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Developing Doctoral Student Communications at Aalto University School of Business

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In organizations it is crucial to ensure that communications reach the entire employee base. Diverse employee groups and differing employment contracts tend to further challenge the success of internal communication. This thesis examines a unique group of people within academia, doctoral students, and aims at developing communications targeted at them at the case organization, Aalto University School of Business. The objective of this research and development study is to meet the information needs of PhD students with a further aim of increased sense of community. A need for such a study was identified from the responses to a wellbeing survey where PhD students' concerns regarding internal communication emerged. The scope of this thesis involves all the ca 200 students studying in the doctoral degree programme during the current study year 2019-2020 at the School of Business.

The key concepts of this study, which are internal communication, knowledge sharing, information satisfaction and sense of community, together form the common thread of the whole thesis.

The research was conducted using semi structured qualitative interviews after which a development meeting with key people was organized to further evaluate the findings and development ideas. Finally, instructions on how to improve the doctoral student communications were constructed based on theory, interview findings and the development meeting. The interview sample was fairly small comprising of five doctoral students; however, half of the School's six departments were presented which is quite a good quantity. In addition, the sample's heterogeneity is believed to be of satisfactory level as there was a good balance among students regarding gender, stage of studies and nationality.

The key findings show that the communication issues are complex and there is not a one simple solution. Communication taking place at different levels by different functions provides a challenge for integration. However, the characteristics and needs of different study fields further complicate doctoral student communications. Also, it was found that students perceive finding information difficult. The students voiced a clear and unanimous wish as to how they prefer to receive different information. A development plan was constructed based on the research and findings and it is now in the hands of the organization to decide which of the suggested improvements can be implemented.

Keywords
Internal communication, knowledge sharing, information satisfaction, sense of community, doctoral students

Contents

1 Introduction

In organizations it is vital to ensure that the dissemination of information to all employees is taken care of. However, this can be quite a complex task when part of the employee group is not working under a normal employment contract. This is a challenging reality especially in the university environment where short employment contracts are a norm as well as people with external funding working at the university without an employment contract.

In addition to this already complex situation, the existence of various information channels can further challenge or even hinder the internal communication's objective of reaching all members of the organization regardless of their position. Within universities there are people working in very different roles for example doctoral students, a unique group within academia, which this thesis will take a closer look at.

The topic of this study, current state of doctoral communications, case organization, possible outcomes, research questions and scope will be further introduced and discussed in the following subchapters of this introduction chapter. The literature review of this thesis, or theoretical framework as it is often named, will be presented in chapter two.

1.1 Topic

The focus of this thesis is to research and develop the internal communications targeted at doctoral candidates at the Aalto University School of Business. The results of a resent wellbeing survey (Aalto University 2019) indicate that there may be a communication gap regarding doctoral students at the School of Business, while other employee groups, i.e. faculty and service staff, are well catered to. With a further glance into the matter, it looks like no one has direct ownership of the doctoral student communications. Most of the responsibility seems to fall on the departments, who all deal with the communication matter very differently. Some execute their communication towards their doctoral students in a well thought out and highly organized manner while at other departments there may be very little structure or strategy regarding their dissemination of information to PhD students.

Doctoral students have different information needs compared to other employee groups, i.e. academic researchers (professors, post-doctoral researchers, lecturers) and service personnel. Thus, the one size fits all employee communication solution is not a perfect fit for them. They are in a different position regarding responsibilities and rights compared to other employee groups. For instance, their right to receive a daily allowance when travelling to a conference may depend on how their funding has been arranged and on departmental policy. The School has been taking steps to improve doctoral students' equality between departments and study fields, but unfortunately the work is not yet over.

Answers by the School of Business respondents to a communication related question in the University wide wellbeing survey, executed at the end of 2019, and informal discussions with colleagues show that doctoral students may have fallen in between the other two above mentioned employee groups. In the survey, the employees of the University were asked about internal communication. The open question contained two questions: how well the internal communication channels and procedures support one's work; and what are the pros and cons of internal communication. Among the data of the School of Business, there were 3-4 answers highlighting the insufficiency or total lack of communications meeting the needs of doctoral candidates. (Aalto University 2019.)

One respondent stated that s/he, as a doctoral candidate, receives only generic messages that do not concern him/her. Another emphasized the difficulty of finding the needed information, for instance seminars held at other departments. This same problem of silos between different departments and units was brought up by other respondents too. Furthermore, communication problems were also found within departments, and not just between them, as one doctoral student dived more into details about the dysfunction of internal communication at departmental level. In general, many of the School's employees responding critically pointed out the dilemma between the mountain of information available and the impossibility of finding what you are looking for. (Aalto University 2019.)

1.2 Current State

To better understand the current situation of communications to doctoral candidates and how they are organized and executed at different levels of the School and even University, key people working with doctoral students were contacted. I began this informal research from department secretaries and some other involved employees. Also, people in charge of doctoral studies at other schools within the University were contacted. These discussions, written and oral, confirmed what was expected, that there are many differences between the departments and schools.

The coordinator of the doctoral studies at the School of Business is responsible for communicating purely study related issues to the doctoral students. But no one seems to have overall responsibility of internal communication regarding doctoral students. A suggestion of forming a team to carry the responsibility and, thus, support the students, has been made. The team could involve a couple employees from different service functions for instance HR and finance.

Interestingly, a joint monthly newsletter is being created as a pilot by two other schools within Aalto University. The initiative for the newsletter had come from doctoral students. This pilot is in its early phase, however, so it cannot be benchmarked at this point.

1.3 Brief Introduction to Aalto University School of Business

Aalto University was formed on January 1st, 2010 in the merger of the Helsinki School of Economics, Helsinki University of Technology and the University of Art and Design Helsinki. Aalto University is comprised of six schools, one of them being the School of Business, which changed its English name in 2012 to better communicate its wide focus in all areas of business and to align its brand with other world-class business schools. The School offers degree programmes in bachelor's, master's, and doctoral studies in the field of business and economics. (Aalto University 2020.)

Today the School, which was established in 1911, has six departments: Accounting, Economics, Finance, Information and Service Management, Management Studies, and Marketing as can be seen below in the organization chart of the School (Figure 1). There are departments dedicated to teaching one or several subjects. In the case of a department teaching more than one subject, the subjects are divided into units within the department. In addition to these six departments, there are two research centres. (Aalto University 2020.)

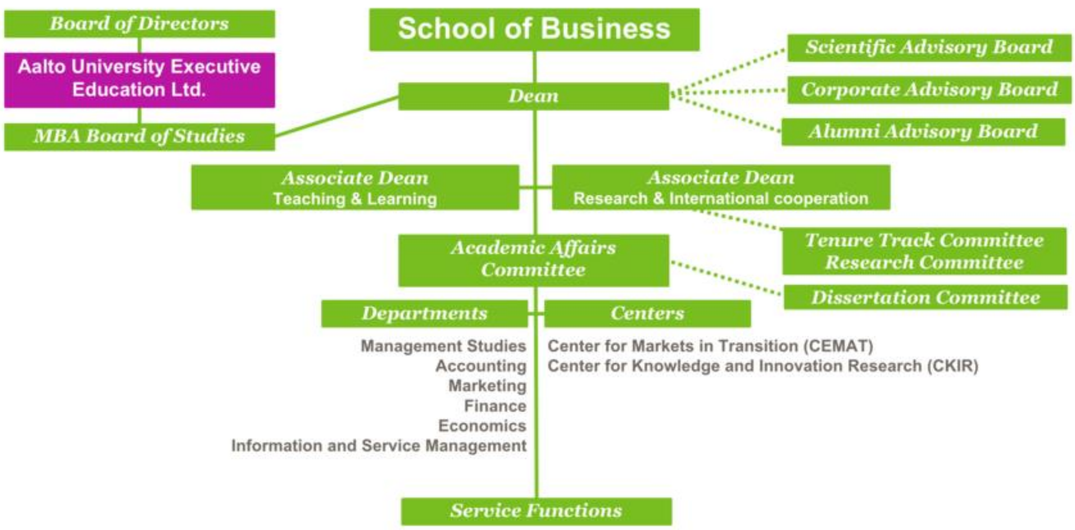

Figure 1. Organization chart of the School of Business (Aalto University 2020)

During the past few years, there have been significant changes as the School of Business and the School of Art, Design and Architecture joined the four technical schools on the Otaniemi Campus. The relocation of the School of Business took place on the 18th of February 2019 as the School moved into a brand-new building. The School also has operations at the Mikkeli Campus where the English language bachelor's studies in International Business are located. (Aalto University 2020.)

In this study, the employer, Aalto University is occasionally referred to as "the University" as well as the School of Business is shortened as "the School". The School's abbreviation "BIZ" may also be used on a rare occasion.

When applying to do one's doctorate at the School of Business, prospect PhD students choose a field and apply directly to the corresponding department of that research field, and if chosen are directly under that department or unit. Full-time doctoral students, whose progress is satisfactory, receive funding for their first two years which consists of an employment contract with the School and personal grants organized by the School. Further into their studies, students need to take the initiative and apply for external funding themselves. (Aalto University 2020.)

Doctoral students are employed by departments unless they have an external grant in which case they are "visitors" of that department. A visitor agreement enables more services and support than the student status does alone. At some departments PhD students working on an external grant have been given an employment contract with a small percentage to make up the full year's salary together with the grant, and to offer them equal rights and responsibilities compared to their fully employed peers. Occupational health care for example is a very important right offered to employees. Also, students in an employment contract are given teaching responsibilities, which externally funded students who are not in an employment relationship cannot be obligated to do.

At the School of Business, doctoral candidates, which is the formal term used of students pursuing a doctoral degree, are viewed as employees whether they are in an employment relationship or funded by an external grant. However, even though they are viewed as equals with their peers that are in an employment agreement, this does not always go without problems as will be later seen in this study.

In this thesis, the terms "doctoral candidate", "doctoral student", "PhD student" and "student" may all be used to avoid monotony when identifying doctoral students. If there is a need to mention students of bachelor or master level, they will be clearly named to avoid confusion.

1.4 Outcomes

This study will involve doctoral students and other key persons in both the research and development phase. My hope is that this development project may contribute to meeting the information needs of PhD students which in return will result in engaged and motivated students who feel a part of the community. Moreover, as knowledge sharing fosters efficiency and motivation (Kalla 2005, 310-311), it can be expected that motivated students work and study more efficiently. Additionally, the wellbeing and social connectedness of doctoral students would help reduce drop-out rates and support students to graduate on time.

Another outcome of this thesis will be a concrete development plan or an action plan helping to meet the information needs of the doctoral students at the School of Business. This construct will offer explicit instructions for further development and it will be based on the theory and empirical parts of this thesis.

Depending on the wishes and needs of the students as well as the School's perspective and resources, an end product or result, which is outside the scope of this thesis, could be for example a monthly newsletter, an internal webpage offering more information than the current one does now, or a team communication platform. This communication tool could possibly be interactive in nature, promoting conversations, exchange of ideas and sharing of information.

1.5 Research Questions

The research part of this study will try to find answers to the following questions. The principle research question is:

> RQ: How should the communications at the School of Business be developed so that the information needs of doctoral students are fulfilled resulting in them feeling a part of community?

Sub questions of the study include:

> SQ1: What are the specific information requirements of doctoral students at the School of Business?

> SQ2: How should the information be disseminated so that it best reaches them?

I will also seek information regarding the ownership of the doctoral communications at the School i.e. who carries or should carry the responsibility of communications regarding doctoral students.

1.6 Scope

At the School of Business there are many kinds of PhD students who may be active or inactive. Doctoral students that are actively studying are either partly in an employment agreement with the School (mostly around half of their funding is from the School and the other half organized by an external fund) or students fully funded by an external grant. Students fully funded by an external grant are not employed, but they have a visitor agreement with the School. Active students are in general also mostly full-time students. There may be the occasional exception. For instance, at the end of their studies, doctoral students tend to start working outside of the School, however, their doctoral dissertation is usually almost ready to be submitted for pre-examination at this point. The length of a doctoral programme is four years, but practice has shown that students do not always complete their studies on time.

The scope of this research involves all the doctoral students at the School of Business who have enrolled themselves as students to the doctoral degree programme for the ongoing study year, 2019-2020, no matter how their funding is arranged, how long they have been studying or whether they are full-time or part-time students. The number of students enrolled for the current study year in September 2019 is 187 as shown in the picture on the next page (Figure 2).

The project scope includes the review of related literature, the research phase comprising of semi constructed qualitative interviews and the evaluation and development phase, which will produce written form instructions, for example a development plan. The implementation of improvements suggested in this study are left to the organization to decide on and are, thus, excluded from the scope of this thesis.

The picture located on the following page (Figure 2) illustrates the number of enrolled PhD students each year at the School of Business since the establishment of Aalto University a decade ago. The number of enrolled foreign nationals is depicted in a darker green colour. As can be seen from the figures, the doctoral degree programme of the School has attracted a good share of international students in the last years.

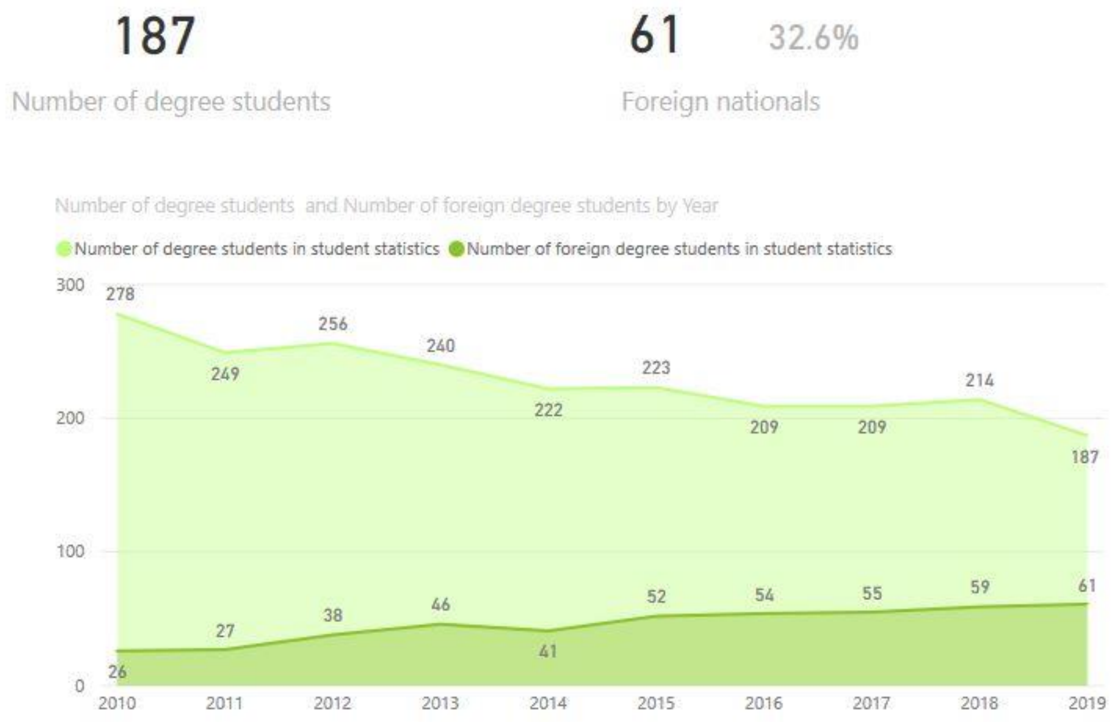

Figure 2. Number of PhD students studying at the School of Business 2010-2019 (Key Information of Aalto University report 2020)

2 Literature Review

A university, although a unique environment, has more similarities than differences with other large and complex organizations, and is indeed comparable with other diverse organizations (White, Vanc & Stafford 2010, 66-67). Thus, in this review of related literature, research conducted in both university and other organizational contexts is applied.

In this literature review chapter, which could also be titled theoretical framework, the core concepts of the thesis are proposed and further examined. They are internal communication, knowledge sharing, information satisfaction and sense of community. The last subchapter, Doctoral Students' and the Research Community, completes the literature review by including and linking the object of this study, doctoral students, with the theory. At the end of this chapter, loose ends are tied and a conclusion of the explored theory is drawn. In the following chapter (3 Conducting the Study) chosen research methods will be examined and the research and development progress explained.

2.1 Internal Communication – a Complex Task

This thesis and literature review concentrate on internal communication. However, it is necessary to acknowledge that in the Internet era the line between internal and external communication has become foggy to say the least (Juholin, Åberg & Aula 2015, 3) and there has been debate about whether the two can even be separated (Welch & Jackson 2007, 180).

Within the research field of communication there exists a variety of definitions regarding the concept of internal communication(s) as well as the usage of the word in the singular and plural form (Kalla 2005, 303-304). According to the article by Mary Welch and Paul R. Jackson (2007, 178) the term internal communication in the singular form is favoured by scholars in the discipline of corporate communication theory and hence applied by the authors throughout their research paper. The author of this study has therefore also adopted the use of the term in a singular form when applicable.

Owen Hargie and Dennis Tourish (2009, 3) argue that insufficient management of communications is the reason for many problems that organizations face. If employees, for instance, do not understand or are unaware of the organization's vision, values, or strategy, how can they reflect these in their everyday work? Hence, failing to effectively manage internal communication can even harm the organization's bottom line. (Hargie & Tourish 2009, 3, 7, 26.)

On a more positive note, internal communication plans, that bring about considerable change and progress, do not need to be complicated. In all simplicity, the objective of such programmes is to produce an open atmosphere for sharing information by making sure that there is as much interaction as possible between as many employees and employee groups as feasible. (Hargie & Tourish 2009, 11.)

Joep Cornelissen (2014, 164) lists three terms that are often used to describe the action of organizations communicating with their employees: internal communication, staff communication and employee communication. Cornelissen, taking a preference to the latter, divides employee communication into two core complementing fields: management communication, which covers all communicational activities between managers and employees; and corporate information and communication systems. Corporate information and communication systems or CICS take a broader aim by disseminating mostly general information to all employees within an organization. (Cornelissen 2014, 164-165.)

Cornelissen reminds communication professionals of their responsibility in making sure that these two areas of internal communication are effective together. Management communication and CICS should complement each other in a way that information is disseminated equally to everyone across the organization regardless of their position or length of employment contract. (Cornelissen 2014, 165.)

While Cornelissen’s view on internal communication may be more traditional, Hanna Kalla (2005, 302-304) brings onto the stage a fresh perspective of integrated internal communications. It may not be a novel concept as such, because truth be told other researchers have addressed the concept of integrated communication(s). Welch and Jackson (2007, 194) for instance bring up the necessity of communication professionals to keep integrated communication in mind. Their focus is, however, on managed formal communications (2007, 178), while Kalla introduces integrated internal communications as a construct of all academic areas of expertise that can be found in the cross-roads of communications and everything else happening within an organization (Kalla 2005, 302). Kalla goes on to point out that integrated internal communications involve all formal and informal communication activities at all levels of an organization, thus, all employees are included and responsible, not just the communications function (Kalla 2005, 302, 304).

The term communication originates from the Latin root word “communicare” which means to do together (Åberg 2000, 14). With keeping this in mind, it is quite controversial that a significant part of research focuses on internal communication being the sole responsibility of management and the communications function of an organization, thus communication is seen as being executed from the top to the employees (Juholin, Åberg

& Aula 2015, 2). Aside from Kalla's above mentioned approach (2015, 302, 304), this phenomenon can even be recognized here in the theory part of this thesis as all of the reviewed research so far seems to imply that leaders and communication professionals are the ones who manage communications while employees are at the receiving end.

Juholin et al. (2015, 1) take employees into account as communicators in their research on strategic communication. They seek to complete and broaden existing theory and communication models with a new model that includes dialogue and individual responsibility (Juholin et al. 2015, 7). The model proposes responsible dialogue as an improvement to the previously employed ineffective strategic communication as a result of management's top-down influencing of employees (Juholin et al. 2015, 10-11).

As a response to the shortcomings of previous strategic communication theory perceived by the researchers, Juholin et al. take a wider approach and recommend the following four elements of strategic employee communication. The authors address the employee and organizational needs of

- knowing and sharing of information with one-way communication as well as keeping sufficient information available
- understanding with managed discussions and communication regarding important and complex matters
- belonging and feeling a part of the organization with making an effort to build community spirit, and
- enhancing engagement, participation, and influence with dialogue and the sharing of responsibility (Juholin et al. 2015, 11-12).

The above mentioned four elements focus on the specific different needs that employees have within an organization and how to meet these needs with accurate defined ways of communicating. The last element of enhancing engagement, participation, and influence could be seen perhaps more as a demand that an organization has, but it can be argued that all of the four mentioned needs and their communicational solutions impact both the employees and the organization jointly, as a whole. Just as these needs and their answers go hand in hand, an organization and its employees travel in tandem, one cannot succeed without the other.

Welch and Jackson take a stakeholder approach in their research on internal communication. One of their objectives is to improve the existing trend of perceiving employees as one large stakeholder group. They contribute to existing theory by defining and broadening the concept of internal communication as "the strategic management of interactions and relationships between stakeholders within organizations across a number of interrelated dimensions including, internal line manager communication, internal team peer communication, internal project peer communication and internal corporate communication." (Welch & Jackson 2007, 193.)

One of the four dimensions of internal communication identified by Welch and Jackson (2007, 185) is internal team peer communication, which from a stakeholder point of view could be applied to doctoral students in a flexible sense. The term "team" originates from "deuk", an Indo-European word that can be translated "to pull", furthermore, in our modern world we tend to see a team as "a group of people pulling and acting together" (Harris & Sherblom 2011, 129).

However, Harris and Sherblom criticize the slack overuse of the word by labelling any groups within an organization as teams. According to the authors, the typical feature that differentiates a functional group from a team is that the members of the latter are strongly dependent of each other. Active member participation within a team produces a boost inter alia in understanding and the use of shared knowledge. Teamwork has several advantages over individual work. The authors list among other benefits the following: teams create a sense of community and offer team members significant support. (Harris & Sherblom 2011, 130-132.)

2.2 Knowledge Sharing

Knowledge has been acknowledged as the primary resource of organizations already decades ago which is a driving factor for the need to have processes in place regarding the formation and sharing of knowledge within organizations (Becerra-Fernandez & Sabherwal 2001 and Drucker 1993, in the research article by Ipe 2003, 337).

In research literature the concepts knowledge and information are repeatedly utilized as synonyms, although there are some researchers, including Ipe, who make a distinction between the two words. Summarizing research efforts of other authors, Ipe concludes that information as the "flow of messages" (Nonaka and Takeuchi 1995, cited by Ipe 2003) becomes knowledge when it connects with the person's beliefs and commitment. (Ipe 2003, 340.)

Research divides the types of knowledge being shared typically into tacit and explicit knowledge (Ipe 2003, 343-344; Snyder & Eng Lee-Partridge 2013, 417-418). According to Ipe (2003, 344) tacit or implicit knowledge is a challenge to codify and it cannot be disseminated or used within an organization without the person who has the knowledge. Explicit knowledge, on the contrary, is easier to communicate and codify. Ipe (2003, 344) reminds the reader that although explicit knowledge is easily disseminated amongst people, we should not take for granted that it can be shared within organizations without difficulty.

Ipe (2003, 341) digs deep into knowledge sharing in organizations, which according to the researcher is “basically the act of making knowledge available to others within the organization.” Ipe states (2003, 355) that the process of sharing knowledge within an organization is complicated. In her study, she identifies the following four factors to have the most influence regarding knowledge sharing between humans within organizations: the nature of the knowledge, motivation of the individual, opportunities for sharing, and the culture of the organization (Ipe 2003, 343-353).

All the above mentioned four factors have a major impact on knowledge sharing independently, but also affect each other as they are in connection. Moreover, the culture of an organization, as the most crucial factor, impacts all the other three factors significantly. (Ipe 2003, 351-354.)

An organization can enhance the dissemination of information by creating formal opportunities for individuals to share knowledge. This can be a structured environment that facilitates formal knowledge sharing by providing employees with tools for communication. These tools may be electronic by nature. The benefits of such structured environments include fast sharing of knowledge to a great number of employees simultaneously. On the other hand, Ipe reminds the reader via a summary of research investigations that, when judging by volume, knowledge is mostly shared through informal interactions. (Ipe 2003, 349.)

Snyder and Eng Lee-Partridge (2013, 419-421) in accordance with Ipe (2003, 347) underline the significance of thrust between colleagues for them to be willing to share knowledge. They also argue (Snyder & Eng Lee-Partridge 2013, 418) that understanding the reasons behind employee motives regarding knowledge sharing and the selection of information and communication channels can help organizations gain important advantage.

Furthermore, on the subject of employee motives, Hargie and Tourish (2009) highlight the importance for understanding relationships at work and how they affect employee performance since people are unable to leave their basic human character and needs outside the workplace. Also, the quality of people’s relationships with their colleagues correlates strongly with job satisfaction and motivation. These relationships play a significant role because colleagues support each other by sharing information and providing social rewards. (Hargie & Tourish 2009, 16-19.)

The above findings of Ipe, Snyder and Eng Lee Partridge, and Hargie and Tourish are confirmed and strengthened by the research of Mäkelä and Brewster (2009, 608). According to them the following ingredients impact knowledge sharing considerably: personal traits, motivation and possibilities to share knowledge, and the quality of the relationship. They also agree that the culture of an organization and all that it entails as well as management affect knowledge sharing within an organization. (Mäkelä & Brewster 2009, 608.)

2.1 Information Satisfaction and Sense of Community

White et al. (2010, 75-76) find a strong link between information satisfaction and feeling a part of the community. Their study also discovered that employees who receive enough information still want additional information about the organization that does not directly concern them or their job. Employees with better access to information were happier with their jobs and felt prouder about their employer. (White et al. 2010, 75-76, 80.)

Information tends to flow top-down from the management at organizations with a bureaucratic nature. Although this is acknowledged and understood as often unavoidable, employees prefer to receive information directly from the top management or CEO whenever possible. Information travelling through many layers may cause uneven and inconsistent distribution within an organization. Moreover, if and when the information arrives it may be filtered or even distorted. Supervisors may for instance decide not to forward information to employees because they might assume something to be common knowledge or think that the information has or will be shared through other channels. Another argument in the favour of direct communication is that employees feel important when they receive information first-hand (White et al. 2010, 72-73, 79).

Finding a balance in how information is shared is essential for teams or groups to succeed in their work (McComb, Schroeder, Kennedy and Vozdolska 2012, 11-12). Regarding the debate between too little or too much, the authors believe that disseminating too much information may be more harmful than communicating too little (McComb et al. 2012, 12).

On the other hand, lacking communications within a department are known to produce a significant sense of isolation, uncertainty, and dissatisfaction. Furthermore, being poorly informed and facing such negative feelings at the workplace is also related to a decreased involvement of employees for instance in the practice of decision making. (Hargie & Tourish 2009, 13.)

It would be invaluable to find a balance between the extremes regarding the amount and relevancy of information disseminated in an organization. White et al. note that it is possible to receive a sufficient amount of information, but it is not guaranteed to be the right kind of information needed though. (White et al. 2010, 69.)

Research has discovered that when employees are unsatisfied with the information they receive or have available, they may turn to other resources and that is why rumours catch fire (White et al. 2010, 80). Thus, organizations can benefit from keeping their employees well informed and satisfied, as this provides an additional competitive edge for the organization by making sure that employees will give a good account externally (White et al. 2010, 66).

2.2 Communication Channels

Communication and communication channels can be examined in many ways. For instance, communication channels can be divided into lean media and rich media depending on the channel's richness. Face-to-face is an example of a very media rich communication channel because it is optimal for sharing complicated matters and enables the receiving of feedback. Furthermore, communication can be classified into symmetrical and asymmetrical. A simple way of describing the difference between the two is that symmetrical communication is two-way and asymmetrical one-way communication. (Men 2014, 278-279.)

When selecting which communication channels to employ for internal communication and knowledge sharing purposes there are many things to consider. According to White et al. (2010, 69) the expectations of employees and the effectiveness of the distribution of a message both weigh as much when choosing the ideal way for disseminating information. For instance, employees still tend to favour email as the medium for receiving information even though it is not the ideal channel when disseminating sensitive or complex matters. (White et al. 2010, 74).

Due to the fact that emails tend to overload employees' inboxes, many people end up scanning their messages instead of reading them properly. White et al. found that nearly all of the people interviewed in their research had developed their own method for filtering emails. Decisions on whether to open and read an email, delete it or save for later viewing, often depend on the sender and subject. (White et al. 2010, 75.)

White et al. discovered a paradox in their study regarding the use of an organization's website. For starters it was assumed that employee's information needs were met due to the large amount of information available online. Furthermore, it was believed that all employees were accustomed to checking and reading the company website routinely. Adversely to these beliefs, the study found that while employees felt appreciative about the website and its accessibility, they seldom had time to look at it. Interestingly, the website was not perceived as a communication channel by the employees, rather as a library of information, that was utilized when in need of a certain piece of information for the most part relating to one's job. Considering the above, the authors conclude that even though the information may exist on the organization's webpage it does not mean that the information is found by its employees. (White et al. 2010, 75.)

Computer-mediated communication (CMC) technologies present new kinds of communication challenges within organizations and teams. With the increase of remote work and teams communicating via video conferencing systems and the like, a crucial question arises: how to keep dispersed team members committed, connected, and feeling valued? (Harris & Sherblom 2011, 260-261).

The above is a real challenge for organizations, because research has found (White et al. 2010, 79) that communication channels that can be characterised as rich media, such as face-to-face, are known to be more efficient in creating and promoting a feeling of community among employees.

In addition, according to the article by McComb et al. (2012, 10-11), the increase in communication technologies available during the past decade and more has not only made communicating faster and effortless but also it has expanded the time team members spend communicating at work which is time away from real work.

Snyder and Eng Lee-Partridge (2013, 420) present a four-layer model depicting significant factors that influence how information and communication channels are chosen when sharing knowledge in teams. The authors find (2013, 427) in accordance with Ipe's study (2003, 343-345) that the nature of the knowledge significantly impacts the knowledge sharing process. For instance, when sharing general knowledge, employees prefer to choose a communication channel they are comfortable with. However, when the knowledge is of a sensitive nature the security and privacy of the channel override convenience (Snyder & Eng Lee-Partridge 2013, 427).

Although organizations may feel that investing into new promising communication technologies is a good idea, it may be worthwhile to contemplate where communication funds are assigned (Snyder & Eng Lee-Partridge 2013, 427). According to research, email and face-to-face are still very much preferred communication channels (Snyder & Eng Lee-Partridge 2013, 425-427; White et al. 2010, 74-75). Another important aspect to take into consideration, as already mentioned earlier in this literature review chapter, is that more sharing of knowledge between individuals takes place informally rather than via formal channels in an organization (Ipe 2003, 354-355).

2.3 Knowledge Sharing and Internal Communication

Knowledge sharing has traditionally been of research interest to many different fields according to Ipe (2003, 338). The author reports on having used literature from inter alia management theory, strategic management, organizational communication, and organizational behaviour for her conceptual framework on knowledge sharing in organizations. However, Kalla's (2005, 310) summary of many research efforts shows that knowledge sharing is a rather recent aspect within the discipline of communication. Her article (2005, 310-311) shines a little light into this somewhat dark corner by bringing knowledge sharing into the discussion of internal communication.

Ipe (2003, 349) and Kalla (2005, 310) both discuss formal and informal ways of sharing knowledge within organizations. Both authors agree that an organization can facilitate the exchange of knowledge by creating networks or settings that help individuals to connect. In agreement with Ipe and Kalla, Cornelissen (2014, 173-174) proposes the use of social media within organizations as it can enhance interactions that encourage knowledge sharing and learning between employees. Kalla's research (2005, 310) also emphasizes the need for harmonizing the use of technology and face-to-face communications. Moreover, Ipe (2003, 349) ads to this notion that face-to-face communication helps to build trust, and trust, as already stated earlier in this literature review, is a significant ingredient for knowledge sharing.

Kalla, building on previous research (Mäkelä et al., 2004 in Kalla 2005, 310) explains knowledge sharing in her article as the "formal and informal exchanges through ongoing social interaction, which mobilise knowledge that is dispersed around the organization". Kalla carefully paints a picture that illustrates how knowledge sharing and internal communication fit together through her logical examination of two important topics that she highlights from her interview findings: a) efficiency and b) security and motivation. Efficiency is the desired result of well-functioning internal communication that boosts effective knowledge sharing. (Kalla 2005, 310.)

While seeking efficiency and the sharing of knowledge through effective internal communication, it is good to remember that less can sometimes be more. Kalla (2005, 311) in line with McComb et al. (2012, 12) addresses the abundance of information available nowadays which is so large in quantity that if it were to land in our inbox the effect could overwhelm us and in the worst case hinder us from performing our jobs.

Regarding the theme of security and motivation, Kalla proposes that knowledge sharing may help strengthen people's sense of security within the work environment. Furthermore, a feeling of security is needed to give way for motivation which is the important factor behind employee tasks and performance. Thus, security and motivation go hand in hand and effective internal communication can play a pivotal role in building up both within an organization. (Kalla 2005, 311.)

In summary of the above, knowledge sharing in an open and trusting environment tends to increase efficient performance of employees while improving their sense of security and motivation levels. Hence, it can be argued to have a significant role in internal communication as Kalla concludes by stating that the only way for an organization to achieve genuine effectiveness is to understand knowledge sharing at all levels as an incorporated part of integrated internal communications. (Kalla 2005, 311.)

2.4 Doctoral Students' and the Research Community

Martinsuo and Turkulainen completed a study (2011, 109) on the influence that doctoral students' personal commitment and varied support have on the students' progress in doctoral studies. The research was carried out at several Finnish universities making their findings applicable to Aalto University. The researchers align the Finnish doctoral studies under the European system which is characterized as informal with significant drop-out rates (Martinsuo & Turkulainen 2011, 109).

The findings of Martinsuo and Turkulainen (2011, 115, 117) highlight the importance of peer support regarding progress in both completing coursework and research. Interestingly, it is noted that, unlike peer support, support from supervisors and from the employer do not influence progress in both research and coursework (2011, 115). As a conclusion from these study results, the authors recommend the establishment of peer and discussion groups (Martinsuo & Turkulainen 2011, 117).

Sala-Bubaré and Castelló (2017) suggest in their study of doctoral students' experiences that the doctoral candidate's feeling of being part of the research community seems to be linked with positive experiences. However, they find that students' contentment regarding their position in the research community may be more influenced by the students' ability to work out and defeat problems rather than having had fewer negative experiences. The researchers propose a relation between having limited connections with other researchers and a sense of isolation from the research community. (Sala-Bubaré & Castelló 2017, 30.)

As a solution to these challenges faced by even the best students, Sala-Bubaré and Castelló (2017) advocate assigning resources in institutions to develop and encourage students to understand the importance of taking the initiative in overcoming and solving problems. The authors highlight the significance of communicating “terms, roles and responsibilities” to the students in order to limit some of the known problems from occurring. They state that negotiating these important factors with the students is not only the responsibility of the supervisor but people in other key support roles should participate too. (Sala-Bubaré & Castelló 2017, 31.)

Their research also emphasizes the effect a doctoral students’ positioning within the research community has not only on their journey in obtaining their doctorate but also on their future career in academia. Thus, it is capital for students to take an active role in establishing and growing their research networks and creating relationships with other researchers. Naturally, institutions and universities should promote and support students during their journey of becoming autonomous researchers capable of solving problems. (Sala-Bubaré & Castelló 2017, 32.)

Successfully communicating within an organization can be a challenging task due to the complex nature of internal communication as illustrated in this chapter. In the best-case scenario, all internal stakeholders are within reach and thus receive adequate information resulting in information satisfaction, knowledge sharing, efficiency, security and motivation, all of which help cultivate a sense of community.

In this study internal communication is understood largely along the lines of Kalla’s definition of integrated internal communications (2015, 302, 312) as all the formal and informal communication efforts that take place at all levels within an organization no matter the position of the communicator(s). Knowledge sharing is perceived as a significant part of internal communication since they go hand in hand both having an impact on the other. In a trusting environment where internal communications are open, knowledge is also shared more freely.

3 Conducting the Study

In this chapter the chosen research methods and methodologies are presented after which the research progress will be described including both the research and development phases. The empirical findings from the interviews and results of the development meeting will be explored and explained in the following chapter.

3.1 Method and Methodology

Qualitative constructive research was selected as the method for conducting the overall study. Constructive research aims at creating a concrete construct, model or plan based on research. The objective is to create a new tangible reality or product as a solution to a real problem or need. Besides the use of research theory new empirical data is needed in the construction process. The chosen method suits this project well because the intent of this thesis is to create tangible instructions on how doctoral communications can be developed at the School of Business. (Ojasalo, Moilanen & Ritalahti 2015, 65.)

Qualitative methods are a favourable choice when seeking understanding of a phenomenon (White et al. 2010, 66). Therefore, qualitative semi structured interviews were chosen as the method of this research because I wanted to understand the perceptions of doctoral students regarding communication, finding information and sense of community. A quantitative survey would not have met this need since surveys offer only fixed response choices as described by White et al. (2010, 66).

The development phase had initially been planned as a workshop utilizing divergent and convergent thinking, however, because of the corona virus situation, the plan had to be rethought and simplified. It was then conducted as a remote Microsoft Teams meeting that was recorded. During the meeting chosen key people were introduced to the interview findings and improvement ideas, after which, they had a chance to evaluate them.

After the development meeting, written instructions were constructed based on the results of the meeting, the interviews with doctoral students and research literature. These instructions, which go under the title of Development Plan, include suggestions for tangible actions that the School can take to better the internal communication situation of the doctoral students.

3.2 Empirical Phase

Prior to the actual research of this thesis, the current state of communications was looked into by performing informal short interviews with colleagues and key people who work with doctoral students. A part of this testing of the waters included interactions with people in charge of doctoral programme studies at the other schools of the University. These questions, asked both at the School and University level, were carried out both by email and face-to-face meetings and helped in defining the next steps of the research. In other words, this informal first phase of gathering informal information was a good steppingstone to drafting the interview questions (see Appendix 1) for the actual research.

The research part of the thesis was conducted by semi structured one-on-one interviews that consisted of questions regarding internal communication, sense of community and at the end of the interview, development ideas. (For more information about the interview questions, please see Appendix 1.) Due to the COVID-19 spread around the world and the needed strict measures, inter alia the closing of schools and universities, working, and studying from home, taken by our government, the empirical research plans had to be thought over. The interviews were initially intended to be held face-to-face in March, however, because of the situation at hand plans changed a little. In the end Microsoft Teams was used for interviewing the doctoral students remotely as the software also enables recording meetings. The interviews took place during the first two weeks of April.

I had planned on interviewing a small number of students from at least two different departments to ensure a good portray of the group. The idea was to interview as many students as needed to reach enough consistency among the responses. After receiving unanimous answers from 2-4 respondents to several issues, I felt enough material was gathered for the research. In qualitative research it is the recurrence of thoughts and experiences that is of significance, not the size of the sample (McCracken 1993 in White et al. 2010, 71). At this point a total of five doctoral students had been interviewed from three different departments. A general overview of the sample group is given in the following chapter (4 Findings) that represents the interview findings in more detail.

The respondents were told during the interviews that the recordings will be stored until the thesis has been accepted. Also, their identity or even department will not be revealed in this work.

After interviewing the doctoral students, the recordings were transcribed into a Microsoft Word document and each responded was given a code. In order to ensure that the interviewees cannot be identified from this study, I have abstained from using the codes when referring to or citing an interviewee. The written text was analysed by comparing the respondents' answers and experiences against each other and then linking these findings with research literature. Same or similar experiences and thoughts expressed by more than one student were given more value to than answers by just one student in order to assure research reliability.

3.3 Development Phase

The development part of the thesis took place as a remote Microsoft Teams meeting in the beginning of May. First, I introduced the core findings and development ideas using a PowerPoint slideshow in a neutral manner to the chosen three key people that participated in the meeting. I had also sent the slideshow material to the participants beforehand. After this introduction, they had a chance to comment and express their thoughts and ideas on how the problems could be developed to gain the best possible results in a way that suits the School's larger perspective. The two key professionals chosen to participate in this task are in charge of the School's communications and learning services. Naturally, there was also a doctoral student present at the meeting to make sure that the students' point of view is considered in the development phase. The chosen student has a comprehensive understanding of functions at the School as well as communications. The meeting was recorded in Teams and permission for recording was asked for when commencing the meeting.

As the method of this thesis is qualitative constructive research, a concrete construct was created after the interviews and development meeting. This construct is based on the results of the entire study consisting of previous literature, interview findings and evaluation and development of ideas with key people of the School. This creation is named Development Plan and is found in chapter five under the same title. The development plan consists of tangible suggestions and instructions for actions that the case organization can take to further improve doctoral student communications.

4 Findings

The interviews with doctoral students were very fruitful. They proved many of my pre-expectations and thoughts on communication and community spirit related issues, but also brought new insight that I had not thought about. The students were also surprisingly willing to give advice on the matter.

In the following subchapters, I will go through the most significant findings that surfaced during the discussions and analyse them in more detail as well as present the results and implications from the development phase. The detailed instructions for developing the communications at the School, which is the concrete result of this study, are found in the next chapter (5 Development Plan).

4.1 Interview Findings Regarding Internal Communication

A total of five doctoral students from three different departments were interviewed, thus, half of the School's departments are represented in the sample. The interview sessions lasted ca 30 minutes except for one longer interview. It is believed that a good level of heterogeneity amongst the interviewees was reached as there were PhD students from different stages of their studies, foreigners as well as Finns and both men and women. Most respondents were in their 2nd to 4th year of studies and all but one had always been at least partly employed by the School. The official length of the doctoral programme is four years. Four out of five interviewees were also full-time students.

As shown in Figure 2 in the introductory chapter, there are 187 doctoral students studying at the School. Out of this number approximately 10 % (18) do not have an employment contract with the School. Only one of the interviewed students had experience of not being employed by the School during their doctoral studies, thus, this may need more research for validation as direct conclusions cannot be made from the experiences of one person. However, some grave issues affecting both communication and community spirit did arise during the interview and need to be further investigated to ensure that these students are not in a weaker position compared to their employed peers. These issues include not receiving the School's weekly newsletter, Business School Post.

In general, most of the interviewed were fairly happy with the current communication situation at the School and at their departments and/or units. As mentioned earlier in this work, there are departments with only one subject and departments with several subjects which are divided into units within the department.

During the research it became clear that the communication problem is more complicated due to different communication levels and actors and “two parallel solutions” are needed, as one interviewee described it. On the one hand there is the issue regarding mostly general information that all doctoral students receive from the School, regardless of what their field of study is, and then there is the dissemination of information at each department and/or unit. Naturally, these communication levels should not be treated as separate from each other. This issue of communication being performed on several levels by many people is identified above in the literature review in regards a research article that proposes the integration of all internal communication (Kalla 2005, 302).

As stated previously in the introductory part of this thesis, and confirmed by this research exercise, the quality of communications varies at different departments and even in units within departments. Some students felt well informed while others were far from satisfied regarding the communication efforts of their departments or units. There are important department or subject related matters that need to be conveyed to doctoral students by their own departments. Therefore, these issues cannot be taken care of by the School. One doctoral student, that was less contented with the departmental level communication, stated that fixing the issue may require a cultural change that ought to come from the management of the School.

In agreement with research (Kalla 2005, 311; McComb et al. 2012, 12) as also discussed in the literature review of this study, too much information maybe more harmful than receiving too little, as several doctoral students complained about receiving a lot of irrelevant messages. Disseminating information about courses or seminars, that may be relevant to students of other study fields, were mentioned as an example of these unwanted emails. One student had become so frustrated with the large amount of insignificant emails that s/he stopped opening and reading the messages. This of course resulted in the student possibly missing out on also relevant information, which s/he acknowledged as her/his own fault. Another student explained that s/he skims through all the messages to see if there is anything of interest.

Both of the above-mentioned examples of behaviour described by the interviewees have been recognised in research as personal filtering systems that have been developed in order to cope with receiving large quantities of email (White et al. 2010, 75).

Receiving a significant amount of irrelevant information is one of the problems resulting from both this multi-level communication situation and the characteristics of different study fields. An interviewee suggested a possible solution to reduce the high number of messages: information for instance about available courses and seminars could be gathered and then sent in a newsletter type email. This could help students of other fields, who find the information unrelated to their research work, feel less frustrated.

For some students needed information was easy to find as they knew who to ask or where to search for it. The majority, however, felt that finding relevant information was hard and typically requires some self-initiative. One of the challenges is that information is scattered in many places. In accordance with research (Ipe 2003, 354-355) discussed in the literature review chapter, i.e. that more sharing of information takes place informally, several respondents revealed informal resources to be the best way to obtain required information. They often turned to the department secretary, their supervisor, other academics, or their peers to fulfil their information needs. The University's renewed webpage Aalto.fi was not mentioned in a very good light regarding finding information. It was also criticized for not having material for doctoral students.

The findings regarding communication channels, mainly email and the organizations' webpage as discussed above in this chapter, were for the most part the same as what White et al. found in their research on said media. For instance, it should not be taken for granted that employees find and therefor are aware of information that has been uploaded online (White et al. 2010, 75).

Some respondents admitted to being clueless regarding the organization behind doctoral studies and the communications they received. Due to this shortcoming they are unaware of whom to contact regarding different issues. The problem is often resolved by communicating with people in one's closest circle.

It seems, indeed, that regarding formal communication channels, supply and demand do not always meet as the formal dissemination of information is often perceived as irrelevant and excessive while students tend to find more useful information through informal interactions.

Another issue brought up by a student during the interviews was the trustworthiness of information when it is not received directly from the sender. As some of the email messages travel through an unknown number of people, instead of being sent directly by the sender to the end receiver, the contents may have changed on the way and, thus, the quality of the messages may no longer be prime. This issue of messages travelling through multiple layers and resulting in uneven and inconsistent distribution is recognised in research (White et al. 2010, 72) and discussed in the literature review chapter of this thesis.

An additional problem resulting from the above-mentioned chain letter type communication in agreement with the researchers' (White et al. 2010, 72) findings, is the inequality regarding the receiving of messages. Some students may receive the messages a lot later than others. But far worse than receiving messages later than others is the possibility that some senders may even forget to pass on messages or consider a message unnecessary and decide not to forward it. According to the student, the messages usually arrive but one must then search for further information as the received messages tend not to be comprehensive. A student from another department also specified having to make the effort to look for supplementary information elsewhere after receiving a message of interest.

On the topic of missing out on important information, two respondents stated the fact that it is impossible to know what information you may not have received. Sometimes you may hear about it from elsewhere, but not always. Furthermore, one interviewee felt that the biggest problem from his/her perspective is that doctoral student communication at the department is in the hands of one person. A couple of students said that they had indeed missed out on significant information. One of these cases had to do with funding, which is very unfortunate, as funding was mentioned by almost all the interviewed doctoral students as the most significant matter that they wished to receive information about.

Furthermore, it seems that students and other people who are not employees in the official sense miss out on the School's weekly newsletter and possibly invitations to events like the annual Christmas party. This is just what Cornelissen (2014, 165) expects to avoid when instructing on the effective functioning of internal communication so that the whole employee base is reached.

With the existence of many different communication levels and channels it was interesting to discover that receiving the same information multiple times was not perceived as a problem by any of the respondents. Other than corona virus related communication, this was not something that occurred often.

Nearly all of the interviewed students mentioned funding and funding related matters as the most significant subject that they as PhD students typically require information about. Possible changes regarding funding and other Human Resources matters were perceived highly important. Other essential topics that were brought up include information on courses and events, later employment opportunities, and core information related to the student's role and work. For example, it is not always clear what work equipment and services doctoral students are entitled to.

The majority of the respondents wished for general information to be available to all doctoral students in a centralized and dedicated easy to find manner. This was mentioned by them before we came to the development part of the interview where development ideas were presented to them. One of the interviewed doctoral students phrased the wish of the students regarding finding information as follows: “Key information is good to have in a like a emails and newsletter type things…then if it is general information to have like a dedicated kind of um page that has all the necessary information.”

4.2 Interview Findings Regarding Sense of Community

In general, most students felt there was a good community spirit within their department and/or unit. However, when discussing the community of doctoral students at the School level, all agreed that there is not much of a community. People do not know their peers in larger departments and from other departments, especially departments that are on other floors, and there are significant silos between study fields that are far apart. On a more positive note, the move under the same roof in Otaniemi has improved the situation, and now, at least the departments situated on the same floor seem to be closing some of the gaps.

It needs to be noted here that the replies to the question about feeling part of the community at the School of Business may address either being part of the community of the School in general or part of the community of doctoral students at the School, or both, as this was unfortunately not always clearly stated by the researcher.

In accordance with research on doctoral studies (Sala-Bubaré & Castelló 2017, 30-32), active students taking responsibility of their own networking seemed to feel a stronger community spirit at the School of Business. In addition, along the lines of the same above-mentioned research, obtaining a positive history with the School appeared to result in a positive feeling of belonging.

Being invited to events was mentioned as an example of a positive factor that seemed to increase the sense of community at the School of Business. Sadly, vice versa is also true as was experienced by a student when they were not employed by the School. Hence, missing out on invitations has the contrary effect on feeling a part of the community.

Peer support was acknowledged as important and well-functioning by most of the respondents as well as support from the service functions. It is safe to say relying on research (Martinsuo & Turkulainen 2011, 115-117; Sala-Bubaré & Castelló 2017, 30-32) that peer support together with positive experiences and successful networking within the research community have a significant role to play regarding the doctoral students' feeling a part of the community.

4.3 Interviewees' Thoughts on Development Ideas

All but one respondent said they would be willing to participate in sharing information and building the community spirit if a communication platform joining all the PhD students at the School was taken into use. Albeit a few voiced their concern regarding how active they would be as they felt either hesitant regarding what information they could share or if they would be able to put in the needed time and effort. Also, it was pondered whether the platform would spark enthusiasm or remain quiet and die.

All respondents thought it was a good idea to have a team of service personnel dedicated to supporting the needs of doctoral students. One student brought up the fact that it could be cost-efficient:

> No this sounds very nice. Yeah, it's I guess it's a good idea. Then I am also seeing that it wouldn't be like a massive part like a lot of extra work because I think the amount of you know work for this would be quite minimal um so it sounds like a small cost to pay for having such a useful service. (Doctoral student interview April 2020.)

Also, healthy criticism was heard as one student questioned the need for a larger community of PhD students. S/he felt it was more important and realistic to concentrate on developing the community and communications at the department and later perhaps form a community around the study field.

4.4 Evaluation and Development of Findings and Ideas

The development meeting with key people in charge of communications and learning services as well as a doctoral student was positive and informative. We had a good discussion about the key findings of the interviews and tried to come up with solutions how things could be improved. However, in this development part of the journey, obstacles appeared when presenting the ideas for evaluation. The proposed ideas did not fall on fruitful soil in their current form because the ideas were incompatible with the present communication structures and personnel resources of the School. Thus, it became clear that very few significant approvements could be made at this point.

During the meeting, the terms *key information* and *general information*, which came up in the interviews, were defined with the help of our doctoral student representative. As explained earlier in this chapter, interview respondents had voiced their preferences for receiving key information for instance in a newsletter and that all needed general information could be easily available for all the students on a dedicated page.

- Key information has to do with timing i.e. current information about what is happening right now or in the near future. The interviewed students wished for this kind of information to be disseminated in a newsletter type fashion.
- General information is mostly unchanging information or information that does not change often and which all the students have a need for at some point.

The following examples were given to highlight what general information needs doctoral students have: structure of doctoral studies, courses taught during the current study year, list of foundations that give out grants to doctoral students, responsibilities of a teaching assistant, and salary policy regarding course assistant duties.

It was reasoned that these general information needs, that were defined above, include information about studies, employment, and events. Furthermore, it was stated that Aalto University’s policy is that all study related matters are stored and updated in Into (into.aalto.fi), employment matters are the responsibility of the HR function and the information is maintained on the University’s internet page (aalto.fi) on the internal side which requires logging in. Events are also found in aalto.fi, internally and externally depending on the nature of them, but in a different place compared to HR matters and other needed information. Thus, it was concluded that as the needed general information is scattered in many places, the problem of the students is understandable. The information is impossible to find and on the other hand also impossible to maintain.

During the discussion we realized that it seems that students are unaware of the fact that all study related information exists in one place in Into, as we call it. This is communicated to all programme levels of new students at their orientation; however, it was concluded that it may be a good idea to remind students about Into. This issue of students being oblivious or uninformed regarding the whereabouts of study related information also came up during the interviews as one student admitted to having looked for the structure of doctoral studies but never found it.

This breaking down of different information needs helped in trying to understand the situation and then think of solutions. Unfortunately, no matter what angle was taken while trying to find a possible solution, a dead-end nearly always was looming around the corner as our chosen structures Into and aalto.fi do not support integrating or connecting of information. Also, the current situation does not enable a normal intranet. In aalto.fi both internal and external webs are in the same system, while most of the information is public, there is some information available for the Aalto community only and it requires logging in. The former intranet (Inside) would have better suited for these needs.

Regrettably, even though the development ideas were thought to be good, the existing condition is that there are not enough personnel resources within learning services to create and maintain the suggested dedicated webpage or Teams channel for general information, nor a newsletter for key information. As one possible improvement, a suggestion was made to enquire if the Human Resources function has the resources to create and maintain an internal webpage that has all the updated information regarding employment and other HR matters that concern doctoral students at the School of Business. It is worth mentioning that funding and employment matters of PhD students are quite different at the School of Business compared to the other schools within the University.

Additionally, the communications function at the University level has decided to discontinue all newsletters. It is yet to be decided as of when this will happen. The reason for ending the newsletters is that aalto.fi will in the future incorporate a system offering a substitute for newsletters by enabling its users to customize their content regarding news and events. However, as this option is not yet available, the discontinuation of newsletters has been postponed to the unknown future. The threat of all newsletters ending is also the reason why efforts have not been made to improve these media by for instance developing an automation system for mailing lists.

As illustrated by the results of the University's wellbeing survey (Aalto University 2019), employees of the School highly value the newsletter Business School Post which brings the current highlights to one's email every Thursday. According to the interviews and our doctoral student representative, the newsletter is also much appreciated and read by PhD students. The fate of the Business School Post is still unclear. In the meantime, it may have to be changed from a weekly publication to bi-weekly as the newsletter requires quite a bit of manual labour.

Furthermore, on the subject of the newsletter, the matter of doctoral students that are not employed by the School and, thus, do not receive it, was discussed and a solution was hopefully found. The problem is mainly technical, and this is not the first-time people have tried to tackle it. At the meeting it was decided that the lists of doctoral students (and other people wishing to read the medium) that are not employed by the School could be submitted to the person in charge of the newsletter and manually added to the mailing list on a monthly basis.

With reference to the general information mostly sent by the doctoral programme coordinator, which was perceived as irrelevant by some of the interviewed students, it was highlighted that the requests for sending the messages come mainly from the academic side of the School. It was further explained that these messages, containing information about for instance courses, need to be disseminated without delay to all the students and, thus, the coordinator cannot wait to accumulate information about other courses or seminars. Moreover, it is impossible for the sender of these messages to know what information is relevant or irrelevant.

In the light of this emerged information, it would have been useful to include the academic function of the School into this development part. One of the reasons I decided not to do so was that professors have been extremely busy due to the corona virus situation. They have had to arrange teaching and exams remotely and online. Also, a number of our academics are involved in various research efforts regarding for instance the economic situation at hand. Another and final reason for not asking a representative from the academic side to take part in the meeting was that the chosen programme, Microsoft Teams, functions better with fewer participants. This is why the number of doctoral students invited was also reduced to one participant.

The idea of a dedicated team found a slightly different form during the end of the development meeting. It seems that only the coordinator of the doctoral programme has access to the mailing list containing the email addresses of all the doctoral students at the School. In regard to this information and the fact that the learning services have little to no extra personnel resources, a question was raised by the researcher enquiring whether other people could have access to that list and use it to send information to the students. This email list could be used by HR for instance to disseminate important information about funding directly to the doctoral students instead of having emails travel through many layers before reaching their target. This was thought to be a very good idea and it was concluded in the meeting that measures should be taken to enable the use of the mailing list by other people i.e. IT support may need to be involved regarding the granting of permissions. It is important, though, that the access rights should be limited to only the needed people.

The above-mentioned widening of emailing rights to carefully thought out key people could somewhat obviate or lessen the need to form a team to support the doctoral students. However, this may bring up some concern to whether the number of emails received by the students, which is already high, might increase. On the other hand, the emailing of key information directly to the students by a couple of authorized people may decrease some of the emails that in the current situation are travelling via the departments and may be disseminated through many layers of inboxes before they reach the students.

Regarding the issue of community spirit, it was expressed that an increased sense of community among all the students within the whole School would be invaluable, however, due to the diversity in study fields and the number of students, it is not realistic nor something that comes naturally. More value and effort should be inserted into improving the sense of community in departments and units through communication, knowledge sharing and events. Thus, considering the interviews with doctoral students and the discussion at the development meeting, it does not seem feasible or even needed to form a team or community of all the doctoral students on the School level.

In light of the above discussed issues, as a realistic and cost efficient first-aid measure to help with the students' challenging task of finding information, I suggest the preparation of an "information map" that guides doctoral students in the right direction to find the needed information sources. This could be a document and/or webpage containing links and information acting as a plaster. The drafting of this information map could be done as a collaborative exercise between doctoral students and service personnel. The information map could then be disseminated to all the current students as well as new doctoral students at the time of their orientation.

As for the much-debated newsletter, it could be looked into whether there is a better situation regarding personnel resources within other service functions. This could be a simple monthly or less frequently appearing email that combines key news from different departments. Each department could present their own doctoral student specific news under a headline named after said department. The newsletter could also have a section for general information. This should not require too much effort or work, mainly a person responsible for collecting the information from the departments and then sending it in concise reader friendly form to the School's doctoral students. This measure would help to integrate some of the communications takings place on different levels, reduce the number of emails received and also enhance a sense of community by sharing information about what is happening in other departments.

5 Development Plan

In this chapter suggestions on how to develop the doctoral communications at the School of Business are presented. These instructions and suggestions are based on the literature review, interview findings and development discussion. It is up to the organization which development suggestions it wishes to implement. The next chapter (6 Discussion) will conclude the thesis.

5.1 Suggestions for Developing the Doctoral Student Communications

The following suggestions have been constructed after evaluation of theory, qualitative research results and an evaluation meeting with key people from the School of Business. It is suggested that the management of the School examines these against the organization’s strategy, values, and vision, as well as available personnel and other needed resources and University policies, and decides which measures are useful and can be implemented.

Each suggestion focuses on resolving one or more communication issues that were discovered during the research. The communication problem and/or level of communication that each point addresses is highlighted with italics. Many of the suggestions work together with one or more ideas and jointly help integrate communications and develop community spirit.

1. Departmental level communication: A cultural change regarding how leadership and departments perceive and value internal communication would benefit the organization as a whole. This is to do with the significant differences regarding quality of communication in different departments and units. Furthermore, internal communication could be developed at departmental level with the circulation of an informal departmental newsletter/email constructed by for instance secretaries. The success of this depends, however, on how willing professors and other employees are to share information with the secretaries. This may come back to the needed cultural change which should be led by the top management. Alongside giving instructions and promoting the importance of internal communication, leading by example is suggested as a good approach.

2. *Key information disseminated from the School level:* Access rights to the email list of doctoral students should be expanded. Key people, who may disseminate information directly to the students, need to be determined as well as establish policies regarding what information may be communicated through this channel. It is suggested that aside from the coordinator of the doctoral programme, access could be granted to dedicated

service personnel from e.g. HR, finance, communications, and perhaps secretarial services.

3. *The challenging task of finding general needed information:* The preparation of an “information map” that guides PhD students in the right direction to find the needed information sources is recommended. This could be a document and/or webpage containing both links and advice to information resources. The drafting of this information map could be done as a collaborative exercise between doctoral students and service personnel. The information map could then be disseminated to all the current PhD students as well as new doctoral students at the time of their orientation. As a secondary yet important smaller measure, current and new students should be reminded that all the study related information is found in Into.

4. *Integrating departmental communication with School level communication:* Regarding the suggestion of a newsletter dedicated to doctoral students, it could be worth the while to check on the personnel resources of service functions, excluding the learning services. The newsletter could be a simple email sent monthly or less frequently that combines key news from different departments. Each department could introduce their own PhD student specific news in the letter. The newsletter could also have a section for general information. The medium would mainly need a person responsible for gathering the information from the departments (i.e. from the professors in charge of doctoral studies at each department) and then sending it in a concise reader friendly format to the School’s doctoral students. This newsletter could, aside from reducing the number of emails students receive, also help increase sense of community.

5. *Doctoral students that are not in an employment contract:* In the absence of a better solution, department secretaries with the help of HR-coordinators should be advised to send the joint lists of doctoral students and other people who are no longer in an employment agreement with the School of Business, but who wish to receive the Business School Post, on a monthly basis to the person in charge of the newsletter so that these email addresses can be added to the mailing list manually. This is a small thing that makes a significant difference as receiving the newsletter, besides being informed about current news and events, also speaks volumes regarding feeling part of the community. This measure also addresses the issue of equality between doctoral students who are not in an employment contract and those who are.

6. *Significant general HR and funding related information*: Funding and HR related matters were perceived as the most important information doctoral students have a need for. As these differ greatly from other schools within Aalto, it is suggested that the HR function, resources permitting, could gather funding and other HR related matters concerning PhD students and update this information on a regular basis. This information could be on an internal page in aalto.fi and/or an internal document that can be easily disseminated to students. Naturally, key information about applying for funding etc. should also be communicated to the students by email (see point 2).

7. *Sense of community within departments and units:* While an increased feeling of community amongst all the PhD students of the School would be ideal, it is not something that comes naturally due to the number of students and differences between the disciplines. Therefore, it is suggested that more value and effort is put into developing the sense of community of doctoral students in departments and in units through improved departmental communication (see points 1, 4 and 5) and other efforts. These efforts could involve events both for the whole personnel of the department and/or unit (including students) and students only. Also, peer to peer support should be encouraged by formal and informal interactions.

6 Discussion

In this last chapter, the research questions will be examined against the research and development results. Also, reliability and validity matters regarding the research will be reviewed as well as the role of the researcher. Regarding the researcher, there is a subchapter reflecting on learning outcomes. Last but not least, suggestions for further research are made.

6.1 Conclusions

The purpose of this study was to research and develop the doctoral student communications at Aalto University School of Business with the objective of the students feeling that their information needs are met and, as a further result from this, that their sense of community may increase. Open and trusting internal communication can impact knowledge sharing in a positive way. And information satisfaction resulting from well-functioning knowledge sharing has an impact on sense of community, efficiency as well as security and motivation. All of the above are needed to enhance the wellbeing of PhD students as well as boost the efficiency of their studies. In the best case these measures will help students to receive their doctorate on time and to reduce dropout rates.

In the following section, I will first go through all of the research questions that the study attempted to answer, both primary and sub questions, and the findings regarding them. After this the implications and suggested improvements will be examined together.

The primary research question was:

> RQ: How should the communications at the School of Business be developed so that the information needs of doctoral students are fulfilled resulting in them feeling a part of community?

And sub questions of the study were:

> SQ1: What are the specific information requirements of doctoral students at the School of Business?
>
> SQ2: How should the information be disseminated so that it best reaches them?

The main research question (RQ) was well embedded within the interview questions and good results were received from the interviews. Several issues were identified during these interview discussions and it was also realized that the communication problem is complicated. Firstly, there is the reality that information is being disseminated by different functions at different levels. Secondly, the challenge of different disciplines having contrasting requirements regarding information. And thirdly, the fact that information is scattered in different places makes it impossible for students to find what they are looking for.

Regarding the first sub research question (SQ1), it was discovered during the interviews that the doctoral students have two kinds of information needs which have been identified in this study as *key information* and *general information*. Key information was characterised as significant information that has to do with timing, it may be needed now or in the near future and has to do with current things that are happening. A good example about important key information could be a change in the School's funding model regarding doctoral students or an announcement that a foundation is giving out research grants for doctoral studies. General information is not tied to time very strictly, it is information about various topics that all or most doctoral students have a need for at some point during their studies. These could include for instance instructions about publishing one's dissertation, the responsibilities of a research assistant or information about work equipment that doctoral students are entitled to.

As for SQ2, a clear message was communicated by the students on how they wish to receive the above-mentioned key and general information. Students wanted to receive key information in a newsletter or by email and as directly as possible. For general information, a dedicated webpage or the like was expressed to be optimal. The main point was that the information would be all in one place and easy to access by all the students.

As previously discussed, when evaluating and trying to accommodate these wishes, as well as find a solution to the problems encountered regarding the main research question, it was found that the fundamental hindrances are to do with insufficient personnel resources, communication systems not being compatible and the University's policy regarding the future of newsletters.

Solving all of these problems sufficiently and quickly, requires bigger changes and adjustments from the organization than what seems possible at the moment in the light of the development meeting. The execution of smaller realistic changes is possible, as discussed in a previous chapter (4 Findings). Although these smaller development suggestions may, at a glance, seem mainly cosmetic by nature or what you could call first-aid measures, they may over time prove to have a significant impact on the School's doctoral student communications as well as on the sense of community of the students.

Improvement suggestions both for smaller and larger scale changes, based on this whole study, have been made in the development plan (see previous chapter). It is now up to the consideration of the School as of which changes and development ideas can and will be implemented. Implementing many or most of the suggestions will also help in the integration of internal communication as well as improve knowledge sharing.

Besides the research questions, an additional minor goal of the study was to find out who has or should have ownership and responsibility over doctoral student communications at the School. Regrettably, the study was unable to provide a satisfactory answer to this question due to the various actors and levels of communication. Further research would have been needed, but as this was not a top priority of this study, the matter has been left as such. However, it can be safely assumed that the director of the doctoral programme together with the other doctoral programme committee members have the last say on things and, thus, also the authority and responsibility over communications.

6.2 Reliability, Validity, and the Role of the Researcher

This research was conducted in the most ethical and trustworthy manner as possible and all measures thinkable were taken to ensure the reliability and validity of the process. However, it may be a near impossibility to not let one's own perceptions or beliefs impact the work in the slightest especially in this case where the researcher is also an integral part of the case organization. Another limiting fact is that this work is the product of a sole author and, although, the research process has been documented with the most truthful intentions and as accurately as viable, it is unavoidable human nature that a person may interpret or understand something differently. Another pair of eyes and ears could have helped better ensure accuracy and reliability had this work been co-authored. However, master's theses seldom are conducted by more than one researcher.

In the research phase, the interviewees were chosen neutrally with the objective of reaching a balance among them regarding for instance diversity. Students from several different departments were invited to participate in order to provide a good representation and to avoid bias towards a department or subject. To ensure research reliability, similar or same thoughts, ideas and experiences that were expressed by more than one doctoral student were given greater value to than responses only by one student.

The data was stored in a password protected computer and the recordings of all the interviews and the development meeting will be deleted after the thesis is finished and accepted. To assure confidentiality, the interviewees were made anonymous and even the departments are not mentioned in the work. For this same reason, the different disciplines were not mentioned either as having even utilized the words qualitative or quantitative in regards the interview results may have led to the departments being revealed. Because of confidentiality reasons and the very small interview sample, the respondents' codes used by the researcher are not revealed in this thesis when referring to the interviewees or citing their responses.

The interview data was drawn from a small qualitative sample and undoubtedly a much more reliable result would have been received if a quantitative survey had been sent to all the ca 200 doctoral students. However, as such surveys tend to contain fixed questions and answers, the resulting data would most likely not have provided all the wanted answers. Furthermore, in regards of the size of the interview sample and the fact that the sample was drawn from one institution, the results and implications are not generalizable without further research.

In consideration of the above explored facts, it is believed that the research and its results are reliable and genuine. Should any errors or mistakes be found, they are due to human limitations.

6.3 Reflection on Own Learning

This journey of writing a master's thesis has been a long and winding road, including all the trials of running a marathon. There have been times when I lost sight of the goal and faith in the research project as well as in myself. The corona virus pandemic spread its own share of grief into the game. Still, it is not winning with shining colours but the journey from the beginning to the finish line that matters as that is where the learning curve reaches its peak.

I am a confident writer and enjoy the process of typing words to form meanings. Nonetheless, during this writing project feelings both of pleasure and despair took turns like a rollercoaster ride. I began to understand the deeper meaning of writer's block. Luckily, I managed to tackle these hindrances. The closer the deadline dawned the more efficient my work became and I found myself striving through what seemed an endless number of 8-10-hour days.

I struggled the most with creating content for the review of related literature chapter as that area is the most regulated within academic writing. It can be challenging to try to make sure that the references and citations are correct, in the right places and referring accurately to the rightful owner of each thought.

Besides learning how to use the Oxford comma, this project has taught me invaluable lessons in self and time management as well as project leadership. Like so many others as described in an online BBC article (Jarret 2020), I have a tendency to procrastinate when insecure about my abilities or how to proceed with a project. It was an interesting revelation from the above-mentioned article that procrastination has more to do with emotions and managing them than time management or being lazy. This personality trait often leads to taking my time in getting started and then of course having to perform under a pressing deadline. However, through experience in both working life and studies, I have come to realise that working under pressure, more often than not, bares good fruit although I could live without the stress and uncertainty it causes.

In hindsight, it feels good to have gained victory over one's insecurities and fears as well as feelings of disappointment. One especial lesson was learned when dealing with disappointment brought on by the unexpected anti-climax during the development phase. The problems regarding the accommodation of the proposed ideas came as a surprise to me as I was unable to perceive the situation from the School's point of view. After taking a deep breath, I pulled myself together and took on the challenge of finding a way out of the situation which at the time seemed like a dead-end. The problem was tackled by revisiting the situation with an open mind. This was accomplished by listening to the recording of the development meeting while taking notes and analysing what was being said. In this manner I was able to see new prospects and angles.

Being able to pull this project through, while working full time and being a single parent amidst uncertain and changing times caused by a worldwide pandemic, has also given my self-esteem a nice boost. It was quite an adventure including a couple months' worth of home-school, remote working, cooking lunch every day, having repair work being done due to damage caused by rainwater and even an episode with a swarm of bees. Yet, I would not change it for the world as now I can smile and say that trials have turned to gold and it was all worth the challenge!

6.4 Suggestions for Further Research

Although this thesis answers the set research questions well and the results are in line with previous research literature, some things may need more examination. Firstly, it would be good to further research the situation regarding doctoral students who are not in an employment contract within a university and compare the results with those who are. In this sample there was only one person who had experience of not being employed by the School, therefore, the findings do not qualify as reliable research data versus had there been two or more respondents in the same situation. These differences, that were merely scratched in this study, if further studied, may result in having a significant effect on various important matters such as equality, communication and sense of community.

Additionally, another interesting topic to further examine are the varying characteristics of different disciplines, for instance disciplines that are dominantly quantitative versus dominantly qualitive study fields, and implications thereof regarding different information needs of doctoral students. It would be useful if research could find improved ways of accommodating these different characteristics and needs of different fields into practice so that the results could be utilized in universities.

Finally, as the interview sample of this study is quite small and depicts findings from just one institution, it would be interesting and beneficial to conduct a broader research consisting of a larger group of respondents, perhaps including several universities. Such a study may find different results and implications than this one did. No matter the outcome, it is undeniable that the results of a larger study could be better generalized.

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Attachments

Appendix 1. Interview Questions

Question Frame for PhD Student Interviews

General Questions

1. Which year of doctoral studies are you in?
2. Are you a full-time student?
3. How has your funding been organized during your studies i.e. have you been funded by the School or externally, or both?

Questions Regarding Communication

4. Do you feel there is a difference regarding communications received when in an employment contract versus being “a visitor”?
   - If yes, what kind of difference?
5. In general, how do you feel about the communication that PhD students receive?
6. How do you feel about the amount of information you receive or find available?
7. And what about the type of information received/available, what do you think about it?
8. Do you feel you receive the right information?
   - if not, could you elaborate a bit on the situation?
   - Perhaps give an example?
9. Have you missed out on important information?
   - If yes, can you give an example?
   - How often does this happen?
10. Or do you possibly get the same information multiple times from different places/people?
    - Does this happen often?
    - Can you give an example of this?
11. What do you feel is the biggest problem regarding communications and receiving or finding information?
    - Why do you think this is the case?
12. What information do you typically need as a PhD student?
13. Do you think information that you need is easy to find?
14. How do you typically find or receive needed information?
15. How would you prefer to receive information?
16. Do you feel there has been a change in the quality of communications towards doctoral students at any point of your studies?
    - If so, what kind of change?
    - When or at what point of your studies did the change occur?
    - What do you think may be the cause of this?

Questions Regarding Sense of Community

17. Do you feel you are a part of the School of Business community?
    - What do you think is the main reason behind this?
18. In general, how would you describe the community of PhD students at the School?
19. And what about the community of PhD students at the Department level?
20. Do you feel a sense of community amongst PhD students in general?
    - If you do, at what level? I.e. Department level? School level?

21. Has there been a change in the feeling of being a part of the community at any point during your studies? (Either at School level or departmental level?)
    – If so, in what way?
    - What do you think is the reason for this?
22. Research shows that peer support has a positive impact on doctoral studies. What kind of support do you receive from your peers?
23. How about from the service functions?

Questions Regarding Development Ideas

24. How should the communications at the School be developed so that you would feel a part of the community?
25. Is there something else that could be done to better the situation of PhD students at the School?
26. If a communications platform joining all the active PhD students at the School was taken into use, would you be willing to participate in sharing information and building the community spirit?

    (The ideal would be that students could help each other and link and share significant information they come across or have obtained during their studies, so that the crucial information would be easily available in one place. Besides sharing knowledge, the platform could enable active discussions and networking.)

27. Ideally there would be a team formed from the service staff (there could be someone from HR, Finance, Secretarial Services, Travel Services + communications person etc.) dedicated to supporting the doctoral students as a small part of their normal job. What do you think about this idea?
28. Do you have any questions, concerns, ideas regarding this matter that we have not discussed yet?