009), threat assessments require a new way of thinking and a new set of skills for criminal justice professionals. These assessments involve analysis of a subject’s behavior and examination of patterns of conduct that may result in an attack on a particular target(s). The level of threat posed by a given subject at a given time becomes a central concern in the assessment and management of the case. (Borum et al. 1999.)

Violence is the product of an interaction among three factors:

- An individual who takes violent action
- Stimulus or triggering conditions that lead the subject to see violence as an option, “way out”, or solution to problems or life situation

- A setting that facilitates or permits the violence, or at least does not stop it from occurring (Fein et al. 1995).

These areas are of interest in a threat assessment process. They provide a framework where information is gathered to determine the level of risk of an attack. However, this framework does not clearly present the identification of possible target or targets, which naturally is a part of the overall assessment process. This framework is more notional than practical.

6.1 Scrutiny of Other Threat Assessment Approaches

“There is a large area of research suggesting that myriad physical health conditions may be causally related to antisocial behavior through the mediating factor of central nervous system dysfunction” (Brennan & Mednick 1997). Various violence risk assessment tools were created based on this approach, on one hand the actuarial risk assessment instruments, on the other hand the clinical interview based instruments. However, as static concepts they lose their utility when applied to investigations of stalking, workplace violence, school violence, and other threat assessment crimes (Palarea 2008). The use of violence is determined much more by dramatic moments than by personality traits (Meloy 1998).

It is crucial to recognize that students at risk for targeted violence may or may not possess many of the traditional risk factors associated with general violence recidivism and delinquency in youth. For example school shooters might not have suffered from any kind of mental illness, although some deviation in their personalities most likely did exist. It is not in our nature to destroy our own kind, except in fighting and survival situations. (I: Vartiainen). The etiology and intervention for targeted violence may also differ substantially from more general forms of aggressive behavior in youth. Indeed, studies of juvenile homicide suggest that youth who commit murder differ along certain dimensions from those who engage in nonviolent delinquency (See e.g. Cornell 1990; Cornell, Benedek, & Benedek 1987a,b) – but in ways that may seem counterintuitive. For example, Cornell and his colleagues found that, compared with juveniles who were referred for evaluation after committing larceny, juveniles who were referred for evaluation after committing homicide were less likely to have prior mental histories, less likely to have a history of prior arrests or placement in a juvenile facility, and less likely to have had problems with school adjustment. Youth convicted of homicide were less likely to have histories of prior violent behavior than were juveniles convicted on assault charges. Notably, there is considerable heterogeneity even among juvenile homicide offenders. Youth who commit acts of targeted school violence may differ substantially not only from juveniles who engage in nonviolent delinquency but also from other juveniles who engage in different types of homicide. (Reddy et al. 2001.)

There have been at least three different more or less widespread threat assessment approaches in the field of school security. They have been advocated and used in some schools to identify students at risk for violence. It is important to examine and critique these assessment approaches – giving particular consideration to the potential for harm inherent in these approaches in preventing planned school-based attacks. These approaches are profiling, guided professional judgment and automated decision making. (Reddy et al. 2001.) Before going deeper to the individual approaches, there is a general issue regarding to violence prediction or violence risk assessment. It is the two-by-two matrix of prediction of danger (Figure 9) and is one of the most important aspects of all threat assessment approaches.

| | | Predicted Behavior | |
|-----------------|-----|--------------------|----------------|
| | | Yes | No |
| Actual Behavior | No | False Positive | True Negative |
| | Yes | True Positive | False Negative |

Figure 9. Two-by-two matrix of prediction of danger (Meloy 2000)

On the top is predicted behavior and on the left is actual behavior. If our future prediction capabilities would be perfect and we would be right every single time, we would only need the *True Positive and True Negative* boxes. But since the reality is not so and considering especially the fact that we are dealing with very complex behavior that cannot be predicted with perfect accuracy, as most human behavior is, two more boxes has to added; *False Negatives and False Positives* (Meloy 2000.) True Positive simply means that the prediction of a violent attack was that there will be one, and then proven right by an actual attack. True Negative naturally means the opposite. On the other hand False Negative means that the prediction of a person being a danger was negative, but later found untrue; the person engaged in a violent attack. False Positives occur when the prediction is someone being a danger, but actually is not.

Some particular problems lie with False Positives and False Negatives. There is no feedback loop In False Positives i.e. there are no contingencies for generating a False Positive (Meloy

2000). In other words it means that people are wrongfully regarded as being a danger, and by so may face devastating personal consequences by the authorities. Again, the consequences of a False Negative are even more devastating: by regarding somebody not being a danger and then the person committing a severe violent act is something nobody would want to face. Not authorities, school professionals, students, parents and least of all the victims.

6.1.1 Profiling

The first threat assessment approach to scrutinize is “profiling”. The notion of psychological profiles was initially developed as an investigative technique to aid in determining the type of person most likely to commit a given offense based on inferences from the evidence and/or the subject’s behavior at the scene. The information gathered from a crime scene is used to generate a set of hypotheses about the characteristics— physical, demographic, personality, and others—of the person most likely to have committed the crime. The hypotheses are then used generally to help narrow a list of suspects or to suggest other areas of investigative inquiry and thereby enhance the efficiency of an investigation. (Reddy et al. 2001.) This technique is retrospective in that it works from a behavior i.e. the crime and crime scene evidence backward to infer the type of person who committed the crime. While this may be an effective strategy for limiting the field of suspects after a crime has occurred, it is not a useful framework for prospectively identifying persons who are at greater or lesser degrees of risk for targeted violence. (Borum et al. 1999.)

Nevertheless, the idea that there are profiles of perpetrators of targeted violence, including assassination, workplace violence, and school violence is a popular one. (Borum et al. 1999.) Rather than asking whether the person who has raised concern “looks like” others who have engaged in workplace harm or violence, it is better to ask whether the person’s behavior and communications indicate that they may have any ideas or plans of harm (Randazzo 2008).

Checklists and warning signs that have been used to construct a profile of the homicidally violent student contain many general risk factors common to large numbers of youths. For example, the warning signs used by the hypothetical principal of school B (Chapter 2) are taken from the list in the U.S. federal government’s guide: Early warning, timely response - A guide to safe schools by Dwyer, Osher & Warger (1998). Even though the guide cautions against improper use of the warning signs, there is no clear way to avoid misuse when a school official is confronted with a potentially dangerous student and examines such a list of student characteristics. (Cornell 2003.) Other various agencies and professionals have developed prospective profiles of “the school shooter,” including the school shooter profile developed by the FBI’s Band & Harpold in 1999 and the “classroom avenger” profile developed by McGee and DeBernardo also in 1999.

U.S. Federal Bureau of Investigation (FBI) strongly supported the suggestions of these profiles not being useful, but possibly even harmful. Although the FBI's Behavioral Sciences Unit is renowned for its use of criminal profiling techniques, the FBI's profiling experts concluded that profiling was not appropriate for the prediction of school shootings (Cornell 2003). As the FBI report concluded:

“One response to the pressure for action may be an effort to identify the next shooter by developing a “profile” of the typical school shooter. This may sound like a reasonable preventive measure, but in practice, trying to draw up a catalogue or “checklist” of warning signs to detect a potential shooter can be shortsighted, even dangerous. Such lists, publicized by the media, can end up unfairly labeling many nonviolent students as potentially dangerous or even lethal. In fact, a great many adolescents who will never commit violent acts will show some of the behaviors or personality traits included on the list.” (O’Toole 2000.)

This kind of prospective profiling is neither sufficiently sensitive nor specific to identify a student who may be at risk for engaging in targeted school violence, nor for evaluating the student’s likelihood of doing so. Prospective profiling to identify students likely to become “school shooters” carries with it considerable risk of false positives; that is, because targeted violence in school is such a rare event, most who “fit” the profile will not engage in acts of targeted school violence. In addition, use of prospective profiles would inappropriately exclude students who do not fit the profile, but who may in fact pose a risk of targeted violence. (Reddy et al. 2001.) Thus, there is no accurate or useful profile of “the school shooter.” Knowing that an individual shares characteristics, features, or traits with prior school shooters does not advance the appraisal of risk. The use of profiles carries a risk of over identification, and the vast majority of students who fit any given profile will not actually pose a risk. The use of these stereotypes will fail to identify some students who do, in fact, pose a risk of violence, but who share few characteristics with prior attackers. (NIJ 2002.) Strong criticism has also focused on the risk of unfairly labeling students as dangerous and the potential for stigmatizing them and depriving them of their civil liberties as a result. Furthermore, there are no data that demonstrate the validity or effectiveness of prospective profiling to identify potential perpetrators for any type of crime. What little empirical support exists for the use of profiling exists for retrospective identification only. (Reddy et al. 2001.)

6.1.2 Guided Professional Judgment

The second approach under scrutiny is Guided Professional Judgment, which basically means different structured clinical assessments including the use of warning signs and other check-

lists. In general, clinical assessments that form the basis for professional risk judgments involve an interview and evaluation of an individual that is informed by the base rates for violence within the individual's population, and by relevant risk factors known to be related to the risk of violent behavior. When the evaluator uses instruments or checklists that help to structure or guide the collection and analysis of appropriate information, the approach is referred to as guided professional judgment or structured clinical assessment. Guided professional judgments are traditionally conducted by trained and licensed mental health professionals. However, school officials and law enforcement personnel have also used checklists of risk factors and warning signs. (Reddy et al 2001.)

These warning signs and checklists do lend themselves to speculative profiling. For instance The American Psychological Association's warning signs pamphlet for school attacks sounds an ominous note with the statement, "If you see these immediate warning signs, violence is a serious possibility." The list of "immediate warning signs" includes "increase in risk-taking behavior," "increase in use of drugs or alcohol," and "significant vandalism or property damage," and "loss of temper on a daily basis." Most school authorities could identify students in their schools who appear to meet these signs. Similarly, the National School Safety Center (1998) promulgated a 20-item "Checklist of characteristics of youth who have caused school-associated violent deaths." This checklist includes some very general items, such as "has been previously truant, suspended, or expelled from school," "has little or no supervision from parents or a caring adult," and "tends to blame others for difficulties she or he causes." The items on these checklists may well describe the small group of youths who committed school shootings, but this does not make them useful, specific indicators of violence. (Cornell 2003.)

Furthermore, the evolution has not only changed the way that professionals should think about assessments, but also the way that they conduct them. Many behavioral scientists are aware of the classic clinical versus actuarial' debate, the thrust of which is a polemic about whether clinical decisions, including decisions about violence risk, should be made by clinical judgment by "using our heads" or by using statistical formulas. This discussion can be referred for example to Dawes, Faust, & Meehl (1989), Melton et al. (1997), Miller & Morris (1988) and Quinsey et al. (1998). Even if actuarial methods were consistently superior, however, these methods can only be applied when appropriate equations exist, have been adequately validated, and are applicable to the question and population at issue. Although some positive efforts have been made in this regard, actuarial technology is still not well developed for many clinical populations or risk assessment tasks. Most research studies have examined either convicted criminal offenders or people with mental disorders, and the criterion focus has been on general criminal and/or violent recidivism (see e.g. publications of Bonta, Law, & Hanson in 1998, Steadman, Mulvey, Monahan in 1998). Research regarding risk factors and

patterns of behavior in these groups may not generalize well to other groups and other types of assessment such as workplace violence, relationship violence, stalking, *school violence*, or assassination of public figures. Similarly, little information is available about predictors for specific types of violence, although it is known that different types of violence may have different predictors. (Borum et al. 1999.) Although some of the checklists of warning signs and risk factors currently used by schools are derived from empirical research on youth violence and aggression, the relationship between these factors and risk of *targeted* school violence is not yet known (Reddy et al. 2001).

6.1.3 Automated Decision-Making

The third approach under scrutiny is automated decision-making, consisting of the use of actuarial formulas, expert systems and other artificial intelligence/artificial intuition approaches. These tools are scrutinized together because all of them produce a decision rather than leave the decision to the person conducting the assessment. Actuarial tools are equations consisting of weighted risk factors that are statistically or mechanically combined to yield a decision about the likelihood of a condition or outcome. Expert systems and artificial intelligence/intuition are defined here as computer-based or automated *applications* of expert knowledge on a particular issue to solve a problem or render a decision in an instant case. Through various methods and structures, expertise that has been compiled on a particular topic or issue is represented in a computer program through the use of algorithms or other computer-based rules. The computer then compares its store of expertise to the facts in the instant case and arrives at a decision or outcome, based on the rules in its program and the content of expertise to which the case was compared. The advantage of using an automated system is the reduction in any errors introduced through human involvement in the decision, such as through biased information collection or subjective decision-making. (Reddy et al. 2001.)

However, appropriate actuarial equations do not yet exist to determine risk of *targeted violence, particularly school-based targeted violence*. As noted earlier, a sufficient knowledge base on the antecedents and risk factors for targeted violence in schools has yet to be created, thus precluding the derivation of any meaningful statistical equations to assess the likelihood of its occurrence from known risk factors. More importantly, however, the base rate of targeted school violence is too low for any statistically derived equation to attain any reasonable accuracy. (Reddy et al. 2001.) Reddy and others quote Sewell and Mendelsohn (2000) by stating: “Any equation derived from empirically researched risk factors for targeted school violence would never be sufficiently sensitive (minimizing the number of false negatives) nor specific (minimizing the number of false positives) to reasonably estimate the probability that a given student would engage in targeted violence in school.”

Additionally, quoting Winegard & Flores (1987) Reddy and others (2001) note that research on the use of expert systems i.e. software programs in other contexts has raised concerns regarding the creation of expectations that exceed what expert systems can reasonably accomplish. To the extent that existing actuarial formulas and expert systems are not yet informed by empirical research on targeted violence in schools, they may fail to gather information on the student or situation that may be relevant to appraising risk and thus produce a flawed assessment. By extension, when an expert systems approach is used to determine risk of targeted school violence, there is a risk the users may discount their personal knowledge of the student in question and rely primarily, if not solely, on the computer-generated decision instead. This relates directly to the problems or risks of the assessment ending to be false negative. Because of every assessor's fear of false negatives, the choice of relying on a computer's answer is more valued. In case of a false negative, the computer, or the software, can be blamed as a scapegoat. Naturally, the use of a computer itself to help organizing information, store it and in some cases structuring the assessment to better perform as an assessor or assessment team is not a concern at all. The key point here is that when the assessment approach itself is reliable and effective computers as such may very well be helpful.

6.2 Applicability of These Approaches in Educational Institutions

As mentioned in the previous chapter very low base rates of school attacks do pose a notable concern to any assessment method based on statistical factors. For example, if a student makes a threat against the life of his teacher, that case cannot be dismissed based solely on the fact that the base rate for school homicides committed by students is miniscule. The rarity of this event, however, limits the utility of an approach that is driven by base rates or is purely actuarial. Statistical formulas are likely never to be useful for predicting infrequent instances of targeted violence such as school or workplace homicides, because the base rate is so low that, mathematically, high rates of accuracy are nearly impossible. Similarly, a strictly clinical approach to assessment of targeted violence may also be limited. An alleged potential attacker may not be seriously mentally disordered. If the potential attacker does suffer from a mental disorder, the relationship of the disorder to potential targeted violence may be unknown. And exclusive reliance on clinical techniques, such as interviews and psychological tests, which are common features in clinical assessments, may provide only partial, inaccurate, or irrelevant information to the task of predicting an act of targeted violence. (Borum et al. 1999.) Since more than 99,9% of schools will not experience a school homicide, it seems highly unlikely that any profile or prediction formula will be accurate enough to of practical value. For this reason, school authorities and educational professionals should be skeptical of any profile or checklist approach that claims to be able to identify homicidal students. (Cornell 2003.) For the reasons mentioned above, the use of any profiles, guided pro-

professional judgment tools, clinical or actuarial, automated or manual, or warning-sign checklists cannot be recommended.

“Rather than asking whether the person who has raised concern “looks like” others who have engaged in workplace harm or violence, it is better to ask whether the person’s behavior and communications indicate that they may have any ideas or plans of harm.”

- Randazzo 2008

7 Findings From Expert Interviews

The key findings from the expert interviews can be summarized into three main areas:

- Security culture of the school
- Prevention and management methods of severe targeted violence
- Public authority cooperation

All of the experts pointed out that one of the fundamental aspects of providing security to the school would be to develop its culture of security awareness. Schools and other educational institutions can and should create an atmosphere where security is wellbeing. This basically means an atmosphere where taking interest of the wellbeing of others is accepted and supported, but also to the extent where responding to a concern is accepted by everyone at school. Thus, it was also recognized that the existence of a “channel” of communication between the adults / staff and the students in the school is highly important. Additionally, most of the experts stressed the fact that it is wise to use the existent structures and operating models to work also with the threat assessment issues. The message in plain is that setting up a separate threat assessment teams is not supported. The signal of these kinds of teams would be promote insecurity, not security, because their task would only be to detect threats. Without the ultimate goal of helping the potentially dangerous students, the idea of such teams would be frightening.

It was also emphasized by the experts that all problems and concerns, including threatening behavior, should be addressed as early as possible. The idea behind is that many risk behavior could be avoided by tackling the underlying problems of a student even before, and latest at the stage of the buildup of the grievance and hate. However, prompt response and action is only possible when the working structures and procedures are correctly in place. Regarding to the behavior raising concerns or risk, it was noted that in all known cases, both in Finland and elsewhere there has been quite clear “warning signs” of the potential attacker before the attack. These warning signs have been relating to behaviors observable by persons close to

the attacker. The school staff, students and other peers are in interaction with potential violent student for long periods of time. Therefore, the initial assessment should be conducted in the school by the school staff. However, this activity requires long-term dedication and involvement, because there are no quick fixes to the wellbeing of the students. This responsibility cannot be outsourced from the school, even though extensive public authority cooperation is necessary.

The experts emphasized the importance of public authority cooperation. Schools cannot manage their targeted violence risks alone. Both the police and the mental health care service were mentioned as the most important supporting authorities. Good multi-professional cooperation requires personal working contacts. The police in Finland have been present in the schools for decades and there are already well-established working relations. The standard of everyday cooperation has been based on community policing, where the police has supported schools with law and anti-crime education and other issues related to police jurisdictions. Now, there is need to clarify the roles and responsibilities of all actors around the problem. Ultimately, severe targeted violence is a type of a planned murder. Therefore, both prevention and investigation, falls mainly under police responsibility. As the police have special jurisdiction and means to manage this kind of criminal activity, the final command of the situation should remain with the police. School's role is to allocate resources to the investigation and management of the situation. As soon as the situation is under control, the role of the mental health authorities is to provide help for the student. Since the best help in this context is psychological.

8 The Contemporary Model Developed for Behavioral Threat Management in Educational Institutions

“The main thing is that there is a threat management process in the school.”

- Dr. Jens Hoffmann 2009

In this chapter, a model for threat assessment and management for Finnish educational institutions in Finnish educational system is suggested. The introduced model is based on the above literature analysis as well as the findings from the expert interviews. Reddy et al. (2001) quote Chavez and Furlong & Morrison by stating that “the first step in developing effective assessment approach and appropriate policy is to identify clearly the types of behavior or outcomes that one is trying to prevent.” The particular challenge that schools face in trying to prevent targeted violence in school is to assess the nature and degree of risk posed by a student who has come to official attention because of some threatening communication

or behavior of concern. The question is not whether the student might be at increased risk for engaging in some form of aggressive behavior during adolescence, but rather whether he or she currently poses a substantial risk of harm to another identified or identifiable person(s) at school. (Reddy et al. 2001).

Before a threat management process can be embedded to the standard operating structure of an educational institution, at least the following principle questions must be answered:

- What currently happens when *a threat or a concern* is received or recognized?
- What should occur when an individual who might be interested in harming others comes to attention? For instance, who should be notified?
- How often is the organization faced with the task of responding to a threat or a concern about possible violence directed against it or its members? (Fein & Vossekuil 1998.)

After these questions have been answered it is time to examine the threat management process. Randazzo (2008) suggests that any kind workplace threat management should be a process designed to

1. Identify persons who have raised some concern
2. Gather information about the person and their situation
3. Evaluate the information to determine whether the person poses a threat of harm
4. Intervene in those cases where the person does appear to pose a threat, to manage or reduce the risk of harm

Concerning the management of the situation, it is also utmost important to remember that all threat management operate on two levels:

- Actions that reduce and mitigate the actual risk
- Actions that reduce the possible anxiety of others involved (Taylor 2003).

In most school shooting cases in U.S. the attacker told a friend, schoolmate or a sibling about their ideas of a possible attack before it occurred. However, because most attackers did not threaten their target directly, it is important not to rely on the issuance of a direct threat to prompt concern or to initiate threat assessment process about a student. School professionals should attend to *all concerns* that someone might *pose* a threat. (Vossekuil et al. 2000.)

The process should focus on instead on a student's behavior and communication to determine if the student appears to be planning or preparing for an attack. A fact-based approach may be more productive in preventing attacks than a trait-based approach. The ultimate question to answer in the threat management process is whether a student is on path toward a violent attack, and if so to determine how fast they are moving and where intervention may be pos-

sible. (Vossekuil et al. 2000.) Conceptually, this approach is innovative in two ways: Firstly, it does not rely on descriptive, demographic, or psychological profiles and secondly it does not rely on verbal or written threats as a threshold for risk (Fein & Vossekuil 1998). What has made contemporary behavioral threat assessment more than a generic term for investigation of a potentially dangerous situation is the development of foundational principles and key questions that guide the threat assessment (Cornell 2003).

8.1 The Fundamentals of Contemporary Threat Management

Contemporary threat management offers a strategy that deviates from the prediction of danger to the identification and managing of risks. Contemporary threat assessment investigations and evaluations are fact-based and deductive, focused solely on the information gathered in the given case and the conclusions that those facts allow the assessor to draw (Reddy et al. 2001). An effective threat management system will include a standardized method for evaluating threats, and consistent policies for responding to them. A standardized approach will also help schools looking into constructing a database, with information on the types and frequency of threats, which may help evaluate the effectiveness of school policies. This extension naturally requires evaluation of any possible legislation to prohibit the construction of such databases. Consistency in threat response can deter future threats if students perceive that any threat will be reported, investigated, and dealt with firmly. (O'Toole 2000, 26.)

Contemporary behavioral threat management in schools is predicated on six principles:

- Targeted violence is not a spontaneous, unpredictable event, but is the result of a deliberate and detectable process. Students who commit serious acts of violence do not suddenly “snap” and begin shooting at random; their behavior is preceded by days or weeks of thought and planning, and in many cases they shared their ideas and intentions with others
- Not only the student who poses the threat, but the situation, the setting, and the target as well must be considered. Students who commit serious acts of violence may have experienced significant situational stress, such as family problems, separations, or personal losses (also I: Saari). There may be factors in their setting that encourage violence or discourage more appropriate ways of resolving problems or seeking help.
- School and other supporting authorities investigating the situation must adopt a critical and skeptical mindset that strives to accumulate reliable evidence and verify all claimed facts about the situation. Their approach must be fair and they must be willing to accept or reject hypotheses based on a careful analysis of all available information
- Conclusions must be based on objective facts and behaviors, rather than inferred traits or characteristics of the student making the threat. This principle explicitly contradicts

the effort to make judgments based on any hypothetical profiles or other danger-checklists of the violent student

- Information should be gathered from multiple sources within and outside the school system. An “integrated systems approach” to investigation seeks cooperation with law enforcement, social service agencies, mental health providers and other groups or organizations that comprise the community. This principle requires schools to look beyond their own boundaries and to make good use of all available resources rather than function as a closed and isolated system
- Assessment is ultimately concerned with whether the student poses a threat, not whether the student has made a threat. Any student can make a threat, but very few will engage in behavior that indicates planning and preparation necessary to carry out the threat. Threat assessment process attempts to identify those students who pose a threat, which is to say that they have an intent and means to carry out the threat. Threat assessment does not conclude when a student is found to pose a threat; rather, threat assessment aims to determine how serious the threat is and then what should be done about it. (Cornell 2003; Fein et al. 2002; I: Hoffmann.)

Contemporary behavioral threat management is based on a systematic approach of information gathering, assessment and risk mitigation strategy. It is also crucial to try to avoid any unintentional or uncontrolled intervention or other interference to the situation. It is a well known fact that in general behavioral processes under observation (i.e. information gathering) tend to change if the subject is aware of the observation. A necessary amount of discretion is suggested to keep the situation under control. Questions should be asked regarding what changed circumstances could trigger the subject to move toward violent behavior. This is also important to keep in mind when for instance police is involved to the process; It possesses some vigorous means to take action and also is often perceived as somewhat intimidating entity. An inconsiderate approach might raise the risk of a violent attack significantly. And even more if the attacker has already proceeded far with the preparations of the attack. (Sund 2005.) A case can be considered for closing when the subject is deemed to no longer pose a threat. (Fein et al. 1995.)

8.2 Assessment of Concerns

There are several ways for a student to cause concern around school professionals. It can be an expressed threat, drawings or writings, activity in certain Internet forums, other worrying behavior or almost any other reason. *The initial concern does not naturally have to be in any way related to severe violent attacks, but more towards general concerns of physical and mental wellbeing of a student.* The teachers and other educational professionals do possess all the skills necessary to detect students of concern. One does not necessarily need any

“high-tech” methods for that, but more simple directions on where to look. (I: Vartiainen.) Arnkil and Eriksson (2009) have proposed a four-step model of assessing general concerns of students (Table 4). This kind of approach could very suitable to “pre-assessing” concerns before any threat assessments are made. There is no sense of external authorities such as the police or psychiatric services to be involved with every single problematic behavior of a student and therefore some kind of screening is regarded as necessary (I: Savolainen).

| No concern | Minor concern | Considerable concern | Great concern |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 2 | 3 | 4 |
| No concerns at all | Minor concern crossed one’s mind Trust of own control and resolution capabilities good Thoughts about additional resources | Growing and considerable concern Trust of own control and resolution capabilities running low Clear need for additional resources and increase of control measures* * Control measures refer to restricting problematic behaviors e.g. alcohol consumption | Constant and great concerns. Own control and resolution capabilities diminishing or totally out Additional resources, control measures crucial and the situation must be changed immediately |

Table 4. Four zones of concern (Arnkil & Eriksson 2009)

When the concern has been “pre-assessed” and if found to be of considerable, violent behavior; either suicidal or homicidal, should at least be regarded as a possibility. This is when the behavioral threat management process start. However, sometimes the starting point is not a concern of general wellbeing, but an issued threat expressing violent intents. For example Finnish National Police received over 200-expressed threat reports in just couple of weeks around the time of the two Finnish school shootings (Moi 2009²). Saari (2009) suggests the threats could be seen as fitting into three different categories: Immature prank threats, transient “venting” threats and substantive threats. Immature pranks are threats of a student executing a funny “joke” by issuing a severe violent threat. Usually to just see how the school gets evacuated, police patrols roll in and teachers run around all scared. Transient “venting” threats are made in heat of the moment of anger and substantive threats are the ones, which represent a sustained intent to harm someone beyond the immediate incident or argument where the threat was made.

In any case, most people, who have engaged in serious violence, harm, or sabotage inside their own organization, worried others around them – co-workers, supervisors, friends or family members – before they carried out their attacks. Many insiders told a peer about their

thoughts or plans for harm in the workplace before they did something harmful or violent. (Randazzo 2008; I: Hoffmann). To a certain extent this statement applies also in severe school violence cases (See e.g. NIJ 2000; Pollack et al. 2008; Vossekuil et al. 2000; I:Savolainen; I:Saari).

An important effort in prevention of severe attacks may be to ensure that young people have opportunities to talk and connect with caring adults. Unfortunately, for example the US Secret Service Safe School Initiative study identified a major barrier to the prevention of targeted school violence. In nearly all of the school shooting cases, the person who was told about the impending attack was a peer, and rarely did anyone bring the information to an adult's attention. A number of these persons did not disclose any information related to the threat to a responsible adult because they did not believe the event would ever occur (Pollack et al. 2008). The same fact was also found in both of the Finnish school shootings (I: Savolainen). Therefore it is important that threat assessment process involves efforts to gather information from anyone who may have contact with the student in question. It also is important to decrease barriers that may prevent students who have information from coming forward. (NIJ 2002; I:Savolainen.) Same notion was also made by several educational experts in Finland after the two school attacks in 2007 and 2008. The likelihood of some people close to the potential attacker knowing about any plans of an attack is very high when for example Matti Saari did plan his attack for several years. The goal is not to scare anyone or make them feel as if they are "ratting" on each other. Rather, the goal is to understand that the assessors are focused on preventing harm as well as helping students who may be struggling for one reason or another. Knowing that there is a threat assessment capacity, and that reports will be handled fairly and thoroughly, can also help everyone feel safer. (Randazzo 2008.) And by then possibly to report concerns more easily. Concerning most of these expressed threats and violent behavior the Finnish Board of Education (suom. Opetushallitus 2009²) encourages schools to communicate that expressing false and unfounded threats is in addition illegal behavior and subject to punishment, but also reprehensible in the school community. This is one area where the local police are supporting the school, namely to provide legal education through its community policing approach (I: Savolainen).

The concern can also be identified through other sources such as personal interviews with the subject if so applicable, material created or possessed by the subject, interviews with persons who know or have known the subject, and records and archival information. Information should be sought in at least five areas: facts bringing the subject to attention, the subject, attack-related behaviors, motive(s), and target selection. (Borum et al. 1998.)

When the concern has been found substantive and possibly related to a violent outburst, the threat assessment seeks to determine whether the subject appears to be moving toward or

away from an attack. After analyzing the available data, the threat assessor is left with these questions:

- Does it appear more or less likely that violent action will be directed by the student against the target(s)? What specific information and reasoning lead to this conclusion?
- How close is the student to attempting an attack? What thresholds, if any, have been crossed (e.g., has the student made a will, given away personal items, expressed willingness to die or to be incarcerated)?
- What might change in the student's life to increase or decrease the risk of violence? What might change in the target's situation to increase or decrease the risk of violence? (Fein et al. 1995.)

There are some detailed issues concerning the specialists working with the assessments of concerns. It is suspected that the main burden is often left to the schools psychologist or/and the school counselor. Even though they do possess good professional skills to deal with problematic students, it would still be of great worth to understand the specific aspects of threat assessment.

The school psychologist is the school professional often called upon to conduct a mental health assessment of students who make very serious substantive threats. However, this mental health assessment is not intended to render a prediction whether the student will or will not commit a violent act (e.g. I: Savolainen). The prediction of violence is a complex and highly uncertain task, and communications about violence risk are easily misstated or misinterpreted. Although there is evidence that clinicians can make reasonably accurate short-term predictions of violence in some situations, little is known about the prediction of student violence, particularly in the context of active school intervention aimed at preventing violence. The assessment recommended is concerned first with identifying the student's mental health status and second, with elucidating the student's motivation in making the threat. In most of the high profile school shootings, the student was suicidal prior to the attack (Fein et al. 2002). Some of these students either planned to shoot themselves or expected to be shot and killed by the police. The psychologist should screen all cases for suicidal as well as homicidal intent and make appropriate follow-up recommendations. Although clinicians might not be able to delineate the precise risk of violence, he or she should be able to make recommendations aimed to reduce risk. For example, if a student threatened classmates who teased him, the school psychologist could recommend efforts to mediate or resolve the conflict. (Cornell 2003.)

The school counselor, the welfare officer or the security officer should have, in cooperation with the school principal, a leading role in planning, coordinating, or implementing interventions for students who expressed threats or poses a threat. For instance in relatively simple

cases of transient threats, the above-mentioned professionals might educate students about appropriate language or help resolve a peer conflict. In recent times due to the persisting fear of school attacks some of the professionals working in schools have lost their “adulthood” and referred to the police and psychiatric services in every impulse control issues of a student (I: Saari). In more serious cases, the responsible professional might assist the family in seeking community-based treatment or establish an ongoing counseling relationship with the student. (Cornell 2003; I: Savolainen.) Young people seek effective ways to raise concerns and reactions; before it was “I will kill myself”, but now it is “I will kill others” (I: Saari).

8.3 Developed Intervention and Mitigation Strategy

In consequence to previous chapter, if the concern has been found substantive and possibly relating to a violent attack, the Finnish Board of Education (2009²) suggests that protective “netting” has to be immediately established around the student to protect himself and others. However, a significant problem in preventing targeted violence is determining how best to respond to students who are already known to be in trouble. USSS Safe School Initiative study indicated the importance of giving attention to students who are having difficulty coping with major losses or perceived failures, particularly when feelings of desperation and hopelessness are involved (NIJ 2002). The same was clearly noted by Saari (Interview). The student should naturally receive help and support from his/her family and peers, but also from the health service and from the police; the latter mainly in the form of external reality of violence (Finnish Board of Education 2009²). In this regard, Intervention can take many forms, such as keeping an eye on the student to see if their personal situation and behavior improve, or engaging the student to find out what resources or help they may need to solve underlying problems, which are often at the root of thoughts and plans for harm (I: Saari). One of the fundamental “rules” of any intervention is that a wrongly selected intervention can act as a catalyst to the situation (I: Savolainen). Regarding the management of the situation, below is described some of these interventions or mitigation strategies in relation to the student’s position on the pathway to violence (Figure 10).

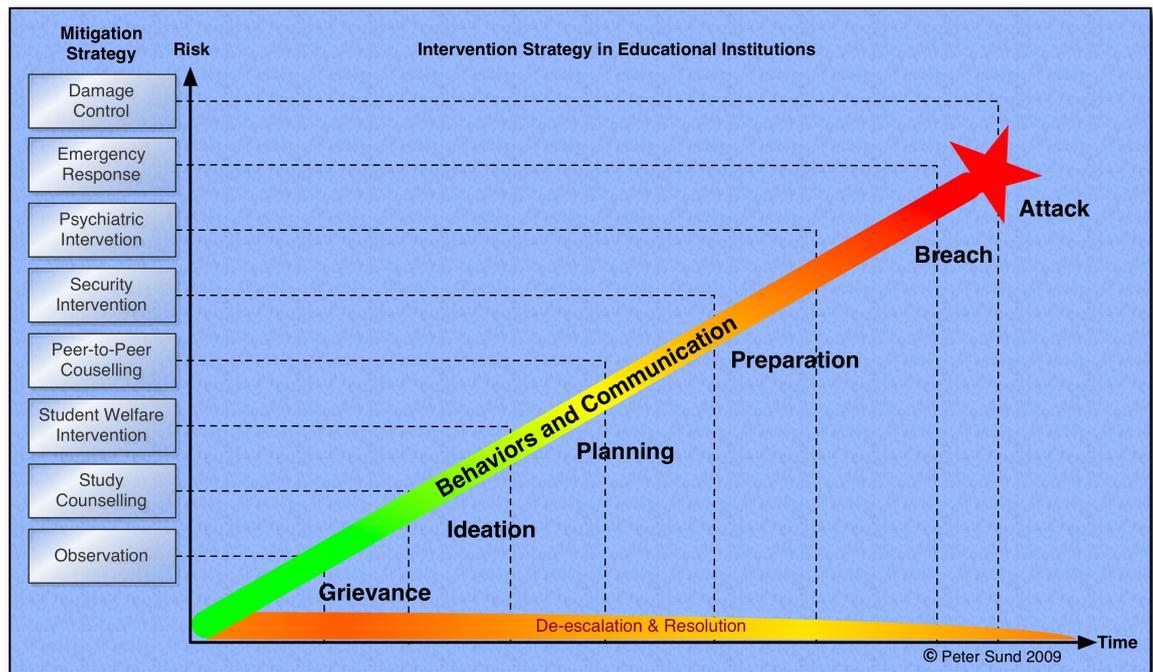


Figure 10. The model of Intervention Strategy in Educational Institutions on Targeted Violence

The idea of the Intervention Strategy Model is to place suitable mitigation methods or interventions on the pathway to violence to result in de-escalation and finally resolution to the situation. As the situation develops in relation to time, the risk of an attack increases. There are four different colors used to visualize the dangerousness and urgency of the situation of student on the pathway to violence:

- Green
- Yellow
- Orange
- Red

Colors green and yellow include less intrusive and confrontational mitigation and intervention methods than what colors orange and red do. By intrusive it is meant that managing the situation is far less obvious to the student and other people in the school. This is regarded to be preferred way of managing the situation whenever it is applicable.

The mitigation strategy can basically include any suitable and foreseeable methods to manage the situation. The eight methods in the model serve mainly as example of basic mitigation strategy. Observation as a mitigation method merely means to keep an eye on the student to see to which direction the identified grievance is possibly developing. Study counseling means that ordinary study counseling conducted by teachers and school counselors, assisting and supporting the student with any common problems, can also be used as a threat mitigation method. Student welfare Intervention is referring to more comprehensive intervention than

just the one conducted by school counselor. Any approaches found and decided in the Student Welfare Team can be implemented. Peer-to-Peer counseling means using people close to the student whom he/she feels comfortable with and perceives as equal. Basically, peer counseling is a structured form of mutual support that provides an opportunity to express oneself in any way chosen, while supported by a trusted ally. Some educational institutions do use peer counseling to resolve other student issues as well. It is suggested to explore if the threat management approach could possibly be merged to these existing procedures.

Security intervention includes direct security measures conducted by the school authorities and the police. Schools can implement for example different new short-term policies to tighten the security, lift the awareness level of an attack, and even close the school in some serious cases. Social services could utilize tools such as acclimating involuntary guardianship or some other less severe methods. The police can for example commence criminal investigation for threatening behavior or other preceded criminal behavior, conduct house searches, and even detain or apprehend the student. Despite these measures, it is very important to note that police interventions, especially the more rigorous ones, are all somewhat “short” in terms of duration compared to for example psychiatric ones (I: Savolainen).

However, psychiatric intervention is considered a slightly more severe method, because psychiatric intervention often may include involuntary treatment and placement under controlled facilities. Sometimes even for prolonged durations. There are some important considerations about this kind of intervention. The intervention does not mean that the person is simply referred to a doctor, or even to a mental health care professional. The goal is not to determine if the student will be violent or not. It would require a very experienced forensic psychiatric to determine that from a clinical point of view. Thus, the interest is to find out how the student could be helped. (I: Vartiainen.)

Emergency response means immediate measures taken to protect people under danger and stop the activity of the dangerous person. Damage control naturally means any rescue operation conducted by law-enforcement authorities to minimize material damages and human casualties. For more detailed information on emergency response and damage control issues one can refer to Ojasalo, Turunen & Sihvo (2009) on Responsibility and Decision Making Transfer in Public Safety and Security Emergencies. The threshold concerning the goals of this thesis is in reality somewhere between psychiatric intervention and emergency response. In consequence, emergency response can sometimes still be pre-emptive in its effect.

In any case other than a “green” situation (if e.g. observation method is utilized) a clear response is essential for three reasons: first and most important, to make sure that students, teachers, and staff are safe (that is, that a threat will not be carried out); second, to assure

that they will feel safe; and third, to assure that the person posing the threat will be supervised and given the help and treatment that is appropriate and necessary to avoid future danger to others or himself. (O'Toole 2000.) Last but not least, comprehensive documentation of data and consultation with experts are key aspects in implementing a case management strategy (Fein et al. 1995).

“Do not use a hatchet to remove a fly from your friend’ s forehead.”

- Chinese proverb

8.4 Multi-Disciplinary Approach

Concerning overall wellbeing of students and other school staff, the goal for all educational institutions is a healthy, safe and secure learning environment. Safe learning environment can be contemplated from different points of view, such as early intervention, physical and mental wellbeing, and security. (Finnish Board of Education 2009¹.) To deal with all these issues effectively and efficiently, educational institutions need the contribution and working knowledge of different professionals and areas of expertise (I: Savolainen). Even though the majority of school staff may consist of teachers, lecturers or other educational professionals, it is of high importance that teachers are not left alone facing all challenges. Schools do need the help and support of counselors, mental and physical health care professionals, security, law enforcement and rule of law experts etc.

Thus, all above-mentioned officials should enlarge their knowledge about dealing with threat management at least in three areas:

1. Threat assessment is directed more by behavioral aspects than by diagnostic concepts. The path to violence is used to decide whether or not an individual poses a serious threat. Actuarial tools are not very helpful due to the low base rates of targeted violence; and traditional clinical investigations often fail due to the nature of targeting violence.
2. In threat management mental health issues play a completely different role than in traditional clinical settings - interventions in targeted violence are not primarily based on mental health issues, but on behavioral aspects. The threat assessment is an ongoing process, as targeted violence is not considered as a static phenomenon.
3. Officials can no longer claim confidentiality when dealing with potential violent offenders - they have the duty to balance different legal requirements, and to inform targeted persons following legal procedures. (Tschan 2009.)

Expectations for how to handle these cases are likely to be unclear and unfamiliar to most law enforcement, even to those who are very skilled and experienced investigators. The skills and background required to conduct competent threat assessments are in some ways different from those needed for other types of criminal investigations (Fein et al., 1995). Traditionally, investigators have been asked to gather, document, and evaluate facts about an incident in order to establish that a crime was committed, to identify and apprehend the suspect, to recover any stolen property, and to assist the state in prosecuting the suspect. Threat management, in contrast, is a set of investigative and operational activities designed to identify, assess, and manage persons who may pose a threat of violence to identifiable targets. (Fein et al. 1995; Borum et al. 1999.) Law enforcement professionals (police officers) involved in threat management should always be trained in the respective area of expertise (I: Savolainen), and only experts should engage in using advanced assessment methods (I: Hoffmann).

Mental health professionals are sometimes called upon in these circumstances either to assist law enforcement or to conduct independent evaluations to assess risk and recommend strategies to prevent future violence. Mental health professionals faced with threat assessment responsibilities cannot rely on conventional models and data. The persons to be examined and the outcomes of concern may be different from those traditionally encountered in clinical and forensic evaluations. Adequate actuarial approaches have not been (and are not likely to be) developed. The existing research base may have limited capacity for generalizations. Therefore, mental health examiners will also have to develop new skills and new ways of thinking about these assessments. (Borum et al. 1999.)

Threatening situations are more likely to be successfully investigated and managed if other agencies and systems—both within and outside law enforcement or security organizations — are recognized and used to help solve problems presented by a given case (Fein et al. 1995). Even though it is strongly recommended that law enforcement professionals, namely police in Finland, is leading the threat management in *all* “yellow”, “orange” and “red” cases, other professionals should be referred for assistance (I: Savolainen; I: Saari; I: Hoffmann). For example prosecutors, probation and corrections service, social services, mental health agencies, victim’s assistance programs, community groups and security companies might have important information or advice to different situations. Naturally the schools own professionals should be involved with the process from the start to the end.

8.5 The Role of Crisis Management Teams and Student Welfare Teams

The responsibility of student welfare is to ensure the physical, mental and social wellbeing of every student (Finnish Board of Education 2009²). There are two kinds of internal bodies

within educational institutions responsible of student welfare: Crisis Management Teams and Student Welfare Teams. The composition and existence of these teams depends highly of the type of the school or educational institution. Grammar schools, gymnasiums, vocational schools, colleges, universities and others all have different ways how the responsibility of student welfare is organized. But all in all, they all share the same responsibility. Below are briefly explained the main purpose and objectives of these teams.

Student Welfare Team

The composition of student welfare teams varies slightly depending on the school. The standing assembly usually consists of the school principal / deputy principal, special teacher, school nurse, student counselor, welfare officer and school psychologist. The team can be reinforced with other teachers, school assistants, school medical doctor, social worker and when necessary student's parents or guardians. Also other professionals outside the school can be called to assist the team. (Committee on Safety at School 2000.)

The objectives of student welfare teams are:

- To support overall student welfare
- To promptly react to any problematic situation of a student
- To define the approach/doctrine in different problem situations or disciplinary situations
- To plan, organize and implement welfare measures and supporting actions in coordination with parents/guardians
- To coordinate joint operations and cooperation with other stakeholders
- To plan training on student welfare issues
- To support teachers and the other professionals dealing welfare issues

Crisis Management Team

The Student Welfare Team can also act as the School Crisis Management Team; either in its entirety or just the core team (Rautava 2009). The school principal should always chair the team. Other school professionals can also be brought to the team. The purpose of the crisis management team is to organize, maintain and develop school crisis capabilities. Crisis management is a natural part of the student welfare team's tasks. If the school or other educational institution does not have a student welfare team in place, the crisis management team should be established individually. (Finnish Board of Education 2009².)

The objectives of School Crisis Teams are:

- To design a written crisis plan with all tasks and responsible persons in crisis situation
- To identify potential jurisdictional collaborations and responsible agencies

- To orient school staff with the crisis management plans and providing information for further studying
- To inform students, parents/guardians and collaborating agencies about the plans
- To organize all actions and operations under crisis situations and possible follow-up actions
- To evaluate conducted actions and to update crisis plans according to lessons learned, and other changes with school's situation or staffing
- To maintain crisis response capability by familiarizing new staff members to the plan and organizing annual briefings or refreshers to whole staff

Generally in crisis situations important collaborating agencies are police, fire and rescue service, health center, hospital, child protection agency, municipality crisis team, family clinic, adolescent psychiatric clinic, social services and the church. (Finnish Board of Education 2009².)

8.6 Public Authority Cooperation

In situations where a student issues a threat or poses a threat, the police need to be notified immediately by the school authorities. The school management assumes the overall leadership responsibility and decides on further actions in cooperation with Student Welfare / Crisis Management Teams and the Police. (Opetushallitus 2009²; I: Saari.) Effective cooperation and good working relations with the school and local police is important (I: Hoffmann). Police in Finland has over 35 years of experience in cooperation with educational institutions. (I: Savolainen.) The first component of threat assessment case management involves developing a plan that moves the subject away from regarding violence against the target as a viable option. Such a plan is likely to draw on resources from systems within the educational institution, as well as those outside it. The second component is the implementation of the plan. The best-developed and supported case management plan will be of little use in preventing violence if the plan is not implemented and monitored. The plan must remain flexible to accommodate changes in the student's life and circumstances. The final management component is formal closing of the case. (Fein et al. 1995.) To develop a plan of good feasibility and to ensure its successful implementation a high degree of public cooperation is required. Therefore the school should always bring the police to join the Student Welfare or Crisis Management Teams in violent risk cases. The idea of separate threat assessment teams is highly criticized because it might set the tone of the operation to a wrong level. The goal is to provide security, not insecurity by solely identifying threats (I: Savolainen). Regarding the composition and work of school threat assessment operations, O'Toole (2000) writes the following:

“The team would constitute an experienced, knowledgeable group that could review threats, consult with outside experts, and provide recommendations and advice to the coordinator

and to the school administration. It is strongly recommended that a law enforcement representative should either be included as a member of the team or regularly consulted as a resource person. Making threats can be a criminal offense, depending on the threat and the laws of each state. Although most school threats may not lead to prosecution, school officials need informed, professional advice on when a criminal violation has occurred and what actions may be required by state laws.”

Linnakangas & Suikkanen (2004) remind that the implementation of multi-professional cooperation requires guidelines that consolidate the work of different stakeholder groups as well as personnel who co-ordinate the cooperation among different services. One of the primary goals of the police is to protect its citizens. In other parts of the world various police departments have implemented specialized threat management units to deal with threats and to prevent violent escalations. In most cases the first goal is to stop the violent behavior, and then to address any underlying problems. In cases of escalation it is of primary importance, to be prepared for violent outbursts, which always require a very close cooperation with law enforcement authorities. (Tschan 2009.) In regards of preventing and investigating interpersonal violence, the police are the main and leading authority in Finland. Thus, it would be wise to ask the police to take the lead in managing the student *posing* a threat. (I: Savolainen.) The challenge is that information about a student’s plans is likely to be scattered (Randazzo 2008). Information can be found in different physical places, social medias in the Internet, with different people etc. If the school moves too far independently with the assessment the risk of important information gets unnoticed might also get increasingly higher (I: Savolainen). Additionally, the police are also the only authority to have jurisdiction on many of the methods suggested in the mitigation strategy. The further the student has moved on the pathway to violence, the more crucial it is for the police to the lead with the management of the case. One more aspect, although less discussed, is that in Finnish society the concept of *suspicion* does not really fit in the ideology of educational institutions, but it is a natural part of the police ideology. (I: Saari).

Below is portrayed a model of security and risk management in relation to the different security actors in severe violent attacks in schools (Figure 11). The original model (Leppänen 2009) was illustrating multi-actor-risks (responsibility and ownership of risk with several actors simultaneously) in municipal security management. The figure below presents the timely involvement of different actors to the management of the risk of severe targeted violence in educational institutions. In this figure the most significant are displayed in orange blocks, but naturally there can be several other actors as well. And as it is a generic model, not all of the actors displayed are or have necessarily to be public authorities. Friends, families, peers, non-profit associations, private sector companies/consultants or others can be part of the overall process. However, it is important to take notice that when the risk potential is grow-

ing in “percentage”, the more important is for the public authorities to have the lead on the situation. The length of the block reflects the time of the when the actor should be involved in the management of the situation. It is important to notice that the model illustrates also the management of the situation *after* the attack. Since the situation during of after an attack is not in the frame of this thesis, those issues will not be discussed further.

The main consideration of this model is to understand that behavioral threat management operates mainly within the frame of “dangerous activities, individual’s choices”, which is the area of *tactical level control methods*, as discussed earlier. Certainly there are implications to the earlier risk contributing frames, such as “Environmental risk factors”, but rather in form of background information in threat assessment phase. It is important to remember that behavioral threat management is about *precise and timely prevention*.

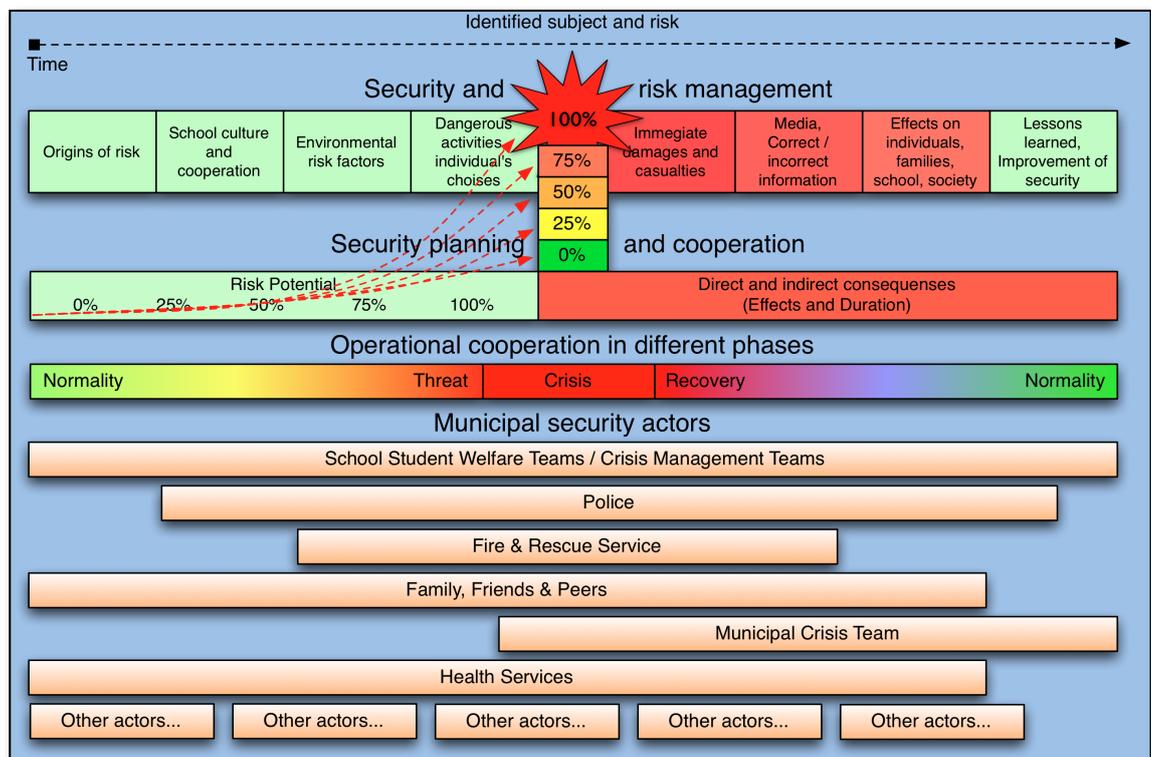


Figure 11. Security and risk management in relation to security actors (modified from Leppänen 2009)

8.7 The Role of Parents

The role of the parents in behavioral threat management can be quite challenging. On the other hand, family, parents and guardians can be the most important factor in intervention, mitigating and preventing attacks. This applies especially to younger students. Young people attending comprehensive school are still “under the eye” of the school and as minors can be

more easily reached. The natural communication between the school and home is in many instances the best form of early intervention. What is needed above all is a home–school “partnership”. (Linnakangas & Suikkanen 2004.) This partnership naturally diminishes as the student turns the legal age of adult, 18 years, and attends e.g. college or university.

Despite the caring role and responsibility of families, many parents seem to be extremely reluctant to address any concerns brought by the school officials (I: Savolainen). Some parents seem renounce the fact that their child or adolescent could cause any problems or harm. Unfortunately it can also be that the parents’ might not possess enough capabilities of addressing or dealing with any kind problems with their child’s education or upbringing. Therefore, the role of the parents in threat management process should be carefully considered. A recommendation on how to deal with this kind of situation would be to conduct the threat assessment under the coordination and leadership of the police. This approach would have the benefit of giving additional possibilities to find out more information about the situation, and also “legalizing” the investigations under police jurisdiction. There is also a question of legitimacy when for example teachers or other school officials would start making house calls to their students (I:Savolainen). When contacting the family about the student’s situation, the police presumably have more prestige and therefore are accepted easier by the parents or other guardians. In any case, the family needs to be brought to cooperate as much as possible in dealing with the situation (I: Savolainen).

9 Discussion

The overall prevention of school attacks starts initially from the underlying challenges of the society, its structures, culture and sense of community. There lie the origins of risk. Parenting, caring, education, community support and early intervention are methods to respond to these challenges. The growth and development of a child is delicate and fragile and needs to be handled carefully. The schools and other educational institutions have an important role in that process. The atmosphere and organizational culture of the schools should condemn and discourage school violence, bullying, alienation and other unwanted phenomenon. The responsibility of families to work together with authorities is crucial.

If and when school attacks do happen, every law enforcement agency and other governmental or municipal authority need to be prepared to react immediately and with professional approach. Strategies, tactics, techniques and procedures should be in place and well tested. Prompt and effective response is critical because the impact of a school attack is devastating to the whole community and in a rather small country like Finland, even to the whole society.

This paper is aiming to fill the gap – the relatively short timeframe – between reactive security measures implemented during and after an attack and the early intervention measures tackling the origins of risk related to school attacks. The preceding argumentation documents that there is an effective way to fill this gap; it's called behavioral threat management. This proactive approach seeks to identify and manage students *posing* a threat of severe violent attack.

Despite the lack of empirical guidance, school authorities, mental health, criminal justice, and other professionals are regularly and increasingly required to assess the nature and degree of threat for a specific type of violence posed by individuals who have come to official attention. Police officials, school principals, health care professionals and others who are approached with information about an instance of potential targeted violence must increasingly take action to gather information about the risk of violence and then attempt to resolve any problematic situation. (Borum et al. 1999.) In these regards, even though the pure scientific contribution or the theoretical value of this paper might not be of prominent significance, the practical value is presumed to be notable. Behavioral threat assessment represents a promising new approach to school violence prevention (Cornell 2003).

10 The Value of the Study

In this chapter the value of the study will be discussed in more detail. The total value of the study can be divided into practical and theoretical value. Practical value refers particularly to the actual feasibility of the model in Finland, but also elsewhere. Since the construction of the model is mainly based on comprehensive literature analysis, the theoretical value of the model is also evaluated.

10.1 Practical Value

The most notable practical value of the model is in the idea of behavior and communication based threat assessment. Firstly, this kind of approach discards other methods possibly used in other areas of violence prevention, but which have been proven unsuitable for the prevention of severe targeted violence in schools (see e.g. Palarea 2008; Meloy 1998; Borum et al. 1999; O'Toole 2000; Reddy et al. 2001; NIJ 2002; Cornell 2003; Randazzo 2008). Secondly, the approach of behavioral threat assessment recognizes the importance of human reasoning and intelligence in the assessment and evaluation of the situation. This is regarded essential to the identification and management of any security risks, especially relating to human behavior. Thirdly, it provides the school staff a possibility to observe actual behavior and to utilize their existing skills to identify concerning behavior of any kind. Thus, it emancipates the

school staff not having to extend their professional conduct beyond the constraints of their real skills and abilities. Additionally, defining the roles, responsibilities and tasks between different authorities and professions clarifies the command and cooperation issues, and provides more solidity to the management of the situation. All these features abundantly contribute to the tangible situational security and wellbeing in the school, both staff and students. Especially, since the model affects both dimensions of security and wellbeing: it mitigates against the actual risk of severe violence *and* reduces the possible anxiety of the people involved, which can potentially cause serious disruption to the school working harmony and the perception of safety.

Most importantly the contemporary behavioral threat management model can be regarded beneficial to the strategic leadership of the national education and security. Basically it means that the policy makers, specifically the Ministry of Education, the Ministry of the Interior, the Ministry of Justice, the Ministry of Social Affairs and Health, the Board of Education, the National Council for Crime Prevention and Internal Security Secretariat of the Ministry of the Interior would be able to utilize this paper when developing their security directives and guidelines on school violence prevention. The national strategic direction capacity resides currently with the Task Force of School Security and Safety, under the mandate of Ministerial Working Group of Internal Security and Safety. Thus, this thesis aims to contribute to the above-mentioned capacity.

Moreover, this model enables the evolution of security and wellbeing for all individual educational institutions. Since the likelihood of severe violent attack is the highest in schools with students ranging from 11 to 21 years of age, they are naturally be the ones to benefit the most. This thesis provides a solid background for information and understanding of targeted violence and its qualities, security and risk management in schools, and other risk prediction approaches. One of the most important factors is the notion to refrain from potentially dangerous approaches, which could contingently accumulate predictions of False Positives and therefore misjudge large numbers of actually harmless regular students. Since all public governance and rule of law in Finland is based and bound to basic human rights, the avoidance of wrongful judgment is of utmost importance. One dimension of the practical value of the contemporary behavioral threat management model is its potential to reduce the False Positives to the minimum, by concentrating solely on recognized behaviors and communication, and clear fact-based assessments. Additionally, in order to inflict minimum “damage” or harm to the individual himself, but also to the family and wider community, the mitigation strategy offers several less intrusive intervention and management methods. This is basically the added value to the security management for the educational professionals: principals, special teachers, school nurses and doctors, student counselors, welfare officers and school psychologists. But also to the authorities supporting schools in their task of providing wellbeing

of the students: the municipal government, municipal health care, local police, social services, etc.

In a wider context, the model could also be utilized in other educational institutes, such as grammar schools, gymnasiums, vocational schools, colleges, and universities in other developed countries. The responsibilities and tasks of these educational institutions are mostly very similar to the corresponding institutions in Finland. However, it is important to keep in mind that this model is designed to be embedded to the Finnish schools' standard operating procedures. Basically it means that there are certain pre-conditions to the model to work as planned. These pre-conditions are: good working relations and trust with the local police and municipal mental health service, establishment of school student welfare and crisis management teams of some kind, identification and assessment process of general concerns with the students, and pre-determined roles and responsibilities concerning the jurisdiction of the cases of risk. It is also important to caution about the grave responsibility of the utilization of the model as it ultimately intervenes with individual's basic human rights and has the potential to wrongfully condemn an adolescent or a young person.

10.2 Theoretical Value

The theoretical value of this thesis constitutes of some new innovations concerning the threat management model. As it was discussed in previous chapter, the delineation from actuarial and clinical assessment models is practical, but also a theoretical question. The recognition that there are no simple answers to the problem, and that there is no profile of a school attacker, is the "ground zero" in this context (see e. O'Toole 2000; Reddy et al. 2001; Vossekuil et al. 2002; NIJ 2002; Cornell 2003; Robertz 2008; Tschan 2009; Hoffmann 2009). Despite of the fact that different checklists or profiles are still sometimes used, and due to the contradictions between existing scientific data and empirical guidance, these signs should not be interpreted further that an adolescent appears to be troubled, and violence (but not necessarily targeted violence), might be one of the possible outcomes of this distress (IACP 1999). Coming back to the theoretical value of the study, while admitting that the behavioral threat assessment approach is not a totally new innovation in this regard, this thesis has nevertheless thoroughly examined the existing literature. And therefore suggests to refrain from the use of any statistical formulas, checklists or profiles in regards to severe targeted violence in schools.

Furthermore, within the developed contemporary threat management model, the contribution is that the pathway to violence is tied to the function of time and the risk level, and is also incorporated for the first time to the risk mitigation strategy in the context of targeted school violence. The strategy encompasses both multi-professional and cross-organizational

cooperation in the assessment and management processes. Additionally, regarding the theoretical contribution, the whole process is embedded to the standard operating procedures of a school. Previous threat management methods have exhibited deficiencies in above-mentioned areas (see e.g. IACP 1999; O'Toole 2000; Reddy et al. 2001; Fein et al. 2002; NIJ 2002; Vossekuil et al. 2002; Cornell 2003). Similar shortcomings have been found in different school shooting study reports (see e.g. Leavitt et al. 2007; MoJ 2009). In order for the schools to be able to convey and depict security, rather than insecurity, the threat management process has been incorporated into the daily activities of the student welfare and crisis management teams, underlining that their primary goal is to promote overall wellbeing of the students. A part of the standard operating procedure of these teams is to assess the rising concerns linked to the wellbeing of a student. Thus, this task has also been combined to the threat assessment and management process. A clear distinction has been established between the roles and responsibilities of the different authorities in both the assessment and the management phases. However, emphasizing that the management of these particular multi-actor-risks require strong leadership and truly functioning cross-organizational cooperation. Solving today's real-life problems demands abandoning some of the conservative thinking and deserting the traditional restrains of organizational boundaries. Apart from this thesis and the development of behavioral threat management model, the existing effort of establishing and reinforcing joint multi-disciplinary school teams reinforced with external public authorities has also been a positive conclusion with the findings here; and therefore are strongly supported in regards of an optimal threat assessment and management process.

Concerning any process models in the context of behavioral threat assessment and management in schools, there are no empirical study reports published within European Union member states, including Finland. Taken this into consideration, this thesis may well be the first scientific publication on this issue. And on that account, it presumably would possess some theoretical value to the corresponding field. Regardless of the fact that this contemporary threat management model has been particularly "custom-fitted" to the Finnish educational system and to the individual educational institutions in Finland, it is also transferable to educational institutions in other developed countries with the precautions suggested in the previous chapter. Concerning the overall value of this thesis discussed above, the thesis admittedly fills the need of precise and timely prevention approach of severe targeted violence in educational institutions for both domestic and international arenas.

11 Conclusions

The goal of this thesis was to develop a model of the behavioral threat assessment and management process for educational institutions in Finnish educational system; In other words to

recognize, assess and manage risks concerning severe violent behavior in school-like environments. This model is not intended in any means to exclude, override or eliminate any other problem solving methods possibly already utilized in schools. Behavioral threat assessment is also not a substitute for other violence prevention efforts, but a means of investigation that leads directly to targeted interventions and attempts to deal with specific conflicts before they result in violence. Threat assessment should extend beyond evaluation of the threat to development of a threat response. Threat management involves the implementation of strategies or interventions aimed at reducing the risk of violence. (Cornell 2003.)

One of the objectives was to provide more comprehensive understanding of violence and its qualities in general, but also of targeted violence in particular. Second objective was to wield the area of security in educational institutions. The idea was to shed some light on to the general security and risk management of schools and then to place behavioral threat management to the contours of it. Third objective was to provide an overview on behavioral assessment and to scrutinize some of the different approaches threat assessment. These approaches were profiling, guided professional judgment and automated decision-making.

Contemporary behavioral threat assessment was discussed and its application within the educational sector for the handling of severe targeted violence. Violence considered as taking place in a step-by-step process; the model is called “pathway to violence”. In this concept, mental health issues are not the main focus; rather it is the behaviors and communication. One of the fundamental ideas of behavioral threat assessment is a person making a threat and a person posing a threat is not the same. The “pathway to violence” helps to identify whether or not someone is on this slippery slope of severe violent outburst. Behavioral threat assessment is not a single task; rather it is an ongoing process and must be updated whenever new information becomes available. Interventions are based on the assessment and consist of a multifaceted approach and interdisciplinary cooperation of the school, the police, mental and physical health care, social services, families and others. (Tschan 2009.) Behavioral threat assessment starts from the identification and assessment of concerns and continues further towards overall management of the situation and the student posing a threat.

Randazzo (2009) expressed the main idea the process in such a nice way that a restatement would be in place: *“Understanding severe violent behavior in school-like environments won’t make you a “profiler”...but it will teach you to notice and think about the warning signs of a potential attack. And it may startle you about how much you can help through sound observation, good judgment and utilizing your institution’s process to record your assessment, escalate it appropriately and participate in any intervention that officials determine may be necessary.”*

With that said, one could fairly say that the goal and objectives of this thesis was met. This paper presented the constructive part of the research and the next step would be the implementation of the model to the educational institutions in Finland and to continue with the action research process. The larger base (i.e. more schools) for the implementation the better the reliability would likely to be. Internal validity issues have been addressed by utilizing both comprehensive literature analysis and expert interviews. Concentrating to the mean age of a potential school attacker and examining the structures of corresponding educational institutions have addressed some of the external validity issues. Thus, some still remain to be evaluated after with the actual field-test of the model. The overall evaluation of the research methods implemented, the construction of the model itself and the documentation of the process would be suggested to be rather encouraging.

12 Future Research

The research project raised few topics for future research. There is a need to field test, evaluate and further develop the model with the behavioral threat assessment recommendations and to further develop appropriate interventions designed to respond to the needs of the students involved. One related area for research is the effectiveness of various risk reduction or violence prevention strategies. To what extent does counseling a student or attempting to resolve a peer conflict prevent a threat from being carried out? How effective the school bullying prevention programs are in regards to expressed threats. To the extent of current knowledge, no studies have examined the impact of such strategies on student threats or student conflicts that have risen to the level of issued threat of violence.

Threat assessment is highly depending upon the reports from people close to the potential attacker. Cornell (2003) has already raised the same question. It is not known how many substantial concerns go unreported or what distinguishes threats or concerns that go unreported from those that come to the attention of school authorities. How do students decide whether to report a threat or a serious concern? Is the nature of the communication or behavior most important, and if so, how do students evaluate these concerns by their peers?

Also, one final area of future research would be to study the knowledge of the parents, guardians and families on identification and assessment of concerns regarding to violent behavior, especially homicidal. How does the family recognize the changes in the adolescent student on the pathway to violence? A particularly interesting question is how the families recognize the early stages of the pathway such as overwhelming hate, grievance and ideation? What kind of precise support could the society provide to the families?

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