And they all worked happily ever after, or?

How administrative employees at "New NTNU" perceive the fusion,
and their experience of qualitative job insecurity.

Thesis in work- and organizational psychology

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Abstract.

The purpose of this study was to examine the effects that experiencing qualitative job insecurity during a fusion has on an individual's health, in a sample of administrative employees at "New NTNU". The variables were chosen based on previous empirical research on mostly quantitative job insecurity, and in this study they were tested up against the variable qualitative job insecurity. A multiple regression analysis and ANOVA were conducted to explain the relationship between the variables and how they affected the experience of qualitative job insecurity and stress. The variable that best predicted if the employee would experience qualitative job insecurity was the self-reported level of effort and reward imbalance. The institution the employee belong to also played a significant role in predicting if the employee would experience qualitative job insecurity in this study. The most shocking and unexpected result in this study was that 34,5% of the respondents had thought about or considered changing their job or work place since the fusion had started. From the qualitative analysis it became clear that management plays a larger role in the experience of qualitative job insecurity than this study has acknowledged. The results of this study will hopefully contribute to convince managers that it is important to make it a priority to help reduce the experience of qualitative job insecurity among employees during a change process.

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Introduction

       In today's working society, many employees will experience some form of restructuring, if they have not already. This is because businesses and organisations must constantly change to better adapt to the market and avoid bankruptcy or stagnation. Restructuring is happening more frequently, but its time schedule is getting shorter and shorter. This means that not only are employees experiencing restructuring more frequently, the experience of the change process is getting more intense as a result of its short timeframe.

       Restructuring causes increased stress levels and job insecurity among employees (Blau, 2003; Bordia, Hobman, Jones, & Callan, 2004; DeWitte, 1999; Millward & Brewerton, 2000; Rafferty & Griffin, 2006; Saksvik, 2011). What is important to remember is that most of the time, restructuring is a decision made top–down, meaning someone from the top tier of management wanted a change to make the organisation more viable; it is rarely that the employees are the ones wanting or demanding a change. Still, it is the employees that are the ones that are most exposed to the effects of the change process. It is the employees' working conditions that are affected to the greatest extent. Job insecurity will often occur during a change or a restructuring, as there will always be some resistance to change, especially to a change or restructuring that occurs over a short timeframe.

       We distinguish between two types of job insecurity, qualitative and quantitative (Hellgren, Sverke, & Isaksson, 1999). Briefly explained, quantitative job insecurity is when employees are in danger of losing jobs, while qualitative job insecurity is when they experience grand changes to their daily work lives, like changes of one's job tasks or one is in danger of possibly changing departments and losing co-workers in the move. This merger of New NTNU would be a perfect example of an opportunity where employees might have experienced qualitative job insecurity.

       The fusion of New NTNU created a lot of interest among employees and students, also receiving some media attention. As a consequence of the government's requirements to educational institutions, there will continue to be more fusions between educational institutions. Therefore, it will be important to look at what New NTNU has done right or wrong during this change process, and especially what can be learned about how to reduce the subjective experience of job insecurity among employees.

New NTNU

On January 28 of this year, NTNU agreed to a fusion with HIST, HiALS and HiG, where these three institutions would come under the umbrella that is NTNU and together, they

would form Norway's largest university, referred to as New NTNU. This came as a reaction to the government's request that Norwegian universities and colleges had to adapt to the new educational institutions map. The government had started a plan of structural changes in the Norwegian educational institutions map that would lead to fewer institutions compared to today. They also stated that they did not want there to be fewer admissions, campuses or employees at the institutions. The government wanted this new structure to lead to better cooperation between educational institutions (Regjeringen, 2015). As of 01.01.2016, there were eight fewer state colleges in Norway, seven of which had merged into universities. The biggest merger took place in what is "New NTNU", and consisting of what was formerly known as NTNU, HiST, HiALS and HiG. The background for this fusion is to, "produce a more complete study and major research institution" (ntnu.no/fusjon/student). From this point on, the institutions share a joint management and the state colleges ceased to exist as legal entities. "New NTNU" is the largest university in Norway with approximately 38,000 students (Gjerde, 2015).

The fusion was approved in a meeting with committee members with six to five votes. Employees with a research position were among those who had been most vocal in the media about how sceptical they were towards this fusion. There were concerns that such a merger would require the allocation of a good deal of money to make the administrative effective, and thus, the research part of the budget would need to be reduced (Gullestad & Skårderud, 2015). Some have also expressed scepticism for the fusion, as experience shows that larger units mean a larger administration. They were afraid that the focus would be on the administrative side, and that the research budget would be ignored or reduced, which would mean that accomplishing New NTNU's vision of becoming a major research institute would be compromised.

In addition, politicians made it clear that NTNU, or "New NTNU," would not be getting more money from the government because of their merger. The government has expressed its views on this, stating that the universities have to become better at obtaining funding from external parties. Some were also critical about the merger because of its intense and short timeframe. When planning the change process that would come as a consequences of the fusion, some –believed that it all happened too fast and that it would be better to take some extra time to plan and make improvements (Normannsen, 2015). There were also concerns that NTNU would dominate and devour the smaller state colleges. This notion went against the vision that headmaster Gunnar Bovim had for the merger. He pointed out that this

was a voluntary fusion and that it was not due to bad economy and it was not a "hostile takeover."

The first weeks after the merger had officially took place, industry leaders praised it in the media (Haugen, 2016). The fusion seemed, in the public's eye, to have been a success, but the results of the fusion will not be evident until employees have had time to settle into their new roles.

Research Topic: As mentioned earlier, the fusion of NTNU, HIST, HiALS and HiG makes for a perfect opportunity to look at the area of qualitative job insecurity. All employees are going to experience and notice the change, as every department in the four institutions is going to be changing in some way. Still, it has been made clear that no one is to lose their job during this change process. This is a complex fusion with a short timeframe, thus there is a greater risk of feelings of job insecurity as a result of not having time to adjust to what the merger will entail for them individually. Such a situation could possibly lead to employees feeling that they have no control over their work future, which again may lead to more insecurity among the employees (Blau, 2003; Bordia et al., 2004; DeWitte, 1999; Millward & Brewerton, 2000; Rafferty & Griffin, 2006; Saksvik, 2011). The research question of this study is:

"Will experiencing qualitative job insecurity lead to an increased reporting of stress and a decline in general health?"

This study will also take a closer look at the background variables that correlate with relevant indices, and which variables predict stress and insecurity among the employees of New NTNU during this change process.

Theory
Restructuring.

A consequence of the economical, technological and environmental demands that are put upon organisations in order for them to survive and thrive in today's market is that most organisations will have to go through a reorganization, if they have not already done so (Cummings & Worley, 2009; Skogstad, 2005). Organisations that do not restructure will most likely fail, as they need to be flexible as consumers demands change.

So what is restructuring? Restructuring has been defined by the business dictionary as: "Bringing about a drastic or a fundamental internal change that alters the relationships between different components or elements of an organisation or system". Saksvik et al.

(2007) defined change as: "everything from new organisational routines to changes in the existing organisation's pillar". A restructure is a change within the organisation that alters bonds or systems. In the Norwegian Working Environment Act (2015)§4–2 entitled: "requirements for arrangement, participation and development", it says that under a restructure, the employer's duty is to make sure that the employees get the information they need. The employer also has to make sure the employee gets to participate in decisions that concern him or her and is given the opportunity to develop skills that are necessary to maintain the requirements the law sets for a safe working environment.

One of the first models of change was Kurt Lewin's model. Lewin (1951) argued that a change had three phases: *unfreeze, change* and *refreeze*. Phase 1, *unfreeze*, is when the organisations management group realises that it needs to change, either as a reaction to a crisis or as the realisation occurs that without change, the organisation might experience a crisis. It could just be that the organisation has realised that they need to make a change to improve or keep their position in the market. In phase one, it is common for employees to not be aware of the reason behind the change. It is important to communicate the reason behind the process to the employees as they enter phase 2 because an understanding of the reason behind the process will make the employees more motivated and positive towards the change. During phase 2, *change*, the organisation tests out new solutions. Here, it is important to have employees that are motivated and positive towards the change to better see which solution will work best for the organisation. Employees that are negative towards the change could become resistant, and this would make it much harder for the organisation to succeed. It also makes it less possible that the change will stick over the long run. Phase 3, *unfreeze*, is the finished product, according to Lewin. The finished product is a new and improved organisation that is better equipped to tackle the market. Lewin's model has received a lot of criticism for being too static (B. Burnes, 1998). It has been pointed out that a change process is more of a fluid process than Lewin's model allows for (Burke, 2008; B. Burnes, 1996; D. Burnes, 2007; Mack, Nelson, & Quick, 1998; Todnem, 2005; D. C. Wilson, 1992). A change process is also more of an ongoing process that never truly ends. Fischer and Sortland (2001) said that organisations in today's society stay in a constant change process and never fully make it to phase 3, *unfreeze*. By entering phase 3, the organisation might think there is no more change to be done, and a thought like this could be a death sentence for an organisation.

Another established model of change is Kotter's eight step model (1996). The eight steps are as follows:

1) Establish a sense of urgency

2) Create a guiding coalition

3) Develop a clear shared vision

4) Communicate the vision

5) Empower employees to act on the vision

6) Create short-term wins

7) Consolidate and build on the gains

8) Incorporate the change and make it stick

Kotter's model focuses on codetermination and getting the employees involved and excited about the change. The model also highlights communication as a major factor to accomplishing a successful change and achieving co-determination, as well as involved and excited employees. Kotter's model has been criticised for many of the same things as Lewin's model. It is pointed out that Kotter's eight steps are very difficult to distinguish between, and many of them intervene and overlap naturally (Cameron & Green, 2004). Some have also commented on the chronological order of the steps, stating that in practice, the steps would not occur naturally in that order. Both Lewin (1951) and Kotter's (1996) models mention valid points that have to be considered in a change process. They also point out that it is difficult to make a model of how a change process happens chronologically as the process is considered fluid and no organisation will go through the same change process or experience it the same way.

Healthy change. Research has found that 75–83% of all restructures do not succeed (Nguyen & Kleiner, 2003). So what factors determine if a restructure succeeds and what makes the organisation reach its goals or the end vision after a change process?

Saksvik et al. (2007) created an index with what they found to be the five critical factors for a healthy change process. This is known as the Healthy Change Index (HCPI). The five factors are: awareness of norms, awareness of diversity, role clarification, available leaders and constructive conflict resolution (Saksvik et al., 2007). The purpose of the index is to be a helping guideline for organisations that are going through a restructure. *Awareness of norms* addresses the unwritten rules in a work environment. These are the rules that control the interaction between co-workers. Employees usually describe norms as: "that's how we do it here at our workplace". Norms can be found on every level of the organisation, and often represent strong values that the organisation has.

Awareness of diversity means that an individual or a manager has to be aware that everyone has their own way of reacting to a change or a restructure. This difference in reaction could come as a result of the individuals' earlier experiences with change and restructure, or it could be something in the individuals' life situation. Employees have a strong need to be seen and heard during a process like this, and therefore, one has to be aware and prepared for different types of reactions (Saksvik, Nytrø, & Danielsen Tvedt, 2008).

Role clarification addresses the need to clarify what the employees' work role will be in the future. This is to help the individual predict how their daily work life will be after the change. A clarification will help diminish insecurities the employee might have and help them predict the future of their work. What needs to be clarified is as follows: what the employees' future work tasks will be, any new work colleagues might need to be involved in, and whether or not someone is going to have a new job position after the change (Saksvik et al., 2008). Role clarification is important during a restructure, and it will be very important during the change to "New NTNU" as four institutions with different geographical positions merge. As more individuals are joining the organisation, it is important to clarify what each individual's task will be to avoid feelings of insecurity. The fusion is also turning out to be a very rapid process, which makes it so important to clarify roles early on as the whole process might be intense because of the time pressure.

Available leaders addresses one of the most important tasks a manager has during a restructure, which is to make sure his employees feel that they are appreciated. Managers that communicate information with their employees contribute to making their employees feel important, and through sharing information, the manager reminds the employee that he is not forgotten during a process like this (Saksvik et al., 2008). By communicating the information to the employees, leaders build a relationship of trust between themselves and their employees.

Constructive conflict resolution addresses the handling of employees' different reactions to the restructure. As mentioned earlier, everyone has their own unique way of responding to change and it is therefore important that leaders/managers make room for all the types of reactions by facilitating an open dialogue with the employees. It is important to remember that employees are going into an unknown future at work. They are experiencing fear of the unknown and the new, as well as stress and insecurity for what is waiting for them at their workplace and how their future at work looks. To achieve the best result, managers have to immediately handle the conflicts that arise. This to help employees realise that they all

react differently and that is something they should have respect for, making room for all of the different reactions that will emerge during the restructure. If the manager does not take seriously the conflicts that arise or does not facilitate an open dialogue, the fear employees experience will turn to resistance towards the change (Saksvik et al., 2008).

One of the biggest challenges an organisation in the restructure process faces, no matter size or character of the organisation, is the employees' fear of the unknown. In this case, the unknown is their new workday in "New NTNU". Fear is a natural human reaction to something unknown and is unavoidable in a restructure or change process, especially if one does not keep the employees informed about what is going to happen, as well as what the end result is expected to be. The only way to calm individuals is by communicating information (Baker, 2002). Research has shown that using HCPI as a guideline leads to employees reporting lower levels of stress during a restructure than what would be expected (Saksvik et al., 2008; Tvedt, Saksvik, & Nytrø, 2009)

Communication. Good communication during a restructure is proven to act as a buffer against stress and job insecurity (Baker, 2002). As mentioned earlier, experiences of fear for the unknown or insecurities concerning the future could blossom during a restructure or a change process (Blau, 2003; Bordia et al., 2004; Nguyen & Kleiner, 2003). One way employees will try to get rid of these feelings is by gathering information about the process and what this change will mean for their future at their current job. They will try to find a way to control the situation, by using the information they gather to try to predict what the future will bring for them. During a restructure, employees have a need for information that will help them to better visualise how the future will look (Greenberger & Strasser, 1986; Kotter, 1996). This information will help them understand the reason and urgency for the change, which can help them become motivated and positive towards it (Kotter, 1996). Kotter's eight step model emphasises the importance of communicating to the employees the vision the organisation wishes to achieve, as to help them better understand why the change is happening and what the end result should be (Kotter, 1996). It is important to point out what the end result of the change will mean for the employees and how this change will positively influence their work.

DiFonzo and Bordia's (1998) study showed that just letting employees know when more information would be available for them, if one did not have any information at the moment, helped reduce anxieties associated with job insecurity. The best way to reduce job insecurity during a restructure or a change process is by giving employees information at the

right time, and by using both formal and informal communication channels (Jimmieson, Terry, & Callan, 2004). Studies have found that the lack of information during a change process will lead to employees gathering necessary information by themselves, and on the basis of what they find, form an opinion on their own. This could lead to the development of rumours at the workplace if the information gathered is negative (DiFonzo, Bordia, & Rosnow, 1994; Karp, 2014). These rumours are often exaggerated and involve a negative attitude towards the process. Rumours like this could lead to the employees feeling resistant towards the change.

In a restructure as big and public as this one, employees will be able to find a lot of information about the fusion in the media. The information found in the media could paint a negative picture of the fusion that contradicts the picture the management of "New NTNU" is trying to visualise to employees and to the outside. Employees who are reading about it from an outside source could develop a resistance towards the change and the whole process (Bastien, 1987). Research has shown that employees do not prefer to gather information by themselves; instead, they prefer to be given information by individuals that are part of the organisation, and preferably, are higher up in the hierarchy then themselves (Larkin & Larkin, 1994). Employees that have to use and seek outside sources for information will often feel disappointed at the organisation and will not consider the management to be trustworthy. The most important thing one can do is to offer employees a place where they can be heard; having an open door policy has been proven a critical factor in making employees see the process as a success (Saksvik & Tvedt, 2009). Not only is there empirical evidence that shows how important communication during a restructure is, but keeping good communication with one's employees during a restructure is also anchored in the law (Working Environment Act, 2015). It is actually the core of the Working Environment Act (2015), stating that employers are obligated to keep employees informed and to make time for and allow employees to ask questions during a process like this (Working Environment Act, 2015).

Job insecurity. Research has shown that restructuring leads to an increase in job insecurity among employees (Blau, 2003; Bordia et al., 2004; Nguyen & Kleiner, 2003). So what is job insecurity? Several researchers and theoreticians have defined job insecurity, including Greenhalgh and Rosenblatt, who defined it as, "the perceived powerlessness to maintain the desired continuity in a threatened job situation" (1984, p.348). Heaney, Israel and House defined it as, "an employee's perception of a potential threat to the continuity in his or her current job" (1994, p.1431). The similarity between these definitions is insecurity

about what the future brings because of a potential threat to one's current job. Prior to the mid-1980s, there was some research on job insecurity, but research on the topic increased following Greenhalgh and Rosenblatt's (1984) study, which is a classic in the field. Most of the research that had previously been done on the topic had been on the opposite phenomena of job insecurity, namely the presence of job security.

Klandermans and VanVuuren (1999) argued that job insecurity could be divided into three parts. The first part is that job insecurity is a subjective experience and individuals will experience it differently. This means that someone who has no real threat to his or her current job may experience job insecurity, while someone who has a real threat to his or her current job may not experience it. While job insecurity is a subjective experience, it stems from a real objective threat to one's current job as the result of a restructure or downsizing. In the end, it is the individual's personality, need for control, security and the experience of the whole situation or the process that will decide if the individual will experience job insecurity. As mentioned earlier, communication during restructuring is important, especially for helping lower the levels of job insecurity that employees might be experiencing (Baker, 2002). Greenhalgh and Rosenblatt (1984) suggested that there also were some external factors that would influence the individuals' subjective experience of the restructure. These factors were the individuals' financial dependence on the job, the individuals' potential for finding a new job and social support. If an individual is not financially dependent on theone's job, then he or she would not be as terrified of losing it as someone who is financially dependent of it. An individual's ability to find a new job will also play a big role. Someone who has a good potential for finding a new job quickly will not fear losing the current job as much as others with a lower ability to find a new job. Social support has been proven in earlier studies to work as a buffer against stress, or in this case, against job insecurity (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Karasek & Theorell, 1990). Research shows that individuals with financial responsibilities, such as family finances, might experience a restructure more negatively and threatening than will individuals without this kind of financial responsibility (Magnus Sverke & Hellgren, 2002). This suggests that individuals or employees with huge financial responsibilities are more prone to experiencing job insecurity during a restructure. Saksvik (2011) emphasises, like Greenhalgh and Rosenblatt (1984), that the individuals' subjective assessment of the situation is crucial. He says competent individuals will most likely experience less insecurity because they predict that they could easily find a new job on

the basis of their expertise, or they consider themselves as being too valuable for the organisation to fire.

Greenhalgh and Rosenblatt (1984), in their study on job insecurity that comes from the fear of potentially losing one's job, focused on another type of job insecurity, namely job insecurity related to the fear of losing valued aspects of one's job. A clear distinction between these two types of insecurity was defined and named in Hellgren, Sverke and Isaksson's (1999) study. They defined them as quantitative and qualitative job insecurity. Quantitative job insecurity is defined as the insecurity related to the fear of losing one's job, while qualitative job insecurity is related to the fear of losing valued aspects of one's job or the fear of changes being made to job tasks, as well as changes to one's workday or the loss of opportunities for promotion. While the research community agrees upon these two types of job insecurity, most of the research done on job insecurity has done a poor job at differentiating between them. The research done on job insecurity has studied a combination of both qualitative and quantitative job insecurities and defined them as one, but most of the research has been related more to quantitative than to qualitative job insecurity.

The research that has differentiated between the two types of job insecurity has found quantitative job insecurity to be more stressful for the individual compared to qualitative job insecurity (Hellgren et al., 1999; Klandermans & VanVuuren, 1999). The research then emphasises that the individual finds it more stressful to potentially lose his or her job than to potentially lose valued aspects of the job. It would be safe to say that this is not shocking. The reason an individual finds it more stressful to potentially lose one's job, aside from the financial side of it, is because having a job is considered a crucial factor for social participation in society, as well as the fact that having a job and a good job title give us, as individuals, recognition from others and ourselves (DeWitte, 1999). The threat of losing one's job leads to increased levels of experienced job insecurity for the individual because aspects in their everyday life that they value are in danger (Magnus Sverke & Hellgren, 2002). They are experiencing a lack of control because they might experience change to their life situation and there is nothing they can do to stop that. Some might experience that losing their job means losing their part in the participating society (Greenhalgh & Rosenblatt, 1984). Individuals feel a sense of belonging to the community when they are working, and the feeling or need for belonging is one of the three basal psychological needs for humans (Hetland & Hetland, 2011). The need for belonging developed from when humans had to have social belonging to a society or group to survive (Hetland & Hetland, 2011) and it still

plays a big part in individuals' lives, as they thrive on belonging to groups or societies.

Jahoda (1982) claimed that the individual has a need to structure their day, as well as a need for social relationships outside of one's family or home, and that work life is a solution to these needs. Hobfoll (1989) supported the notion that the job was important for the individual. He meant that it was important for the individual's self-esteem, as well as being an arena for personal growth. The workplace is clearly important for the individual, both socially and for growth. Changes in the workplace might lead to changes in relationships that the individual has with co-workers, either by being moved to another department or by colleagues losing their jobs. This would lead to the end of established social relationships for the individual. These are social relationships the individual has worked hard to establish and has become dependent on. The threat of losing these relationships could lead to the individual experiencing job insecurity (Saksvik, 2011). Research agrees on the notion that fear of losing valuable social relationships at work is the reason behind a lot of the experienced job insecurity (Saksvik, 2011).

There has been an extensive amount of research done on the correlation between stress, health and the experience of job insecurity. Sverke, Hellgren and Näswall's (2006) study suggested that job insecurity has a negative impact on an individual's health, and that job insecurity also leads to negative opinions toward the source of the individual's experience of job insecurity, like a restructure. Therefore, job insecurity will not only negatively affect the employee's health, it will also contribute to negatively impacting the employees' view of the organisation, as well as the restructure. This might make the employee resistant toward the change.

As mentioned earlier, job insecurity comes as a reaction to the fear of the unknown. During a restructure, it would be the fear of how the future and their new workday will look after the change process is done. Job insecurity comes as a result of an involuntary changes the individual has to go through, which destroys the comfort/security the individual experiences in the organisation (Sverke & Hellgren, 2002). A change like this will lead to an imbalance for the employee, and might make the employee no longer feel like he or she has control over what is happening or what to expect at work (Greenhalgh & Rosenblatt, 1984; Klandermans & VanVuuren, 1999; Paulsen et al., 2005). Individuals have a need to feel in control and to be able to predict what will happen – A need for control that will help them give meaning to events in their life (DeWitte, 1999). Control here refers to the psychological term *locus of control* (Rotter, 1966). *Locus of control* is an individual's ability to think that

they can control events that affect them (Greenberger & Strasser, 1986; Rotter, 1966). Individuals have a need to feel that they can control events and to believe that they can lead the events into the direction that best suits themselves (DeWitte, 1999). It is possible to see job insecurity as a reaction to the lack of control over the grand changes at the workplace. Bastien (1987) claimed that job insecurity was associated with the individual's lack of control of the future existence of one's current job or job position. Research suggests that not being able to control future events, and especially control whether or not one will keep his or her job, leads to an increased experience of insecurity during a restructure (Greenhalgh & Rosenblatt, 1984; Proctor & Doukakis, 2003).

   Stress and health. To better understand the topic, it would be beneficial to start with defining what stress and health mean. The World Health Organization (WHO) defines health as: "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". This clearly states that health is not just the absence of an illness or diseases, but a much larger concept that requires a positive balance between several dimensions of an individual's life. Cooper et al. (2001, p1) said that stress came from the Latin word "strictere", which in English translates to: "to draw tight". Anderson et al. (2002) defined stress as a response to the experienced imbalance between job demands and resources the individuals have available. Varca (1999) defined stress as the gap between demands from the environment and the individuals' resources. What these definitions have focused on is that stress is a response to a subjective experience of the gap between demands that are put upon the individual and the resources that he or she have available to fulfil the demands.

   Research on stress and health has shown a negative correlation between a prolonged experience of stress and general physical and mental health of the employee (Ashford, Lee, & Bobko, 1989; DeWitte, 1999; Hartley, Jacobson, Klandermans, & van Vuuren, 1991; Heaney et al., 1994; Hellgren et al., 1999; Magnus Sverke & Hellgren, 2002). One of these classical studies that found that stress had a negative impact on the individuals' health was done by Karasek (1990). Karasek's (1990) study suggested that job insecurity and stress negatively impacted cardiovascular health. The study claimed that a couple of years after a restructure, an increased number of employees reported symptoms related to cardiovascular disease. There are no longitudinal studies that can confirm or duplicate Karasek's (1990) results, but studies done on short- and long-term effects of stress suggest that it should be possible to duplicate these results. The short-term effects of stress are elevated blood pressure, symptoms of mental illness and changes in behaviour (Schnall et al., 1992), while the long-term effects

are found to be depression, injuries, elevated blood pressure and cholesterol levels (Israel, Baker, Goldenhar, Heaney, & Schurman, 1996). Elevated blood pressure and cholesterol levels are linked to a higher risk of heart disease (FDA, 2007), which gives support to Karasek's (1990) study and suggests that future longitudinal studies could duplicate the results.

While the empirical evidence suggests that job insecurity negatively influences the cardiovascular health of the employees, it is difficult to say in what regard and how strongly it correlates, as the negative development of one's cardiovascular health could be because of a third mediating variable that is a stronger predictor for cardiovascular disease than is job insecurity. Still a correlation between job insecurity and its negative impact on the overall health of the individual has been found several times, though the degree of correlation has varied (Ashford et al., 1989; Isaksson, Hellgren, & Petterson, 2000; Lim, 1996). Research has found the correlation between physical health and job insecurity to be a moderate correlation (Büssing, 1999), a weak correlation (Kinnunen & Nätti, 1994), and some found no correlation at all (Barling & MacEwen, 1992). An equally varying degree of correlation was found between mental health and job insecurity: a strong correlation (S. Wilson, Larson, & Stone, 1993), a moderate correlation (DeWitte, 1999), and no correlation at all (Fox & Chancey, 1998). There is a general agreement in the field, along with strong evidence from research, that qualitative job insecurity has a stronger impact on the individuals' mental health (Pollard, 2001), though empirical evidence suggests that there might be some differences between the sexes. Research has shown that men report higher levels of stress, and the differences increased when there was a lack of role clarification or the men experienced that too much responsibility was put upon them (Mak & Mueller, 2001). On the other hand, men reported fewer physical symptoms as a reaction to job insecurity and stress than did women (Mak & Mueller, 2001).

Occupational stress is not only a problem for the individual that is experiencing it. Stressed and insecure employees can exhibit higher turnover, poorer job results and absence (Noblet, 2003). This will negatively impact the organisation's finances until the managers are able to fix the situation that is causing employees to experience job insecurity.

Effort and reward imbalance. Siegrist's (1996) effort and reward imbalance model (ERI) tackles, as the name suggests, the balance between the effort that an employee puts into his or her work and the rewards received for it. Siegrist divided the rewards into three categories: money, esteem and security/career opportunities.

The ERI model has been mostly used to identify risk factors in the work environment that could increase the employees' chance of developing a cardiovascular illness, but then again, the model was developed to help identify these potential critical factors. Studies have found a correlation between an experienced imbalance between effort–reward and health-related behaviours that are connected to being overweight, smoking, high alcohol consumption and engaging in little to no physical activity (Kouvonen et al., 2005; Kouvonen, Kivimäki, Elovainio, Pentti, Linna, Virtanen, & Vahtera, 2006; Van Vegchel, de Jonge, Bosma, & Schaufeli, 2005). One study also suggested that there is a correlation between an effort–reward imbalance and depression (Stansfeld & Candy, 2006). Empirical evidence in the field supports the notion that women experience a higher degree of imbalance than do men. There is also evidence that the difference found between the sexes could be used to predict the fact that women are more prone to absences than are men (Sterud, 2014).

Stress theories in the field of psychology focused on the subjective experience of the gap between one's job demands and the resources one has available to complete or fulfil these demands. Good examples of theories like these are Hobfoll's (1989) Conservation of Resources theory (COR) or the Job Demand- Resources model (JD-R) (Demerouti et al., 2001). The JD-R model focuses more on the imbalance between the efforts of the work one puts into the job and the resources one has available to do it (Demerouti et al., 2001).The ERI model focuses on the effort one puts in and the rewards one receives for the job done (Siegrist, 1996). The COR theory was the starting point of the resources theories and models, which the ERI model builds partly upon, and, as the name suggests, the COR theory focuses on the resources the individual has and is able to get (Hobfoll, 1989). The COR theory claims that stress was a response to the individual's loss of resources (Hobfoll, 1989).

For this study, the chosen focal point has been the ERI model, as it has job security as being one of its rewards and the model was constructed to catch employees in danger of a decline in their health (Siegrist, 1996). It is therefore easy to link the ERI model to the topics of job insecurity, health and stress.

Hypotheses

On the basis of the theory part of this thesis, six hypotheses have emerged that the researcher wishes to approach. Several studies have found quantitative job insecurity to be a stressor (Ashford, Lee, & Bobko, 1989; Fox & Chancey, 1998), and it is well known that experiencing stress over a prolonged period of time will lead to a general decline in health (Ashford, Lee,

& Bobko, 1989; DeWitte, 1999; Hartley, Jacobson, Klandermans, & van Vuuren, 1991; Heaney et al., 1994; Hellgren et al., 1999; Magnus Sverke & Hellgren, 2002). Pollard's (2001) study reported that the experiences of qualitative job insecurity also lead to individuals reporting higher levels of stress. In addition, there is also a link between qualitative job insecurity and a decline in experienced health. Therefore, the first hypothesis in this thesis is to see if Pollard's results could be duplicated and if there are some similarities in the experience in reactions to qualitative and quantitative job insecurity:

H1: *The experiences of job insecurity will lead to higher levels of self-reported stress and a decline in health for individuals.*

Studies show that individuals in the age group of 30 to 40 reported higher levels of job insecurity than did members of the other age groups (DeWitte, 1999). One explanation for this is that individuals in this age group, more often than what occurs in the other groups, have custody of children and therefore are more dependent on their job and income (DeWitte, 1999; Sverke & Hellgren, 2002). This study aims to see if the same results can be found when the individual is not in danger of losing one's job, but might experience major changes in their workday that might make it more difficult to balance every aspect of their life the same way. This includes either changing job positions, leading to less flexibility or new co-workers, or management that is stricter than the previous management. It could be that the new department the individual is working for has a norm for staying later at work than what was the norm at the previous department he worked for. Of course, the biggest change would be for those that possibly might decide to change the geographical position of their workplace, making the second hypothesis more likely:

H2: *Individuals with custody of children will report more job insecurity.*

Studies have shown that older individuals report higher levels of job insecurity than do their younger co-workers (Hartley et al., 1991; Mohr, 2000; Näswall & De Witte, 2003). It is proposed that the difference exists because it would be more difficult for older individuals to find a new job than it would be for their younger co-workers. In this study, older individuals will not report more job insecurity as a result of their fear of finding a new job, but rather, it would possibly be because of the lack of control they will experience (Greenhalgh & Rosenblatt, 1984). Older employees, to a larger degree compared to the younger one's, have certain routines at their workplace and are more used to the norms. Therefore, it could be that

the fear of the changes being made to their work tasks and in general at their workplace will lead them to experience more job insecurity, as they have routines that have been followed for a longer period of time than do the younger employees (Bastien, 1987; Greenhalgh & Rosenblatt, 1984). There are a lot of new systems that they will need to learn to operate. This leads to more changes, which again leads to more job insecurity. The third hypothesis of this thesis is:

H3: *Older individuals will report more job insecurity.*

Some studies have found that individuals with lower levels of education report more job insecurity because they have fewer jobs to pick from or apply to if they lose their current job than do those with a higher level of education (Gallie, White, Cheng, & Tomlinson, 1998; Näswall & De Witte, 2003; Schaufeli, 1992) . An explanation for this is that employees with a higher level of education have also reported feeling more affiliation toward the organisation they work for than do those with lower levels of education (Meyer & Allen, 1991). In this study, employees with higher levels of education might feel or report less job insecurity as a result of feeling a stronger affiliation towards the organisation, and therefore in general, feel more like they are a part of the organisation. In addition, they more easily see their own value in a larger sense than do those with a lower level of education. Perhaps this will be especially evident among employees in a organisation that provides higher levels of education for others. The fourth hypothesis of this thesis is therefore:

H4: *Individuals with higher levels of education will report less job insecurity.*

Studies have found differentiating results when researching whether or not employment type has an correlation with job insecurity. Some studies have shown results that suggest individuals with a permanent work position report less job insecurity because they feel a stronger connection to their workplace (Barling & Gallagher, 1996; Inoue, Tsurugano, Nishikitani, & Yano, 2010). There is empirical evidence of the opposite being true as well (Näswall & De Witte, 2003), but for this study, the focus will be on the findings that assume that employees with a permanent work position report less job insecurity, especially since no one is in danger of losing their job in this change process, but some might change their position or department and those with timed-fixed work might be easier to move around. Therefore, on this basis, the fifth hypothesis is:

H5: *Individuals with a permanent work position will report less job insecurity.*

ERI categorised job security as a reward. Therefore, individuals scoring high on ERI will, based on this theory, score less on job insecurity (Siegrist, 1996). The experience of effort and reward means that the individual feels that they are seen and will be rewarded for the effort they put into the work they do. An imbalance in effort and reward has also been linked to cardiovascular disease in several studies, which is not surprising as the ERI model was developed to identify employees in danger of cardiovascular illness because of the strain of their work environment (de Jonge, Bosma, Peter, & Siegrist, 2000; Siegrist, 1996). Thus, the last hypothesis of the thesis is:

H6: *The experience of recognition and rewards will lead to less experienced job insecurity and fewer health issues.*

Model 1 shows how the researcher expects the indices and variables to impact each other.

Model 1. *Overview of expected relationships between indices.*
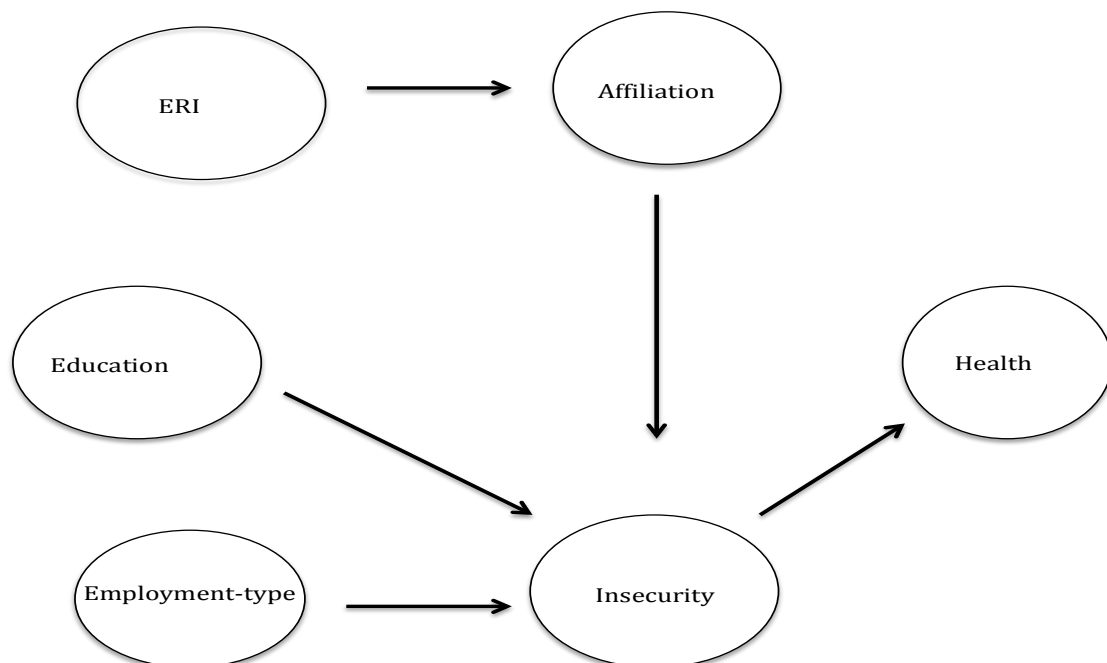
Method

First, this method section will briefly explain and present results from a panel study that three master students (myself included) conducted on behaviour in the "New NTNU". The purpose of the panel survey was to give the management group of "New NTNU" an overview of how employees were reacting to the restructure. As for my fellow students and myself, this survey was used to select a topic of research for our thesis and to select a sample of respondents for our respective theses.

Panel Survey

As mentioned earlier, the panel study was conducted to evaluate how employees were experiencing the fusion during different milestones in the process. It was also used to see if there were any differences in what employees' reported at different points of time. For this thesis, the focus was only on the first survey that was sent out as only the first one was used to select the topic of research for the second study. As the panel survey was an internal survey, only the results that are relevant for the research topic of this thesis will be presented here. The survey was sent out to respondents three times – September 2015, November 2015 and January 2016.

Ethics. It is important to maintain the respondents' anonymity in research (Cozby & Bates, 2012). In this study, the respondents were coded using numbers based on their job position (where possible) and the institution they belong to in order to better protect their anonymity in this study. Institutions were coded as numbers instead of their respective names as to further protect the anonymity of the respondents. It is possible to understand which four institutions participated in this study, but it is not possible to identify any of the respondents based on what is presented in the thesis data or by just reading through this text.

Selection. Two fellow students and myself were given the name of the managers of 15 different departments at the four institutions comprising "New NTNU". They varied in the type of work tasks they had, as well as the geographical position of their workplace. These managers were asked to provide us with the contact information for four to five members that they thought would be good representation of their department and who would be willing to participate in this survey. They were also asked to, if possible, find respondents that would have strong opinions about the fusion, both positive and negative to make sure that the survey obtained answers that were not neutral. For the first round, the survey was sent to 67

respondents that had agreed to participate. Of the 67, 50 completed the survey, making the response rate for the first survey 74.6%, which is very good. The distribution of respondents between the four institutions is as follows: Institution 1 (N = 19), Institution 2 (N = 17), Institution 3 (N = 10), Institution 4 (N = 4). The different institutions were not equally represented in this study as Institution 4 was significantly less represented than were the other institutions. The distribution of respondents that held an administrative position and those that did not was not equally represented: administrative position (N = 17), non-administrative position (N= 33). At first glance, it could seem like the survey had few respondents, but it is crucial to remember that each respondent answered on behalf of their department and their co-workers. Therefore, one single response here has the power of several responses.

Survey. The survey was inspired by a questionnaire used in a thesis from 2015 (Lien). The survey consisted of 20 questions, where 10 were taken from established measurement instruments. The measurement instruments were The Healthy Change Process Index (HCPI) (Tvedt, Saksvik, & Nytrø, 2009), KIWEST (Innstrand, Christensen, Undebakke, & Svarva, 2015), and The Meaning of Work Scale (Ravn, 2008). This survey used a five-point Likert scale. This gives the respondents the opportunity to avoid expressing a strong opinion in some cases, as it has a middle score that is neutral. This was not considered a big possibility in this survey as management had picked these participants because they were passionate about the fusion, or in general had strong opinions about the fusion. Therefore, the chance that our respondents would pick the middle answer was so small that we chose to go with a five-point Likert scale (see Table 1 for a short overview or Appendix A for all the questions used).

Table 1: Overview of the dimensions, scales and some of the items

Item	Dimensions:	Scale:
In this change, we have an open discussion about which routines we want to change, and which ones we want to keep	Constructive conflict	HCPI
The management of my unit is considerate about people reacting different to "New NTNU"	Awareness of diversity and norms	HCPI

We are able to speak to our manager about what consequences "New NTNU" will have for us.	Manager availability	HCPI
This change has lead to us being insecure about what is expected of us at work (R)	Early role clarification	HCPI
We perform job tasks that we think should be done in a different manner (R)	Job requirements/role conflict	KIWEST
We perform tasks without adequate help (R)	Job requirements/role conflict	KIWEST
In our unit, we are looking forward to this change with joy.	Joy and enthusiasm	Inspired by Meaning of Work Scale (Ravn, 2008)
Several people in our unit have expressed concerns about "New NTNU" (R)	Joy and enthusiasm	Inspired by Meaning of Work Scale (Ravn, 2008)

Analyses. The data were analysed using the Statistical Package for the Social Sciences (SPSS). Questions were coded together into their appropriate indices, and negatively charged test joints in the survey were reversed. Indices are statistical measures comprised of several variables and are more reliable and valid than are measures constructed of one variable, especially when one measures abstract concepts, as in this study (Ringdal, 2001).

A t-test was used to measure if the difference between two groups was significantly different. An independent t-test was conducted to analyse the difference between administrative employees (M = 2.76, SD = .90) and those with another position (M = 2.97, SD = 1.18) on question 6 (t (48) = -.624, p = .033). The question was about role clarification and was asked as a statement: "This change has made us feel unsure of what is expected of us on the job".

Open ended questions. The last question in the questionnaire was an open ended question. Most of the answers on these questions were about feeling insecure, regarding both the short-term and the long-term future of the respondents' job. A very brief analysis was conducted on these answers and the results suggested that many respondents felt that there was a lack of information about what this change would mean for them individually, leading to more feelings of insecurity. Some examples of the answers are: "*The fusion coincides with a change of systems so the burden on the staff is great*", "*Clarify possibilities for leaders of 2016. It is important that change comes as a result of system changes, especially within the administration*", "*It seems like it refers to an orderly future, where it is already now possible to familiarise themselves with the new roles and responsibilities* "New NTNU" *entails. For my unit at* "New NTNU," *the future is very uncertain and complex, and the procedure seems unnecessarily expensive, time consuming and unnatural (pressed into the overall model that looks good on paper and does not benefit the academic community*".

These answers and many others made it clear that the respondents in this study felt a lot was unclear about how their new future at work would be after the change process. This brief analysis suggested that there could be some job insecurity among employees at what was to become "New NTNU". From the quantitative analysis (t-test), it was already evident that employees with an administrative position felt more insecure in general than did their co-workers with a different job position.

The results from the qualitative and quantitative analyses made it clear that administrative employees were experiencing insecurity. These results were used to make the selection for the researcher's topic of interest for this thesis, which would be the experience of job insecurity among administrative employees and the effect job insecurity had on the employees' well-being.

Job Insecurity Survey The purpose of this second study was to map out whether or not employees were experiencing qualitative job insecurity, as well as to see if there were any differences between the four institutions. We also investigated what variables might contribute to reducing qualitative job insecurity among employees.

Procedure. The data were collected in December 2015 and January 2016 using an online-based software called Select Survey. The survey was distributed via the software, just as the panel survey before it had been. Select Survey sent a hyperlink to each respondent's email. The questionnaire/survey was sent out to 107 employees at three different institutions that were becoming "New NTNU". The employees that participated in this study worked in

departments of "New NTNU" that differed in their geographical position, but they all had an administrative job description in common.

The fusion of the four institutions was officially completed 01.01.2016. This could have made the data collected in December and January incompatible for comparison, as one month was before the official merger and the other right after. The decision to collect data in January was made on the basis that there would be no major changes in the employees' everyday job tasks that differentiated December and January. Therefore, the data from the two different points of time could be compared.

Ethics. It is important to protect the anonymity of the respondents in connection to research (Cozby & Bates, 2012). This research project was sent for approval to the Norwegian Social Science Data Services (NSD) (see Appendix C). The project was approved and was used as a contract between the involved parties. One part of the contract was that all of the data collected would be made anonymous by the end of the project in December 2016 at the latest. Respondents were coded against their respective institutes, and the institutes were coded as numbers to further protect the anonymity of the participants. The coding was done automatically using Syntax in SPSS and the email addresses were then deleted from the original file. It is not be possible to identify any of the respondents based on the data presented here or by just reading through this text.

Selection. Administrative departments in the four institutions were contacted and were offered an opportunity to participate in the survey. Management of each department was sent information about the study and its purpose, as well as encouragement to send the contact information of their co-workers if they wanted their department to participate. The contact information that was provided to the researcher by the management of the participating departments was used to contact the possible respondents with information about the survey, including its purpose. A clarification was also sent out to respondents to make it clear that participation in the study was voluntarily and they could drop out at anytime without having to offer an explanation.

The survey was sent out to 107 participants, divided between the three institutions that had agreed to participate, and afterwards, five of the participants decided to drop out. Of the remaining 102 participants, 58 completed the questionnaire. This gives the survey a response rate of 56.9%. These 58 respondents are the foundation of the data material used in this study. The distribution of respondents between the institutions was: Institution 1 (N = 27), Institution 2 (N = 26), Institution 3 (N = 1). Institutions 2 and 3 were then coded into one

Fellow Institution as to make use of the respondent from Institution 3. In all, 44 women and 14 men completed the questionnaire, resulting in an unequal distribution of the sexes. That being said, of the original 102, 30 were men and 72 were women. This means that 46.7% of the men completed the questionnaire, while 61.1% of women completed it. None of the hypotheses that this study is built upon look for any difference between the sexes, and therefore, an unequal distribution here would not impact the study's purpose.

The respondents were equally distributed in the matter of having custody of children: 27 had full custody and three had shared custody, while 28 did not have custody at all. The distribution of the respondents regarding type of employment was: permanent full-time (N = 44), permanent part-time (N = 5), temporarily position (N = 3), on-call (N = 3) and other (N = 3). This is an unequal distribution, but it is a good representation of the Norwegian workforce in general as numbers show that, in general, 8.4% (SSB, 2015a) of workers have a temporary position and in this study, the group with temporary positions constitute 8.6% of the respondents (See Tables 2, 3 and 4 for more information on the distribution of respondents according to education, seniority and age.).

Table 2: *Overview of highest completed level of education*

Education	N
Secondary	4
Vocational secondary	5
< 3 years university/college	16
< 6 years university/college	32
PhD	1

Table 3: *Overview of age groups*

Age group	N
< 18	0
18–25	2
26–35	14
36–45	14
46–55	16
56–65	10
> 65	2

Table 4: *Overview of seniority*

Number of years at the organisation	N
< 1 year	7
1–5 years	19
5–10 years	13
10–20 years	9
> 20 years	10

Low response rate. As mentioned earlier, this study had a response rate of 56.9%. This is a higher response rate than what is the general mean for questionnaires conducted in organisations, as it is more common to get a response rate of around 35.7% when conducting survey in an organisation (Baruch & Holtom, 2008). Since this study had such a low selection sample beforehand, a response rate like this means that the sample selection gets even smaller.

Survey. The survey consisted of questions that were either collected from established measurement instruments or were inspired by several established measures. Questions 8.1–8.8 were about qualitative job insecurity and were inspired by Isaksson, Hellgren and Petterson (1998, as cited in Hellgren et al., 1999) and the Copenhagen Psychosocial Questionnaire (COPSOQ II) (Pejtersen, Kristenden, Borg, & Bjorner, 2010). Here, "inspired" means that questions were used from these two questionnaires, but they were somewhat changed from measuring quantitative to to measuring qualitative job insecurity. An example of changes that were made to the questions is as follows:

"I am afraid I will lose my job in the near future" was changed to "I am afraid I will lose my old position/my old work tasks in the near future".

Questions 9.1–9.6 are about stress and were collected from the COPSOQ II. Questions 13.1–13.11 are from Siegrist's Effort and Reward Imbalance (ERI) (Siegrist, 1996 in Siegrist, Li, & Montano, 2014). Questions 14.1–14.10 are about affiliation and were collected from Mowday, Steers, and Porter's (1979) tool. All of the questions are answered using a five-point Likert Scale. This was used since there was only a small chance that the participants would use the neutral score to answer the questions in this study, especially since they had accepted the invitation to participate in the study and seemed motivated to participate (for a short overview of the variables used, see Table 5 or Appendix B for all of the questions used in this survey).

Table 5. *Overview of the dimensions, scales and some of the items.*

Item	Dimension	Scale
I am afraid I will have to change my position without me being ready or wanting it in the near future	Job Insecurity	Inspired by COPSOQ II
I am afraid I will lose my old position/my old work tasks in the near future	Job Insecurity	Inspired by Isaksson et al. (1998), COPSOQ II
Since the time after the fusion, how often have you found it difficult to relax?	Stress	COPSOQ II
Since the fusion started, how often have you slept badly and been restless?	Stress	COPSOQ II
Since the work concerning the fusion started, do you notice that your health has become …?	Health	COPSOQ II
I get the respect I deserve from my superiors	ERI	Siegrist et al. (2014)
I have little opportunity to be	ERI	Siegrist et al.

promoted.		(2014)
I would enjoy being able to spend the rest of my professional life in this business.	Affiliation	Mowday et al. (1979)

Internal consistency. Cronbach's alpha was used to find the dimension /indices' inner reliability. Palant (2013, cited in the Fields, 2013) noted that alpha coefficients should be higher than .70 to be satisfactory. Field (2013) pointed out that one could expect a somewhat lower coefficient by measuring psychological constructs, and that for psychological testing, one should accept an alpha coefficient lower than .70.

All indices, apart from job insecurity, are collected using established measurements. The questions that measure job insecurity are inspired by two well-known questionnaires, but have been slightly altered to better measure qualitative job insecurity. This is because they initially were intended to be used for measuring quantitative job insecurity. Cronbach's alpha was measured and is presented in Table 6.

Table 6. *Overview of the indexes' reliability*

Index	α
Job Insecurity	.76
Health	.93
ERI	.79
Affiliation	.78

Analyses. The data were analysed using the Statistical Package for the Social Sciences (SPSS) software. Questions were coded together into their appropriate indices, and negatively charged questions were reversed. Indices are statistical measures combined of several variables and are more reliable and valid than are measures that are constructed of one variable, especially when one measures abstract concepts, as in this study (Ringdal, 2001).

Correlation. A correlation between two variables can vary between -1 and +1, where the character size approaching 1 indicates a strong correlation between the two variables. A correlation coefficient of 0 equals a weak or non-existent correlation. The most used correlation analysis is Pearson's correlation coefficient, *r*. The correlation coefficient is divided into three categories: weak, moderate and strong. For psychological testing, the

threshold is: weak ($r > .10$), moderate ($r > .30$) and strong ($r > .50$) (Field, 2013). Correlation can find an interaction or a relationship between two variables, but it will not be able to find causality (cause/effect). Correlation measures cannot determine Variable 1 (V1) affects Variable 2 (V2), or if V2 affects V1 or if there is a third unknown variable that causes the correlation. Therefore, a regression analysis was conducted afterwards to see which variables could predict insecurity and stress in this study.

Regression. Multiple regression analyses were conducted, as there was more than one independent variable in the analyses. The analyses examined whether the conditions for performing a regression analysis were met. The analyses also checked for multicollinearity, which is when two or more predicting variables have a strong correlation. This makes it impossible to know which of them is causing the change in the outcome variable (Field, 2013). Homoscedasticity was also assessed, which is when the residual variance is almost equally distributed among the various levels of the predictor (Field, 2013). A Durbin Watson test was conducted to check that the results were not a result of an autocorrelation between the residuals. The researcher visually checked the conditions for regression regarding normality, linearity and homoscedasticity. The predicting variables also could not be correlated to one another, but this will be addressed in more detail in the results section. A general rule of thumb in regression is that one should have 10–15 respondents for each independent variable included in the analyses; therefore, only the indices for health, resistance and ERI will be used in the regression analyses ($N = 58$) (Kleinbaum, Kupper, & Muller, 1988). Another reason for excluding the background variables from the regression analyses is the fact that an ANOVA or t-test can be used to analyse the impact of the background variables, as they are single item questions.

T-test. This type of analysis is used when one wants to see if the means of two groups are different from each other to a statistically significant level. Here, it also has been used to take a closer look at standard deviation and the mean of the groups to see how the variables affect each other, which was not evident from the correlations or regression in some cases.

ANOVA. An ANOVA is used for the same purpose as a t-test, but it is used to investigate when there are more than two groups. Here, it also is used to take a closer look at standard deviation and the mean of the groups to see how the variables affect each other, which was not evident from the correlations or regression in some cases.

Open ended questions. A brief and superficial analysis was conducted of the last two questions on the survey, as they were open-ended questions. These were not analysed in

depth, but rather, were used to build upon the quantitative findings in the study, and to suggest what the focus of further research on fusion and qualitative job insecurity should be.

Results

Table 7 shows descriptive statistics for variables used in the different analyses for this study.

Table 7. *Descriptive statistics for variables.*

V	N	M	S.D
Institution	54	1.50	.51
Sex	58	1.24	.43
Age group	58	3.41	1.23
Education	58	3.36	.93
Seniority	58	2.93	1.30
Leadership	58	1.84	.37
Employment type	58	1.55	1.14
Custody	58	2.02	.98
Health	58	2.81	.48
ERI	57	2.58	.55
Stress	58	2.56	.61
Insecurity	58	3.44	.68
Affiliation	58	2.74	.49
Resistance	58	2.47	.45

Correlation

A bivariate correlation was conducted between the stress, insecurity, ERI, and affiliatio dimensions, as well as the health varialbe. For an overview of the correlation matrix, see Table 8.

Table 8: *Correlation table of dimensions (Pearson's r)*

	1	2	3	4	5	6
1. Insecurity	-					
2. Stress	$r = .26$	-				
3. ERI	$r = -.59**$	$r = -.15$	-			
4. Health	$r = .18$	$r = .62**$	$r = -.16$	-		
5. Affiliation	$r = -.48**$	$r = -.05$	$r = .66**$	$r = -.18$	-	
6. Resistance	$r = -.21$	$r = -.08$	$r = .18$	$r = -.05$	$r = -.08$	

*Note. * p < .05, ** p < .01.*

The correlation between insecurity and stress (r = .26, p =. 05) was statistically significant, suggesting that a there is a strong relationship between these two indices, and that an increase in experienced insecurity will lead to a increase in experienced stress. A correlation analysis was also conducted between the indices of stress and insecurity against the background variables to see if there exists some difference in the experience of insecurity and stress on the behaviour of pre-existing differences. (See Table 9 for an overview).

Table 9. *Correlation chart of background variables and main dimensions (Pearson's r)*

	Stress	Insecurity
Institution	-.11	-.52**
Age group	-.04	-.06
Education	-.11	-.06
Seniority	-.26*	-.03
Leadership	.16	-.15
Employment type	.28*	.15
Parental care	.28*	.01

*Note. * p < .05, ** p < .01.*

Regression Analysis, Insecurity

A multiple regression analysis was conducted with insecurity as the dependent variable, and ERI, resistance and health as the independent variables. Calculations and

analyses were done to ensure that the data did not violate assumptions that must be fulfilled for a regression analysis to be used.

Assumptions. Table 8, which shows an overview of how the main indices of the study correlate, shows that there was a strong correlation between ERI and affiliation. The solution to this problem was to simply to not include affiliation in the regression analysis, as this was not an index that was mentioned specifically in the hypothesis of the study nor was the focus of the study. The data showed no signs of multicollinearity; the highest VIF value was 1.032 and the lowest tolerance value was .969. VIF values should remain below 10 and tolerance value should remain above 0.2, or a problem arises with the dataset (Field, 2013).

To check against independent errors, a Durbin-Watson statistic test was conducted. The value of a Durbin-Watson test will vary between 0 and 4, where a value of 2 means that the variables are uncorrelated. Field (2013) meant that a value under 1 or over 3 would indicate a problem, and that the most optimal value was approximately 2 or very close to 2. The test showed that the analysis met the requirements stated in Field (2013) (*Durbin-Watson* = 1.534). A histogram of the standardised residuals shows that the dataset is normally distributed. The P-P plot for the standardised residuals indicates the same. The spreading plot shows that the data meet the assumptions of homoscedasticity. Multivariate outliers were checked for in the data using Mahalanobis distance, where all standardised residuals having a value of 3 were considered potential outliers. Some standardised residuals had a value of 3 or larger, so a probability test was carried out to see if it would be necessary to remove these values, but the result showed that they would not be a problem as none were significant. Therefore, all of the assumptions were met and a regression analyses could be carried out.

The results of the regression indicated that ERI was the single predictor for insecurity. The model explained 34.3% of the variance in insecurity (R^2 = .343). The analysis showed that the model significantly predicted insecurity ($F(1,56) = 28.677$, $p < .001$). Table 10 shows the correlations between the main variables used in this regression analysis, while in Table 11, the standardised beta coefficients are presented.

Table 10. *Correlation chart of the main variables used in the analysis (Pearson's r)*

	Stress	Insecurity
ERI	-.15	-.59**
Health	.62**	.18
Resistance	-.08	-.21

*Note. * p < .05, ** p < .01.*

Table 11. *Standardised beta coefficients.*

	Stress	Insecurity
ERI	-.05	-.59**
Health	.62**	-.11
Resistance	-.05	-.09
R^2	.38	.34

*Note. * p < .05, ** p < .01.*

Regression Analysis Stress

A multiple regression analysis was conducted with stress as the dependent variable, and ERI, resistance and health as the independent variables. Calculations and analyses were conducted to ensure that the data did not violate assumptions that must be fulfilled for a regression analysis to be used.

Assumption. The data showed no signs of multicollinearity; the highest VIF value was 1.026 and the lowest tolerance value was. 975. The VIF value should remain below 10 and the tolerance value should remain above 0.2 or a problem arises with the dataset (Field, 2013).

To check against independent errors, a Durbin-Watson statistic test was conducted. The test showed that the analysis met the requirements stated in Field (2013) (*Durbin-Watson* = 2.037). A histogram of the standardised residuals shows that the dataset is normally distributed. The P-P plot for the standardised residuals indicated the same. The spreading plot showed that the data meet the assumptions of homoscedasticity. The Mahalanobis distance

test from the previous round of regressions is still applicable here as it is the same dataset. Thus, assumptions for regression are met.

The results of the regression indicated that health was the predictor of the individuals' experience of stress. The model explained 38.4% (R^2 = .384) of the variance in stress. The regression analyses showed significant results for the model (F(1,56) = 34.307, $p<$. 001). Table 11 shows the correlations between the main variables used in this regression analysis, while in Table 11, the standardised beta coefficients are presented.

ANOVA/t-test

ANOVA. This test was conducted with the background variables that had a significant correlation with either stress or insecurity to see if there was a significant difference between groups. Since background variables that correlated significantly with insecurity only had two groups, an independent t-test was used instead of the ANOVA.

T-test – insecurity. Insecurity had only one significant correlation with a background variable – institution. The results of the analysis showed that there was a statistically significant difference between the scores of Institution 1 (M = 3.78, S.D. = .50) and Institution 2 (M = 3.09, S.D. = .65) on insecurity (t (58) = 4.34, $p < .001$)

ANOVA – stress. Stress had a significant correlation with three background variables: employment type, seniority and parental responsibilities. Table 13 shows that employees with an on-call or temporary work position report a slightly higher degree of experienced stress than do employees with a permanent full-time work position, but there is no statistically significant difference between the groups (F (4,53) = 1.281, p = .289). One should also take into account that there is considerable variation in the number of respondents who may fall within the different groups, whereas over half of the respondents fall within the permanent full-time work position group.

Table 12: *Average and S.D. for groups of employment.*

	M	S.D
Permanent full-time	2.84	.67
Permanent part-time	2.74	.34
Temporarily	2.40	.08
On-call	2.41	.00
Other	2.40	.08

Table 14 shows the different types of parental care arrangements the employees have. Employees without any children report higher levels of perceived stress than do employees that have custody of children. The analysis shows that there was no statistically significant difference between the groups (F (2,55) = 2.350, p = .205).

Table 13: *Average and S.D. for groups regarding parental responsibilities*

	M	S.D
Full custody	2.39	.62
Shared custody	2.48	.33
None	2.74	.60

Table 15 shows that employees who have worked less than five years in the organisation report a slightly higher degree of perceived stress than do employees who have worked for five years or more. The analysis shows that there is no statistically significant difference between the groups (F (4,53) = 1.309, p = .279).

Table 14: *Average and S.D. for groups in terms of seniority*

	M	S.D
Less than 1 year	2.84	.91
1–5 years	2.74	.58
5–10 years	2.40	.63
10–20 years	2.41	.68
Over 20 years	2.40	.72

Qualitative Analysis

The two last questions of the questionnaire were open-ended questions. A short and very superficial analysis was conducted on the answers to these questions. This was done to get a better idea of how respondents felt about stress and insecurity during the change process,

and to see what they thought could be contributing to decreases in stress and insecurity during the process.

In response to why the respondents felt they experienced stress and insecurity during the fusion, three distinct themes came up: clarification, communication and predictability. All three of these issues are related. It is possible to look at predictability and clarification as reactions to bad communication. For this analysis, only some excerpts will briefly be presented from the responses to the open questions. They will be discussed further in the discussion part of the thesis and drawn up against the hypotheses and theory used in this study. The qualitative analysis is used to build upon the quantitative results of this study.

Some of the respondents' answers that were categorised under clarification were: "*Earlier clarification,*" "*Clearer views from management,*" "*Clarification of anticipation from management to ALL employees*", and "*As I write this, it will be shortly until we merge into the new organisation. As of today, I know that we are replacing mass systems, but no one can tell me which ones these are, or grant us access to them before the merger is official.*" Some of the responses that were categorised under predictability were: "*Sustainability in hiring,*" "*Security for geographic workplace*", and "*Have been sure to retain the content of the position one had before the fusion. Still not clear what my work tasks will be*". Responses that were categorised under communication were, among others: "*Clearer communication regarding internal opportunities*", "*Better and more information about the process of approaching the main leader*". "*More often and better live updates from of the work being done in the fusion*", and "*More information from management what about my role in the new organisation will be*".

This very brief analysis also led to a better understanding of why the results of the quantitative analysis showed high levels of stress among the employees. The result from the quantitative analyses showed that stress was affecting the health of the employees, and also that most of this stress did not come as a result of experiencing job insecurity. One of the answers that could shed some light on this predicament was from Respondent A: "*The stress level increases with the efficiency requirements in the middle of the fusion process. It is awkward to hear that budgets are reduced at the same rate as the request for extraordinary measures increase*". From Respondent A's answer, we can draw the conclusion that some of the stress was a result of the efficiency requirement the fusion process demanded. Thus, this high level of stress found among the employees was a result of the fusion process and not a reaction to perceived job insecurity. It was clearly the reaction to employees experiencing

more job demands being put on them, especially demands that had a short deadline and were time sensitive.

Respondent B said:

insecurity remains as to the order in this fusion. First, one decides that one should merge, and only then was it clarified as to how it should be done. Thus it becomes a very lengthy process. If the survey and part of the process (ex. Organisational chart) had been done before it was decided that we were to merge, the period of time one experiences insecurity would have been shorter.

Here, Respondent B clearly states that little was clarified before the merger was initiated and that this has led to the experience of uncertainty. The lack of communication and information contributed to employees experiencing fear about what the future will hold for them at work and this again might lead to employees feeling a lack of control over the situation and the future at their current job.

Respondent C said:

I have seen that the fusion partners have been able to determine and make decisions in areas they do not have the same expertise or understanding in as some of their employees. This means that one cannot go along with the "decisions" and thus constantly has to convince them that that it is not correct and that they should change their opinion. Or one just has to find other ways for the implementation of tasks that do not require the way they have decided is the best. This is what I have experienced to be the most emotionally distressing and very stressful in this fusion.

Respondent C talks about what makes him stressed during this fusion, and singles out the lack of codetermination in areas for which the employees have more knowledge, both practical and theoretical knowledge compared to those who are in charge of making the decision. It appears as if Respondent C feels that the employees are not seen or heard in decisions that will affect them the most, as well the area in question being one that they have far more to contribute to than do the managers that are making the decisions.

Discussion

H1: ***The experiences of job insecurity will lead to higher levels of self-reported stress and a decline in health for the individual.***

The results of the regression analyses showed a statistically significant correlation between insecurity and stress (p = .05). It did not find a direct significant correlation between health and insecurity, but there was a statistically significant correlation between health and stress. These results mean that the first hypothesis was not supported.

The results from the regression analysis do suggest that insecurity leads to more stress, and that a higher level of stress leads to a decline in health. It could be that a connection between insecurity and health would be found in a study with a larger sample of respondents. In this study, the results also showed that the employees experienced a lot of stress, but that most of this stress was not a reaction to the experience of job insecurity, but rather due to other variables. In the qualitative analysis, these causes are found to be higher job demands and shorter deadlines.

Because the sample in this study is so limited and small, it is difficult to generalise much from the results here, though it appears on the basis of the results in this survey that qualitative job insecurity leads to higher levels of stress and, in general, contribute to a decline in health among employees during a change process. More research on the topic is required before anything can be determined or a conclusive answer to this hypothesis is found.

It is not possible to guess whether or not insecurity will lead to a general decrease in health in future studies, as a direct correlation between these two was not found in this study, though theory on the subject does suggest that it is evident, even if empirical evidence can only show a decline in mental health. In this study, it was found that outside variables that were not accounted for by the survey contributed the most to employees' experience of stress.

H2: *Individuals with custody of children will report more job insecurity.*

The results showed no significant correlation between parental care responsibilities and insecurity, meaning that this hypothesis was not supported. The results from the correlation analysis show a moderate to significant correlation between parental care and stress. An ANOVA was conducted, and the results showed that employees who had parental care responsibilities experienced or reported lower levels of stress during and following the change process. It was employees without these responsibilities that reported, in general, higher levels of stress, meaning that they found the change process to be more stressful than did their co-workers with parental care responsibilities. This is contrary to what DeWitte (1999) thought was the reason for the 30–40 year age group reporting higher levels of stress in his study. One way to try to explain these results is through social role theory (Linton,

1936). A social role is defined as the set of expectations and standards that are aimed at individuals in a specific social context (Linton, 1936). We operate with two distinct hypotheses in social role theory, The Enrichment hypothesis and The Depletion hypothesis (Giscombe, 2010; Martire, Stephens, & Townsend, 2000; Nordenmark, 2004; Sumra & Schillaci, 2015). The Enrichment hypothesis assumes that having multiple social roles makes an individual more resistant to stress, and that success in one role will cause the individual to feel as if he does a good job in a different role (Giscombe, 2010; Martire et al., 2000).The Depletion hypothesis believes that several social roles will result in overload and exhaustion for the individual (Nordenmark, 2004). This hypothesis posits that the job that requires the individual to maintain all of the social roles one has will require too much of the individual and cause more stress. In this study, the results showed that those without parental care responsibilities experienced more stress. It is conceivable that these respondents have one less social role than do those who have parental care responsibilities – the role as parents. Therefore, the results in this thesis can be looked at as a confirmation of The Enrichment hypothesis and supportive of the previous findings showing that having multiple roles seems to act as a buffer against stress (Giscombe, 2010; Sumra & Schillaci, 2015).

H3: *Older individuals will report more job insecurity.*

The ANOVA and correlation analysis conducted in this study showed that there was no difference among the age groups in experienced insecurity and stress. This was contrary to earlier empirical findings (Hartley et al., 1991; Mohr, 2000; Näswall & De Witte, 2003). The referenced studies theorised that older individuals would experience more insecurity because they would themselves consider it more difficult to find a new job if they lost their current one than would their younger co-workers.

This hypothesis was not supported. A reason or explanation for this could be the difference between experiencing qualitative and quantitative job insecurity. Empirical findings that show a difference in experienced insecurity between the different age groups have found this difference when researching quantitative job insecurity. It may seem as if the differences between the age groups is lower when the experience of insecurity is qualitative job insecurity. Empirical studies have already shown that there are differences in reactions and health problems between qualitative and quantitative job insecurity. In this study, one could theorise that employees in different age groups did not react differently to qualitative job insecurity simply because they are not in danger of losing their jobs. The theory behind this hypothesis claimed that the difference between the age groups was evident because they

feared looking for a new job. According to the results in this study, it seems that there is no difference in experiencing job insecurity between age groups when they are not in danger of loosing their job. The sample in this study is limited and small, and that makes it difficult to generalise much from the results here. More research on qualitative job insecurity is needed before one can conclude such findings, or any findings.

H4: *Individuals with higher levels of education will report less job insecurity.*

Table 9 shows no significant correlation between education and stress or insecurity. Therefore, this hypothesis is not supported. This result is inconsistent with earlier empirical findings that suggested that those with lower levels of education would experience more job insecurity (Gallie et al., 1998; Näswall & De Witte, 2003; Schaufeli, 1992). It has been theorised that this was because those with a lower level of education did not have equally as many jobs to choose from when they eventually had to find a new one.

One of the reasons as to why the results of this study do not build upon earlier empirical evidence could be something that has been mentioned earlier, the difference between reactions to qualitative and quantitative job insecurity. Empirical evidence that shows a difference between those with a higher and a lower level of education had been found in studies conducted on quantitative job insecurity. It is conceivable that the difference is greater when individuals are in danger of losing their jobs, meaning that the fear of losing their job or the need to find a new job makes the employees more aware of the opportunities that are available for them with their education and their skills. Since qualitative job insecurity, which was researched in in this study, means that they are not in any danger of losing their job, they never experience this fear. In addition, most of the respondents had an education of up to six years, and the second largest group of respondents in this study had a higher level of education of up to three years. It is not entirely unexpected that the majority of respondents in this study had a higher level of education, as this was a study that was conducted on employees at the largest university in Norway. The sample in this study had an above average level of education (81.6%), as the average in Norway is that about one in three (31.4%) has a higher level of education (SSB, 2015b). It is conceivable that any difference between the groups was not discovered because the sample in this study, in general, had a higher level of education than does the mean population in Norway. The respondents were also never in danger of losing their job. It could also be that they simply saw the value of their education and knew that it was needed in today's society.

Because the sample in this study is limited and small, it is difficult to generalise much from the results here. More research has to be done on qualitative job insecurity before one can conclude any findings. Future research done on qualitative job insecurity should have a broader representation of the educational levels available before it can be determined if there is any difference in the experience of qualitative job insecurity among those with lower and those with higher levels of education.

H5: *Individuals with a permanent work position will report less job insecurity.*

The results of the correlation analysis showed no significant correlation between insecurity and employment type. Empirical findings on the subject has been divided, where some studies have indicated that those with permanent work positions will experience less job insecurity than do those with a temporary work position because they feel that they, in a larger sense than do their co-workers, belong to the organisation (Barling & Gallagher, 1996; Isaksson et al., 2000). On the other hand, some studies have shown that the opposite is true. Their results have shown a tendency that those with a permanent work position experience more job insecurity because they are more dependent on their job (Näswall & De Witte, 2003). This study has theorised that those with a permanent work positions would report less job insecurity, as they feel, to a larger degree, that they are a part of the organisation. This hypothesis was not supported.

The results of the correlation analysis conducted in this study showed, however, a significant correlation between employment type and stress. Results from the ANOVA that was conducted afterwards showed no significant difference between the different employment types and the experienced or reported levels of stress. However, the means of the different groups suggested that employees with an on-call or a temporary work position reported, on average, slightly higher levels of experienced stress than did those with a permanent position. The small difference between the groups that was visible in the ANOVA may simply be the result of a large variance between the different groups. Because the sample in this study is so limited and small, it is difficult to generalise much from the results here. There was also great variation in the number of respondents who fell within the different groups of positions, which must also be taken into account.

H6: *The experience of recognition and reward will lead to less job insecurity and fewer health issues*

The results of the correlation analysis showed that there was a significant correlation between ERI and insecurity. The results also showed no correlation between ERI and health.

The correlation between ERI and insecurity showed that low scores on ERI led to higher reporting of insecurity. This supports Siegrist's theory behind the ERI model (Siegrist, 1996). The hypothesis was not supported. Musch cannot be generalised by these results, because of the sample size in this study. What can be said, however, is that the results seem to indicate that employees who feel valued or who experience a lack of effort-and-reward balance report less insecurity and fewer health problems in general. It makes sense that employees who score high on the effort–reward balance do not feel insecure, since Siegrist categorised job security as one of the rewards in the ERI model. Another reason is that if employees receive rewards in the form of recognition of their efforts, they feel seen and that others appreciate the work they do. Thus, they will feel less insecure because they feel they are of value to the organisation. On the basis of this, it would be natural to assume that ERI will have a greater impact in a study that examines quantitative job insecurity where the chance of losing one's job is present, in contrast to this study. ERI is the variable in this study that is the easiest for managers to affect and the results show that it contributes a lot to reducing stress and insecurity in change processes. This means that organisations would benefit from facilitating a general focus on ensuring that employees feel they are getting recognition for the work they are doing to avoid employees feeling insecure at work. This will be a cheap solution for organisations to adopt, but would benefit them a lot. Note that the presence of a high ERI does not mean that there is no insecurity among the employees; it merely means that the employees, in general, will experience less insecurity than what would be normal to expect during a change process.

Remaining and Analysis

Seniority. The results of the correlation analysis showed that seniority had a significant correlation with stress, which means that employees who worked longer in the organisation would, on average, report less stress than would those who had recently been employed by the organisation. The correlation did not specify how long an individual had to work for the organisation before this difference came into play. The ANOVA that was conducted suggested that the employees clearly reported lower stress levels if they had worked in the organisation for at least five years. The average for experienced stress was significantly lower for the group that fell under the category of 5–10 years, and remained equally low even when the employee had worked there for 20 years. This difference may be evident because employees that have worked for an organisation for a longer period of time may feel that they are part of the organisation, while those who just started may feel that they

need to prove their worth before they are accepted. Those who worked in the organisation for a longer time will often feel more confident about their role in there and they will feel that they are more valuable because of their experience.

Affiliation. Results of the correlation analysis showed that affiliation had a significant correlation with insecurity. The results suggested that a higher level of affiliation would lead to employees reporting less insecurity. Thus, this result suggests that feeling like a part of the organisation or feeling like one belongs to the organisation will contribute to reducing the employees' experience of insecurity during a change process.

Health. The regression analysis showed that there was a significant correlation between health and stress, where health was a predicting variable for the experience of stress. How individuals scored on health appeared to predict how much stress the individual experienced or reported. The higher the reported score on health was, the poorer the employees experienced their health to be. There was a positive correlation between the two indices, suggesting that higher scores on health corresponded to higher scores of stress. This again means that poorer health correlated with higher levels of perceived stress. This supports earlier empirical findings on stress and its impact on the individuals' health, which were covered in the theory part of the thesis (Ashford, Lee, & Bobko, 1989; Hartley et al., 1991; Heaney, Israel, & House, 1994; Karasek, 1990).

Institution. The results of the correlation analysis showed that there was a strong and significant correlation between institution and insecurity. The t-test that was conducted showed that there was a statistically significant difference between the two groups, which showed that Institution 1 reported higher levels of insecurity, in general, than did Institution 2. It is difficult to discuss the reasons behind this difference, as this study does not contain any information as to what it could be. Instead, it could be beneficial to perhaps investigate more as to what is causing the difference, and here, qualitative methods such as interviews would be preferred as they are better suited for an in-depth understanding.

8_8. Question 8_8 states the following: "Lately, I've thought about changing my job or my workplace" (see Appendix B). Here, 34.5% of respondents said that they agreed or strongly agreed with this statement. This is a very high percentage and shows that this process has been difficult for the staff. This result could give support to the earlier theory that has been mentioned, which said that the experience of insecurity among employees could lead to economic losses for the organisation through high turnover.

The qualitative analysis confirmed that communication was a problem that led to the experience of job insecurity, especially the lack of communication from management. This is something the quantitative survey did not catch or ask about, thus it is difficult to say how many people actually felt this way, as not all 58 answered the open ended questions. The themes that emerged in the qualitative analysis were predictability and clarification, which is significantly related to the desire to have control over the situation. This was mentioned earlier in the thesis and is suggested to have a correlation with the experience of job insecurity. A common term or name for these themes would be communication, or lack of communication, from managers about how this merger will affect the employees. The importance of communication is made clear in the theoretical part of this thesis, and the empirical data in the field support the importance of communication during a change process (Baker, 2002; Kotter's, 1996; Nikolas DiFonzo & Bordia, 1998). As not everyone responded to the open ended questions, and this part was considered and treated as a qualitative answer in a questionnaire, there was no distinguishingbetween the institutions in this part. Thus, we do not know whether there is any difference in insecurity and lack of communication between the institutions.

Limitations

There are both strengths and weaknesses to this study. Below, these have been accounted for, and the following section will mostly point out the weaknesses or limits of this study.

This survey had a response rate of 54.2%. This is higher than average, according Bauruch and Holtom (2008). These researchers performed a meta-analysis that indicated that the average response rate for questionnaires in organisations was 35.7%, with a standard deviation of 18.8%. Although the response rate in this study was higher than average, the response rate of 54.2% in this study with only 58 respondents is a low number. Since the sample was so small in this study, each respondent had a greater impact on the response rate. This means that even though the response rate on paper looks great, the N is too low for the results in this study to be generalised much. The results can be used as an arrow for finding future themes to focus on. The findings from this study should not be given too much emphasis, and should rather be seen as suggestions for further topics of focus in research.

It is worth mentioning that 38 respondents clicked on the questionnaire and answered some of the questions. A good tip for the future is to mention in the follow-up e-mails that the questionnaire is not considered finished or submitted before one has answered all of the

questions and pressed the finish button. This was only mentioned in the information box that was available before the respondent clicked the start button of the survey and was not mentioned by the researcher in the follow-up e-mails sent out to respondents as the questionnaire approached its end date. It should be mentioned that a great deal was done to encourage respondents to answer the survey. The researcher sent all of the links and reminders from her own personal email account to keep the feeling of this being an external study and not one that was made by the management team in New NTNU With hopes that this would make the respondents more honest in their answers. It was also heavily mentioned that this was a study for the researcher's thesis. This was done as to get respondents to understand that it was important for the researcher that they took the time to answer the questions. Other than that, the manager of each group was asked to encourage respondents to answer the questionnaire, and a follow-up e-mail was sent when the deadline for answering the survey was approaching.

This survey would benefit from having a dimension that accounts for health in a better way. There were only a couple of questions that covered the topic, and there should have been more for such a complex topic. There should have been an index consisting of several questions that accounted for health (Ringdal, 2001). This is a big limitation for the results that showed correlations between other indices and health. The questions referring to health were very generic, and this makes it difficult to understand in what way the dimension or the indices were affecting the health of the respondents in this study.

Surveys conducted by NTNU to map employees' attitudes towards the fusion showed that employees with an academic job position were most opposed to the fusion. The panel survey that was conducted only made it possible to put the respondents into two groups: administrative staff and non-administrative staff. Because it was not possible to filter out which of the respondents in the panel survey was part of the academic staff, it is hard to see if this group of employees who were so strongly opposed to the fusion also would have scored differently compared to the other groups in the panel survey. The lack of information from this group is a limitation, as prior to the fusion, they shared their opinions in public and seemed to be a group that held strong opinions on the fusion. Previously, it had been noted that those with administrative positions experienced a lot of time and job demands, particularly ahead of the merger because of the implementations of new systems. Academic staff are also experiencing major changes in their everyday work life, especially now that four institutions are merging and the curricula are probably going through some changes to make

tasks and lectures more equal among the four institutions. This group of employees would have had a great deal to add to this subject, perhaps especially in those departments that exist in more than one institution, where it might be natural to assume that there is a lot of insecurity among the employees as to what the fusion will bring for them or their work environment.

One of the limitations of this study is that the data material used in the analysis come from self-reporting surveys. Limitations of self-reporting surveys include a low response rate, which has been mentioned earlier in the section. Another limitation is having individuals judge their subjective health because empirical findings have shown that an individual's mood controls how he or she experiences subjective health. One study showed that people in a bad mood, on average, reported that they had poorer health than did individuals who were in a good mood (Benyamini, Idler, Leventhal, & Leventhal, 2000). It would have, of course, been scientifically optimal if it had been possible to have a third party with the necessary qualifications judge health and stress levels through the change process. This scenario would be very ethically difficult to implement, as well as more expensive and time consuming. In addition, a rule of thumb is that people are more willing to answer an anonymous questionnaire about stress and health than they are to let a third party examine them for a study or for research purposes. This means that even if the measurements had been better, more accurate, and more complementary, the study would have probably had fewer respondents, making the result less able to be generalised than they already are.

An error that might occur when one uses questionnaires is the consistency effect (Cozby & Bates, 2012). This means that the respondents answer all of the questions in the same way, giving equal scores on the scale. They follow a particular pattern instead of answering truthfully and providing a correct representation of them and their perception of the situation. This is because the respondents want to be consistent and match their answers on what they perceive to be similar questions. This can often provide an artificial effect that does not give an accurate picture of how the situation really is (Richman, Weisband, Kiesler, & Drasgow, 1999). In this study, the researchers tried to account for this effect by having some of the questions reversed.

As with all research using questionnaires, there is a danger that the respondents have answered how they think the researcher wants them to answer, as opposed to what the correct representation of them is. This is called social desirability, and it might have led the respondents to score higher or lower on scales than what is the correct representation for how

they feel. This because they want to answer the questions according to how they feel the researcher wants them to answer or what they think the research is expecting them to say (Cozby & Bates, 2012). It should be said that social desirability is a bigger problem in interview situations than in surveys, thus the chance of social desirability affecting the results of this study is low, as the researcher/supervisor was not physically present when the respondents answered the questionnaire.

On the other hand, a limitation of questionnaires, and especially electronic questionnaires, is that the supervisor is not there physically supervising onsite to help clarify any confusion that may arise while the respondent is filling out the questionnaire. There is also a possibility that respondents may not be as motivated to complete the form when they do not have it physically in their hand, and it is easier to forget to fill it out when the individual does not have it physically available (Cozby & Bates, 2012).

Electronic questionnaires have many advantages, which very often outweigh the disadvantages. With online questionnaires, the respondents answer the questions when they have time and are motivated to do so. Low financial costs are associated with such questionnaires, and the answers from the respondents are made available for the researcher quickly after the respondent finishes answering the questionnaire. Because the researcher will receive the file with all the answers directly to him and he does not have to plot it in manually, it greatly reduces the risk of human errors occurring in the encoding of the data (Hooley, Wellens, & Marriott, 2012 in Eriksen, Osborne, & Solheim, 2014).

In this study, data were collected only once. It would have been more rewarding to use a longitudinal study that would have been able to address the development of job insecurity through the change process. This would have helped to explain how insecurity and the change process correlate to what was reported on the dimensions of stress and health. It would have also given a better overview of the relationship between job insecurity, stress and health and how they affect each other, and it would have also made the result of the study stronger. It would have made it easier to draw a final conclusion as to whether or not fusions contribute to the experience of qualitative job insecurity. The results from such a study would have been easier to generalise, and the chance that the results did not measure job insecurity that came as a result of the fusion or the change process would have been small.

This study did not take into account how personality can affect the experience of stress and insecurity. Research has been done on how Type A and Type B personality correlates with effort at work and health. Studies have found that individuals with Type A personality

reported that they worked and contributed more at work, on average, than did individuals with Type B personality (Schaubroeck, Ganster, & Fox, 1992).The same study also found that individuals with Type B personality reported more somatic pain on average than did individuals with Type A personality. These findings on differences between individuals with Type A and Type B personalities should be reflected upon with caution since most of the early research done on personality type was done on women, where housewives increasingly qualified as Type B personality and women with jobs outside the home were qualified as Type A personality. This is because scientists worked under the assumption that being a housewife is less stressful than is having a job outside of the home.

Another personality trait that empirical findings show has an influence on the reporting of job stress, health and wellbeing is positive and negative affect (Roskies, Louis-Guerin, & Fournier, 1993; Schaubroeck et al., 1992). Roskies et al. (1993) believed that individuals with high levels of negative affect did not necessarily have more powerful reactions to job insecurity than did individuals with a positive affect, but they reported that their health was poorer than did individuals having a positive affect. Mak and Mueller's (2001) results indicated that individuals with negative affect also show negative physical and mental health problems. Therefore, more emphasis should be given to personality types when researching insecurity, stress and health in the future, especially in a study using self-reports (Benyamini et al., 2000).

Future Research

In general, more research on qualitative job insecurity is still needed. There are many studies that have failed to clearly define which type of job insecurity that is being researched, or they have researched a mix of the two types of job insecurity. In the future, there will be a need for more qualitative job insecurity research so that reactions and possible negative effects of qualitative job insecurity can be documented.

It was mentioned earlier that one of this study's limitations is that it did not take personality type into account at all. Future research will need to address this, as it would not be beneficial for future studies to ignore the impact personality has on how individuals subjectively experience situations. It will be important to document whether it is individuals' personality that makes them experience job insecurity in situations or whether it is a universal experience to help clarify whether or not a person experiencing insecurity is doing so because of their personality type.

The qualitative analysis of the open-ended questions show that respondents felt that there

should have bee more focus placed on two topics: codetermination for employees during the process and on management. Respondents felt that these were two aspects missing in this survey. This is important to consider, especially since codetermination and management availability are two of the dimension of the HCPI, which focuses on the healthy change process. Further research on qualitative job insecurity should thus let codetermination and managers be a part of the study to a greater degree than what was done in this study.

This survey ended shortly after the official merger was completed. The big differences and the effects will be visible later on. The merger must have some time to operate before the visible side effects can be documented. Otherwise, when it comes to further research on the fusion of "New NTNU", it would be worth seeing if there are any differences in the reported experience of affiliation to the organisation following the fusion, especially as empirical findings have shown that job insecurity leads to lower levels of organisational affiliation (Worrall & Cooper, 1998 in Saksvik & Tvedt, 2009). In addition, it remains to be seen if there are any differences in experienced and felt affiliation between the four institutions that can be detected.

This task was based on data material from an organisation in Norway and on a specific group of employees with similar job positions within this organisation. This makes it difficult to generalise the results of the study, but as mentioned before, the results here can be used as a starting point for further research. Similar studies researching qualitative job insecurity should look at other professions and cultures, as some of the results that were found here might be the result of the unique Norwegian work culture. Another variable that should be accounted for in future research is education. The sample in this task had an above average level of education (SSB, 2014). Thus, a study done in other organisations might show different results. Especially since empirical evidence shows that educational level should affect the individuals' subjective experience of job insecurity.

Further research on the fusion of "New NTNU" should try to incorporate employees with academic staff among their respondents. As mentioned earlier, they have spoken out in the media about their opinion of the fusion, and research has shown that they experience some insecurity. Therefore, it would be crucial to identify what they believe is the reason for their subjective experiences. It would contribute to a better overview of the subject and situation if employees with several different job positions are added to the respondent group to help better see what could cause employees to experience insecurity, and perhaps learn how to best help reduce this experience.

Conclusion

The research question for this thesis was: "Will the experience of qualitative job insecurity lead to increased reports of stress and a general decline in health?" The results of this thesis supports the research question, as the results seem to suggest that qualitative job insecurity leads to a decline in employees' perceived health through an increase in experienced stress during a change process. There was not a direct correlation found between qualitative job insecurity and health in this study.

The results suggested that employees at Institution 1 and employees without any parental responsibilities were, in general, experiencing more qualitative job insecurity compared to their co-workers. It may be that these results are purely coincidental, but it would be beneficial to take a closer look and conduct more research on these two correlations.

This study also highlighted that co-determination, communication and manager availability are dimensions/themes that should be covered in a qualitative job insecurity survey. The qualitative analysis showed that this was something respondents believed was missing in this survey, and that they themselves felt were some of the reasons as to why they experienced qualitative job insecurity.

Managers seeking motivation to work on reducing the experience of job insecurity in a similar process in the future only need to look at the results from questions 8_8, where 34.5% said they had considered the idea of quitting their current job in the organisation because of the change process. Qualitative job insecurity must be taken seriously, as it not only leads to employees and the organisation performing worse or accomplishing worse result than expected, but it could also lead to a financial decline for the organisation because of high turnover and demotivated employees. Another reason to act upon qualitative job insecurity is that by helping reduce insecurity among employees, the organisation will help save employees' mental and physical health.

There is little research that has been done on only qualitative job insecurity, but this study suggests that there might be a link between qualitative job insecurity and a decline in employees' health. A lot more research is needed on the topic before this can be confirmed, but this study does prove that there should be a dual focus when it comes to research on job insecurity rather than a single focus on quantitative job insecurity.

According to this study, it will be most profitable for the organisation to seek to reduce qualitative job insecurity by promoting good communication between managers and

employees. It would also be very beneficial for the organisation to help the employees feel that they have a good effort and reward balance, as ERI was the single predictor of whether or not the employees experienced job insecurity.

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Appendix A.

Ta stilling til følgende påstander om endringsarbeid knyttet til Nye NTNU slik du

opplever situasjonen i din enhet. Med «ledelsen» sikter vi her til enhetens leder med

personalansvar.

1. Arbeidssituasjonen til medarbeiderne ved enheten på fusjonstidspunktet 01.01.2016 er avklart og vi vet hvilke oppgaver og ansvar vi har i overgangsåret 2016.
2. Fusjonen gjør at vi føler utrygghet i forhold til vår egen fremtidige arbeidssituasjon fra og med 2017
3. I denne endringen har vi en åpen diskusjon om hvilke rutiner vi vil endre og hvilke vi vil beholde
4. Ledelsen i min enhet har tatt hensyn til at folk reagerer forskjellig på Nye NTNU
5. Vi har hatt anledning til å snakke med vår nærmeste leder i vårt foretak om hvilke konsekvenser Nye NTNU får for oss
6. Denne endringen har ført til at vi blir usikre på hva som forventes av oss i jobben
7. Vi har fått nødvendig opplæring i forhold til nye arbeidsoppgaver og roller
8. Ledelsen i vår enhet har kommunisert på en måte som åpner for dialog om endringen
9. Vår nærmeste leder i enheten har redegjort tydelig for hensikten med endringen
10. Gjennom Nye NTNU har vi fått mer innflytelse i forbindelse med gjennomføringen av forandringer
11. Vi utfører arbeid med korte tidsfrister
12. Vi utfører oppgaver som vi mener burde gjøres annerledes
13. Vi utfører ofte oppgaver uten tilstrekkelige hjelpemidler
14. Vi har frihet til å bestemme hvordan arbeidet skal utføres
15. Vi har mulighet til å lære nye ting i arbeidet vårt
16. I arbeidet vårt finnes det mange anledninger til å bedømme hvor godt arbeidet utføres
17. I vår enhet ser vi frem til denne endringen med glede
18. Flere har uttrykt skepsis til Nye NTNU i vår enhet
19. Det er stor entusiasme knyttet til denne endringen
20. Vår enhet har alt i alt blitt en bedre arbeidsplass på grunn av Nye NTNU

Svarkategorier: Sett et tall på hvert spørsmål fra Helt uenig = 1 til helt enig= 10.

Er det spesielle kommentarer eller råd du ønsker å melde inn til prosjektledelsen ut fra situasjonen slik den er akkurat nå? _ _ _ _ _ _ _ _ _ _ _ _

Spørsmål som stilles bare første gang:

Har du hørt om fusjonen før du fikk forespørsel om å delta i spørreundersøkelsen Ja/nei
Deltar du i noen arbeidsgrupper e.l. tilknyttet selve fusjonsprosjektet ?
Har ledelsen i din avdeling eller ved enheten du tilhører presentert bakgrunnen og målene for fusjonen? Ja/nei
Har du tilstrekkelig tilgang til nyheter og informasjon om fusjonen? Ja/nei
Hvis ja: Hvilke kanaler bruker du for å holde deg orientert?

Appendix B.

8.1   Jeg er redd for å måtte skifte stilling, uten at jeg er klar for det eller ønsker det i nærmeste fremtid.

8.2   Mine fremtidige karrieremuligheter i denne organisasjonen er gunstige

8.3   Jeg er redd jeg kommer til å miste min gamle stilling/mine gamle arbeidsoppgaver i nærmeste fremtid

8.4   Jeg føler at organisasjonene kan gi meg stimulerende arbeidsoppgaver i nærmeste fremtid

8.5   Jeg føler at organisasjonene vil ha behov for min kompetanse i nær fremtid

8.6   Det er en sjanse for at jeg vil måtte bytte stilling/arbeidsoppgaver det kommende året.

8.7   Jeg er redd jeg bil bli bedt om å flytte til en annen avdeling eller en annen stilling i nærmeste fremtid, uten at jeg har uttrykt et ønske om dette.

8.8   Den siste tiden har jeg tenkt på å skifte jobb eller arbeidsplass

9.1   - …..vært stresset?

9.2   -….funnet det vanskelig å slappe av?

9.3   -….følt deg irritabel?

9.4   -…..følt deg anspent?

9.5   -….hatt problemer med å sove?

9.6   -…. Sovet dårlig og vært rastløs?

9.6   -….følt deg utslitt?

10   Opplever du noen forskjell i ditt eget stressnivå etter fusjonsarbeidet startet??

11   Merker du at helsen din etter at arbeidet med fusjonen startet har blitt…..?

13.1   Jeg får den respekten jeg fortjener av mine overordnede

13.2   Jeg får den respekten jeg fortjener fra mine kollegaer

13.3   Jeg får tilstrekkelig støtte i vanskelige situasjoner

13.4   Jeg behandles urettferdig på jobben

13.5   Jeg har små muligheter til å bli forfremmet

13.6   Jeg opplever eller forventer å oppleve en uønsket endring i min jobbsituasjon

13.7   Jeg er sikker på at jeg kan beholde stillingen min

13.8   Min nåværende stilling er tilfredsstillende sett i forhold til min utdanning

13.9   Sett i forhold til innsats får jeg den respekten jeg fortjener i jobben

13.10   Sett i forhold til innsats er mine jobbutsikter tilfredsstillende

13.11   Sett i forhold til innsats er lønnen min akseptabel

14.1   Jeg vil glede meg over å kunne tilbringe resten av mitt yrkesliv i denne virksomheten

14.2   Jeg liker å diskutere jobben med personer utenfra

14.3   Jeg føler virkelig at problemene til denne virksomheten er mine egne

14.4   Jeg tror jeg lett kan bli like sterkt knyttet til en annen virksomhet som denne
14.5   Jeg føler meg ikke som «en del av familien» ci denne virksomheten
14.6   Denne virksomheten betyr mye for meg personlig
14.7   Jeg har en sterk følelse av å tilhøre i denne virksomheten
14.8   Denne virksomheten har en fin tradisjon for å bidra til det offentlige felleskap
14.9   Skulle jeg ha levd om igjen, ville jeg ha valgt å jobbe for denne virksomheten
14.10   Jeg er stolt over å jobbe i denne virksomheten
15.1   I usikre tider forventer jeg som regel det beste
15.2   Jeg er alltid optimistisk med tanke på fremtiden min
15.3   Jeg liker å gjøre ting på den faste måten fremfor å prøve nye ting
15.4   Når livet blir rutine, forsøker jeg å forandre på de
15.5   Når jeg informeres om endringer i planene, blir jeg anspent

15.6   Jeg er sikker på at jeg kan mestre uventede hendelser på jobben
15.7   Når jeg kommer frem til en konklusjon er det ikke sannsynlig at jeg ombestemmer meg

Appendix C

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES

NSD

Per Øystein Saksvik
Psykologisk institutt NTNU

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| Vår dato: 18.12.2015 | Vår ref: 45628 / 3 / LB | Deres dato: | Deres ref: |

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 11.11.2015. Meldingen gjelder prosjektet:

45628	*Jobbusikkerhet, helse og stress under NTNU-fusjonen*
Behandlingsansvarlig	*NTNU, ved institusjonens øverste leder*
Daglig ansvarlig	*Per Øystein Saksvik*
Student	*Ilma Repesa*

Personvernombudet har vurdert prosjektet, og finner at behandlingen av personopplysninger vil være regulert av § 7-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet gjennomføres.

Personvernombudets tilråding forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/meldeplikt/skjema.html. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, http://pvo.nsd.no/prosjekt.

Personvernombudet vil ved prosjektets avslutning, 31.12.2016, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Katrine Utaaker Segadal

Lene Christine M. Brandt

Kontaktperson: Lene Christine M. Brandt tlf: 55 58 89 26
Vedlegg: Prosjektvurdering

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

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