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# **CHALLENGES FOR VIRTUAL TEAMS IN VOLUNTARY ORGANIZATIONS**

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# 1 INTRODUCTION

## 1.1 Background of the study

The information and communication technologies have advanced rapidly over the past decades. The developments have led to new technologies, cheaper costs, and better availability. At the same time, fast economy and globalization have created pressures for companies to stay competitive. Organizations have adopted these new technologies to create new forms of working, one of which is virtual team. In a virtual team, the members are located geographically far away from each other, and they communicate and coordinate their work mainly through electronic communication technologies. Virtual teams can be found in various fields, such as R&D and customer services, but it is generally agreed that they are most suited for knowledge work. (Hertel, Geister & Konradt 2005, 69–70.)

Pushing this change is also the need to meet the employees' expectations of flexibility. The employees expect to be able to work from wherever they are without being limited to the office space or hours. Virtual working creates cost and time savings as the workers do not need to travel to meet each other, and it still allows for ad hoc teams comprised of members from different locations. (Townsend, DeMarie & Hendrickson 1998, 19–20.)

Virtual teams and their challenges are puzzling to organizations. As an example of this, between January 2014 and November 2015 there were nine posts published on Forbes.com, a well-known business website, on virtual working. Among the discussed topics were trust, rest of the team, and digital workplace, but the most dominant topic was advice on managing virtual teams. Also Harvard Business Review has taken on the topic of managing virtual teams twice during the same period. This shows that many organizations are interested in incorporating and taking advantage of these new forms of working to create a more flexible workplace.

Leadership in virtual teams has received an increasing amount of academic interest in the past decade (Gilson, Maynard, Jones Young, Vartiainen & Hakonen 2015, 1319) and it is considered as one of the biggest challenges in virtual work (Pinar, Zehir, Kitapci & Tanriverdi 2014, 70). Leadership is difficult, because the leader needs to get to know the team members through electronic communication methods, and he has to rely on communication and reasoning to direct the team as he is unable to meet them face-to-face (Lähteenmäki, Saarinen, Fischlmayr & Lainema 2010, 197–198). It has been found that authoritative leadership does not work as well in a virtual environment (Hoch & Kozlowski 2014, 398), and the virtual team members may prefer leadership methods that allow a level of autonomy for the team members (Hertel et al. 2005, 82).

Other challenges the virtual team members may experience are, for example, lack of trust, lack of team cohesion, and difficulties in relationship building (Powell, Piccoli & Ives 2004, 10).

The developments in technology and work life have also reached the third sector, the volunteers. The size of the voluntary sector varies in each country, but in the European Union there are around 92 to 94 million adults involved in volunteering, which means around 22–23% of Europeans. The number has been rising in the past ten years, as well as the number of voluntary organizations. A voluntary organization is a non-governmental organization that functions on a non-profit basis. (GHK 2010, 57–86.) Volunteering and non-profit organizations have begun to utilize Internet to create new formats of volunteering. For example translation, research, web design, issue advocacy, and video editing are just a few among the many options for online volunteering (Cravens 2008). As many communication technologies are either free or very affordable, it seems natural that the voluntary sector would take advantage of them.

The aim of this study is to inspect virtual teams in a voluntary organization. Virtual teams have not received much research in the context of volunteering, and only a few doctoral dissertations could be found on academic databases (e.g. McLean 2014, Kao 2011). As the new formats of work reach the third sector, it is useful to look at what kind of challenges they may bring. The results of the study may be helpful for voluntary organizations that wish to include virtual work in their association or for organizations that are already using them and wish to improve. The study may also bring into light possible new issues for virtual teams that may not have been considered thoroughly in the literature.

This study involves an international student organization, Erasmus Student Network (ESN) as the case organization. As a research subject ESN is interesting because it functions mainly through unpaid volunteers through whole Europe. As the volunteers are almost all students, they rarely stay very long in the network before graduating and leaving the organization. This makes the work challenging, as every year there is information, time, and efficiency lost in knowledge transfer period. Due to the European-wide reach of the network, the organization has many virtual teams for different purposes, for example for international projects and the coordination of the association, but because there is no formalized management it can be difficult to coordinate the activities.

## **1.2 Purpose and structure of the study**

The purpose of the study is to provide a perspective on the challenges and leadership issues in virtual teams in voluntary work. As the issues have not been researched in this

context before, the approach is exploratory, but the basis of the research is in the existent literature on virtual teams. The inspiration for the research came partially from the researcher's personal involvement in the case organization and its virtual teams, and her experienced difficulties. The results may provide new insights on virtual team leadership and insights on how the teams can be managed in the voluntary sector.

The study has two key research questions:

- What kind of challenges may the volunteers face in virtual teams?
- What kind of leadership do the teams have?

The first question deals with identifying problems unique to volunteer virtual teams or issues that are more salient to them. The identification is essential because the new context may bring up concerns that have not been discovered in the available literature. Recognizing the challenges can aid the organizations to address them properly and develop the weaker aspects. The identification will happen with the help of the existent literature and based on the research data.

The second research question is interesting because leadership is a major challenge for virtual teams. Voluntary sector and volunteer leaders provide a unique area of study for leadership, as many of the traditional forms of authority do not apply (Posner 2014, 887). Combining these two fields shows an area of study that is completely different from traditional leadership studies, with a looser organization structure and new forms of leadership. The leadership in the case organization is also remarkable, as the teams are completely self-managed. This is an interesting situation as most of the research on leadership in volunteering is concentrated on an external leader, who often is a paid employee. The study will look at the role of the elected team leaders and try to find what kind of influence they hold in the teams, or if the team members are more equal because they are volunteers.

The research is structured into five chapters after the introduction. Chapter two and chapter three focus on the theoretical part of the study. Chapter two explores the background structures of the virtual teams in volunteering; first volunteering as a phenomenon and then virtual teams as a work mode. This chapter aims to create a basic knowledge on both to begin building the concept of volunteer virtual teams. Chapter three focuses on the leadership and management functions in the virtual teams. This is done through a lifecycle model that highlights the different issues related to management during the term of the team. Especially leadership and the various forms it may take are taken under focus.

The fourth chapter presents the research design. This research is a qualitative case study based on literature review and interviews. The chapter describes the methodological choices, how the data was collected and analyzed, and the trustworthiness of the study. The case organization is also presented. Chapter five focuses on the analyzing the interviews in the light of the research questions. The first three parts are devoted to ex-

ploring the challenges related to volunteer virtual teams and their coordination. The challenges of the case organization are explored through the interviews. The latter two parts discuss leadership and the different forms it takes in the teams. They also survey the leadership functions and the role of a team leader in the teams. As some of the interviewed did not have a team leader at the time of the interviews, these unique cases are also further explored and compared.

Finally, the last chapter draws conclusions based on the research and earlier studies. The limits of the study are also discussed together with possible venues for future research.

## 2 VOLUNTEERING AND VIRTUAL TEAMS

The third sector is large and comprised of many types organizations and small associations. Volunteering comes in many forms, and the key denominators are unpaid work and free will. Volunteer managers often state two key challenges in their organizations: recruiting volunteers and getting them to stay with the organization. This study does not discuss the challenge or recruitment, as it is more interested in the issues that happen during the volunteering and takes the volunteers as a given. Sub-chapter 2.1 explores these topics more closely, before moving on to the new forms of volunteering that involve Internet, virtual volunteering.

Virtual work is a form of virtual volunteering and a possible work mode that the volunteer organizations can use. Virtual work possibilities are multiple; teleworking, virtual groups, virtual teams, or virtual communities. This study focuses on virtual teams. Virtual teams come in various forms like conventional teams. They may be completely reliant on electronic communication and never meet face-to-face, they may regularly meet have face-to-face meetings, or anything in between. These issues are discussed further in sub-chapter 2.2.

### 2.1 Volunteering as a context

Defining volunteering sounds simple, but there is no unified definition for it. Volunteering covers countless fields from social work to arts, and various tasks from presiding over a board to picking trash, all which make defining it a difficult process. The definitions all agree that volunteering is not biologically necessary, paid labor, forced labor, caring for relatives, or spontaneous help; but they do not agree on what volunteering is. (Hustinx, Cnaan & Handy 2010, 413.) United Nations defines volunteering with three criteria: activities that are not done for financial gain, that are done out of free will, and which bring benefit to a third party as well as the volunteer. These criteria show some of the different aspects involved in volunteering. “Not for financial gain” does not mean that the volunteer cannot receive any compensation for the work, such as reimbursement of expenses. The definition does not include volunteering done out of a requirement for school, as it is not completely “out of free will”. The definition also notes that volunteers do benefit from the volunteer work themselves, but excludes the immediate family. The cause of the volunteering can be as broad as “environment” or “arts”. (Dingle 2001, 9.)

This study defines volunteering loosely as unpaid work for which time is given freely, done for the benefit of another person, group or cause, and done through an organization, modeling after Wilson (2000, 215) and Musick & Wilson (2007). This defi-

definition draws a line between informal helping, such as aiding a relative or a neighbor, and volunteering through an organization. This is because most of the topics covered in the study do not apply to this kind of spontaneous situation. The definition does not take a hard stand on the issue of remuneration. This is because there can be many forms of benefits that are not monetary, for example receiving training, and the definition should exclude them.

Being unpaid does not mean not receiving any benefits from volunteering. Research shows that the motives of volunteers are complex and involve altruistic and self-interested elements. This means that the volunteers both give out their time and help and receive something for themselves in return. (Cnaan & Goldberg-Glen 1991, 281.)

Clary and colleagues (1998) identify a six-dimension “Volunteer functions inventory” (VFI) that is used to measure multiple sources of motivations. It describes six functions that volunteering serves: values, understanding, social, career, protective, and enhancement. “Values” is a function through which volunteers act on values related to altruistic and humanitarian interests. The volunteer motivated by it is interested in the effects of the volunteering on the cause. “Understanding” permits self-development and a chance to utilize skills that might otherwise remain unused, as learning motivates the volunteer. “Social” is about motives regarding relationships with others and social standing, and a volunteer motivated by it is concerned in gaining recognition for it from his peers. The fourth function, “Career”, deals with career-related benefits, and gaining career-relevant skills motivates the volunteer. “Protective” deals with protecting yourself from negative feelings or personal problems, and the volunteer by it is interested in the psychological escape the volunteer work provides. Finally “enhancement” is a motive for psychological growth, as the volunteer is motivated by the feelings that volunteering creates in him. (Clary et al. 1998, 1518; Clary & Snyder 1999, 157.) These six functions illustrate how many possible benefits volunteers can receive from volunteering as those benefits motivate them to continue their work though the combination is unique to each volunteer. It is beneficial for volunteer organizations to consider the possible motivations and match them with their activities of the volunteers so that they can best recruit and retain them. (Studer & Schnurbein 2013, 410.)

A volunteer organization is an organization that organizes activities not for profit on a volunteer basis. The organizations are non-governmental, and there is no employment relationship between the organization and the member. In the past decade the number of voluntary organizations has increased. Most of the voluntary organizations work in the fields of sport and leisure, culture and arts, education and research, and social activities. (GHK 2010, 81–88.)

Many volunteer organizations note that their biggest challenge is recruiting volunteers. Brudney and Meijs (2009, 568) suggest that the preoccupation with recruitment is a distraction from a bigger issue, volunteer management and retention. The volunteer

role is transient, and it is likely that other demands, such as work or family, interrupt the time spent volunteering, and the volunteer leaves the organization (Musick & Wilson 2007, 424). High turnover leads to the need for continuous recruitment and this becomes an ongoing cycle. Poor management practices, such as failure to define tasks, not making good use of the volunteers' skills, and volunteer expectations not being met, end in volunteer dropout. (Brudney & Meijs 2009, 568–569.)

Retaining volunteers is a key interest to all volunteer organizations. It is difficult to recruit volunteers and the turnover is often high. This means that the organizations want to hold on to the current volunteers and create commitment with them. Commitment can be described in two ways: attachment to the volunteer role and commitment to a particular organization or task. (Wilson 2000, 230.)

Attachment to the volunteer role describes how long time the person has spent volunteering continuously or intermittently. The attachment can come from enjoying the role of a volunteer, being passionate about the cause, or being stuck in the role. Possibilities of moving upwards in the organization, social ties, and support from the community may motivate some to stay longer. (Musick & Wilson 2007, 424–428.)

Apart from attachment, commitment can be measured with how long the volunteer has spent on a particular task or at one organization. The lack of commitment shows especially in training and recruitment costs, and for this reason, the organizations should manage the volunteers in a way that supports long time commitment. High commitment to a particular task or organization shows as loyalty and willingness to prioritize the demands of the organization. Commitment is affected by individual factors and organizational practices. Individual factors consist of role identity, proper motivation, and job satisfaction. (Musick & Wilson 2007, 424, 429.)

Having clear roles is important. A role is defined as “behavioral expectations of what a person should do.” Defining roles makes the expectations clearer and reduces role ambiguity. (Musick & Wilson 2007, 421.) This is useful because role ambiguities and role conflicts lower the contribution the volunteers make (Studer & Schnurbein 2012, 414). Strong identification with the role identity creates commitment as then the volunteering is in line with their desired identity. Often the motivation to join an organization is not the same as the motivation for continuing volunteering. If the motivation of the volunteers is altruistic and the act of volunteering matches their reason for volunteering, the volunteers are more likely to stay in the organization and have job satisfaction. Job satisfaction is related to recognition of volunteering and seeing the results of the work. Dissatisfaction can end up in the volunteer leaving the organization, yet it does not predict it. (Musick & Wilson 2007, 429–452.)

Organizational practices that can aid commitment are incentives, relationships with paid staff and clients, and volunteer management. Incentives in volunteer organizations are often normative, creating a sense of worth and esteem in the volunteers. This can be

done for example through acknowledgment and symbolical titles. The incentives should match the motivation of the volunteers doing the work. There may be some conflict between the paid staff and the volunteers if the paid staff resent the volunteers for their attitude or see them as competitors for their job. The volunteers may just as well see the paid staff setting limits to their work and enthusiasm. Relations with clients lower the commitment if the clients behave negatively towards the volunteers and do not show appreciation. Volunteer management practices affect the commitment strongly. The volunteers require fair treatment, support from the staff, and clear structure for incentives. Too much bureaucracy in the form of close supervision, too many rules, and a lack of autonomy turn an opportunity in volunteering into a boring job. On the other hand, a lack of bureaucracy with unclear role expectations and goals can lead to dissatisfaction and quitting. (Musick & Wilson 2007, 429–442.)

A relatively new form of volunteering is virtual volunteering, and it has not received wide academic attention. Virtual volunteering means performing acts of volunteering from home through Internet. (Mukherjee 2010a, 188.) Possible tasks are for example translating, budgeting, proofreading, or creating a website. Most volunteer organizations are not completely virtual; rather they include some tasks done on-location. (Ellis & Cravens 2000, 1.) One way to take on virtual volunteering tasks are from an online platform. For example United Nations Volunteers provides a way for volunteers and organizations to meet online. On their website, the organizations can provide opportunities for online volunteering that a volunteer from any part of the world may respond to. (UNV 2015.) The online volunteering has multiple forms, such as micro-volunteering through a smart-phone, or disaster relief through online communities and social media. Keeping in line with the definition of volunteering, this study limits virtual volunteering to the volunteering done through an organization for the tasks that require more than three hours to complete.

Virtual volunteers benefit from a flexible schedule, as they can perform their tasks from their home without spending time on moving to a physical location. (Mukherjee 2010b, 256.) This also allows the people who have difficulties in moving to participate in volunteering. On the other hand, the organizations save money, as they do not need to provide facilities for the volunteers. The organizations need to communicate actively with the remote volunteers as misunderstandings are possible, and the volunteers get motivated from feedback. (Gardyn 2006.)

Virtual groups have not been explicitly discussed in the academic virtual volunteering research, but they do exist. In general, groups in volunteering are a source of commitment, satisfaction, and effectiveness. However, the group processes have not received a lot of study in volunteering context, though most of the volunteering is done in a group format. The group provides social contacts and can improve the volunteers' learning and capabilities in coping with ambiguity. The feeling of belongingness in a

group can increase the level a volunteer is involved. Additionally clear group norms and equally distributed rewards encourage the volunteers to stay involved and not to leave the organization. Leaving the group can involve multiple costs, such as the loss of friendships, appreciation, and mutual support. (Haski-Leventhal & Cnaan 2009, 62–65.)

Next chapter discusses virtual teams as a work mode. Virtual teams seem like a valuable way to organize volunteers in order to get the benefits of groups while bringing, for example, cost savings and a wider reach of recruitment.

## **2.2 Virtual teams as a manner of working**

The quick development of information and communication technology (ICT) in the past ten years has made distributed and virtual work more common and easier. Generally five different forms of virtual work can be differentiated. Teleworking is work done outside the physical workplace with the use of ICT with the goal to save the time from commuting to work. A virtual group is a group combined of multiple teleworkers who report to the same manager whereas a virtual team is a group that interacts with each other to accomplish mutual goals. Virtual teams can be project-based or permanent. Virtual organizations are built on the premise of virtual work while virtual communities are loose groups that operate completely online and are not usually implemented within an organization. (Lähteenmäki et al. 190–191; Hertel et al. 2005, 71.)

This study is focused only on virtual teams. In a more specific definition, virtual teams consist of a minimum two members who work together interactively towards common goals. Additionally, at least one member works at a different location, organization, or during another work shift so that the communication and coordination of the team is based on electronic information and communication methods like emails and videoconference. (Hertel et al. 2005, 71.)

The early work on virtual teams compared them to more traditional co-located teams. Recently, however, researchers have focused on the degree of team virtuality, as there is no simple division between a pure virtual and a completely co-located team. The degree of virtuality consists of the geographic distribution of the members and the use of electronic communication media. (Hoch & Kozlowzki 2014, 391–392; Gilson et al. 2015, 1317.) The geographic distribution includes time zone differences in addition to the proximity of the members. Some of the members may be co-located in the same building, or all members may be located in different areas. The distance is a factor in the opportunity to organize face-to-face meetings, which are not as easily organized in globally distributed team. Computer-mediated communication (CMC) tools offer multiple options, synchronous and asynchronous, and the use of multiple communication channels may be easier than only one. (Hoch & Kozlowski 2014, 392; Hertel et al. 2005,

71.) With the development of technology, all organizations and teams utilize the information and communication technologies to some extent.

Dubé and Paré (2004, 7–8, 10) identify a set of key characteristics for virtual teams that can be used to differentiate different virtual team configurations in order to help manage the different kinds of teams and anticipate possible challenges. The characteristics are divided into two parts: the characteristics that are related to the basics of virtual teamwork, and the characteristics that make teamwork more complex. In the first group are ICT related issues that separate virtual teams from traditional teams: the degree of reliance on ICT, ICT availability, and ICT proficiency. The second group describes the complexity and the diversity of virtual teams: team size, geographic dispersion, task or project duration, prior shared work experience, members' assignments, membership stability, task interdependence, and cultural diversity. Table 1 shows the stated characteristics.

Table 1: Key characteristics of virtual teams (Dubé & Paré 2004, 7)

		<b>Degree of complexity</b> LOW ← ----- → HIGH	
<b>Characteristics related to virtual work</b>	Degree of reliance on ICT	Low	High
	ICT availability	High variety	Low variety
	Members' ICT proficiency	High	Low
<b>Characteristics that make teamwork more complex</b>	Team size	Small	Large
	Geographic dispersion	Local	Global
	Task/project duration	Long term	Short term
	Prior shared work experience	Extensive	None
	Members' assignment	Full-time	Part-time
	Membership stability	Stable	Fluid
	Task interdependence	Low	High
Cultural diversity	Homogenous	Heterogeneous	

The degree of reliance on ICT describes the level of virtuality in the teams; how much of the time the team utilizes ICT predominantly. Higher degrees of reliance can make conflict resolution and coordinating work more challenging, and it may create a more task-oriented structure. (Dubé & Paré 2004, 8–9.) Relying solely on ICT makes communication more challenging, and misunderstandings are more probable. It takes longer for completely virtual teams to establish mutual knowledge base at the beginning of the team lifecycle when they rely only on ICT. (Cramton 2001, 364–365.) Most teams are not completely reliant on ICT; rather they have occasional face-to-face meetings. These face-to-face meetings at the beginning of a project are highly useful in creating mutual understanding. (Powell et al. 2004, 8.)

ICT availability means the variety of ICT types available for the team to use. There is a variety of communication methods available, for example phone, email, videoconferencing, collaborative software, and instant messaging. The list is ever increasing as the technology is developed. (Dubé & Paré 2004, 9–10.) Communication media can be divided into two categories: synchronous when the communication is instant, such as videoconferencing and instant messaging; and asynchronous when there is a time gap between sending and receiving the message, such as email. Each technology has different benefits and disadvantages, and the use of each technology should be considered according to the people, situation, and the purpose. (Lähteenmäki et al. 2010, 196.) For example asynchronous tools allow the sender to compose the message carefully without time pressures, but they may cause delays (Warkentin, Sayeed & Hightower 1995, 980) and are lacking in non-verbal cues such as tone of voice and body language (Townsend et al. 1998, 24). The variety of technologies, that the team members have available for choosing to transmit the message appropriately, helps to ensure effective communication.

Team members' ICT proficiency describes how well the team members can use the available technologies. It can be difficult to operate the different technologies if the member is not used to it, and different levels of proficiency in the team can create discrepancies in the information flow and prevent some members from fully participating in the teamwork. (Dubé & Paré 2004, 10.) The proficiency in the use of technology is positively related to the team efficiency and satisfaction (Kayworth & Leidner 2001, 29). The technology proficiency can be aided with training (Powell et al. 2004, 9).

Increasing the team size means more varied expertise, knowledge, and resources. According to some studies the optimal team size is three to seven members. (Dubé & Paré 2004, 11.) The increased team size leads to fewer chances for face-to-face meetings and synchronous communication. It is more difficult for all of the team members to be present at the same time, and it can be seen as absenteeism. This and the use of asynchronous communication leads to communication and coordination challenges for the team. (Kirkman & Mathieu 2005, 708.) Larger team increases the complexity and may

lead to centralized communication or sub-groups within the team (Leenders, Engelen & Kratzer 2003, 79).

The geographic dispersion can vary from the team members being in the same building to being on a different continent. All team members could be located in different areas or there could be smaller groups of people located in the same place and cooperating with people from another location. The latter types of situations create tension, as communication within the sub-group might not be reported to the whole team (Cramton 2001, 364), or a member may become isolated from the others. The wide dispersion of team members creates problems in coordinating across a mix of cultures and time zones. Especially finding time for synchronous communication across multiple time zones can be challenging, and may create miscommunication and delays. On the other hand, geographic dispersion creates advantages in organizing the work when another part of the team can continue working in a different time zone. (Dubé & Paré 2004, 11; Lähteenmäki et al. 2010, 197.)

Task or project duration determines how long the team stays together. The teams can be created for fairly short projects or a more permanent task. A short life cycle for a virtual team creates challenges in team building, and in developing trust and cohesion. (Dubé & Paré 2004, 12.) On the other hand, long project duration increases the risks of the project especially in the budget, the schedule, and the scope of the project (Reed & Knight 2013, 82).

If the team members have prior shared work experience, beginning the teamwork may be easier. As virtual team members often come from different cultures and working context, they first have to establish shared norms, routines, and even language. (Suchan & Hayzak 2001, 177.) Establishing these team patterns requires work and energy from the team at the beginning, while a team that has worked together before can fall back on the previous work routines. (Dubé & Paré 2004, 12.)

Members' assignments to the team can be full-time or part-time. For example, someone may join the team for a short while for a consultation, and be a member of multiple teams at the same time. The other members of the team might not consider this person to be a full member of the team, which can result in different treatment. The member who is a part of multiple teams may become overcommitted and stressed. (Dubé & Paré 2004, 13.) Bell and Kozlowski muse that the leaders of virtual teams should clarify the team role expectations to avoid role ambiguity. The team members should be aware both of their own role and the roles of the others in the team. Especially when the member holds multiple roles across different teams, it is important to clarify how much time should be committed to the team. Knowing the roles of the other members on the team helps in coordination and effective operation. These functions are more critical when the tasks are more complex. (Bell & Kozlowski 2002, 40–41.)

Membership stability describes the changing of the members within the team. (Dubé & Paré 2004, 13.) Virtual team membership has been described as fluid because it is easy to add or lose members through technology as required by the project. Organizations often expect the teams to remain productive despite the changes, and not enough time is allocated to the socialization process. Fluid membership can be useful for bringing in new talent, but repeating the process often requires energy and increases the complexity of the team. (Townsend et al. 1998, 23–24.)

Task interdependence describes the level of task-based interaction between the team members. High task interdependence means that the members have to communicate more frequently in order to coordinate their activities. (Dubé & Paré 2004, 14.) Task interdependence can be described with workflow processes and task complexity. There are four different workflow processes in order of from the least interdependent to the most interdependent: additive, sequential, reciprocal, and intensive. In the additive process, the members do their tasks separately before combining them into a finished product. In sequential the tasks are passed on to another member and in reciprocal the tasks are passed back and forth among the members. In the intensive work process, the tasks are done simultaneously as a team. (Van de Ven, Delbecq, & Koenig 1976, 334–335.) Tasks with low complexity are usually structured by additive or sequential workflow, while the tasks with higher complexity usually are reciprocal or intensive in their arrangement. Low complexity tasks require less collaboration and information sharing among the team members while more complex tasks need more synchronous collaboration and faster pacing. In this way, task complexity and interdependence affect the team structures and design on communication and coordination processes. (Kozlowski & Bell 2002, 19.)

Cultural diversity is strongly linked with virtual teams as the team membership crosses national borders. Different cultures have different views and norms in regards to management and teamwork, which can create difficulties in teams across borders. For example, the tendency to trust or to identify with a group varies between collectivistic and individualistic cultures. (Hertel et al. 2005, 75.) Additionally the use of a second language (e.g. English) in communication creates challenges when the members' skill levels vary. Virtual teams may also clash with different organizational cultures if the team is formed with members of two or more different organizations with different expectations and norms. The different culture may even mean a professional culture if the team members come from different parts of the organization. The heterogeneity of the team increases the knowledge base and perspectives of the team members, but also bring more complexity in navigating the different cultures and expectations. Misinterpretations happen easily and solving them with only ICT communication is challenging. (Dubé & Paré 2004, 14.)

### 3 MANAGING VIRTUAL TEAMS

Through the examination of the different forms of virtual teams in the previous chapter, it is possible to see that the field of virtual team management is not unified. A lot of the research involved is focused on a small sub-part of the area, and there are not many works that consider the management and human resources of virtual teams as a whole. (Hertel et al. 2005, 70.) Sub-chapter 3.1 presents one such model by Hertel and colleagues (2005), and through it explores the different aspects of virtual team management and lifecycle. The model has five phases: preparations, launch, performance management, team development, and disbanding. The focus of the study is mostly on the second and third phase of the model, as the task design and members of the team are taken as a given, and the case organization does not have training procedures for the teams. Researching the disbanding of virtual teams would require a different mode of research.

Though virtual team membership has been claimed to be easily changed, there is little research focused on it. In teams with a longer duration, the changes in membership are likely, and so the teams must somehow transfer the experiences and knowledge of the old member to a new member. Sub-chapter 3.2 considers these ways as presented in the knowledge management literature. In earlier research, these have not been directly applied to virtual teams.

Sub-chapter 3.3 brings the focus on the leadership issues that are a major source of challenges in virtual teams. Leadership affects the performance of the teams and the motivation of the team members (Hoch & Kozlowski 2014, 390), so it is useful to pay attention to it. The sub-chapter looks at the leadership through a model by Morgeson and colleagues (2010) that identifies four different sources of leadership in teams. The model facilitates the identification of the different types of leadership that have been used in research, and reveals the lack of study in some areas. The chapter also explores the sources of power, as the direction that the team takes may not always be clearly in the hands of the appointed leader. Lastly, it brings in the volunteer factor of leadership and explores the issues that a volunteer leader brings in.

#### 3.1 Virtual team lifecycle model

Hertel, Geister, and Konradt (2005) identify five separate phases for a life cycle model of virtual team management. The first phase, *preparations*, is concerned with issues related to the planning to implement virtual teams, while the second phase, *launch*, describes the activities involved in the actual beginning of the teamwork. The third phase, *performance management* contains issues related to the leadership of the team, and the

fourth phase, *team development* covers training and evaluation. The last phase, *disbanding*, is related to the ending of the teamwork. Figure 1 presents the key activities involved in each phase.

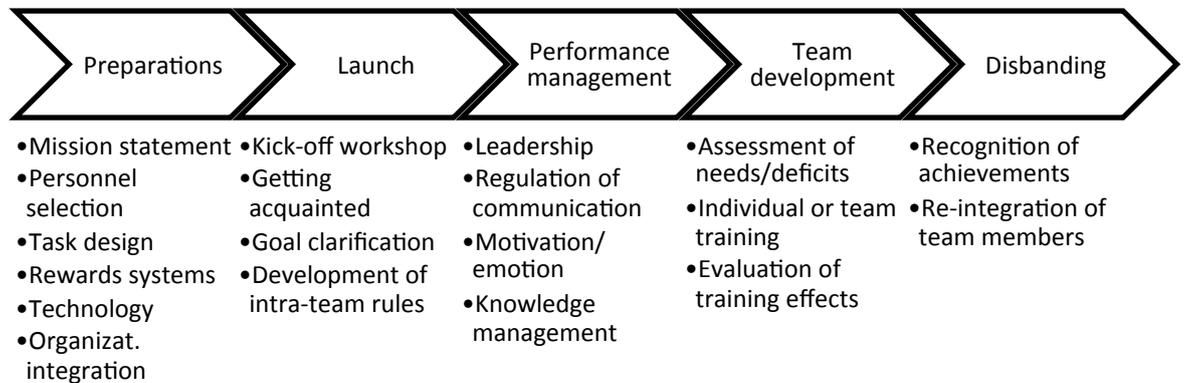


Figure 1: Key activities in the lifecycle mode of virtual team management (Hertel et al. 2005, 73)

The *first*, preparations phase includes important decisions that affect the organization of the team, such as personnel selection, task design, rewards systems and choosing the right technology. Many of these issues are similar to those discussed in the previous chapter as the characteristics that make virtual teamwork more complex.

Virtual teams tend to include people from diverse areas and competencies. Professional skills and expertise are important criteria for selecting team members, but also teamwork-relevant skills and virtual work-relevant skills are beneficial in the consideration. Choosing members from multiple areas of the organization creates a need for effective boundary management for maintaining organizational support and enough resources for teamwork. The teams should be carefully integrated into the organization while taking into account the members' possibly overlapping commitments to tasks apart from the team. (Hertel et al. 2005; 74, 79.)

The types of tasks that the virtual teams perform vary from idea generation and negotiation, to decision-making and task execution. Task interdependence is also relevant when planning the virtual team tasks. The ability to divide the tasks into subtasks in order to distribute them to the team members is beneficial for the coordination of the team. Clear criteria for success in the task facilitate the feedback, and the creation of fair and motivating reward systems encourage cooperation and the achievement of objectives. The technology used by the team should also be chosen according to the required level of cooperation and interdependence. (Hertel et al. 2005, 74–78.)

As a part of the launch of the team, *the second phase*, most of the authors on virtual teams agree that the team members should meet each other face-to-face (e.g. Hertel et al. 2005, Powell et al. 2004, Dubé & Paré 2004). This “kick-off” face-to-face meeting helps the members to get to know each other, clarify the goals and the roles of team members, and develop general rules for teamwork. The meeting is associated with clarification of team processes, team identification, and trust building in the team. (Hertel et al. 2005, 79.)

It is important to create relationships between the members at the kick-off face-to-face meeting. Relationship building in virtual teams is more challenging than in traditional teams mostly due to the electronic communication methods. Relationship building includes interaction processes that are supposed to create feelings of inclusiveness and belonging to the team. This is difficult for virtual teams, and as research shows that they have higher task focus and report fewer links to their teammates (Warkentin et al. 1997, 985).

If it is possible for the team members to meet physically at the beginning of the team lifecycle, the meetings should focus on creating relationships between the team members. This has been shown to increase the belongingness in the team, and also improve the performance and enhance team learning. (Powell et al. 2004, 9–10.) Regular face-to-face meetings can help to further establish the interpersonal relationships, and positively affect team collaboration and team performance (Maznevski & Chudoba 2000, 489). The challenge of the meetings is that they can be sporadic, short, and selective if not everyone is able to attend them. They may also be very formal if they are solely dedicated to project issues. (Oshri, Kotlarsky & Willcocks 2007, 28–29.)

Performance management, *the third phase*, is essential for maintaining work effectiveness and team environment after the launch (Bell & Kozlowski 2002, 36). This includes leadership, communication within the team, motivation and knowledge management. Leadership is a major challenge for virtual teams, and it discussed more in detail in sub-chapter 3.3.

Communication is a topic that a lot of early research on virtual teams focused on. The main concern in communication is that using mainly email and other electronic media reduces the richness of the information conveyed to the receiver (Hertel et al. 2005, 82). Exchanging information and creating mutual knowledge over electronic communication has many pitfalls. The team members need to ensure that everyone receives the same information and that they interpret it from the same context. In addition, human error and technical failure can create problems, for example if the message does not reach the intended target. The receiver of the communication has to decode the message and in the process may draw incorrect conclusions as many of the social cues (such as body language) are missing. Quick feedback is essential to correct faulty conclusions. Lags in communication, be it due to lack of Internet or caring, may create interpersonal

problems and conflicts in the team. (Cramton 2001, 362–363.) On the other hand, asynchronous communication may help in conflicts, as it keeps the participants focused on the task instead of giving into the emotions. The choice of the communication media should fit with the content of the communication goal, for example text-based media may be associated with task-related issues, and face-to-face meetings with teamwork and relationship building (Hertel et al. 2005, 83). Predictable communication patterns and timely responses are also associated with high levels of trust (Järvenpää & Leidner 1999, 808).

The lack of informal, non-task communication is a known topic in virtual teams (Martins, Gilson & Maynard 2004, 815). Sharing personal information is useful, as productive virtual teams have been found to have more informal conversations, such as checking in with team members (Hofner Saphiere 1996, 239). Informal communication is also associated with social processes such as cohesion and trust, and team effectiveness (Hertel et al. 2005, 84). Pauleen and Yoon (2001, 200) identify that the use of messaging programs as a “virtual water cooler” for informal and spontaneous conversation can help in the socialization process and in building relationships. Sharing personal information at the beginning of the term helps to create trust between the members (Järvenpää & Leidner 1999, 807).

The physical distance between the members can lead to challenges in the team members’ motivation. Multiple reasons have been found to affect the lack of motivation, such as the lack of common goals, feelings of anonymity, the ease of social loafing, reduced feedback, and difficulties in building trust. Hertel and colleagues (2005, 85) suggest that for example clear goals, feedback system, predictable communication and members’ feeling that their personal contributions are indispensable are related to the motivation of virtual team members.

Trust has been frequently addressed in the literature (Hertel et al. 2005, 84–85). Developing trust in virtual teams is challenging because without meeting each other it is difficult to assess how trustworthy the team members are. Additionally the trust needs to develop relatively quickly because the lifecycle of the teams is often short. The research on trust development in virtual teams has found that teams with short lifecycle are able to develop high trust by using a swift trust model. According to this model the team members assume that the other members are trustworthy and begin to work on this assumption when they do not have enough time to develop the trust slowly. The members then seek to confirm or disconfirm the trust during the existence of the team. (Järvenpää & Leidner 1999.)

Team cohesion and team identification can be difficult to create due to the physical distance, like with motivation, and both are often lower than in conventional teams. Both are important for the success of the team because they can help the functioning of the group and encourage extra-role helping. Cohesion and identification are associated

with effectiveness and higher satisfaction. Team member satisfaction also correlates with the effectiveness of the teams, and it is characterized by opportunities to meet face-to-face at the beginning of teamwork, non-job related communication, and constructive conflict management. The reduced face-to-face communication and difficulties in sharing information lead to challenges in managing knowledge and creating shared knowledge. (Hertel et al. 2005, 86.) The different working context of the team members is not so easily observed, and the other members may not remember or note the information shared, which leads to a lack of mutual understanding of individual working conditions (Cramton 2001, 364).

The *fourth phase* concerns training the virtual team leaders, team members or the team together. Suggested topics for training are communication over electronic media, cultural diversity, and clarification of goals. (Hertel et al. 2005, 87.) Training can enhance the team performance for example by helping to resolve differences in technical expertise (Powell et al. 2004, 9).

The *last phase*, disbanding of the team and re-integration of the team members has not been a subject to rigorous study, despite that the virtual teams have generally been described to have a short lifecycle. It is good to maintain motivation and satisfaction in the team members, for they may be involved in a virtual team again. The disbanding may create feelings of joy and pride in achievements, and also sadness about the separation. (Hertel et al. 2005, 88.) Hertel and colleagues (2005, 88) call for further research into how the achievements of the virtual teams may be acknowledged and celebrated, and how the teams can carefully be disbanded and the experiences and best practices passed on to future teams.

### **3.2 Knowledge management and continuity**

Knowledge management in virtual teams has received some attention (Gilson et al. 2015, 1323) after being noted as a subject lacking study (Martins et al. 2004, 882). Knowledge management means sharing of information between individuals and across organizations in order to reach the organization's goals (Huck et al. 2015, 26). Knowledge sharing has been associated with effectiveness and trust in virtual teams (Gilson et al. 2015, 1320–1321). Knowledge management is also associated with turnover.

In virtual team studies, turnover has not received a lot of research. In particular, no research could be found on teams that are permanent but change members regularly, or where the whole membership of the team changes, while the work of the team should continue. However, virtual team membership has been conceptualized as fluid and changing. In such teams, the role of knowledge management is important especially in

ensuring the knowledge continuity, as the team is expected to continue working despite the changes. (Townsend et al. 1998, 25–26.)

Knowledge continuity is a term that describes the attempts to prevent knowledge loss in the case of employee turnover. The teams can try to preserve knowledge continuity by transferring valuable knowledge to the new team members. The valuable knowledge exists in tangible forms called explicit knowledge, such as documents stored in Drop-box, and in intangible forms called tacit knowledge. Tacit knowledge is more difficult to transfer, as it is gained through the experience of the workers and easily lost when they leave the organization. (Dalkir 2011, 385.)

Nonaka (1994) identifies four different ways to transfer knowledge to another. These are called socialization, externalization, internalization, and combination. Socialization is a process where tacit information is shared in intangible forms, such as mentoring or following the work of another. Externalization as a process transforms tacit information into explicit knowledge, such as writing experiences onto a document. Internalization is similar to learning, a process where explicit information becomes a part of a person's implicit knowledge. Lastly, combination is sharing explicit information, for example by combining existing information with new knowledge. (Nonaka 1994, 19; Walczak 2005, 332.)

Knowledge transfer within an organization is usually challenging and often described as “sticky”. These challenges stem from the characteristics of the knowledge, and the characteristics of the situation. Characteristics of the knowledge include causal ambiguity and unproven knowledge. Causal ambiguity describes how well the knowledge can be replicated in new situations. The lack of understanding of the knowledge, why something is done, may result in omissions during the transfer process. Unproven knowledge is the knowledge that has not been put to use and tested thoroughly, and it may be resistant to knowledge transfer as the people do not trust it as much. (Szulanski & Cappetta 2003, 522–523.)

Characteristics of the situation consist of seven potential challenges, mostly related to the source, the recipient, and their relationship and the context of the situation. The source of the knowledge may lack the motivation to supply the knowledge or to facilitate the access in fear of losing status or for the lack of a reward. If the source is perceived as trustworthy, the process of the transfer goes easier as the recipient is more open to the information. The lack of motivation of the recipient to accept the knowledge may show as, for example, passivity, hidden sabotage, or rejection of the information, which leads to a lack of understanding and the lack of feasibility of the transfer. The recipient should have enough prior knowledge to be able to absorb and recognize the value of the new knowledge. The retentive capacity of the recipient is also important for the institutionalization of the knowledge into the routines of the organization. A strong relationship between the source and the recipient eases the transfer process, as the actors

need to be in a contact multiple times during the process, while a weak or incendiary relationship may hinder it. The context of the situation needs to be fertile and open to the process for the knowledge transfer to succeed. (Szulanski & Cappetta 2003, 523–525.)

The knowledge transfer process and its challenges can be divided into four phases: initiation, implementation, ramp-up, and integration. Initiation challenges come from recognizing the place and time to transfer the knowledge. The decision to start transferring knowledge is usually done in an ambiguous situation where the source is not sure of what he should transfer and the recipient is cannot specify how the knowledge will be applied. Documentation is also a part of this phase. Implementation means the situation and process of the knowledge transfer, when the two actors come together and information is exchanged. Communication may pose a challenge at this point when the data needs to be transferred in a form that both parties understand. The source and the recipient will need to coordinate together and not deviate from agreed responsibilities. Good planning can help at this stage. (Szulanski & Cappetta 2003, 519–520.)

Ramp-up challenges start when the utilization of the knowledge begins. At this point it is still possible to correct misunderstandings and lacks from the implementation stage. Unexpected situations challenge the new knowledge and the new environment may result in different result than predicted. Integration phase happens when the new knowledge has been absorbed and becomes a part of the routines. The challenges come when the routines are disturbed so the organization may fall back on previous habits without including the new knowledge. The transfer process is made easier if the possible challenges for each stage can be identified ahead of time. Good planning and also flexibility throughout the stages are important. (Szulanski & Cappetta 2003, 520–521, 526.)

In virtual teams the new members need to be included in an existing team. As they are absent for the preparations and the launch phase, they need to be socialized into the team. Socialization is a process through which a new member of the organization learns the customary norms and expectations. Most of the research on socialization in teams has been on co-located teams, and only recently it has evolved onto the field of virtual teams. Socialization can be done through face-to-face meetings, and through the application of ICT. Different collaborative technologies can be used, such as emails, chat, teleconferencing, intranet, group calendar, and electronic meeting systems. (Oshri et al. 2007, 27–28.)

The socialization processes and the knowledge transfer processes are utilized when a member is replaced. In the case when all of the team members change, they need to complete the knowledge transfer process with the previous team members. In that case they can create their own team norms through the launch phase.

### 3.3 Leadership in virtual teams

Leadership is one of the significant problems in virtual teams (Pinar et al. 2014, 70). The distance and electronic communication methods constrain leadership and make coordination more complicated. After being identified as one of the themes in virtual teams lacking research (Powell et al. 2004, 18; Martins et al. 2004, 821), the topic has received increasing amounts of attention (Gilson et al. 2015, 1319).

Morgeson, DeRue and Karam (2010, 8–9) identify four bases of team leadership in conventional teams. The bases differ in regards to the locus of leadership and the formality of leadership. The locus of leadership signifies whether the team leader is a member of the team and a part of the daily activities, or an outsider. The formality of leadership indicates whether the leader has a formal position in the organization or no direct responsibility for the activities of the team. The bases can be seen in Table 2.

Table 2: Sources of leadership in teams (Morgeson et al. 2010, 8)

		<u>Formality of leadership</u>	
		<b>Formal</b>	<b>Informal</b>
<u>Locus of leadership</u>	<b>Internal</b>	Team leader Project manager	Shared Emergent
	<b>External</b>	Sponsor, coach Team advisor	Mentor, champion Executive coordinator

Internal and formal leaders are people who are assigned to the team as a leader, usually project managers or team leaders, while internal and informal shows as shared or emergent leadership. External and formal leadership represent those who are not part of the team, but who are responsible for its work. External and informal leadership describe situations when people outside the team seek to meet the team's needs. There has very little research on this kind of leadership. Most of the studies have focused on one strand of leadership and not considered that leadership can come from multiple sources at the same time. It is probable that in every given team several sources can be found during its lifetime and the sources can change fluidly and interact. (Morgeson et al. 2010, 8–9.)

The majority of the work on leadership in teams has focused on formal leadership, most likely because of the traditional leadership theories that highlight the role of formal leaders (Morgeson et al. 2010, 6). Similarly, in virtual teams much of the research on leadership in the past ten years has focused on leadership traits and behaviors. Among the studied topics have been transformational and transactional leadership, inspirational leadership, LMX, supportive leadership, cross-cultural leadership, leadership functions, and emergent leadership. (Gilson et al. 2015, 1319) A quick review of literature shows that many of the studies have been conducted on student teams in laboratory setting with a formal internal leader, and a large part of the rest do not make a clear division between a formal internal and an external leader.

Formal leadership in virtual teams has received broad attention, especially the differences that virtuality creates for it. The separate location of the team leader and team members create difficulties in implementing direct control (Hertel et al. 2004, 80). A leader cannot rely on visible symbols of power, such as a seat at the head of the table, to gain support and instead he has to rely on reasoning to make an impact. Leadership needs to be created through interaction, and expertise becomes critical for gaining authority. The leader also cannot rely on knowing the situation of each team member as it is challenging to know what each employee needs. (Lähteenmäki et al. 2010, 197–198.)

Authoritative leadership has been found to lose its strength as the level of virtuality increases (Hoch & Kozlowski 2014, 398), and Pinar and colleagues (2014, 76) report that if the leader behaves as a mentor on one-on-one basis instead of like a formal director, the team members are more likely to share their individual knowledge and skills with the team.

However, transformative and participatory styles of leadership have a positive influence on virtual teams. Transformational leadership is composed of charisma, inspirational motivation, intellectual stimulation, and individual consideration behavior. Transformational leadership has a stronger effect on performance in virtual teams than in face-to-face teams, and a positive effect on team member satisfaction regardless of the team type. (Purvanova & Bono 2009, 352–353.)

Structural supports have also been suggested to be used in virtual teams to support the leadership. Structural supports are structures and routines in the teamwork that regulate the team behavior and substitute direct leadership influence. (Hoch & Kozlowski 2014, 392–393.) They are based on the research of Bell and Kozlowski (2002, 26), who argue that virtual team leaders do not crucially need to monitor and develop team members. According to this view, the leader can distribute these aspects to the team itself, and this way the team can regulate its own performance. Structural supports have been found to be more strongly related to team performance as team virtuality increases (Hoch and Kozlowski 2014; 398, 399).

Virtual teams may prefer leadership methods that delegate authority to the members (Hertel et al. 2005, 82). Virtual team empowerment has been found to positively correlate with learning, process improvement, and customer satisfaction, especially in high degrees of virtuality. The leaders should ensure that the members feel informed about organizational matters, and they should increase communication and coordination across the team. The lack of empowerment can be mediated by increased amounts of face-to-face meetings. (Kirkman, Rosen, Tesluk & Gibson 2004, 184–186.)

Shared team leadership conceptualizes leadership as a lateral and collective process, where the team members share the leadership functions. Though the topic has received popularity in the past few years, the term is not very clearly defined (Park & Kwon 2013, 28–29, 33). In virtual teamwork shared leadership has not yet received wide attention. It may help to create commitment, trust and cohesion between team members, and it may lessen communication difficulties by lowering the barriers between the members. The team members do not need to perform the similar leadership functions as the supervisors, rather they complete acts to prompt the team processes that lead to performance and effectiveness. Shared leadership is positively related to team performance regardless of the team virtuality. (Hoch & Kozlowski 2014, 393, 398.)

Emergent leadership is a form of collective leadership wherein a person comes forward to informally carry out the leadership functions in the team. In virtual teams leadership can emerge from any hierarchical level or from any individual, and its locus can change over time. The lack of face-to-face meetings leads to the emphasis on electronic communication in leadership. (Carte, Chidambaram & Becker 2006, 324–326.) In virtual teams, emergent leaders communicate more and are more committed to the team members (Glücker & Schrott 2007, 40).

### **3.3.1 *Bases of power***

Another way to look at the leadership as an influence over others is through the model of six bases of power, invented by French and Raven in 1959 with the sixth base of power added by Raven later in 1965. French and Raven define influence as a force that can be used to create a change in another person. This taxonomy has later been expanded to cover 14 different bases of power and a power/interaction model. The power in the model is not equal to leadership, as leadership is a larger concept meant to provide a direction and a vision while the concept of power is rooted in influencing others in any situation. According to the original model, there are six different sources of social power that can be used to induce change: coercive, reward, legitimate, referent, expert, and informational power. (Elias 2008, 268–270, 276.)

Coercive power is related to the threat of punishment, and it can be used to force someone to do something that they do not wish to do. Coercive power is dependent on surveillance for it to be effective. Reward power is the opposite of coercive power, as instead of a punishment the user of power can utilize rewards. (Raven 1993, 233.) Legitimate power refers to the power that is intrinsic in the structure of hierarchy, the belief that one has the legal right to use the power and another the obligation to follow (Bruins 1999, 9). Referent power comes from the want of the object to identify with the power user. The object complies because he wants to feel associated with the person or the group and wants to be seen similarly. (Raven 1993, 283.) This kind of power can also be thought of as charisma or admiration. Expert power comes from the attribution of superior knowledge or expertise to the power holder (Bruins 1999, 9). Informational power is based on information or argumentation, and it can be used directly or indirectly to persuade someone (Raven 1993, 235–236).

This taxonomy of power bases has not been applied to virtual team research earlier, and it is interesting to see how these bases relate to this kind of situation. It is very likely that expert power and informational power are emphasized in a situation that relies mainly on ICT communication. As discussed earlier, team leaders need to rely on argumentation to carry out their task, and the symbols of power are not as relevant. Therefore it is likely, that the persons in the team who hold task-related expertise and can communicate effectively emerge with a higher power status. On the other hand, the effect of legitimate power may be lower for similar reasons, and the formal team leader may have less power than expected.

However, a formal leader may still retain the use of coercive and reward power, if the organization has placed the person in a position that allows it. The supervision inherent in managing punishment and reward require communication from the leader in addition to clear task expectations. If the dimension of volunteering is added to the virtual team, the effect of these bases of power diminishes markedly as volunteer leaders rarely have the opportunities to use either rewards or punishments (Posner 2015, 886). Methods like demotion or cutting pay are not utilizable, yet normative punishments such as cutting words or social ostracizing can still be used, though the volunteer may end leaving the organization. Volunteer organizations also may lack the resources for monetary rewards, but normative rewards like praise and acknowledgment are possible.

Lastly, it is difficult to state anything definite in regards to referent power. The willingness to identify with another is possible in virtual teams as well as in regular teams, though team identification has been mentioned as a challenge for virtual teams. The identification very possibly defers to the characteristics of the people involved. In voluntary work, the identification is possible if the volunteers identify with the mission and want to be seen as a person similar to the ideals of the organization.

### 3.3.2 *Volunteer leadership*

Volunteer leadership is a unique construct that is in need of further research. Volunteers as leaders are different than leaders in paid positions. Volunteer leaders often receive authority from bottom-up, from the members of the organization instead of the top management, and they may be hesitant to use it. (Posner 2015, 886.) Volunteer leadership can predict the members' attitudes and commitment to the organization (Schneider & George 2010, 73–74).

Volunteer leaders usually do not have an access to financial incentives to motivate the volunteers, which is why they have to rely on stimulating the intrinsic motivation. They also lack the legitimate power of a paid position so they must face the challenge of volunteers who can choose easily to quit following. Despite this, the leader must be able to motivate the followers to accomplish the goals of the organization while creating enough satisfaction in them that they stay as a volunteer. The volunteers can have multiple commitments and loyalties to different groups within and outside the organization, and they may be more loyal to a cause than a leader. (Posner 2015, 887–888.) In fact, they may not see themselves as followers at all (Catano, Pond & Kelloway 2001, 257). All in all, volunteer leadership requires more energy and effort than leadership in paid organizations (Posner 2015, 896).

Volunteer leaders have been found to have higher levels of transformational leadership than regular leaders (Catano et al. 2001, 260). In general volunteer leaders have been found to engage more in leadership behaviors. Volunteers who engage in leadership behaviors are more strongly attached to the organization (Posner 2015, 894–896). This suggests that empowering team members and shared leadership behaviors may be a way to create commitment in volunteer teams. In fact, volunteer empowerment has been found to have a positive effect on commitment, satisfaction, and intentions to stay in the organization (Schneider & George 2010, 73). Also, autonomy-supportive leadership has been found to have a positive effect on volunteer satisfaction (Oostlander & Güntert 2014, 1380).

Considering these findings in the light of the research questions, it is possible to make some postulations. The first question is “what kinds of challenges the volunteers may face in virtual teams?” The challenges in virtual teams are multiple, but based on this chapter; the challenges involved in the launch and performance management phase will mostly be related to the socio-emotional processes. Building relationships, trust and identification with the team members are a concern, while the communication capabilities of the team may hinder or help it. Knowledge management seems like a possibility for complications if the memberships within the team change. This is one of the reasons why commitment as described in chapter two is important, as the lack of turnover means less time and money spend on educating a new member.

On the topic of virtual team leadership, the research question is “what kind of leadership do the teams have?” It is possible to speculate that the leadership in volunteer virtual teams will not be strongly authoritative. The leadership will have more likely elements of team empowerment and shared responsibilities, and the effect of informational, expert, and referential power may be emphasized over legitimate, rewarding, and coercive power. The empirical study will try to find what the position of the internal team leader is like and what kind of influence he or she has to direct the team, if the members also have influence over the team.

## **4 RESEARCH DESIGN**

This chapter looks at the different methodological choices made in the study. First, the case organization is introduced as well as the participating teams and the criteria why they were chosen. Sub-chapter 4.2 discusses qualitative study and case study research and why they were chosen. Sub-chapter 4.3 shows how the data was collected, and the last part presents how it was analyzed and how the trustworthiness of the study can be measured.

### **4.1 Case organization**

Erasmus Student Network, ESN for short, is an international student organization. It functions in 37 countries and is present in more than 430 higher education institutes. It is a volunteer organization that involves more than 14 500 active members and offers its services to around 190 000 international students. The aim of the organization is to offer “opportunities for cultural understanding and self-development”, and it works in the interest of international students. (ESN Annual Report 2014/2015.)

Most of the members in ESN are non-paid volunteers and students in a university or recent graduates. In total there are less than ten employees. In comparison to enterprises, there is a fast turnover rate with one member usually staying from one to five years in ESN. Because of this, there is a constant change in people and the level of knowledge varies, which makes the knowledge transfer important. ESN functions on three levels: local, national, and international. The local level consists of sections that organize events for the international students and try to involve them in the local student life. The international level is more focused on the advocacy of exchange studies, promoting the interests of international students in EU, and developing the network through supporting the local sections. Lastly, there is the national level that is the intermediary between the two other levels. (ESN Annual Report 2014/2015.)

This research focuses on the national level and specifically on the National Boards. Each country involved in ESN has a National Representative, whose task is to represent the interests of the country at the international level. To support the National Representative, the countries with at least three local sections have a National Board (NB). The task of the National Board is to coordinate the activities, such as national projects and national events, inside the country and represent ESN to national institutions and stakeholders. (ESN Annual Report 2014/2015.) Commonly, the board consists of a president or chair, a vice-president, a treasurer, a communication manager, an IT manager, and project coordinators whose titles vary between countries. The sections elect the national board members at a meeting of all the sections in the country. Usually, the

national board members come from various sections, and they hold their position for one year. Often the local sections are located in different cities, which means that the national board members have to rely on electronic communication tools for their cooperation.

The organization of the network is also relatively loose, as every section and board is independent in the net and makes its own decisions. There are no direct supervisors or executive directors, and the association members are supposed to organize their activities autonomously. Despite this, there is a level of control that comes from peer-supervision. The sections monitor the work of the National Boards, and the National Boards oversee the work of the international level and each other.

The National Boards can be considered as executive boards of the ESN organization of a country. The network is organized so that each section is an independent association, and together the associations form an “ESN country”, an association itself that the National Board governs. Normally governing boards have an executive who is responsible for the day-to-day work of the association (Tschirhart & Bielefeld 2012, 207). In the case of ESN, the organization is small, funds are low and the members actively interested, so the board is a “working board” that is responsible for doing all the work together. Most of the boards have volunteers in support functions, such as taking care of particular projects. A very few of the National Boards have an employee or someone doing an Erasmus internship to support the work of the board.

The duties of the governing boards of non-profits are setting the organization’s mission and vision, selecting and supporting the chief executive, overseeing the finances and ensuring resources, maintaining accountability, strategic planning, recruiting new board members, enhancing the organization’s public standing, and monitoring and strengthening the organization’s projects (Tschirhart & Bielefeld 2012, 203). The tasks of the National Boards follow along these lines apart from the selecting and supporting a chief executive. Additionally, the boards complete tasks that nationally benefit the organization and the sections, and work actively towards the organization’s goals.

Six teams were chosen from the case organization based on two main criteria. The teams had to have been active for at least three months, and the members had to be located at least in two different cities. This information was retrieved from the ESN intranet. In order to obtain a broad view of the network, the countries that were suitable were then allocated into five geographical categories that are used in ESN for regional meetings. The categories chosen were North European countries (NEP), West European countries (WEP), Southwest European countries (SWEP), Southeastern European countries (SEEP), and Central European countries (CEP) (Regional Platforms 2014). The aim was to interview at least one team from each category. In addition, the teams were selected to acquire a broad view of the team lifecycle, so that the included teams were at the beginning, middle and end of their mandate.

### **4.1.1 Participating teams**

Team North-1 had been active for three months at the time of the interviews. They had had difficulties in filling the board positions, so the members were elected at different times and they were still missing a president. In total the team has six members from four different countries. They have meetings approximately every other week on Google Hangouts and use English as their meeting language. In addition to two initial knowledge transfer and working meetings they have met face to face mainly in the ESN statutory meetings.

Team North-2 had been active for approximately five months at the time of the interviews. Already during this period the president of the board had resigned, and the number of members decreased to four. As the team is based in a relatively small country, most of the team meetings had been face-to-face so far. They meet approximately once per month or more often if necessary. Between the meetings they communicate by using Skype and emails. The team is one of the first national boards in this country.

Team West had been active for five months at the time of the interviews. They use emails, Skype, and phone to communicate and hold their meetings about once per week. The team sent in only one email response, so their answers will only be used to supplement the responses of the other teams.

Team South consists of six members and one employee. The team has videoconference meetings approximately once per week, and in between the meetings it communicates mostly with emails, but also with phone calls and Facebook. The team had been active for five months at the time of the interviews. The team is multi-national but communicates using a language that is common to all members.

Team East has six members, and it had been active for seven months at the time of the interviews. They use multiple communication channels: emails, Facebook, phone, Google hangouts for videoconference, and Whatsapp–messaging service. The team holds their meetings approximately once per week in their national language.

Team Central is the oldest of the teams; they had been active for eight months at the time of the interviews. The team has seven members, and it holds meetings approximately once per week. The team communicates in their national language by using Skype, emails, phone, Facebook, and Trello–project management tool.

## **4.2 Research approach**

The purpose of this study is to examine the challenges and leadership in virtual teams in a volunteer context. This study uses a qualitative research approach to do it. This approach is used to explore different social or human phenomena in their natural settings,

building a complex and rounded picture. The research often uses a “how” or “what” question on a topic that needs to be explored. (Cresswell 1998, 15–17.) The qualitative approach includes a variety of research methods, one of them being the case study. (Flick 2002, 7.)

Case study method focuses on one or more particular examples of a phenomenon. It aims to give a comprehensive view of the case, and it is a common way to conduct research in social studies. (Descombe 2007, 35.) Case studies are a good approach when the “how” or “why” questions are used, when the researcher does not have control over the events, and when the phenomenon in question is contemporary and exists in real life. Commonly case studies have been used in exploratory, descriptive, or explanatory studies. (Yin 1989, 13–16.)

A case study design can have single or multiple cases involved. A single-case design is useful when the specific case is critical, revelatory, extreme, or unique in some way. A multiple-case design includes multiple individual cases though the same criteria as in a single-case design cannot be used. Each case should be selected so that they either produce similar results or conflicting results for predictable reasons. (Yin 1989, 47–53.) The cases are selected on known attributes, and the criteria for the selection needs to be made explicit. (Denscombe 2007, 39.) With multiple-case study, it is common first to perform within-case analysis of each case, followed by cross-case analysis among the individual cases (Creswell 1998, 63).

This study aims to explore the topics of virtual team leadership in a volunteer context. More exactly, it aims in to discover what kind of challenges there are and how do they show in the teamwork. This fits with the objectives of qualitative research and case study design. The research design is a multiple-case study, as multiple teams were chosen from one organization to show the different aspects of the issue.

This study utilizes interviewing as a research method. Interviews are suitable for exploration and for gathering insights into people’s opinions, feelings, and experiences. They can help to discuss sensitive issues and allow access to privileged information. (Denscombe 2007, 174–175). This is suitable because the virtual teams have not been studied in a voluntary setting before, and therefore people’s experiences and knowledge are instrumental in creating knowledge about them. Discussing the challenges in teamwork can be considered as a sensitive issue that the team members may not wish to discuss otherwise.

### **4.3 Collection of data**

The main data for the study was collected with interviews from six different teams. There were altogether 12 interviews, out of which nine were held on Skype and three

with emails. The participants were volunteers from the contacted teams. To ensure the anonymity of the interview participants, they are addressed with Finnish names in the interview excerpts, and the names of the teams were changed according to their geographical location. From each chosen team, the goal was to interview 2–3 members, but at the end the goal was not reached with all the teams due to difficulties in getting in contact with the team members.

The team members were contacted either by email or on Facebook between August and September 2014. The first participants were found in a Facebook group by posting a message a message about the research and asking for participants. The rest of the participants were obtained by sending individual Facebook messages and emails to potential teams. After obtaining the first contact, the date and time of the interview was decided together. The first person contacted from each team was asked to complete a short questionnaire with general information on the team before the agreed interview time. Two teams did not fill in the questionnaire before the interview, so for those teams the questions were covered during the interviews.

The interviews were held over Skype, which is free online software that provides phone and video calls to phones and computers. The participants were able to choose the location of the interviews and in this way it was very convenient as they could answer to the interview from the comfort of their home. It was assumed that all of the participants knew how to use Skype, as it is a common tool in virtual teams and in ESN. Skype and other video conferencing tools have been suggested as a viable alternative to face-to-face or telephone interviews. It is a good tool for having interviews with participants from different locations, as it does not require money or travel time. It also allows for video and sound so that the researcher can also see the expressions and body language of the participants. (Hanna 2012, 241.) The web camera was only used in four of the interviews, as the Internet connection was not good enough. During the interviews there were some technical problems. For a few interviews the quality of the sound was not good, which made understanding each other and transcribing difficult. For one interview, the Internet connection was a problem and there were long delays up to two minutes at a time, and at one point the call had to be restarted. On average the calls lasted for 52 minutes, ranging from 35 minutes to 1 hour 5 minutes.

In addition to Skype, three interviews were held with email. Team West and the two other individual participants were sent a structured set of questions on a single document that they had to send back when completed. In the document, it was also emphasized that the answers are confidential and should be answered according to the participant's own experiences. The participants were given a one or two-week deadline to return the paper. For Team West, the only contact was with emails, mostly between the researcher and a single representative from the team. From that team only one answer was received despite reminders, and for this reason the data from this team is only used

to support the findings from the other teams. The data gathered with emails was not as detailed and diverse as from the Skype interviews; many of the answers were short and some questions misunderstood or the answers were omitted. Table 3 and Appendix 2 show the basic information on the teams and how the interviews were held.

Table 3: Information on the participating teams at the time of the interviews

<b>Team name</b>	<b>Region</b>	<b>Active for</b>	<b>No of team members</b>	<b>No of Interviews</b>	<b>Interview type</b>
North-1	NEP	4 months	6 (7)	3	Skype
North-2	NEP	5 months	5	2	Skype
West	WEP	5 months	8 (9)	1	Email
South	SWEP	7 months	6	2	Skype & email
East	SEEP	7 months	6	2	Skype & email
Central	CEP	8 months	7	2	Skype

The Skype interviews were held as semi-structured interviews because the participants are more likely to express their opinions more freely than in structured interviews (Flick 2002, 74). The questions were divided into six themes, and while the exact form of the questions varied the themes remained constant. Some of the questions were in a more structured format in order to receive within team comparable data, such as grading the team performance, and question one in Appendix 1. The email interviews were very structured due to their written format, but all of the questions were open-ended to give the participants a chance to write their opinion freely. As most of the email interviews were held after the Skype interviews, some of the questions were specified on a team level.

#### **4.4 Analysis of data and trustworthiness of the study**

The aim of data analysis is to identify the core elements that explain the nature of the thing being studied, in this case the organization of volunteer virtual teams. (Denscombe 2007, 247.) Data collection and data analysis are often related, as the inter-

pretation of the data may lead to further data collection (Flick 2002, 176). This is also the case in this study, some of the topics that emerged in the first interviews, such as knowledge transfer and the lack of a president, were explored more closely also in the further interviews. Data analyzing generally follows five main stages: data preparation, initial exploration of the data, analysis of the data, representation and display of the data, and validation of the data (Cresswell & Plano Clarke 2007, 129).

The first stage, preparing data for analysis consists of collecting data in a form that can be used in an analysis. (Denscombe 2007, 289.) In this case, it means preparing the recorded interviews. The interviews were recorded with the participant's permission and transcribed afterward. In total, there were 48 pages of transcribed text in addition to the three email responses. Following the data preparation, initial exploration of the data means reading the transcriptions and familiarizing with it before moving on to the analysis of the data. This process consists of coding the data, categorizing the codes, identifying relationships among the codes and categories, and developing concepts. (Denscombe 2007, 290–292.)

The analysis of this data was done on two levels: team level and all teams together, as suggested by Cresswell (1998, 83). The data was first read thoroughly, and each paragraph was given one or more rough substantive codes representing the content discussed in it. After each team had been coded, the data was gathered to team level under corresponding codes. On the team level, the content was organized under the codes. The coding was refined as the content under the code was differentiated, and similar contradictory issues were identified. This within-team analysis enabled in forming a typology of the team, an understanding of how the interviewed members altogether saw the situation in the team.

The analysis then proceeded to cross-case comparison of the team-level analysis, bringing all the data to be categorized together. Breaking the team typology, the codes were organized under larger categories. The categories emerged partially according to the themes of the interview questions and partially from the data. Eventually after further refining the analysis arrived at five broad themes: leadership in teams, teams without a president, knowledge transfer, communication, and volunteer, which were then divided into concepts of leadership and challenges in volunteer virtual teams.

The fourth stage of the analysis, data representation happens throughout the writing process, and the results can be read in chapter five. As data analysis tends to move between the different stages (Denscombe 2007, 288), writing this study was very much involved in further categorizing of the codes, and helped to form the final concepts. The last stage, validation of the data means verifying that the data is true and the results credible. (Denscombe 2007, 296.)

Verification of the study is necessary for qualitative research. The researcher needs to demonstrate that the findings are based on acknowledged practices of proper research

conventions and not on the researcher's imagination. It is hard to replicate a qualitative study as the people under study change, and the persona of the researcher guides the interpretation. (Denscombe 2007, 296–297.) Still, there are multiple ways to assess qualitative research, one of which are criteria created by Lincoln and Guba. The four dimensions that can assess the validity of qualitative research are credibility, dependability, transferability, and confirmability (Flick 2002, 228).

Credibility describes the internal validity of the research, how reasonably likely the data is accurate and appropriate. Credibility can be increased with triangulation, grounded data (Denscombe 2007, 297–298), community validation, and prolonged engagement and persistent observation (Flick 2002, 228–229). The researcher has been a member of the case organization for multiple years and previously a member of a National Board though not one of the teams under scrutiny. This gives depth to the interpretation as her understanding of the work of the teams in their context helps to guide it. Unfortunately gathering data through email interviewing did not work as well as hoped, and some of the answers were brief and lacked in depth. Skype interviewing created in part similar issues as phone interviewing. Some of the participants answered briefly and had to be asked multiple questions to keep up the conversation while the language and Internet connection quality created additional challenges. These challenges were met with a thorough cross-analysis of the interviews to find out possible conflicts, and follow-up questions were sent when inconsistencies were found. The data and results in this study were also validated by National Boards Coordinator, who is responsible for coordinating the information flow between the National Boards in international matters of the organization. Her comments on the results were aligned with the research and helped to clarify some issues.

As the circumstances of a qualitative study are different each time, it is impossible to replicate the study and get exactly the same results. Dependability measures whether the results would be the same with similar methods when performed by another researcher. In other words, the research process has to be logical and documented so that the reader can determine how the conclusions were reached. (Merriam 2014, 220–223.) The research process in this study was documented and described. The interviews were recorded, which allows for repetition of the analysis. As a method, interviewing relies on self-reported data, and it is possible that the interviewees were not completely honest if they tried to smooth over some edges in the teamwork. They also may not have wished to say bad things about their teammates despite being assured that the research was completely confidential. In addition, volunteering was not directly addressed in the interviews, though the context of it was all the time present. Observation and a longitudinal study might be better suited for studying leadership, but due to time restrictions they were not possible.

Transferability indicates whether the results of the study are applicable in other contexts. The transferability is determined by the reader or the user of the results, how well the data compares to another context, so the writer must give a detailed account of the study. For example information on how the results correspond with previous studies on the same topic, relevant details, and a rich description of the case help the reader to determine how representative the cases are. (Merriam 2014, 223–227.) The teams chosen for this study were described and chosen according to criteria that allow a wide representation of the teams in the case organization. The results may apply to other similar teams in ESN and other similar student organizations. On the other hand, the results may not be directly applicable to all volunteer organizations due to differences in the structure of the organizations. Multiple case organizations would have been needed to gain that level of transferability.

Confirmability describes the extent of which the researcher affects the results of the study. The researcher is always present in the analysis, but the role should be clarified, alternative explanations explored, and the researcher should keep an open mind during the process. (Denscombe 2007, 300-302.) As the researcher has been a member of the organization, the observations and interpretations may be biased towards her experiences, and another researcher may have directed the research to other areas. To avoid this, the researcher tried to keep an open mind while collecting and analyzing the data and explored other possible explanations.

## 5 FINDINGS

This chapter presents the findings from the analysis of the interviews. The first three sub-chapters are focused on the challenges of the volunteer virtual teams. These sub-chapters discuss how the teams function, and what kind of issues the participants have faced. Sub-chapters 5.4 and 5.5 discuss leadership in the teams, first through the leadership functions that the participants describe, and then through the cases of two teams who did not have a formal internal leader. The cases try to shed light on the situations where there is no formal leader.

### 5.1 Building common ground

The National Board members of the participating teams come from different local sections located in different cities, although a few of the members come from the same sections. Usually the members had been involved in the organization at least for a few months before their election to the position, and some had met each other earlier in the events the organization holds. In some teams, a member was new to the organization, for example when the position required specific skills, such as IT manager. Generally all of the interviewees state that they do their position-related tasks alone without help from the others. They receive feedback from the team members and aid for their tasks if they ask for it. Some of the tasks are done jointly as a team, for example the action plan.

All of the National Boards met soon after their election. Five of them held a kick-off meeting, and Team South was able to meet in another official function. The first meeting allowed the members to establish interpersonal relationships, which leads to fewer misunderstandings, for example with the other members' tones of voices.

*I hope that it brought us all a little closer, and we learned to understand each others' voice tones and such. Before when we had meetings if someone's tone was very direct then you saw it as quite rude, but now that we've met and know the person behind the voice you don't get the tone wrong but understand that it's their way to communicate things. I think this will help us a lot in working together. (Annika, Team North-1)*

Most of the National Boards hold occasional face-to-face meetings in addition to the initial kick-off meeting. The amount of these meetings varies a lot; Team East holds only one additional meeting while Team Central has six meetings. Additionally the members meet in the events organized in the network. They members have found that the face-to-face meetings allow the team to discuss things more effectively, even the

more difficult matters, and to build relationships further. During the face-to-face meetings the teams combine both task-related discussions and social events. During the meetings, the National Boards, for example, hold strategic discussions and organize a barbecue or go to an amusement park. However, for the regular work of the team the meetings are not necessarily seen as critical.

*Maybe [the meetings] would increase the team spirit, but I still think we have that. [—] I don't think it's necessary to meet more often, but it would be nice because they are my friends. (Anneli, Team North-1)*

All the National Boards hold regular meetings usually more than once a month. All teams except North-2 hold the meetings as tele- or videoconference with a free online software, Skype or Google Hangouts. Although the tools allow for videoconferencing, not every team chooses to use the video function. Apart from the meetings the teams communicate using mainly email, Facebook, and phone calls. The use of emails is seen to be more for formal issues while Facebook and phone calls are used for more urgent messages. Facebook is also used for reminders and informal discussion. The team members all are comfortable using these technologies, though some described an initial learning process. All of the team members have experienced some challenges with communication. Generally the team members feel that discussions are easier when held face-to-face, as with electronic communication it is hard to express everything completely.

*Sometimes it's difficult to describe exactly what is the task and what I really want from the other side. If you would meet in person, you would just draw a sketch or something. It's really difficult to express your feelings as well. Sometimes the information gets lost. [—] Sometimes there were some misunderstandings, especially via email, because with an email you can't express yourself 100 % [—] and then you have to define that you didn't mean it in a bad way and so on. [—] It's much better via Skype when you can check if they understood or not. (Eemeli, Team Central)*

On the other hand, writing emails can be clearer and later on help to keep track of what has been discussed. The emails allow for better recollection of what has been written and time to formulate the answers. Two of the teams communicate in other than their national language, so this time be helpful for them for language reasons as well. In general the team members have experienced frustration, especially if the replies to communication are not timely. One of the interviewees emphasizes that in virtual communication the members have to be proactive.

*The way I work, if I need information I'm not waiting for the Skype call or sending an email, I'm calling someone to contact him. [—] It's just that the people have to take the responsibility of contacting. You don't have to wait for the people to contact you, you can also contact the people. But the problem is that not a lot of people are aware of it. (Mirva, Team South)*

Most of the teams do not share much non-job related information over ICT, or they feel that the amount of it could be higher. The teams use mainly the teleconferences to discuss personal issues, but only at the beginning or at the end of it. Team East uses a messaging service Whatsapp for social purposes by exchanging short messages and humor daily, and Team South also uses Facebook as a way to share social information and strengthen relationships.

*We have this Whatsapp-group, and we use it every day, there's not a single day when we don't write something, something not even connected to work. It creates a relationship between the board members that goes beyond the simple fact that we are a part of the same board. [—] We often talk about stupid things, our private life, making jokes together. It's very intimate. (Jani, Team East)*

Apart from Team East, all teams indicate some challenges with building trust or relationships. Some mention arguments and misunderstandings among the team members, the lack of equal involvement of all members, or a general feeling of a lack of cohesiveness. The members find it difficult to get to know the other members well through the ICT, and some find it difficult to be efficient without knowing their colleagues. The lack of trust is also a challenging, as observing what the other members are doing is nearly impossible. The key way, how the team members measure trust is by observing if the others complete the tasks they promise to do.

*At the beginning I think we were we were like a bunch of individuals. [—] And the people don't understand each other because they have these different points of view. [—] I think the team could work much, much better if we were really friends, and I don't feel like it. [—] It's getting better though, but when it will be ok, we will just split at the end of the year. (Eemeli, Team Central)*

Despite these issues, the National Boards can function well, and for most of the teams these problems are momentary. Team Central seems to struggle more with building relationships, however, despite this their satisfaction with their work is on a similar

level with the other teams. Their overall situation seems to be "not friends, but colleagues". This shows that despite challenges in relationship building, it is possible to create common ground for teamwork. Generally the members are satisfied with their teams but feel that they have not achieved everything they have aimed to do.

All in all, the lack of prior shared work experience and reliance on ICT can be overcome through active communication and occasional face-to-face meetings. Misunderstandings and frustration are imminent, and so are momentary trust problems, but choosing to use teleconferences or face-to-face meetings to discuss these issues may help.

## 5.2 Sharing life with volunteering

The key issue that separates volunteers from paid workers is the fact that volunteering is done during free time from other obligations, and it is as such a part-time commitment. This means that there are other matters that a person often must do before taking part in voluntary activities, such as work, school assignments, or social life. The way these activities are prioritized differs from a person to another, and in a team it can lead to problems in finding a common schedule or enough motivation for volunteering.

The most visible way the prioritization issues show in the study is in problems with scheduling. All of the teams mention difficulties in finding a common time for their meetings. Many cite work, studying or travels, or completely different ways of organizing their day as an issue. This affects the time of the meetings as well as the day, and a few of the teams indicate having their meetings occasionally very late in the evening or during the weekends. Especially during the summer vacation from universities the teams have found it difficult to locate a common time, and all the teams have had fewer meetings during this period. Generally the attitude towards these scheduling problems seems to be accepting, although they are seen as an inconvenience. This is most likely because each team member has experienced similar issues. It seems that despite the discussed problems with scheduling regular meetings, the teams have been able to overcome these concerns.

*Basically it's not easy to have a meeting. [—] We're all busy people, for example, me I have to work and study and do other stuff than volunteer, so it's hard for me to have free time, and my colleagues the same because they have to work and study. (Susanna, Team North-2)*

The participants rank working and studying as their first priority in life, which seems natural, as volunteering is only a hobby for them. The prioritization is related to motiva-

tion and commitment to volunteer; generally because of the nature of volunteering the team members are highly motivated and willing to work long hours. Still, not all members have the same levels of commitment, and this shows as some members of the teams being described as “inactive” or they might “disappear”. In four of the teams a member either resigned or had to be made redundant due to the lack of involvement. Sometimes the tasks just have not been done when they should have been, or the team does not receive answers from a member without prompting. This can slow down the work of the whole board.

The work of the National Boards involves attending different events and conferences apart from the regular team meetings over Skype. These events create an additional load on the members as they often take at least a weekend. Additionally, because of the distance between the members, the occasional face-to-face meetings tend to take a weekend. All of these add extra time spent on volunteering.

*[Face-to-face meetings] more often could definitively be better, but not with a volunteers board. Our current virtual meetings, events, and other responsibilities are enough for me, for now. (Pete, Team South)*

In some cases, high involvement in the organization can lead to negative repercussions. Too many expectations, tasks or projects, can lead to stress, overworking and burnout. The following quote illustrates the feelings of a highly involved and committed volunteer.

*[My biggest challenge has been] sleeping... Finding time for myself. And also accepting [that some things] will not be done, it's not my responsibility to do it. [—] Also time management, I would say. Like when we started, I wanted to do tasks for like 20–25 hours a week, [—] I spent much more time on this and I lacked sleep, and I felt so stressed [—] It was very time-consuming. In the top 3 weeks, it was 30 or 35 hours per week sometimes. Sometimes you spent the whole weekend on it. (Mirva, Team South)*

The working term of the teams also affects the motivation of the team members. At the beginning the members are highly involved, motivated to start their work. During the year the work becomes routine, and at the end of the term the motivation is much lower. At the end of the term the biggest issue is finishing the current tasks, and preparing for the knowledge transfer, as the old team usually does not have enough time to begin new tasks.

*It's refreshing to work with new people, the people at the end get tired and not so motivated, like it's over soon anyway. I felt that this group really wanted to start up and it's driving me as well. (Onneli, Team North-1)*

Altogether the part-time membership shows through the varying levels of activity from the team members. During some periods the commitments of the members may slow down the work of the whole board, but on the other hand, the members might get so involved in a task that they do more than their share.

### **5.3 Keeping the knowledge continuity**

Knowledge transfer creates a uniquely challenging problem for volunteers, and it is especially difficult when working as a virtual team. Few other types of organizations completely change their team at the same time with an expectation that the work will continue in a somewhat similar way without a pause. In a more traditional volunteer situation the old members train the new ones while continuing their work, but in National Boards the transfer period is quite short. Added difficulty comes from the distance between the members. How to effectively transfer the knowledge and wisdom of the old team to the new one is a question all the National Boards seem to struggle with at least on some level, and there seems to be no easy solution.

*You have a board that works really well, accumulates information and learns so much. [—] Even if you have the best motivation, at the end you don't care. I've seen this happen and it's so sad. This is a major disadvantage that we have in working this way. [—] That also makes the start-up period so long. I also think you're not so perspective to the information you're getting from the predecessor. (Onneli, Team North-1)*

Generally the participating teams deal with the transfer by sharing explicit knowledge in the key documents, and implicit knowledge by having individual discussions between the previous and new position holder. The discussions can happen over Skype or face-to-face if the persons live in the same area. In addition to these individual-level knowledge transfers, it is also common for the teams to transfer group level knowledge by holding a transition weekend together with the old board, or at least among the new board members. During this transition weekend the board members have time to converse with the old members and plan for the upcoming board term. The former members give instructions about the formal issues or topics left uncovered, but rarely about working as a team. The meeting can also be essential for creating motiva-

tion and for getting to know the team members. Of the teams in the study, only Team North-2 did not have a group-level transition weekend, but they would have preferred to have one. One interviewee feels that the individual level transition was not enough.

*I would have preferred to have a meeting all together, like a transition weekend, stating more clearly the expectations from each other. The knowledge transfer happened from person to person, but for some reason I don't think it works so well. (Mikko, Team North-2)*

Many mention that they are still able to keep in touch with the previous position holder and ask them questions if needed. If the teams had members who were re-elected to continue from the previous board term, these members were able to help to speed the transition process and by helping the new members to adjust to the teamwork. A few teams started their transition by following the meetings and emails of the old board for a while before starting their term officially, and in some teams the old team followed the meetings of the new team later.

Still, as stated, the knowledge transfer does not always go as well as hoped and the new position holder does not receive all the information. As happens in volunteering, sometimes the motivation of the previous position holders end and they can “disappear” before they can transfer the knowledge. In those cases the rest of the old board have to instruct the new member as much as they know.

*The previous vice-president was involved only for half a year and didn't even come to the meeting, so I had the transfer only with two members of the old board. [—] So the knowledge transfer wasn't the best possible. There weren't any previous position holders, so I didn't really get exactly what's included in the role. [—] I got a long Facebook message and some login information [—] to Dropbox and Drive, so I got to search the info myself. (Annika, Team North-1)*

Sometimes the transfer does not happen completely because of incidents, such as forgetting a part of the material, or it just is forgotten. In these cases the interviewed members seem to be able to manage without the missing information or they learn it on their own. Perhaps, if the missing information had been more important, they would have been in contact with the previous member to ask for the information. These kinds of problems with information can inspire the new members to start to prepare early for their own knowledge transfer to the following board. As it seems easiest to ensure the knowledge continuity with explicit documents, one of the participants had started exter-

nalizing his knowledge by capturing his experiences in an explicit form, a document with advice for his follower.

*[The previous position holder] didn't give me any advice on how to develop this kind of project. That's what I did after closing the project, I wrote down the phases of the project. [—] Because I saw it personally how important it is, and I found it difficult to start without a good knowledge transfer, especially in particular things, like this project. (Jani, Team East)*

At the end it is not possible to transfer all the knowledge even if the transfer is organized well. The new members are not able to understand all the information that is given to them, and the old members do not remember all that they should transmit. Additionally, if the board members are not selected at the same time, it makes transferring the information especially challenging. Some of the information might not be appropriate for the new team if they have a different way of working. The new team will in any case have to experience its own way and learn on the way.

*In the beginning, just after the transition period, we thought we knew a lot, but after the first few weeks it was completely off the table. The transition I thought it was done in a proper way, but there are always these things you can't transfer, you just have to experience it know it. [—] It's not possible to tell everything in one day or weekend. A lot of things are new, so they are not able to give you any advice, so you just have to deal with the situation. (Eemeli, Team Central)*

As the transfer of the team regularly happens each year, there is a danger of losing valuable information each time, which is why the period should be handled appropriately. The knowledge transfer seems to consist of four parts: old board preparing the documents for the new board, new board following the work of the old board, transfer meetings on individual and group level, and follow-up period with the possibility of asking for more information if needed. These are faced with two critical factors: the motivation of the old board to finish the knowledge transfer period appropriately, and the new board paying attention to the information they are given and actively seeking for missing information. Most of the teams described clear procedures for the transfer period, but despite them the transfer period was not always successful.

## 5.4 Leadership processes in volunteer virtual teams

Leadership is not an easy process in the National Boards. The volunteer aspect creates a need for the leader to balance between directing the team and losing the intrinsic motivation of the members. The following quote shows the underlying dichotomy well.

*Sometimes it's more difficult to get the things done because people are really busy, or ESN is not a priority for them. But on the other hand, the people are more motivated to do their tasks because they chose to do so, they feel the responsibility. I think this is the most important aspect of the whole team cooperation. Sometimes, from the president's point of view, it's difficult to assign the tasks. I could push much more, but in this voluntary stuff, I'm aware that they're doing it in their free time and I shouldn't push it too much because they would run out of motivation and energy, and I would just destroy them. (Eemeli, Team Central)*

The balance is one of the key reasons why being a leader is challenging for the National Boards, and additional stress comes from utilizing the electronic communication methods. Four out of the six interviewed teams state that they do not have a clear leader, and only in Team East do both interviewees agree that the president is the leader. Team East has a charismatic president who with his strong personality and charismatic behavior directs the team.

*He is the head of our group and, in my opinion, it is good that in a board there is a clear leader because it is a bit difficult live side by side with 5 or 6 different characters, ideas, and opinions. There could be a person that is a little bit stronger than the others. He has all the qualities of a leader, he creates the right balance between the board members and he is able to organize and plan the tasks of the board. (Jessica, Team East)*

In Team Central the leader tries to stay more in the background. He describes himself as follows:

*I'm trying to be a normal team member. I'm trying to instruct other people what to do and I'm checking if they do it, but I'm not a strong leader in the leadership skills. I'm usually in the background and supporting the others, I'm trying to motivate them and trying to show them how it should be. (Eemeli, Team Central)*

However, the other interviewee of Team Central states without hesitation that their president is their leader, and he “pushes them to do things”. This shows that while he might not be a similarly strong leader as in Team East, he still influences the team strongly, and the team members follow his example. Generally, the National Boards show themselves rather equal when inspected through the decision-making and task division processes.

The decision-making and the task division processes in the National boards are quite equal. All of the teams describe their decision-making process as “discuss and vote”, and many decisions do not even need voting, as the opinions of the members are unanimous. In the case of disagreements the teams prefer to solve them by discussing and finding a common solution. Only in a few teams the president has the decisive vote in an even voting situation. The more actively involved team members can have more effect on the decision, if the other members do not feel any particular interest in the topic under discussion.

The task division in the teams is very strongly based on the roles the team members hold. The team members are elected to a role, such as “communication manager”, “president”, or “IT-manager”. The task division strongly reflects these roles, as usually the team members automatically take on the tasks that belong to their position.

*I think everything is already set. We don't have to divide any tasks, because everything is already written in the descriptions of the positions. So it doesn't happen very often that we are facing a task, which wasn't defined yet (in the descriptions). (Oiva, Team Central)*

The situations when a member does not automatically take the task are rare and more difficult. In those situations, the task is first given to someone who wants to do it or who has the best capabilities for it. If no one is willing to do the task, it might be taken in pairs, assigned to someone, or left undone. On the whole, the interest in the task, the field of study or experience of a person, and the amount of time someone has available to do the task are considered in the task division. Similarly as with decision-making, some people are more active and will undertake more tasks than others. Apart from decision-making and task division, some other tasks related to leadership are also distributed among the team members.

This study looked at the leadership tasks by asking the participants a question based on Quinn's model of leadership roles (Denison, Hooijberg, Quinn 1995). The model describes eight behavioral leadership roles that a leader can express: innovator, broker, producer, director, coordinator, monitor, facilitator, and mentor. The model has been used to research leadership styles, but this time it was applied to create a subset of questions on leadership behavior that the team members might exhibit. The question (no 1 in

Appendix 1) does not accurately represent the leadership roles as there is only one question per role, but it can give an indication if the leadership responsibilities are shared with the team members in these areas or concentrated on one person, and work as a conversation tool. The answers to the question were compared among the team members and the compilation can be found in Table 4.

Table 4: Leadership functions

<b>Function</b>	<b>Quinn's role</b>	<b>Shared or not</b>
Organizing and coordinating meetings	Coordinator	President or Secretary
Negotiating compromises and facilitating cooperation	Mentor	President or experienced members
Making sure everyone knows what to do and what is expected of them	Director	President or experienced members
Looking for more resources and missing information	Broker	Everyone in the context to their own task
Coming up with new ideas and new ways of doing things	Innovator	Everyone, some more involved
Encouraging discussion and asking for opinions and suggestions	Facilitator	Two to four members
Initiating tasks and motivating others to finish tasks	Producer	One to three members
Making sure everyone has the necessary information	Monitor	Unclear

Three leadership tasks are concentrated on certain persons in the teams: organizing and coordinating meetings (coordinator); negotiating compromises and facilitating cooperation (mentor); and making sure everyone knows what to do and what is expected of them (director). Meeting coordination is always the responsibility of one person, usually the president or secretary of the team. In the cases where there is no president, the task is allocated to a member with the most experience in the team. "Negotiating compromises and easing cooperation" is a task also mainly done by a president, although in the case of the teams without the president, the more active members try to take care of it. The president and the National Representative mostly handle the task "ensuring everyone knows what to do and managing expectations".

"Looking for more resources and missing information" (broker) is a task clearly done by everyone in the team. Generally every member is seen as responsible for finding resources in regards to their own tasks. "Coming up with new ideas or new ways of do-

ing things” (innovator) is also shared among the team members though some members can be seen as more innovative because of their personality. “Encouraging discussion, and asking for opinions and suggestions” (facilitator) is also mostly shared among the members yet usually not everyone engages in this equally. Usually between two to four members were mentioned as more active in this role.

“Initiating tasks and encouraging others to finish tasks” (producer) is not clearly a shared or concentrated task, however one to three members were usually mentioned as a response. Most participants claim that the president should be taking care of this function, but in the case of Team South the president received no mentions. This can mean that the function partly depends on the personality and the leadership skills of the president and is not directly position related. “Making sure everyone has the necessary information” (monitor) received the most conflicting answers from no one, certain people or everyone. This can mean that the task is not taken care of in all of the teams, but also that it is not necessary either. In a similar way to the broker role, some answered that each member was responsible for gathering their own information.

These leadership tasks show that some functions are shared in the team, and some are concentrated to certain people. Overall organizing and directing the performance of the team falls upon certain people like the president, but in general the team members are independently responsible for their own tasks and finding resources for them. Some of the functions may be more personality related, as some people are more comfortable with coming up with ideas or motivating others. Some team members feel that there could be more coordination, and that the producer role should be performed more strongly.

It seems clear that taking an active involvement in the team and communicating more leads to having influence over the team, and the formal role of the member does not set limits. The use social power is in the hands of the team members and not limited to the president. While informational power is a probable form of influence used in virtual teams, it was not observed in the interviews. Most likely direct observation of the teams would have revealed the use of it. The most easily observed base of power is the expert power. In the teams, the clearest holders of the expert power are those, who had been a part of the National Board before and continued to another term or those, who otherwise have been a part of the organization for a long time. These members hold power especially in knowledge transfer and when there is no formal leader, but they hold influence over the team otherwise as well.

The use of coercive and rewarding power is low. Only one case of coercive power showed in the study as both teams West and South had made a team member redundant. The member had not completed their tasks satisfactorily, and in both cases the teams had discussed and decided as a team. None of the teams in the study have any rewarding system, and most have not thought about creating one either, probably because of mone-

tary reasons. Apart from monetary rewards, it would be possible to give out non-monetary rewards, for example acknowledgments of some kind. One team had brainstormed an idea of “ESN stars” that would be given for good performance, but this idea had not been implemented. The only acknowledgment the interviewed teams mention is a verbal “good job” as a feedback for a done task.

The president holds the legitimate power in the teams. He or she has been elected to it, and under the law the position holder has the authority. However, looking at the decision-making patterns of the teams, only Team East clearly states that the president holds an extra-weight on his vote in the case of a disagreement. Even then, he can be overruled if the majority of the team disagrees. In Team South the president also can decide in the case of a tie, but to give him that power, the team and an advisory council had to go through three voting rounds, as it was not automatically his right. This implies that the legitimate power is not very strong, and the members may not automatically respect the position holder. The referent power is possibly held by multiple members in the teams, as the interpretation of it is very personal. Looking at the presidents, the president of Team East is described as charismatic and “natural born leader” while the president of Team Central wishes to show an example with his behavior.

## **5.5 Without a formal leader**

Curiously among the participating teams there happened to be two teams who were without a formal leader. The researcher did not know the situations in the teams before the first interviews of each team, but it is possible that they chose to participate in the research because of their leadership situation. The first case of Team North-1 shows an association who was not able to elect a president for some reason. In the second instance of Team North-2, the president resigned a few months after the board term started.

### **5.5.1 *President could not be elected***

In the first of the two cases of National Boards without a formal internal leader, Team North-1, the association was not able to elect a president for the National Board. The association was having difficulties finding members for the upcoming term of the National Board. In three separate occasions it held open calls for team members and six members were chosen, leaving the seventh, the position of the president vacant. The main issue with the position was that it required capabilities both in leadership and in the native language, and there were not many members in the organization who had

both skills. While there were candidates for the position, they were not elected. When the time for the change of the board came, the team had a knowledge transfer with the available members, and the new board term begun without a president.

At the time of the interviews the team had been active for four months though a part of it had been summer period, which is usually quieter. The president of the previous team helped them for a while, but she had to move on eventually and the responsibilities of the president were divided among the team members. From the legal point of view the vice-president is functioning as a president, which allows the team to work, but within the team she does not hold the leadership aspect. The team does not feel settled and the members are somewhat insecure of their places and duties. While the team is able to function well, there still seems to be a lack of coordination.

*If we had a president, the president would [delegate], but now it's more like volunteering. [—] There might be some issues that fall in between the chairs. Those tasks might take longer time or might not be done. (Anneli)*

They claim that no one has risen as a leader, but one more experienced member has taken on more responsibilities, for example the administration, and helped the others. Her input seems to affect the team strongly both in a positive and limiting way.

*It has helped a lot that there's someone who knows what to do when everyone else is new. [—] It brings some certainty into it. But in a way it feels like that the discussions don't become so innovative if [the experienced member] has a firm opinion, so the people don't develop the idea and we stay there. [—] And if you have no experience, then you maybe aren't that willing to say something super crazy or discuss it if she has a different opinion. (Annika)*

The team is not confident that they will be able to find a president, as there have already been so many attempts, but they plan to open another round of elections in a month. The team feels that it would be challenging for a latecomer to take a position of leadership in a team that has been established already for many months.

*The problem is that now we've just started finding out who we are in the group, but later on finding a new president is tricky because he should be a clear leader, but getting the leader inside will be really hard. (Onneli)*

The team has been able to perform their duties and they have adapted to the situation. The situation was clear from the beginning, and though the members still hold some hope of finding a president, they seem realistic and have begun to adapt the role of the

president fitting for a latecomer by reducing expectations and creating it into a more administrative position.

The key challenge with this team is recruitment. Despite many attempts they have not been able to recruit a person to fit the role, and so they have had to compensate by dividing the tasks and responsibilities of the president among the team members. Some of them take on more responsibilities than others, and some tasks are left undone or done slowly. They have also adapted their expectations of the role of the president to a smaller role in hopes that they will find someone to fill it later.

### 5.5.2 *President resigned*

In the case of Team North-2 the president resigned soon after the beginning of the board term. The team had been elected in the spring and had begun their board term. Around two months after the beginning the president announced her resignation, after having received an internship abroad. At this announcement the team was surprised, but they had about a month and a half to become used to the situation before the resignation actually happened. The team was understanding of her situation.

*First of all, we didn't expect that to happen. [—] I was kind of shocked. [—] If it's good for her, then I would say yes. Maybe if it was me, maybe I would do the same, so I don't judge. (Susanna)*

After having processed the situation, the team divided the tasks and responsibilities of the president among themselves. They each received a more tasks and had to leave some tasks undone for the moment. For example planning for the future and innovation have been abandoned in favor of more important tasks. Still, the current situation is described as “not very productive”.

*We try to focus on small specific tasks now, each of us doing our work, and try not to make so many decisions for the future of [ESN North-2.] [—] So in my case, I kind of stopped doing my own [more innovative tasks], [—] because I had to take care of the contact with the travel agency. (Mikko)*

Like in the previous case, the ones holding the expert power hold a more influence over the other two team members, although reluctantly. The team members also expressed some issues with motivation to do the volunteer work and a lack of team spirit.

*The moment a president was elected, the one who is supposed to be most motivated, the moment she goes down... [—] When someone resigns from such an important tasks, it's a bit demotivating. Then we have to rely on everyone's motivation to do the tasks without having so much control, and that's always complicated in a team. (Mikko)*

The resignation of the president can be interpreted as a lack of commitment to the team. The team had held the mandate only a month and a half before the announced resignation. The president's motivation is not known, but considering the usually long process of applying to internships, it is interesting that she did not already know the possibly changing situation when she was elected. It seems that it would have been easier to elect someone else to the position if she was not able to stay with the team longer, especially considering that the next time they could hold an election would be six months after the beginning of the term.

### **5.5.3 Case comparison**

The comparison of these two cases shows some similarities and disparities. Both teams lack a president, but for one it was a problem in recruitment and the other a problem in commitment. Both teams addressed the critical issue of the presidents' tasks and responsibilities similarly by dividing them among the team members. While the team members were not very happy with the additional tasks, and some tasks were done slowly or not at all, both teams expressed that they were still able to function well without a president.

A closer look at the task division shows that the majority of the tasks of the presidents were divided to one or two members. These members were the ones with more experience in the work of the NBs and holding the expert power. These members were able to take on more tasks, as they probably knew some of what should be done. If the teams did not have any continuing members from the previous boards, the situation would have been more challenging.

Though task division seems to work as a short-term solution, both teams had problems in the lack of leadership. The teams did not have anyone to motivate or explicitly coordinate the team members, and both teams would have felt it easier if there was an appointed person for this task. Both teams felt a level of confusion and the lack of intimacy that could be assigned to being aware of missing a team member. Later in 2014, Team North-1 shifted the positions internally so that a current member of the team took on the role of the president. Team North-2 elected a president from outside the team.

## 6 CONCLUSIONS

The aim of this study was to inspect the challenges and the leadership of virtual teams in a voluntary student organization. This chapter draws conclusions based on the theoretical and empirical implications of the study. The first part is focused on identifying the challenges in the case organization and investigating them while aiming to answer the research question “what kind of challenges the volunteers may face in virtual teams.” The second part of the chapter looks at the leadership processes in the virtual teams while exploring the question “what kind of leadership do the teams have”. Lastly, the limitations of the study and possible avenues for future research are considered.

### 6.1 Identifying the coordination challenges

It is possible to look at the identifying characteristics of the National Boards through the model of virtual team complexity by Dubé and Paré (2004). This model helps to review the inherent key features and identify which ones increase the complexity of the teamwork and create challenges. As there are six teams involved in the study, slight heterogeneity in the characteristics is expected.

Most of the National Boards in the study exhibited a moderate degree of reliance on ICT. During the board term they met several times face-to-face, but many times the reason behind the meeting was an event that the members attend. These events often did not allow time for teamwork and not all of the members were present. Only Team North-2 aimed to hold monthly face-to-face meetings while the rest of the teams held their meetings through teleconference software.

All communication took place via electronic methods, and in most cases the National Boards used three to five channels for communication, which is decent for ICT availability. Having multiple communication channels available gave them the option to choose how to send their message depending on the audience, urgency, and complexity of the message (Lähteenmäki et al. 2010, 196).

The team members seemed comfortable in using the technologies available to them, and their level of ICT proficiency appeared relatively uniform. Some described how in the beginning they had difficulties in learning how to use the technologies new to them, but after some time they also reached a level of comfort. As the team members were fairly young, it seems logical that they would have been used to technology and using most of these communication channels even before joining the team.

The size of the National Boards varied from five to nine members, with the average being 6,7 members. While there is no particular size recommendation for a virtual team, the typical average reported is 7,7 (Kinney & Panko 1996 according to Hambley,

O'Neill & Kline 2007, 44), so the size is not a reason for concern. The geographic dispersion of the National Boards is also comparatively low. Some of the members were located in the same city or even went to the same university, but this did not seem to cause problems or create subgroups, as the amount of co-located members was less than half of the total number of team members.

The National Boards had a fixed term of one year, and this is a reasonable period to create cohesion in the team. However, the regular changes of the board members make continuing the work challenging, as every year there is time lost in the board change and building up the new team. The members of the National Boards usually did not have prior shared work experience. It is possible that some of them had worked together, but often there was at least one who had not even met the other members before the election of the team. This means that the teams must take some time to establish the team norms for working together at the beginning of their mandate (Suchan & Hayzak 2001, 177). On the other hand, the members had been involved in the organization for a longer time, so it is possible that some overarching norms and habits helped in creating the team routines.

The National Board members can be considered to have a part-time membership of the team. Considering that the teams worked on a volunteer basis, it is realistic to assume that the team members had many commitments outside the team. The commitments could cause conflicts when the work outside the group is prioritized, for example during the exam time in universities. On the whole, the membership in National Boards should be stable since the members were elected for a year. However, there were some changes when a person resigned or was made redundant. These cases do not seem to be unusual, as either resignation or termination happened in four of the six teams in the study.

The National Boards have a low level of task interdependence. The tasks were structured mostly additively or pooled together so that the team members do most of the tasks separately. In most of the cases the members only discussed their tasks and asked feedback in the meetings, though tasks were also done in pairs on occasion. This leads to a less intense need for collaboration and sharing information, and most of the synchronous communication happened in the meetings. Conversely this may have resulted in challenges to team cohesion and trust (Kozlowski & Bell 2002, 19).

The cultural diversity of the teams seems to be low. Three of the interviewed National Boards had members from a mix of different nationalities. This was not seen as a problem as the whole organization is by its nature multinational. However, it is possible that the interviewees did not recognize the cultural differences or they were not willing to admit them. The members also had been a part of the organization at least for a few months before their election, which means that all of them were on some level aware of

what would be expected of them as a member of the team. As the members were mostly students, the professional culture most likely did not affect them very strongly yet.

Table 5: Characteristics of the National Boards (compare Dubé & Paré 2004, 17)

		<b>Degree of complexity</b> LOW ←-----→ HIGH	
Degree of reliance on ICT	Low	X-----X	High
ICT availability	High variety	X	Low variety
Members' ICT proficiency	High	X	Low
Team size	Small	X	Large
Geographic dispersion	Local	X	Global
Task/project duration	Long term	X	Short term
Prior shared work experience	Extensive	X	None
Members' assignment	Full-time	X	Part-time
Membership stability	Stable	X	Fluid
Task interdependence	Low	X	High
Cultural diversity	Homogenous	X	Heterogeneous

From Table 5 it is possible to see that the biggest challenges for National Boards lie in the moderate reliance on ICT, the project duration of one year, the lack of prior shared work experience, the part-time membership assignment, and the membership stability. The team period of one year and the lack of prior shared work experience lead

to the need to create efficiently shared expectations and work norms so that the team can work without confusion from the start. It is recommended that to deal with these issues the virtual teams should hold a face-to-face meeting to establish team norms and facilitate coordination (Dubé & Paré 2004, 9). The repetitive cycle of the team mandate means that every time the board term ends and a new one begins, there is a possibility of knowledge loss. The part-time membership and lack of stability in the membership come mostly from the volunteer aspect of the teams, as the members' primary commitments may conflict with the teamwork. The next section addresses these challenges more closely; first creating shared team norms, then the part-time membership, and lastly the knowledge transfer.

Creating common ground for teamwork is a challenge also for regular virtual teams (Dubé & Paré 2004, 8–9). The teams indicated having trouble with building relationships without meeting each other, and they did not share as much non-job related information as they would have liked. However, the teams were able to build relationships and mutual understanding through face-to-face meetings at the beginning of their term and by having regular teleconference meetings. The multiple communication channels allowed them to communicate more fluently, but the members still experienced frustration and delays in the communication. The teams worked on a basis of swift trust and felt that the trust was broken when the actions did not match the promises, corresponding to the similar observations of Kanawattanachai and Yoo (2002, 207). The teams functioned well, despite that not all of the teams felt a similar level of cohesiveness.

The findings of this study in regards to the communication and meetings corroborate the findings of previous studies on virtual teams. The context of volunteering does not seem to create any new challenges when considering the core functions of virtual teamwork. However, it is possible that the feelings of lack of cohesiveness and the lack of relationship building are demotivating factors for the volunteers. Groups can be a source of motivation for volunteers and a reason for joining (Haski-Leventhal & Cnaan 2009, 66), and virtual teams face significant difficulties in many of the socio-emotional processes traditional to groups (Powell et al. 2004, 9). For this reason, the difficulties in creating common ground may be more salient to volunteers than employees in virtual teams.

Keeping the balance between volunteering and private life is a challenge in every volunteer organization like it was in the case organization. Scheduling meetings was challenging, and amassing commitments created delays in work and stress for the volunteer. The level of the involvement of the team members changed according to the private life of the volunteer, and at the end of the board term the members felt less motivated than at the beginning. The combination of volunteering and virtual teams does not seem to escalate the volunteer-life balance unreasonably. Scheduling can be an issue

in regular virtual and traditional teams, and most likely the use of technology eases the stress due to the lack of travel time.

Inactive members and turnover are an unfortunate issue in volunteer organizations (Musick & Wilson, 433), and these results tell about the level of commitment in the teams. Some of the team members were highly committed, so far as to describe the symptoms of burnout. On the other hand, the member disappearances and inactivity indicate that some members lacked commitment. The reasons for the lack of engagement with the team were not inspected in this study, but it is possible that their expectations for the teamwork did not match their reason for volunteering for it (Musick & Wilson, 432), or simply that they had other conflicting demands in their private life.

The knowledge transfer is a significant challenge in the National Boards. There are four ways to share knowledge: socialization, externalization, internalization, and combination (Nonaka 1994, 19). This study found that the National Boards engage in socialization and externalization processes as a part of their knowledge transfer, as they held discussions with the previous position holders and compiled documents to help the new position holder. They most likely engage in internalization and combination processes as well, but these methods were not investigated in this study.

The four stages of the knowledge transfer, initiation, implementation, ramp-up, and integration, (Szulanski & Cappetta 2003, 519–521) showed in the study despite not being directly investigated. In the case teams, the initiation stage and the beginning of the transfer process were clearly indicated when the term of the board began to end. The implementation phase consisted of the meetings between the new and old board, a so-called transition weekend, and the individual discussions of the position holders. The communication between position holders that continued after the implementation can be allocated to the ramp-up stage, as the discussions helped to remove possible misunderstandings and allowed for gaining additional information. The last phase, integration, happened when the teams had begun to utilize and build on the knowledge that was transferred to them.

Szulanski and Cappetta (2003, 523–525) state seven sources of challenges related to the characteristics of the situation. Out of these, the lack of motivation from the side of source, lack of prior knowledge, retentive capacity, and the relationship between the source and recipient showed in the study. The lack of motivation of the source showed when the old board members did not involve themselves in the knowledge transfer process and “disappeared”. On the side of the recipient, the new members were not able take in as much information as they could due to the lack of understanding of the importance of the information. The relationship between the source and the recipient was shown positive when the actors stayed in contact even after the transfer meetings, and negative when the transfer was not finished completely.

These discoveries are in line with the findings of Szulanski and Cappetta, as the participants spontaneously described these sources of challenges and the knowledge transfer processes without previous theoretical knowledge or direction from the interviewer. The first participant of the study impulsively brought up the problem of the knowledge transfer when asked about challenges within her team, after which the topic was included in the rest of the interviews. As it seems that the problem repeats every time the board changes, it would be useful to study knowledge transfer further to gain better understanding on how the experiences and implicit knowledge can best be passed on to the next team. For the same reason, these kinds of volunteer groups are an excellent place to conduct knowledge transfer research to gain a better understanding of the process itself.

The answer to the first research question “what kind of challenges may the volunteers face in virtual teams” is three-fold. The first challenge that the volunteers faced in the case organization was beginning the teamwork by creating shared norms, relationships, and trust. This was done mainly through the face-to-face meetings and electronic communication. The second challenge was the commitment to the volunteering, shown in the scheduling issues and the different levels of involvement in the team members. The third challenge was the problem of the knowledge transfer that the team had to go through each term as the team members changed.

## **6.2 Virtual leadership under focus**

Researchers have recognized that the leadership in virtual teams is more likely to have elements of shared authority than directive leadership (e.g. Lähteenmäki et al. 2010, 198; Hertel et al. 2005, 82). There have been recommendations for empowering the team members (Kirkman et al. 2004), using transformational leadership style (Purvanova & Bono 2009), or shared leadership (Hoch & Kozlowski 2014). This study found that the National Boards engage in shared leadership processes, such as joint decision-making and task division, and the members are rather autonomous in regards to their own tasks. Only two teams were able to identify a clear leader within the members despite each having an elected team leader. These findings support the ideas of the previous studies.

On the other hand, the teams require a level of coordination. The elected president is responsible for guiding the work of the team, and the lack of a president shows in tasks left undone or done slowly. Especially in the teams without a president, the members with more experience held a more influential position and were able to direct the work of the team. The management processes of the teams were relatively routinized. The teams had clear meeting protocols, and the task division and decisions were held each time in a similar way. These routines help to support the leadership in the teams without

a strong leader, and can act as structural supports for leadership as described by Hoch and Kozlowski (2014). According to them, the structural supports become more important as the level of virtuality increases.

The literature both on volunteering (e.g. Studer & Schnurbein 2012, 414–416), and on virtual teams (e.g. Bell & Kozlowski 2002, 40–41) agree that clear team roles are important. The role cannot be too defined, as it may alienate the team members, but it should be clear enough that the role holder does not become too burdened with additional responsibilities (Muscik & Wilson 2007, 433–435). The National Board members have very clear roles. They divide the tasks automatically by using the role descriptions as a basis. It is possible that the requirements of the role between the teams are different, for some of the participants describe extra-role behaviors while some others stay strictly within the allocated role. It would be interesting to follow this line of research to study how the role is formed at the beginning of the teamwork.

Four of the six sources of social power (Raven 1993, 223) were identified in the study. The use of the expert power was fairly clearly amplified if the other members were inexperienced, and especially at the beginning of the teamwork. The president held the legitimate power, but as contemplated earlier, the president did not hold the highest authority simply based on the position. Because of the volunteer status, the teams did not engage in the use of coercive or rewarding power, and the leader clearly did not have control over rewards or punishments like posited by Posner (2015, 886). Referent and informational power did not show in the study, as it would require observation of the teams or a more rigorous questioning.

Going back to Table 2 on the sources of team leadership by Morgeson and colleagues (2010), it can be seen that multiple sources were being used in the National Boards, and examples of each source of leadership could be found in the teams. Multiple sources of leadership have not been investigated in one study on virtual teams before, but these findings corroborate the theoretical deliberations of Morgeson and colleagues and hint that they also apply in a virtual team context. The collection of the sources can be seen in Table 6 on next page.

Table 6: Sources of leadership in National Boards

		<u>Formality of leadership</u>	
		<b>Formal</b>	<b>Informal</b>
<u>Locus of leadership</u>	<b>Internal</b>	President	Shared decision-making Expert power
	<b>External</b>	Local Sections? Advisory council	Old board members

Understandably the president is the formal internal leader of the team. The president holds the legitimate power in the team and is usually responsible for negotiating compromises among the team members and making sure everyone knows what they are supposed to do. The president is not usually the ultimate authority in the group, as many of the leadership processes are shared.

Informal internal leadership comes especially from the use of relevant expertise, expert power. The teams also had members who were more involved in the decision-making process and the function of the team, and in this way were able to direct the focus of the team. This corresponds to the findings of Glücker & Schrott (2007, 40), as according to them the emergent leaders in virtual teams are the people with a higher commitment to the team and higher levels of communication. The leadership processes of the teams were also fairly shared, as the team members were authorized to make decisions autonomously in regards to their own tasks.

Formal external leadership is not officially present in the National Boards, as they do not have an outside supervisor. However, it can be argued that the local sections are in a position to exert authority over the teams. The local sections are supposed to monitor the work of the board, so it would be their role to correct the direction of the team if they notice it going against the aims of the organization. Another study would be needed to study this function. Team South also has an advisory council, whose role is to support the board and help in decision-making, and this can also be conceptualized as external leadership. External informal leadership mainly showed in this study in the knowledge transfer process. The old members were able to keep in contact with the new board, and perhaps informally direct and give advice in problematic situations.

The response to the research question “what kind of leadership do the teams have” is that it varies between the teams. The teams appear to have more elements of shared

leadership than authoritative leadership, as suggested by the literature, but the mix of the two is not the same for each team. The division by Morgeson and colleagues (2010) shows that there are also multiple sources influencing the team also from the outside. These have not been previously looked at simultaneously in virtual team research. Within the team the expert, informational, and referent power seem to be greater than the rewarding, coercive, and legitimate power. The role of the internal team leader seems to have shifted from a single authority towards a guiding role, with the expectations to guide the discussions of the team and to give them structure.

### **6.3 Limits and future research**

This study was conducted on a single organization with multiple cases through qualitative methods. The study was explorative in its nature, and the aim was not to provide definite answers to a pre-defined problem but explore how the issues of virtual teams translate into a volunteer context and give a practical illustration.

Considering that the scope of the study was only one case organization, the characterization of the case organization should be taken into account when transferring the results to other organizations. The findings also do not take into account the possible cultural differences in the studied teams. Each team was from a different country, so there may have been underlying cultural factors involved especially in the leadership functions. Overall the differences in the findings when comparing the teams were minimal, so the cultural interpretation was not taken into account.

The results corroborate issues previously studied in virtual team research and suggest that they also apply in a volunteer context for a large part. The context brings in new challenges in the form of different levels of involvement in the team, and member changes as some volunteers may leave. Still, further research could be conducted in this context as it provides an interestingly open structure, especially for leadership. Further research should be done on leadership both in volunteer and virtual team context. Multiple sources of leadership should be an interesting avenue for future studies as this study shows that they clearly exist, but there have not been many studies incorporating the multiple perspectives at the same time. Shared and emergent leadership in virtual teams is only recently gaining interest, so it is an area that requires exploration. Additionally quantitative methods could be used on a larger population to gain a greater picture of the leadership and management practices within the teams.

Other issues pinpointed in the study that have not received wide academic interest were virtual volunteering and disbanding of virtual teams. Virtual volunteering has multiple forms that are still relatively marginal, but with the developments in technology it

is probable that they will gain popularity. Volunteer managers would profit from further research into this area in upcoming years. On the other hand, the disbanding of virtual teams is a current topic and still lacking research after identified by Hertel and colleagues (2005, 88). As the organizations are utilizing the teams in increasing amounts, more teams are also being disbanded. The disbanding of the team should be planned, and the members should be encouraged to share their experiences with the future teams they may participate in.

As a unique issue, knowledge transfer would benefit from further inquiry and theoretical considerations. Though knowledge management in virtual teams has received academic interest, no study could be found that explored the changing of team members either in virtual or conventional teams. On the whole, the turnover of the team members has not received much academic interest despite that it is described as one of the characteristics of virtual teams. A longitudinal study on this issue could be very beneficial.

## REFERENCES

- Bell, B. – Kozlowski, S. (2002) A typology of virtual teams: Implications for effective leadership. *Group and Organization Management*, Vol. 27 (1), 14–49.
- Brudney, J. – Mejs, L. (2009) It ain't natural. Toward a new (natural) resource conceptualization for volunteer management, *Nonprofit and Voluntary Sector Quarterly*, Vol. 38 (4), 564–581.
- Bruins, J. (1999) Social power and influence tactics: a theoretical introduction, *Journal of Social Issues*, Vol. 55 (1), 7–14.
- Carte, T. – Chidambaram, L. – Becker, A. (2006) Emergent leadership in self-managed virtual teams. *Group Decision and Negotiation*, Vol. 15, 323–343.
- Catano, V. – Pond, M. – Kelloway, E. (2001) Exploring commitment and leadership in volunteer organizations. *Leadership and Organization Development Journal*, Vol. 22 (6), 256–263.
- Clary, E. – Snyder, M. (1999) The motivations to volunteer: theoretical and practical considerations, *Current directions in psychological science*, Vol. 8 (5), 156–159.
- Clary, E. – Snyder, M. – Ridge, R. – Copeland, J. – Stukas, A. – Haugen, J. – Miene, P. (1998) Understanding and assessing the motivations of volunteers: a functional approach, *Journal of Personality and Social Psychology*, Vol. 74 (6), 1516–1530.
- Cnaan, R. – Cascio, T. (1998) Performance and commitment: Issues in management of volunteers in human service organizations, *Journal of Social Service Research*, Vol. 24 (3–4), 1–37.
- Cnaan, R. – Goldberg-Glen, R. (1991) Measuring motivation to volunteer in human services, *Journal of Applied Behavioral Science*, Vol. 27 (3), 269–284.
- Cramton, C. (2001) The mutual knowledge problem and its consequences for dispersed collaboration. *Organizational Science*, Vol. 12 (3), 346–371.

- Cravens, J. (2008) Online volunteering enters middle age, *Nonprofit Quarterly*. <<http://nonprofitquarterly.org/2008/06/21/online-volunteering-enters-middle-age/>>, retrieved 5.10.2015.
- Cresswell, J. (1998) *Qualitative inquiry and research. Choosing among five traditions*. Sage, Thousand Oaks.
- Cresswell, J., – Plano Clarle, V. (2007) *Designing and conducting mixed methods research*. Sage, Thousand Oaks.
- Dalkir, K. (2011) *Knowledge management in theory and practice, 2<sup>nd</sup> edition*. MIT press.
- Denison, D. – Hooijberg, R. – Quinn, R. (1995) Paradox and performance: Toward a theory of behavioral complexity in managerial leadership. *Organization Science*, 6 (5), 524–540.
- Denscombe, M. (2007) *The good research guide for small-scale social research projects*. Open University Press, McGraw-Hill, Berkshire.
- Dingle, A. (2001) *Measuring volunteering: a practical toolkit*. Independent Sector & United Nations Volunteers.
- Dubé, L. – Paré, G. (2004) The multifaceted nature of virtual team. In: *Virtual teams. Projects, protocols and processes*, eds: Pauleen, D., 1–39. Idea Group Publishing.
- Elias, S. (2008) Fifty years of influence in the workplace: The evolution of the French and Raven power taxonomy. *Journal of Management History*, Vol. 14 (3), 267–283.
- Ellis, S. – Cravens, J. (2000) *The virtual volunteering guidebook*. ImpactOnline, Inc, Palo Alto.
- ESN Annual Report 2014/2015* (2015). Erasmus Student Network AISBL, Brussel.
- Flick, U. (2002) *An introduction to qualitative research*. Sage, Thousand Oaks.
- Gardyn, R. (2006) Volunteering goes virtual. *Chronicle of Philanthropy*, Vol. 18 (7).

- GHK (2010) *Volunteering in the European Union*. Final report. Educational, Audiovisual & Culture Executive Agency (EAC-EA) & Directorate General Education and Culture (DG EAC). <[http://ec.europa.eu/citizenship/pdf/doc1018\\_en.pdf](http://ec.europa.eu/citizenship/pdf/doc1018_en.pdf)>, retrieved 5.10.2015.
- Gilson, L. – Maynard, M. – Jones Young, N. – Vartiainen, M. – Hakonen, M. (2015) Virtual teams research: 10 years, 10 themes, and 10 opportunities. *Journal of Management*, Vol. 41 (5), 1313–1337.
- Glücker, J. – Schrott, G. (2007) Leadership and performance in virtual teams: exploring brokerage in electronic communication. *International Journal of e-Collaboration*, Vol. 3 (3), 31–52.
- Gyu Park, J. – Kwon, B. (2013) Literature review on shared leadership in teams. *Journal of Leadership, Accountability and Ethics*, Vol. 10 (3), 28–36.
- Hanna, P. (2012) Using internet technologies (such as Skype) as a research medium: a research note. *Qualitative Research*, Vol. 12 (2), 239–242.
- Hambley, L. – O’Neill, T. – Kline, T. (2007) Virtual team leadership: Perspectives from the Field. *International Journal of e-Collaboration*, Vol. 3 (1), 40–64.
- Haski-Leventhal, D. – Cnaan, R. (2009) Group processes and volunteering: Using groups to enhance volunteerism. *Administration in Social Work*, Vol. 33, 61–80.
- Hertel, G. – Geister, S. – Konradt, U. (2005) Managing virtual teams: A review of current empirical research. *Human Resource Management Review*, Vol. 15, 69–95.
- Hoch, J. – Kozlowski, S. (2014) Leading virtual teams: Hierarchical leadership, structural supports, and shared team leadership. *Journal of Applied Psychology*, 99 (3), 390–403.
- Hofner Saphiere, D. (1996) Productive behaviors of global business teams. *International Journal of Intercultural Relations*, Vol. 20 (2), 227–259.
- Huck, J. – Al, R. – Rathi, D. (2011) Finding KM solutions for a volunteer-based non-profit organization. *VINE: The journal of information and knowledge management systems*, Vol. 41 (1), 26–40.

- Hustinx, L. – Cnaan, R. – Handy, F. (2010) Navigating theories of volunteering: a hybrid map for a complex phenomenon, *Journal for the Theory of Social Behavior*, Vol. 40 (4), 410–434.
- Järvenpää, S. – Leidner, D. (1999), Communication and Trust in Global Virtual Teams, *Organization Science*, Vol. 10 (6), 791–815.
- Kanawattanachai, P. – Yoo, Y. (2002) Dynamic nature of trust in virtual teams. *Journal of Strategic Information Systems*, Vol. 11, 187–213.
- Kao, P. (2011) *A mixed methods analysis of effective leadership in virtual communities of worldwide nonprofit organizations*. Doctoral dissertation. Walden University, Minneapolis, Minnesota USA.
- Kirkman, B. – Mathieu, J. (2005) The dimensions and antecedents of team virtuality. *Journal of Management*, Vol. 31 (5), 700–718.
- Kirkman, B. – Rosen, B. – Tesluk, P. – Gibson, C. (2004) The impact of team empowerment on virtual team performance: the moderating role of face-to-face interaction. *Academy of Management Journal*, Vol. 47 (2), 175–192.
- Leenders, R. – Engelen, J. van – Kratzer, J. (2003) Virtuality, communication, and new product team creativity: a social network perspective. *Journal of Engineering Technology Management*, Vol. 20, 69–92.
- Lähtenmäki, S. – Saarinen, E. – Fischlmayr, I. – Lainema, T. (2010) Virtual Organizations. In: *Handbook of Technology Management*, eds. Bidgoli, H., 186–209. Wiley & Sons.
- Martins, L. – Gilson, L. – Maynard, M. (2004) Virtual teams: What do we know and where do we go from here? *Journal of Management*, Vol. 30 (6), 805–835.
- Maznevski, M. – Chudoba, K. (2000) Bridging space over time: global virtual team dynamics and effectiveness. *Organizational Science*, Vol. 11 (5), 473–492.
- McLean, K. (2014) *Virtual team structure: A phenomenological study of perspectives from the nonprofit industry*. Doctoral dissertation. Capella University, Minneapolis, Minnesota USA.

- Merriam, S. (2014) *Qualitative Research: A Guide to Design and Implementation*. Jossey-Bass, Hoboken
- Morgeson, F. – DeRue, S. – Karam, E. (2010) Leadership in teams: A functional approach to understanding leadership structures and processes. *Journal of Management*, Vol. 36 (1), 5–39.
- Mukherjee, D. (2010a) An exploratory study of older adults' engagement with virtual volunteerism. *Journal of Technology in Human Services*, Vol. 28, 188–196.
- Mukherjee, D. (2010b) Participation of older adults in virtual volunteering: A qualitative analysis. *Ageing International*, Vol. 36, 253–266.
- Musick, M. – Wilson, J. (2007) *Volunteers: A social profile*. Indiana University Press.
- Nonaka, I. (1994) A dynamic theory of organizational knowledge creation, *Organization Science*, Vol. 5 (1), 14–37.
- Oostlander, J. – Güntert, S. (2014) Linking autonomy-supportive leadership to volunteer satisfaction: A self-determination theory perspective. *Voluntas*, Vol. 25, 1368–1387.
- Oshri, I. – Kotlarsky, J. – Willcocks, L. (2007) Global software development: Exploring socialization and face-to-face meetings in distributed strategic projects, *Journal of Strategic Information Systems*, Vol. 16, 25–49.
- Pauleen, D. – Yoong, P. (2001) Facilitating virtual team relationships via Internet and conventional communication channels, *Internet Research: Network Application and Policy*, Vol. 11 (3), 190–202.
- Pinar, T. – Zehir, C. – Kitapci, H. – Tanriverdi, H. (2014) The relationship between leadership behaviors, team learning and performance among the virtual teams. *International Business Research*, Vol. 7 (5), 68–79.
- Posner, B. (2015) An investigation into the leadership practices of volunteer leaders. *Leadership and Organization Development Journal*, Vol. 36 (7), 885–898.

- Powell, A. – Piccoli, G. – Ives, B. (2004) Virtual teams: A review of current literature and directions for future research, *Database for Advances in Information Systems*, Vol. 35 (1), 6–36.
- Purvanova, R. – Bono, J. (2009) Transformational leadership in context: Face-to-face teams and virtual teams. *The Leadership Quarterly*, Vol. 20 (3), 343–357.
- Raven, B. (1993) The bases of power: origins and recent development, *Journal of Social Issues*, Vol. 49 (4), 227–251.
- Reed, A. – Knight, L. (2013) Project duration and risk factors on virtual projects. *The Journal of Computer Information Systems*, Vol. 54 (1), 75–83.
- Regional Platforms (2014) Erasmus Student Network <<http://esn.org/content/regional-platforms>>, retrieved 22.11.2014.
- Schneider, S. – George, W. (2011) Servant leadership versus transformational leadership in voluntary service organizations. *Leadership and Organization Development Journal*, Vol. 32 (1), 60–77.
- Studer, S. – Schnurbein, G. von (2013) Organizational factors affecting volunteers: a literature review on volunteer coordination. *Voluntas*, Vol. 24, 403–440.
- Suchan, J. – Hayzak, G. (2001) The communication characteristics of virtual teams: A case study. *IEEE Transactions on Professional Communication*, Vol. 44 (3), 174–186.
- Szulanski, G. – Cappetta, R. (2003) Stickiness: conceptualizing, measuring, and predicting difficulties in the transfer of knowledge within organizations, in *The Blackwell Handbook of Organizational Learning and Knowledge Management*, eds. Easterby-Smith, M. – Lyles, M., 513–534, Blackwell Publishing.
- Townsend, A. – DeMarrie, S. – Hendrickson, A. (1998) Virtual teams: Technology and the workplace of the future. *Academy of Management Executive*, Vol. 12 (3), 17–29.
- Tschirhart, M. – Bielefeld, W. (2012) *Managing nonprofit organizations*. Wiley & Sons.

- UNV (2015) United Nations Volunteers Online Volunteering Service, <<https://www.onlinevolunteering.org/en/vol/>>, retrieved 24.10.2015.
- Van de Ven, A. – Delbeq, A. – Koenig, R. (1976) Determinants of coordination modes within organizations, *American Sociological Review*, Vol. 41 (April), 322–338.
- Walczak, S. (2005) Organizational knowledge management structure, *The Learning Organization*, Vol. 12 (4), 330–339.
- Warkentin, M. – Sayeed, L. – Hightower, R. (1997) Virtual teams versus face-to-face teams: An exploratory study of web-based conference system. *Decision Sciences*, Vol. 28 (4), 975–996.
- Wilson, J. (2000) Volunteering. *Annual Review Sociology*, Vol. 26, 215–240.
- Yin, R. (1989) *Case study research. Design and methods*. Sage, Newsbury Park.

## APPENDIX 1: INTERVIEW QUESTIONS

### BASIC INFORMATION

Previous experience, role and tasks in team

### MEETINGS AND COMMUNICATION

Typical meeting, communication, guidelines and rewarding

### FIRST MONTHS OF THE NATIONAL BOARD

First F2F meeting, F2F meetings in general, knowledge transfer, goals

### LEADERSHIP AND TEAMWORK

Is there a clear leader, decision-making and task division in the team

The answer to the next question can be no one, all or certain persons in your team. Please answer with the name or position of the person who does this. You can also include an explanation for your answer if you wish.

1. Who or who all in your team...
  - a. *Organizes and coordinates the meetings?*
  - b. *Looks for more resources and missing information?*
  - c. *Makes sure everyone has the necessary information?*
  - d. *Comes up with new ideas or new ways of doing things?*
  - e. *Negotiates compromises and facilitates cooperation?*
  - f. *Encourages discussion, asks for opinions and suggestions?*
  - g. *Initiates tasks and motivates others to finish tasks?*
  - h. *Makes sure everyone knows what to do and what is expected?*

### CHALLENGES IN TEAMWORK

What has been most challenging or different from a regular team

### BEST PRACTICES AND EVALUATION

What has worked well and what hasn't, satisfaction with the team

## **APPENDIX 2: INTERVIEWS**

### **Team North-1**

Onneli 10.8.2014

Anneli 12.8.2014

Annika 18.8.2014

### **Team North-2**

Mikko 26.8.2014

Susanna 28.8.2014

### **Team West**

Antero – Email interview

### **Team South**

Mirva 18.8.2014

Pete – Email interview

### **Team East**

Jani 19.9.2014

Jessica – Email interview

### **Team Central**

Eemeli 1.10.2014

Oiva 5.10.2014