Master thesis
Job crafting/SOC intervention for older warehouse employees at an international logistics service provider

Department of Industrial Engineering & Innovation Sciences
Operations Management and Logistics
Human Performance Management Group

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Abstract

An International Logistics Service Provider (LSP) is a multinational package delivery and supply chain management organisation with customers all over the world. Part of the success lies in developing its operations workforce since it consists of a lot of warehouse employees. Among this warehouse employees is an increasing group of 'older' (45+) employees, who are not always physically and/or mentally capable of carrying out the work they have always done. In this intervention study among older (45+) warehouse employees (N=59), the impact of a specific job crafting and SOC intervention on work engagement, burnout, performance and sustainable employability (work ability and person-job fit) was tested. The experimental group received training and then set personal job crafting goals for a period of four weeks and a SOC goal for a period of one week. Results of repeated measures analyses showed that the intervention was successful. Participation in the intervention group were associated with significant increases in job crafting behaviours (i.e. increasing challenges, optimizing demands and decreasing demands), SOC behaviours (i.e. elective selection, optimization and compensation), work engagement, person-job fit, work ability and task performance for the experimental group compared to the control group. Though no significant intervention effect for burnout was found, it is concluded that job crafting in combination with SOC is a promising job redesign intervention strategy that individual employees can use to improve their sustainable employability (which was measured by person-job fit and work ability), work engagement and performance.

Preface

The publication of the current study reflects the finalization of my graduation project at LSP, to obtain my master's degree in Operations Management & Logistics from Eindhoven University of Technology. During the last five years at the TU/e, I further developed my passion for optimization of all sorts of processes within a company. Moreover, I learned that to implement changes in work processes or procedures within a company, you should not forget about the effects of these changes on the employees of the companies. Surprisingly, this fascinated me a lot during the study program: I have developed a true passion for human performance management and being able to motivate, stimulate and work with employees is what I love most. I did not know, when I started at the TU/e, which electives would be most interesting for me. However, due to the interesting courses of the whole HPM-team during the bachelors and masters, I have developed a true passion for human performance management.

This thesis would not have been of the same level without the feedback and support of my first and second supervisor prof. dr. Evangelia Demerouti and dr. Pascale Le Blanc. Demerouti's extensive knowledge on the effects of work characteristics and individual job strategies (including job crafting and SOC) provides the base for the formulated hypotheses. Moreover, her expertise regarding interventions guided me to establish an effective job crafting/SOC intervention. Her involvement, enthusiasm and passion for the subject was contagious and made me very enthusiastic too. In addition, dr. Le Blanc's feedback and efficient communication were of great value. I have great memories of our collaboration during the bachelor end thesis and master end thesis. I would therefore like to express my sincere gratitude towards both supervisors.

Secondly, I would like to thank all those involved at LSP. Irene Laieb-Vrijhof, my company supervisor, who provided unconditional support and helped a lot in organising the intervention and getting me in touch with the right people. I am thankful for the support of the HR-team, who provided me with all the information and support necessary to make this study a success. Next, I owe a large appreciation to the warehouse employees, their input to the project and willingness to part take in the intervention are what made this project a success and an experience to not forget.

Thirdly, I want to thank my boyfriend, family and friends for their unconditional support during the project and the last five study years. Thank you all for always believing in me and providing me with unconditional support during the highs and lows in the last five months. Special thanks to my boyfriend, without you I would probably have studied at a different university or started a different study. You were the one interested in Industrial Engineering during the information days, and after hearing the general presentation, I became very enthusiastic too. Nevertheless, I never regret this choice and I am really thankful for the last five years. The finalization of this report and thereby the finalization of the master's in Operations Management and Logistics marks the end of a chapter. I am ready for the next one!

Karlijn van den Dungen

Executive summary

Introduction

Aging at work is a dynamic process and while individuals age, their abilities and values change (Kanfer and Ackerman, 2004). Moreover, according to Orr & Orr (2014), profitability of organizations could be achieved through three channels: efficient operations, cost-consciousness and an engaged, healthy and skilled workforce. However, since the nature of work is changing (technological advancements occur with an increasing pace) and available opportunities and demands may no longer be suitable for older employees, this group of employees might experience a person-job misfit (Wong, & Tetrick, 2017). A potential person-job misfit may impact how older employees perceive themselves (in the job), which could lead to conflicting work identities (Wong, & Tetrick, 2017). In all cases, the abilities and needs of employees should be aligned in order to develop and maintain congruent work identities (Wong, & Tertrick, 2017). According to Ng & Feldman (2008) and Posthuma & Campion (2008), older employees are often stereotyped as less adaptable and being more difficult to train. Companies, therefore, are not investing much in the training of these older employees, under the assumption of lower return on investment. However, older employees often value opportunities to maintain their capabilities and skills for a better sense of job security (Herrbach et al., 2009).

Therefore, the main goal of this master thesis is to increase employees' overall sustainable employability (measured by person-job fit & work ability), job performance and work engagement while decreasing burnout by means of an intervention. Job Crafting and SOC (Selection Optimization Compensation) can aid in achieving this goal. There are four distinctive actions of job crafting: seeking resources, seeking challenges, decreasing demands and optimizing demands (Demerouti & Peeters, 2017; Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012). SOC theory is composed of three actions. First of all, Selection aims to focus resources on specific goals instead of allocating resources among multiple goals. Optimization aims to facilitate individuals by continuously improving the means to successfully pursue their goal. Compensation includes the acquisition and implementation of alternative means to achieve a desired goal in the case of obstacles or a loss of resources. Several studies revealed that a Job Crafting/SOC intervention can trigger Job Crafting and SOC behavior in individuals. A combination of job crafting and SOC in one intervention is chosen since job crafting is particularly aimed at the external environment (the demands and resources of work). Job crafting refers to external resources that individuals receive from their job and the working environment, for instance, support from colleagues. SOC is a process that is initially aimed at internal resources (e.g. focusing of your own energy on a specific target). Therefore, these techniques are complimentary and a combination of these two techniques will be of interest in this study.

Therefore, this study focusses on the utilization of a Job Crafting/SOC intervention at the warehouse environment of LSP (Logistics Service Provider) in the Netherlands. There is an increasing group of 'older' (45+) employees within LSP, who are not always physically and/or mentally capable of carrying out the work they have always done. In addition, LSP has the ambition to look for the tasks and responsibilities that best suit someone, taking into account each individual's skills. In this way, every employee can contribute maximally to the business objectives of LSP. Therefore, in this environment, it is important to investigate the best way(s) to keep employees healthy and motivated, in the operational warehouse environment, until their retirement age. LSP is a world-wide logistics company with approximately 80% of its employees located in the warehouse.

Method

The research model of the current study is shown in the figure below (Figure 0). The study is designed as a quasi-experimental field study with 2 measurements in time. A randomized control group has been used, consisting of the 45+ employees working in different warehouses. The LSP warehouse department at three different locations comprised the experimental group. For the control group, also three warehouses locations were incorporated.

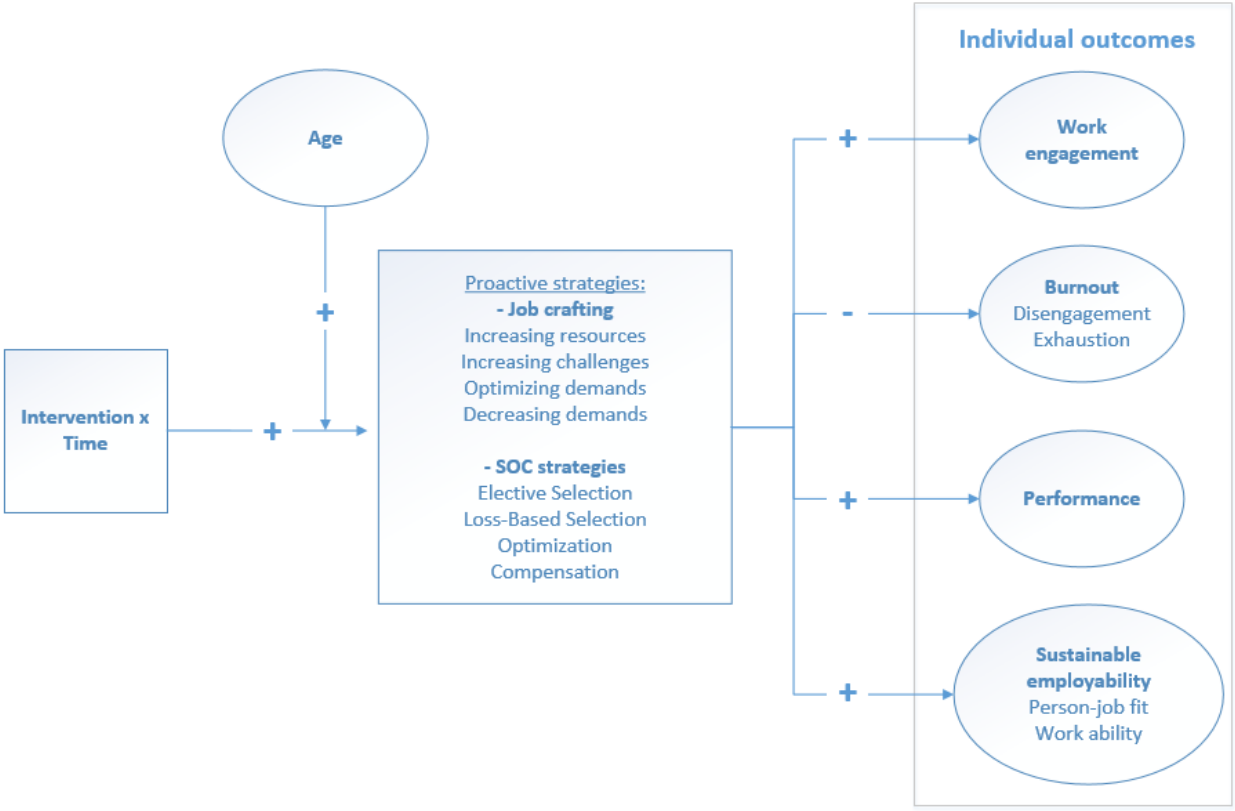

Figure 0. Research model thesis

The intervention consisted of three parts. First, participants attended a workshop in which the Job Crafting and SOC concept were explained (theoretical background provided). During the first training, best practices were discussed, which were retrieved from interviews conducted with random employees beforehand. Moreover, during the training, employees were presented exercises to conduct their task analysis (analyze current job and energizing/strenuous factors) and this was used for input in able to perform set SMART goals and complemented actions in their personal action plan. The workshop was followed by four weeks of job crafting and one week of SOC behaviour. During the first four week period, participants had the chance to attain one SMART goal each week, respective to increasing resources, optimizing demands, seeking challenges and decreasing demands. The fifth week consisted of establishing a personal project for each participant that aims toward more effective coping with an individually important job demand or to activate an individually valued job resource. Each employee chooses a specific goal (selection), develops a (step-by-step) action plan to achieve this goal in an optimal way (optimization), and considers alternative strategies in cases of external or internal hindrances during goal accomplishment (compensation). Five weeks after the intervention, an evaluation session was held to

exchange experiences and stimulate further Job Crafting/SOC behavior. To evaluate the effectiveness of the training, there were two measurements in time, one before the intervention workshop, and one during the evaluation session (after five weeks). The control group also participated in these two measurements. The measurement consisted of a questionnaire, comprised of questions measuring each outcome (e.g. work engagement, person-job fit, work ability, burnout and performance), as to be seen in figure 0. Validated measures were used to ensure reliability of the questions.

Results and discussion

Results of this study show that a job crafting/SOC intervention can result in increased job crafting behavior (i.e. increasing challenges and decreasing demands) and SOC behaviour (i.e. selection, optimization and compensation) in employees. This effect was measurable five weeks after the intervention. Moreover, the Job Crafting/SOC intervention resulted in several positive changes in the organizational outcome variables. In the experimental group work engagement, work ability, performance and person-job fit significantly increased five weeks after the intervention was completed and compared to the control group. Contrary to the expectations, burnout did not decrease significantly for the experimental group. These findings are of theoretical value as findings regarding the effect of job crafting behavior on these outcomes differs amongst studies. The results of the current study also extend the current literature on SOC interventions: the intervention can result in more SOC behavior. Moreover, this study answers to the request for more research on the topic (Gordon et al., 2018; Van Wingerden, Bakker, & Derks, 2017a).

However, age was not found as a moderator in the relationship between the intervention over time with job crafting and SOC behavior. This means that the intervention will not result in a higher increase in job crafting behavior for older employees compared to younger employees. However, this intervention did only focus on employees of 45 years and older, meaning that within this group, getting (even) older does not predict an increase in job crafting behavior. Niessen, Swarowsky, & Leiz (2010) found a possible explanation for this, since their study revealed that age was negatively related to person-job fit and performance after organizational change. These relationships were mediated by job experience. Therefore, job experience made it more difficult for (young and old) employees to adapt to workplace changes.

Lastly, the mediating behavior of job crafting and SOC was tested in the relationship between the intervention over time and the organizational outcomes (e.g. work engagement, person-job fit, burnout, performance and work ability). Results show that the relationship between the intervention over time and the outcome current work ability was mediated by job crafting behavior. Above that, the relationship between the intervention over time and the outcome burnout was mediated by both job crafting and SOC behavior. Since the other outcomes were non-significant with job crafting and SOC as mediators, other mediators were tested (person-job fit, job demands and job resources). The mediator person-job fit provided the same results as job crafting/SOC behavior as mediators. However, job demands did significantly mediate the relationship between the intervention over time with performance. Moreover, job resources did significantly mediate the relationship between the intervention over time with burnout and person-job fit. This indicates that both increasing/decreasing job demands and job resources should be stimulated in job crafting, since both are responsible for different positive organizational outcomes.

Contributions to theory and practice

The current study is unique due to the fact that a lot of different employees with different backgrounds and cultures are currently doing the same work. The logistics (warehouse) environment with its mix of employees with different demographical backgrounds, could potentially influence the results as suggested by Demerouti (2014). Within LSP, lots of different nationalities are currently doing the same work. Therefore, more intervention studies among samples with a variety of backgrounds in the study reckoned to be of added value. It may also be of value to develop an enhanced understanding of the job crafting dimension 'optimizing demands', since this has been substituted for the dimension of 'reducing hindering demands' (Demerouti & Peeters, 2017). However, the current study still includes both concepts. More (intervention) studies on the 'optimizing demands' dimension could be helpful in gaining a better understanding of its usefulness/added value.

Generally, within organizations there remains lot to be gained in order to satisfy the workforce, increase person-job fit and thereby enhance sustainable employability. The aid of SOC behavior in this process is new and found to be of great significance in the increase of person-job fit, work ability, performance, and work engagement. This makes this study practically relevant to especially managers or leaders experiencing difficulty in retaining the older workforce and keeping them healthy and satisfied. By using job crafting and SOC, these managers or leaders acquire a new means to give the employees the feeling that they are valued and effort is made to accommodate their wishes, possibly resulting in higher satisfaction and fewer illness within this company.

Conclusion

Overall, it is concluded that the current study partly satisfied the main research objective and successfully answered the related research question ('*Can a job crafting and SOC intervention stimulate (older) people in low-skilled warehouse work to adjust their job to fit their capacities and interests in order to stay motivated and sustainable employable?')*. The answer to this research question is "yes" since the main objective to increase person-job fit, work ability, work engagement and task performance while decreasing burnout has been achieved (except for decreasing burnout). The significance of job crafting and SOC in achieving this has been theoretically argued and empirically justified. Moreover, it is concluded that although not all results were as expected, the Job Crafting/SOC intervention was a success. It has been shown that after the Job Crafting intervention, employee' person-job fit, work ability, work engagement and task performance has increased. Only, employees did not experience a decrease in burnout after the intervention. However, plausible explanations have been provided for this e.g. there was less room for improvement for the experimental group, a higher workload at the second measurement in time (T2) compared to the first measurement (T1) and the experimental group filled out the questionnaire some days earlier compared to the control group). However, overall, this results stress the importance of this intervention to achieve a satisfied, healthy, motivated and sustainable employability workforce.

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1. Introduction

Undoubtedly, any given organizations' main goal is to be as profitable as possible. This main goal of maximum profitability could be achieved through various channels according to Orr & Orr (2014): efficient operations, cost-consciousness and an engaged, healthy and skilled workforce. However, aging at work is a dynamic process and while individuals age, their abilities and values change (Kanfer and Ackerman, 2004). According to research by Hedge et al. (2006), individuals differ significantly in their aging trajectories. According to Kooij et al. (2011), while aging, intrinsic motives generally increase while growth (extrinsic) motives weaken. This results in younger and older employees investing their resources in different areas. Above that, since the nature of work is changing and available opportunities and demands may no longer be suitable for older employees, this group of older employees might experience a person-job misfit (Wong, & Tetrick, 2017). According to Baskerville et al. (2017), one of the most important aspects of the changing nature of work are the technological advancements which occur with an increasing pace, demanding changes to an organization's operations management. These changes all must be adjusted by the workforce working with changed systems. However, a potential person-job misfit may impact how older employees perceive themselves (in the job), which could lead to conflicting work identities (Wong, & Tetrick, 2017). In all cases, the abilities and needs of employees should be aligned in order to develop and maintain congruent work identities (Wong, & Tetrick, 2017).

1.1 Business context and problem statement

The OECD (2019) has published a report which states that most developed countries will face aging population in the ongoing years. This report (OECD, 2019) also states that in these years the number of employees who retire each year is going to be more than the number of newcomers. Therefore, the potential labour force will decrease (OECD, 2019). This results in most European countries raising their retirement age (The New York Times, 2009) and employees needing to work longer.

According to Maertens et al. (2012), "normal aging involves a number of physiological changes, primarily in sensory function, muscle function, cardiovascular function and immune response". Moreover, individuals may experience reduced visual acuity and hearing sensitivity and a decline in aerobic capacities. According to Forteza and Prieto (1994), while aging, employees may experience reduced psychomotor speed and abilities. Above that, according to Warr (1994), while individuals age, there is a loss of physical strength, muscle tone and muscle mass which occurs due to bone loss. However, these changes are gradual, and individual differences also impact older employees' job experience in various ways. Since blue-collar jobs (manual labour) constitute an increasingly large proportion of the labor force, this is often associated with age-related decline in physical strength, endurance and speed (Wong, & Tetrick, 2017).

Older employees often experience a reduced efficiency of the immune system (Wong, & Tetrick, 2017). This makes them more prone to illnesses at work, which often requires a longer recovery time (Sterns et al., 2008). According to Thomson et al. (2000), the length of sick leave is positively correlated with age. Ng and Feldman (2008) state that the incidence of injuries is lower for older employees, but jobs with higher risk for injuries may become more unsuitable as employees age. Cognitive abilities also often show age-related changes (Wong, & Tetrick, 2017), which will include both gains and losses. There is a negative relationship between age and fluid intelligence (Truxillo et al., 2015), e.g. speed of executing tasks, memory, and (selective) attention. Therefore, older employees' skills may deteriorate over time. In addition, according to Ng & Feldman (2008) and Posthuma & Campion (2008), older employees are often

stereotyped as less adaptable and being more difficult to train. These studies argue that older employees have lower ability to learn, which contributes to the belief that they are more difficult to train. Companies, therefore, are not investing much in the training of these older employees, under the assumption of lower return on investment. According to Felstead et al. (2010), training that is accessible to older people is often of shorter duration and lower quality. However, older employees often value opportunities to maintain their capabilities and skills for a better sense of job security (Herrbach et al., 2009). In order for older employees to stay sustainably employable, their work ability and person-job fit should stay at an appropriate (high) level. Work ability can be defined as "the degree to which individuals are physically, mentally and socially able to work" (Gould et al., 2008; Ilmarinen et al., 2005). This definition identifies the interaction of work characteristics with the characteristics of the employee. Another definition of work ability, according to Van den Berg (2010) is "the extent to which employees, given their health, are able physically as well as mentally, to meet the requirements of work". Demands (physical and mental) should be in line with the capacities of employees (person-job fit), otherwise the work ability of an employee will probably be affected in a negative way (Van der Klink et al., 2011). According to Demerouti et al. (2001), high job demands may result in a health-impairment process if exposure to workload on a daily level transforms into chronic overload over a long time period. Therefore, job demands may lead to burnout which may result in physical health problems (Wong, & Tetrick, 2017). On the other hand, job resources initiate a motivational process. Job resources satisfy people's basic needs and provide meaning. Therefore, they contribute positively to work engagement (Schaufeli, & Bakker, 2004).

Therefore, the main goal of this master thesis is to increase employees' overall sustainable employability, job performance and work engagement while decreasing burnout by means of an intervention. Moreover, this intervention should be particularly aimed at older employees since organizations do not always see the potential benefit of investing in this target group and a large part of the current workforce consists of older employees. A lack of resources may result in a person-job misfit, with potentially harmful consequences for older employees. Since employees need to work longer in the future (OECD, 2019), keeping employees sustainable employable is important in order to avoid early drop-outs. Sustainable employability is a relatively new subject. Although numerous studies mentioned sustainable employability, there is not one conceptualization of sustainable employability. This study conceptualizes sustainable employability as a high work ability and an increased person-job fit since high demands and too few resources result dropouts, decreased mental health and decreased satisfaction (Furnham, & Schaeffer, 1984).

According to earlier research (Hackman, & Oldham, 1976), job redesign is a top-down process implemented by organizations. Therefore, one way to reduce the discrepancy between person and job can be job redesign. However, it is often difficult for organizations to take individual needs and abilities into consideration (Hackman, & Oldham, 1976; Berg et al., 2010). Job crafting is an individualized process initiated by employees themselves (that takes individual needs and abilities into consideration). This can be a valuable mechanism for older employees to realign and enhance their needs-supply and demands-ability fit. Research suggests that as people age, they gain more insights in their identity, strengths, and interests and have an increased tendency to create environments that fit these strengths and interests (Caspi, Roberts, & Shiner, 2005). Moreover, research shows that aging individuals become more dominant, self-confident, conscientious, and self-controlling (Roberts, Walton, & Viechtbauer, 2006), and therefore possibly more capable of job crafting.

Recent literature (Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012; Tims, Bakker, & Derks, 2012) conceptualized job crafting as the changes employees make to balance their job demands and job resources with their personal abilities and needs. Following this conceptualization, job crafting is a (voluntary) self-initiated behaviour that includes: increasing resources (i.e. asking colleagues for advice), seeking demands/challenges (i.e. asking for more responsibilities) and decreasing demands (i.e. eliminating emotionally or physically demanding job aspects) Recently, Demerouti, & Peeters (2017) suggested that this reducing demands could be substituted by optimizing demands (i.e. finding smarter ways to perform a task).

According to Freud (2006), Selection, Optimization, and Compensation (SOC) is another process that is positively associated with indicators of successful aging, such as life satisfaction, well-being, and quality of life. SOC may contribute to successful aging by helping older employees maximize their well-being in the context of physical decline. The SOC theory states that as employees get older, limited personal resources (such as cognitive capacity and time) become more strained. SOC theory includes three components: Selection, Optimization and Compensation. Selection aims to focus resources on specific goals instead of allocating resources among multiple goals. Therefore, selection determines the direction of the investment of resources and personal development of employees (Müller, & Weigl, 2017). Optimization aims to facilitate individuals by continuously improving the means to successfully pursue their goal. Thus, optimization refers to the quality and the persistence of resource allocation in the pursuit of desired goals (Müller, & Weigl, 2017). Lastly, Compensation includes the acquisition and implementation of alternative means to achieve a desired goal in the case of several obstacles or a loss of resources. Therefore, compensation refers to the flexibility of resource allocation in the pursuit of goals (Müller, & Weigl, 2017). Since it is stated that job crafting and SOC can be valuable tools in increasing the person-job fit, the following research question is aimed to be answered:

Can a job crafting and SOC intervention stimulate (older) people in low-skilled warehouse work to adjust their job to fit their capacities and interests in order to stay motivated and sustainably employable?

A combination of job crafting and SOC in one intervention is chosen since these are complementary behaviours. On the one hand, job crafting is particularly aimed at the external environment and the demands and resources of work. Job crafting refers to external resources that individuals receive from their job and working environment, for instance, support from colleagues. On the other hand, SOC is a process that is initially aimed at internal resources (e.g. focusing of your own energy on a specific target). Therefore, a combination of these two (internal and external) techniques will be of interest in this study.

Kooij et al. (2011) show in a meta-analysis that there exists a positive relationship between age, autonomy and need for autonomy. However, individuals differ while aging, since some older employees might value training opportunities in order to be able to maintain their competencies while others do not want to invest their energy in training opportunities and want to keep their loss of capabilities to the minimum. Kanfer and Ackerman (2004) suggest that the salience of extrinsic outcomes (job features that occur as an outcome of work) decrease with age. The idea of limited time remaining in their working life drives older employees to focus on fewer but specific outcomes (Wong, & Tetrick, 2017). These outcomes would provide direct gratification, such as a sense of achievement from accomplishing challenging work tasks. This is in line with the SOC theory that states that personal resources become more strained as individuals become older, meaning that the allocation of resources is focused on maintaining the current resources, keeping losses to a minimum (Wong, & Tetrick, 2017). Moreover, according to Helson et al. (1995), older

employees often have a better understanding about their strengths and their professional identities. According to research (Roberts et al., 2006), most older employees are more confident and emotionally stable. Therefore, praise from managers or colleagues may have less impact on how older employees perceive themselves. These above-stated age-related changes are reasons to belief that older employees will be motivated to engage in job crafting to align their work outcomes with their personal motives.

A job crafting/SOC workshop provides a bottom-up intervention that may help individuals to understand how to deconstruct their job tasks, identify their strengths and interests, and then find meaningful ways to improve alignment between their tasks on the one hand and their personal strengths and interests on the other. Because the relevance of the content, practice, and goal-setting enhance transfer of training (Burke & Hutchins, 2007), participants of a job crafting intervention should conduct their own analysis of the potential person-job misfit and set their own personal goals to improve their person-job fit. This study is aimed to provide scientific evidence that job crafting and SOC behaviour can be induced by an intervention and that consequently job crafting behaviour is positively related to increased employee job performance, decreased burnout and increased work engagement, person-job fit and work ability. Consequently, this may yield evidence that such an intervention is a means to successfully enhance sustainable employability. This study takes place in a warehouse context: the logistics department of a LSP (Logistics Service Provider).

1.2 Company information

A Logistics Service Provider (LSP) is a multinational package delivery and supply chain management company located and with customers all over the world. This project will take place in the Dutch subsidiary of LSP.

There is an increasing group of 'older' (45+) employees within LSP (Logistics Service Provider), who are not always physically and/or mentally capable of carrying out the work they have always done. In addition, LSP has the ambition to look for the tasks and responsibilities that best suit someone, taking into account each individual's skills. In this way, every employee can contribute maximally to the business objectives of LSP. Therefore, in this environment, it is important to investigate the best way(s) to keep employees healthy and motivated, in the operational warehouse environment, until their retirement age. LSP is a world-wide logistics company with approximately 80% of its employees located in the warehouse.

2. Research question

This master thesis' main goal is to increase (older) employees' overall sustainable employability (person-job fit & work ability), job performance and work engagement while decreasing burnout. The formal objective and research question is the following:

Objective:
Increase person-job fit, work ability, work engagement and task performance while decreasing burnout to keep employees healthy, motivated and sustainable employable.

As job crafting and SOC have been linked to increased work engagement, decreased burnout and increased performance, it is hypothesized that job crafting and SOC can be a means to achieve the set objective. This results in the following research question;

Can a job crafting and SOC intervention stimulate (older) people in low-skilled warehouse work to adjust their job to fit their capacities and interests in order to stay motivated, healthy and sustainably employable?

There are some sub questions stated as follows:

- *What are the job resources (the physical and mental capacity of (older) employees) and job demands (the capacity that is asked from them)?*
- *Does a job crafting/SOC intervention initiate job crafting/SOC behavior?*
- *Does a job crafting/SOC intervention result in positive outcomes (e.g. increased work-engagement, decreased burnout, and increased performance) and, consequently, an increase in sustainable employability (e.g. increase in person-job fit and increase in work ability)?*

2.1 Relevance

Increasing the sustainable employability of employees is important as organizations strive for a workforce that is vital, healthy and profitable. Sustainably employable employees are less likely to turnover and have a burnout (Van der Heijden et al., 2016). This study aims to uncover the important failure and success factors of the two methods (job crafting and SOC) since the introduction describes that these methods can have positive consequences for the organization and its employees in terms of person-job fit.

According to Van Dalen, Henkens, & Schippers (2007), organizations often have the impression that older employees can not and do not want to change and comply with the changing characteristics of work. However, results from a different study (Van Dam, Van der Vorst & Van der Heijden, 2009) argue that older employees like to be in a development-oriented and challenging environment at work. A positional paper by Demerouti (2014) shows that job crafting contributes to self-confidence and employee well-being.

This study could assist organizations in shaping their job designs in such a manner that employees' sustainable employability is positively stimulated. Therefore, organizations that are willing to increase their employees' sustainable employability may use this study as a guideline in designing (contextual) work for older low-skilled employees (e.g. warehouse employees). This helps organizations too, as sustainable employability ensures stable performance of their employees and sustainable employable employees are less absent and more likely to remain at their organization (Van der Heijden et al., 2016).

This study also strengthens the current knowledge on sustainable employability and work-related outcomes by providing a qualitative (systematic) analysis on the relationships between several individual and work factors with sustainable employability. Moreover, this study is distinguishing two subpopulations (older and low-skilled employees) since these groups are critical in the survival of the organization. The group of older employees is critical since the current workforce is composed of a lot of employees in this group and they provide a lot of experience to the organization. Particularly for older employees, their experience in the workplace gives them a superior understanding of how jobs can be done more efficiently, which, in turn, may save companies a lot money. According to Bastien (2018), older employees can make excellent mentors and role models, which makes training other employees less difficult. Their confidence, obtained by their work experience, means they will not hesitate to share their ideas with the management. However, older employees often quit before their retirement age and low-skilled employees often become stuck in the labour market. Moreover, instead of focusing only on job crafting, this research also incorporates SOC theory. The SOC theory (Baltes and Baltes, 1990) is particularly focused on coping with age-related losses, which identifies that as employees age they are focused on different goals and values at work compared to younger employees. Current research does not provide much information about SOC theory in relation to personal and work factors. Therefore, this can be seen as a literature gap. Therefore, the combination of SOC behavior and job crafting behavior is reflected in the intervention. On the one hand, job crafting is particularly aimed at the external environment and the demands and resources of work (e.g. getting support from your colleagues). On the other hand, SOC is a process that is aimed at internal resources (e.g. focusing of your own energy on a specific target). Therefore, these techniques are complementary and a combination of these two (internal and external) techniques will be of interest in this study.

2.2 Contributions

The intended contributions to the literature are as follows. First, we build on existing intervention studies on the positive association between job crafting and their associated outcomes. Moreover, this study offers the first experimental test of whether a SOC intervention can be used to enhance person-job fit, work ability, work engagement, performance and burnout. Second, whereas existing conceptualizations of job crafting have predominantly framed job crafting in terms of the changes that employees make in their job demands and job resources in order to improve their psychological well-being (e.g., Tims et al., 2012), this study also includes ‘optimizing demands’ as a job crafting dimension. Demerouti and Peeters (2017) introduced optimizing demands as a form of reduction-oriented crafting rather than decreasing hindering demands. Finally, this paper adds to the still limited knowledge about individual factors (i.e., age) that moderate the effectiveness of job crafting interventions (Demerouti, 2014). Therefore, individuals of 45 years and older are selected for this research, since little is known in literature about this specific group of employees and their sustainability is a hot topic nowadays.

3. Theoretical Foundation

3.1 Research model

The research model is shown in figure 1. All the variables and corresponding hypotheses are stated in the following paragraphs.

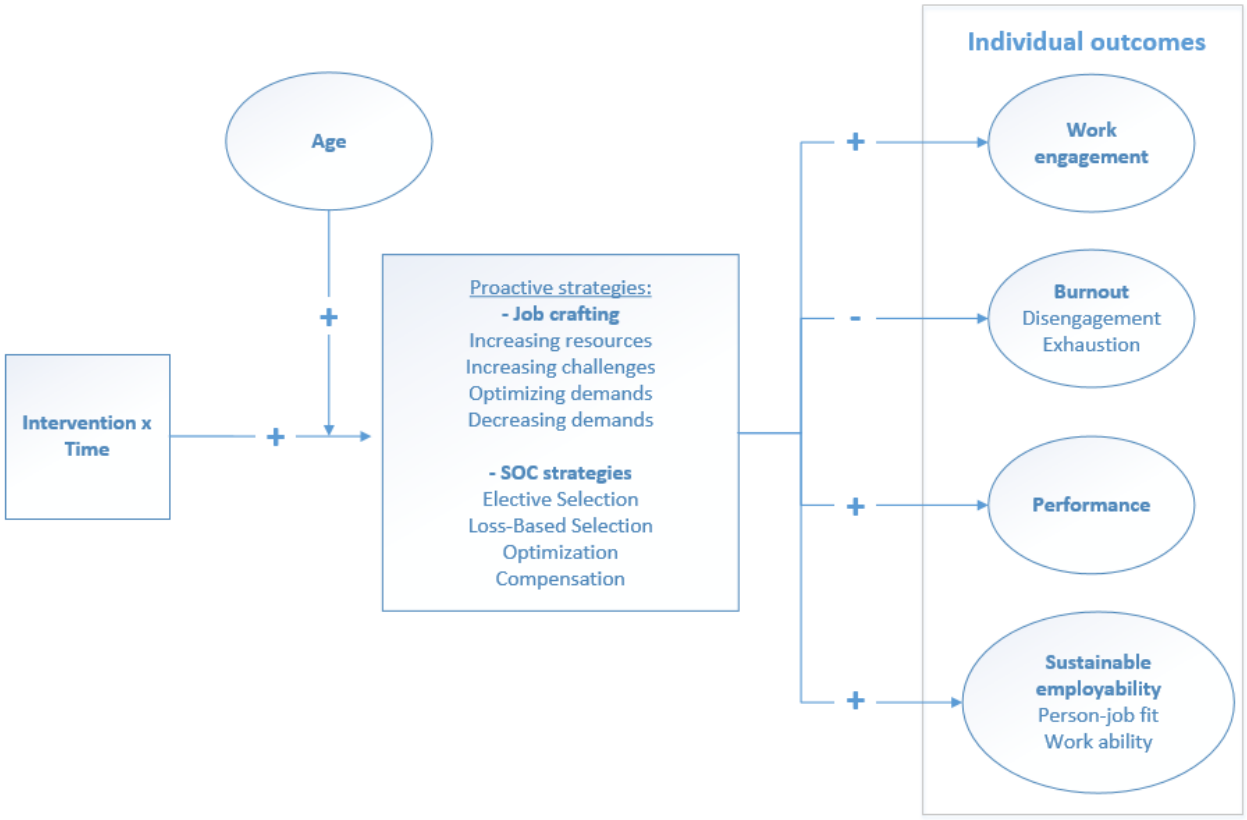

Figure 1. Research model thesis

3.1.1 Job crafting

Job crafting is a proactive (self-initiated) method of job (re)-design that gives employees an influence by (re)-designing their jobs (Berg, Wrzesniewski & Dutton, 2010; Parker & Collins, 2010). According to Wrzesniewski & Dutton (2001), "job crafting represents actions employees take to alter the tasks (i.e. type or number of activities), the relations (i.e. whom one interacts with at work) and the cognitive task boundaries of their job (i.e. how one sees the job)" (Demerouti, 2015).

According to Wrezniewski, & Dutton (2001), task crafting includes changing the scope, type and amount of work tasks of employees. For example, employees can decide for themselves to increase or decrease the amount of tasks, or propose new ways to complete the necessary tasks in order to make the jobs more interesting or easier. Relational crafting includes changing the quality and/or number of interactions with others (colleagues or managers) encountered on the job (Wrezniewski, & Dutton, 2001). Examples include distancing yourself from unpleasant colleagues or developing close relationships with pleasant colleagues. Cognitive crafting includes the reframing of individuals' perceptions and (cognitive) representations of the jobs (Wrezniewski, & Dutton, 2001; Wong, & Tetrick, 2017). By means of these three types of job crafting (task, relational and cognitive), employees can shape the meaning of their job and, also, influence their work identities accordingly (Wrezniewski, & Dutton, 2001). Cognitive crafting allows employees to assign additional meanings to their tasks and reframe their work identities. Consequently, this could motivate them to engage in specific crafting behaviors (Wrezniewski, & Dutton, 2001). This means that the potential person-job misfit of employees can be reconciled and employees can maintain a positive sense of self. According to Kulik et al. (2016), the cognitive crafting strategy may help older employees to buffer age-related stereotype threat and protect their self-identity. According to Heckhausen, & Schulz (1995) and their life span theory of control, job crafting will be of increasing value as employees age.

Job crafting therefore refers to the self-initiated (voluntary) changes that employees make in the task boundaries of their work that are aimed at improving person-job fit (Tims, Bakker, & Derks, 2012; Wrzesniewski & Dutton, 2001). Recent literature (Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012; Tims, Bakker, & Derks, 2012) conceptualized job crafting as "the changes employees make to balance their job demands (i.e. job aspects that require effort and therefore are associated with psychophysiological costs) and job resources (i.e. job aspects that are functional for achieving work goals and can eliminate the costs of the demands) with their personal abilities and needs". Following this stream of literature, job crafting could be conceptualized in three types: increasing/seeking resources (i.e. asking a manager or colleagues for advice), increasing/seeking demands/challenges (i.e. asking for more responsibilities) and decreasing/reducing demands (i.e. eliminating emotionally, mentally or physically demanding job aspects) In recent research, Demerouti, & Peeters (2017) suggested that reducing demands could be substituted by optimizing demands (i.e. finding smarter ways to perform a task). According to Wrzesniewski and Dutton (2001) "job crafting captures the active changes employees make to their own job designs in ways that can bring about numerous positive outcomes, including engagement, job satisfaction, resilience and thriving." Moreover, they state that "employees are likely to revise their jobs in ways that fit their work orientation" (Wrezniewski, & Dutton, 2001). This means that employees will craft their jobs in order to create a better person-job fit. Therefore, job crafting could be an interesting tool to increase the job-person fit and therefore to promote sustainability in the organization. Sustainable employability, is a relatively new subject. Although numerous studies mentioned sustainable employability, there is not one conceptualization of sustainable employability. This study conceptualizes sustainable employability as a

high work ability and an increased person-job fit since high demands and too few resources results in high dropouts, decreased mental health and decreased satisfaction (Furnham, & Schaeffer, 1984).

3.1.2. Age

A study of Kooij et al. (2010) found a relationship between work-related motives and age. This means that older employees might have other needs in their work compared to younger employees. Therefore, age is an important variable in this study. The first general definition often used about age is "the number of years someone has lived" (Longman, 2003). This is defined as "chronological age". However, Sterns and Doverspike (1989) argue that there are five different conceptualizations of age (Jacobs, n.d.). Their first definition of age is "chronological age" (as described above), which refers to the calendar age. Their second conceptualization of age is "performance age", defined as the actual performance of employees taking into account that there are differences in abilities through different ages. The third conceptualization is "psychosocial age", which addresses how old an employee feels him/herself. The fourth definition is "organizational age", which addresses the organizational tenure of an employee. The last conceptualization is the "life span concept of age", which addresses the family status and life stage of an employee. This study will use "chronological age" since governments that raise their retirement ages to deal with the upcoming labor shortages also focus on "chronological age". So "chronological age" is a relevant concept.

In recent literature, older employees have been defined using a cut-off age varying from 40 to 75 years old (Stein and Rocco, 2001; Wong, & Tetrick, 2017). However, according to McClelland et al. (1976), most people reach their physical top in the first part of early adulthood (19-45 years). After this period, metabolic rates slow down and therefore people begin to burn fewer calories and as a result some people will put on weight. After this age, people will begin to decline in physical and mental capacities. Contrary to early adulthood, middle adulthood (>45 years) is a dreaded period: these middle-adult people are greatly concerned about their mental and physical deterioration accompanied by the cessation of the reproductive life. Moreover, it's a time of transition: they often feel "sandwiched" between the needs of adolescent children and aging parents. Another crisis they face is to deal with death, especially that of a spouse. Therefore, the cut-off age of 45 will be used in this study.

3.1.3. SOC

As described in the introduction, SOC is another process that is positively associated with indicators of successful aging, such as well-being, life satisfaction, and quality of life, according to Freund (2008). Selection, Optimization, and Compensation (SOC) may contribute to successful aging by helping older employees to maximize well-being when they experience a physical decline (Carpentieri, Elliot, Brett, & Deary, 2017). SOC theory states that limited personal resources become more strained as individuals become older. The focus of resources then changes from growth to maintaining the resources already possessed, keeping losses to a minimum level (Wong, & Tetrick, 2017). SOC consists of selection, optimization and compensation strategies. Firstly, Selection means that employees focus resources on specific goals in contrast to focusing and allocating resources among several goals. Therefore, selection determines the direction of personal development and resource investment (Müller, & Weigl, 2017; Wong, & Tetrick, 2017). Optimization behaviors is aimed at continuously improving the means to successfully pursue a certain goal. Therefore, optimization refers to the quality as well as to the persistence of resource allocation in service of goal pursuit (Müller, & Weigl, 2017). Thirdly, Compensation behavior includes the implementation of other (alternative) means to achieve a certain goal in the case

of obstacles or resource losses (Wong, & Tetrick, 2017). Therefore, Compensation focuses on the flexibility of resource allocation in the pursuit of specific goals (Müller, & Weigl, 2017). The SOC framework offers a conceptualization of success that is not dependent on outcomes, but centers on doing the best one can with the things one has (Strawbridge, Wallhagen, & Cohen, 2002; Cerpentieri, Elliot, Brett, & Deary, 2017). Therefore, it is stated as a variant to job crafting because it can also be helpful in the successful aging process at work. The life-span model of SOC provides a valuable theoretical framework for understanding organizational behaviour related to coping with age-related changes. According to Weigl, Müller, Hornung, Leidenberger, & Heiden (2014), their study showed that SOC strategies were positively associated with work engagement. Learning and developmental opportunities and job control were also related to work engagement. Additionally, they found a meaningful mediation effect: the relationship of job resources with work engagement was significantly mediated by SOC use. These findings suggest that the application of successful aging strategies can be valuable for different outcomes. In this study, the outcomes of work engagement, burnout, work ability, person-job fit and performance will be tested.

3.1.4. Low-skilled work

Low-skilled work is defined as work that can be done without any education. Therefore, this is mostly warehouse work (e.g. lifting pallets, packages and replacing this). According to a study of Van der Heide (2012), higher-rank employees engage in high levels of autonomy and power, whereas lower-rank employees are more restricted and controlled. Therefore, it is assumed that employees in higher-rank jobs will craft their jobs more often than employees in lower rank jobs, because power and autonomy are predictors of having the opportunity to job craft (Van der Heide, 2012; Wrzesniewski & Dutton, 2001). Therefore, low-skilled employees should be stimulated by interventions to craft their jobs, since they do less by themselves. Among lower-skilled employees, job-to-job mobility often lacks which implies that their job tenures are often longer. This means that they will probably face a ‘job lock’ more frequently (Gesthuizen & Scheepers, 2010). According to Maarten, & Sanders (2016), getting stuck in a job would not be an issue if that job remains and if an employee is able to use and build skills for that job and remains motivated for this. For less educated employees, however, these conditions are hardly ever met (Maarten, & Sanders, 2016). Many jobs are highly susceptible to changes due to technological and organizational change or offshoring, which implies that many low skilled employees at risk of becoming unemployed (Salvanes, 2004; Görg, 2011; Brynjolfsson & McAfee, 2014) and their skills becoming obsolete (Kaufman, 1989).

3.2 Interventions to trigger job crafting behavior

Job crafting is a self-initiated method of job redesign. Encouraging job crafting behavior by means of an intervention is seen as an effective way to motivate people to engage in job crafting behavior (Gordon et al., 2018; van den Heuvel et al., 2015). The first known job crafting intervention was conducted by Van den Heuvel, Demerouti & Peeters in 2015. In this study, employees were stimulated to improve their work environment and work-related well-being using insight from job crafting and the JD-R Theory. This intervention of Van den Heuvel, Demerouti, & Peeters (2015) consisted of a training day and 4 weeks of consecutive job crafting. During this four weeks, participants were stimulated to work towards pre-set goals. This period was followed by a half-day reflection session. During this reflection session, participants discuss bottlenecks, achievements, and possible solutions of problems they have encountered during the crafting period. This study bases the effectiveness of the training on the Social-Cognitive Theory. This theory implies that learning occurs in a social setting where information about others' behavior is available. This information can then be used to regulate one's own behavior. The second part of the intervention was drawing up and adhering to the personal action plan. This includes that employees reflect on their work environment, in terms of demands and resources. Lastly, participants drew up a plan with self-chosen job crafting goals to be completed over the 4 weeks following the training. "This method seemed effective as the Social Cognitive Theory dictates that humans rely on self-regulatory mechanisms to exercise control over their thoughts, emotions motivation and actions" (Van den Heuvel, Demerouti, & Peeters, 2015). Moreover, an important element in developing self-directedness is self-monitoring (paying attention to one's current situation and performance) . Hence, this may be used to effectively set personal goals and tracking goal attainment. Based on the JD-R Theory, the author expected that by means of job crafting practices, individuals can change their work environment since a number of studies already found that the seeking resources could lead to increased resources (Tims, Bakker, & Derks, 2013) and seeking challenges relates to increased work engagement (Petrou et al., 2012).

Van Woerkom, Kooij, Dorenbosch, Denissen, & Wilkenloh (2017) also did a self-monitoring intervention with a training and 4 weeks of job crafting. This research shows that a differentiation in age matters. They found that that participating in the job crafting intervention leads to strengths crafting (job crafting to improve the fit between one's job and personal strengths), but only among older employees (Van den Heuvel et al., 2015). Strengths crafting was, in turn, positively associated with demands–abilities and needs–supplies fit (Van den Heuvel et al., 2015). This study provides organizations with a practical tool to increase job crafting behavior and in turn person-job fit of older employees. This is important, because person-job fit is a strong predictor of job satisfaction, engagement, turnover, and performance. Because organizations worldwide are faced with the challenge of retaining and motivating aging employees to remain actively engaged, the job crafting intervention might be a valuable tool for accomplishing these goals by helping aging employees to better utilize their experience. These findings suggest that job crafting interventions can be an effective tool for increasing person–job fit of older employees.

Moreover, according to Van Wingerden et al. (2017), one year after the job crafting intervention, participants who still report resource seeking behavior, additionally report increased self-efficacy and in-role performance, even though no effects were found directly after the intervention. Job crafting is a skill that can be learned, which indicates that the effects of an intervention can increase over time. However, as there is limited time available to conduct this study, only limited measurements were done. Five weeks after the job crafting/SOC intervention, a re-evaluation meeting was be held. The intervention aimed to teach employees to view their work environment as a collection of demands and resources that can be

altered using job crafting behaviour. Since a core characteristic of job crafting is that employees themselves take initiative to engage in job crafting behavior, and according to Lyons (2008) "job crafting is an emergent behavior of individuals that may be the result of any of a variety of combinations of stimuli".

During the training, employees reflect on the demands and resources in their own working environment (Van den Heuvel, Demerouti, & Peeters, 2015). Goal setting will be included via a '(personal) job crafting plan' that will be presented during the intervention. Employees think of a plan with self-chosen job crafting goals to be completed in 4 weeks following the training. This personal crafting plan of 4 weeks includes how and when they will increase resources, seek challenges, optimize demands and decrease demands. The personal crafting plan will be explained and implemented in small steps, thereby increasing efficacy beliefs regarding job crafting (Luthans, Avey, Avolio, & Peterson, 2010). As also described by (Van den Heuvel, Demerouti, & Peeters, 2015), verbal persuasion (encouragement and positive feedback) is part of the training since it is used to build efficacy and motivation (Bandura, Adams, & Beyer, 1977; Demerouti, van Eeuwijk, Snelder, & Wild, 2011). Above that, receiving feedback on the personal crafting plan and the self-set goals is part of the process of job crafting; employees should formulate job crafting goals and receive feedback on whether they achieved their goals. These techniques of feedback and verbal persuasion, are also included in the reflection session. During this session, employees are asked to reflect on their job crafting efforts and give each other positive feedback for goals achieved. Another technique used to build self-efficacy is creating mastery experiences (Van den Heuvel, Demerouti, & Peeters, 2015). Employees are explained and instructed to set specific, realistic, and motivating goals. This can provide a mastery experience, which can boost self-efficacy (Bandura, 1977). Part of the job crafting plan is to plan time to reflect on mastery experiences, include goal achievements and learning points during the weeks.

Individual and environmental factors may, by means of this intervention, trigger job crafting behavior. Moreover, according to van Wingerden, Bakker, & Derks (2017) and Sakuraya, Shimazu, Imamura, Namba, & Kawakami (2016) a job crafting intervention did increase job crafting behavior (2 weeks and 1 year after intervention). Appendix A summarizes the studies of job crafting interventions and its associated outcomes. This results in the following hypotheses (H1):

H1a: Compared to the pre-intervention score (T1) and the control group, employees participating in the intervention demonstrate an increase in Job Crafting behavior four weeks after the intervention (T2).

As employees age, their knowledge about their own strengths, weaknesses and professional identities will increase (Helson et al., 1995; Wong, & Tetrick, 2017). According to Robert et al. (2006), most employees become more confident and emotionally stable over the life span (Wong, & Tetrick, 2017). This results in the fact that need for recognition and praise from others may have less impact on how older employees' perceive themselves. When employees age and walk through the several stages in their career, their jobs often become more demanding since longer tenure is often associated with an increased level of responsibility (Wong, & Tetrick, 2017; Hurrell and Lindström, 1992). According to Ng & Friedman (2010), and Wong, & Tetrick (2017), mid-career employees face higher job demands compared to employees in earlier stages of their careers, as they often have more supervisory duties, but also yet have to achieve full job autonomy.

Because of their long tenure, older employees often have a better understanding about their preference in executing tasks, as well as their strengths and weaknesses in executing these tasks (Wong, & Tetrick, 2017; Helson et al., 1995). This implies that they are often more capable of optimizing their resources and applying them to suitable job crafting practices. For example, despite common stereotyping, older employees may choose to learn how to implement and work with a new system on the computer when they have specific interest in technology, which means that they will focus their attention on achieving a sense of mastery. Another example is that they might value investing in social relationships with colleagues, instead of putting effort in promotion. It also has been suggested by Kooij et al. (2017) that older employees tend to engage in job crafting using their personal strengths and they place more value on serving their organizations compared to their own personal interests (Wong, & Tetrick, 2017). Therefore, older employees appreciate job features that make the job worthy of their time and energy (Wong, & Tetrick, 2017). These job features can then be used as targets for these employees to employ in further task and relational crafting, meaning that their behaviors will be more consistent with their identities (Wong, & Tetrick, 2017).

H1b: Age positively moderates the relation between the intervention and job crafting behavior; i.e. the intervention will result in a higher increase in job crafting behavior for older employees compared to younger employees.

3.3 Interventions to trigger SOC behavior

According to previous studies (e.g. Ng and Feldman, 2012), older employees are really motivated at work. However, it is important to define what exactly motivates older employees. Intrinsic work (e.g. need for autonomy, achievement and social support from others) motives refer to the parts of work that satisfy employees' psychological needs (Wong, & Tetrick, 2017). Older employees are generally less concerned with general learning compared to younger employees, which is in line with several developmental theories (Baltes, 1997; Kanfer and Ackerman, 2004). A meta-analysis of Ng and Feldman (2012) found 15 empirical studies (N=6.000 employees) that concluded a weak, negative relationship between age and learning motivation. SOC theory indicates that limited personal resources (such as cognitive capacity and time) become more strained as individuals become older (Baltes, 1997). The allocation of resources shifts from growth to maintaining the current resources, keeping losses to a minimum (Wong, & Tetrick, 2017). This results in a negative relationship between age and growth-related motives, predicted by SOC theory.

Several researchers have suggested specific job crafting activities that are likely to be most relevant for older employees (Wong, & Tetrick, 2017). According to Lichtenthaler, & Fischbach (2016), promotion-focused job crafting activities (e.g. increasing structural and social resources) motivates older employees to continue working beyond the retirement age. Using the SOC framework, Kooij et al. (2015), identified three forms of job crafting for older employees. The first one is accommodative crafting: this type of crafting focuses on regulating losses (e.g. hiring an assistant, and reducing workload). The second type of job crafting is developmental crafting: this includes strategies that focuses on growth (e.g. participating in workshops). The third type is utilization crafting: this type emphasizes employing one's existing skills (e.g. taking on tasks to activate previously unused skills) (Wong, & Tetrick, 2017). To date, little research on SOC by older employees has been focused on their adjustments at work. Burnett-Wolle and Godbey

(2007) examined SOC processes among older adults, but within the context of leisure. They found that if SOC and socioemotional selectivity are used in leisure research, explanations and predictors of older adults' engagement in leisure activities and related relationships is likely to improve. Young et al. (2007) demonstrated how the use of SOC strategies could reduce job and family stressors, but their sample was not made up of older employees. Only however, these studies show that SOC could have potential benefits for employees and since it is a life management strategy which helps individuals with age-related losses, an intervention aimed at learning and making employees familiar with SOC-behavior could be valuable for older employees.

The first component of a SOC training is to establish a personal project plan for each employee that aims toward more effective coping with an important job demand or to activate a job resource. This is in line with previous research on SOC interventions (Carpentieri, Elliot, Brett, & Deary, 2016). Each employee chooses a specific goal (selection), develops a step-by-step action plan to achieve this certain goal in an optimal way (optimization), and considers alternative strategies in cases of external or internal hindrances during goal accomplishment (compensation) (Carpentieri, Elliot, Brett, & Deary, 2016). Information was provided on how to select an appropriate goal, such as being specific, measurable, attainable, realistic, time-based (SMART; e.g., Latham & Locke, 2007; Schut & Stam, 1994).

According to the SOC model developed by Freund & Baltes (2000), selection can be subdivided into two components: elective selection refers to goal-setting and prioritization, based on either personal motives, while loss-based selection refers to goal-setting and prioritization necessity due to loss. In both cases, the aim is to focus resources and not distribute them among several goals. Optimization means the improvement, and coordinated use of suitable means to reach certain goals (Freund & Baltes, 2000). Compensation is conceptualized as the development and application of alternative means to substitute losses and to maintain a desirable level of functioning to achieve a certain goal (Freund & Baltes, 2000).

Based on SOC, goal striving requires implementing optimal and compensatory aids towards a certain goal. There is evidence (Carpentieri, Elliot, Brett, & Deary, 2016) that concrete if-then-plans about when, where, and how one will take steps towards a certain goal, are effective in implementing means towards successful goal achievement (Gollwitzer & Sheeran, 2006; Carpentieri, Elliot, Brett, & Deary, 2016). Therefore, besides goal-setting, SOC interventions/trainings should encourage employees to generate action plans towards these goals, to choose the right opportunity to act, and to make the decision to act (Carpentieri, Elliot, Brett, & Deary, 2016). This means that, consistent with the action-theoretical perspective on SOC behaviors, it is assumed that interventions that teach employees to select appropriate (SMART) goals (Schut & Stam, 1994), and to develop and implement optimal and compensatory plans towards selected goals (Gollwitzer & Sheeran, 2006), empower employees to acquire SOC behaviors at work.

This results in the following hypothesis (H2a):

H2a: Compared to the pre-intervention score (T1) and the control group, employees participating in the intervention demonstrate an increase in SOC strategies behavior four weeks after the intervention (T2).

Research suggests that as individuals age, they gain more insights in their identity, strengths, and interests, and have an increased tendency to create environments that fit these strengths and interests (Caspi, Roberts, & Shiner, 2005; Helson, Stewart, & Ostrove, 1995). Research argues that age-based roles (e.g., work, marriage) bring with them changing expectations about how one should act and possibly change (e.g., Specht, Bleidorn, & Denissen et al., 2014). As a result of this 'maturity principle,' most individuals become more dominant, responsible, self-confident, conscientious, and self-controlling over the lifespan, as has been supported by a meta-analysis of 92 studies (Roberts et al., 2006).

It is therefore assumed that older (and more experienced employees) are better able to maximize the benefits of their job experience (Kanfer & Ackerman, 2004). Job expertise (within a specific domain) increases the likelihood of dealing successfully with challenging and seldom occurring work situations. This results in successful performance on the job (Sonnentag, 2000). In other words, compared to the younger employees, experienced older employees should benefit from the intervention to a greater extent by being able to select more adequate goals at work, or developing optimal personal approaches for attaining self-set goals, to be better able to acquire SOC behaviors at work (Carpentieri, Elliot, Brett, & Deary, 2016). For example, the warehouse employee that faces a technical problem might be better able than an inexperienced colleague to select a realistic goal and adequate compensation strategies to cope with this problem because he/she knows the job and corresponding work conditions very well.

Therefore, as has been suggested for job crafting, for SOC it is also suggested that age is a moderator (H2b):

H2b: Age positively moderates the relation between the intervention and SOC behavior; i.e. the intervention will result in a higher increase in SOC behavior for older employees compared to younger employees.

3.4 Interventions to increase sustainable employability

Recent literature (Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012; Tims, Bakker, & Derks, 2012) conceptualized job crafting as "the changes employees make to balance their job demands (i.e. job aspects that require effort and therefore are associated with psychophysiological costs) and job resources (i.e. job aspects that are functional for achieving work goals and can eliminate the costs of the demands) with their personal abilities and needs". According to this conceptualization, job crafting refers to self-initiated (voluntary) employee behaviors including: increasing resources, increasing demands/challenges, and decreasing demands. As stated before, this study adds optimizing demands to this conceptualization (Demerouti, & Peeters, 2017). Moreover, as is noted in Appendix A, Kooij, van Woerkom, Wilkenkoh, Dorenbosch, & Denissen (2017) found in their intervention that job crafting is positively related to person-job fit. Improving person-job fit can be done by getting the job resources and job demands at the same level since physical and psychological demands of work should be in conformity with the capacities of employees. Therefore, job crafting is a means to increase external resources and decrease demands. During the intervention, participants will get instruction and training with examples on how to increase resources, decrease demands, increase challenges or optimize demands. In this way, employees are stimulated to improve person-job fit. Therefore, it is hypothesized that participating in a job crafting intervention aimed at adjusting the job to personal strengths and interests leads to higher levels of job crafting, which in turn will promote person-job fit and work ability (Berg, Dutton, and Wrzesniewski

(2013). Moreover, since SOC focuses on the internal resources (selection, optimization, compensation), it also contributes to increasing resources and therefore coping with job demands to improve person-job fit.

According to Herrbach et al. (2009), older employees value opportunities to maintain their capabilities and skills for a better sense of job security (Wong, & Tetrick, 2017). According to Armstrong-Stassen (2008), in recent years, more individuals return to work post-retirement. This indicates that developmental possibilities need to accommodate the needs of older employees in order to be motivating (Wong, & Tetrick, 2017). This means that several types of job crafting activities (e.g. increasing challenges) can be valuable and provide assistance in increasing person-job fit and motivating employees. According to Maurer, & Tarulli (1996), the lack of available suitable opportunities may harm the self-efficacy of (older) employees and impact how they perceive themselves during work. This means that they may face a higher risk of their skills and capabilities becoming obsolete, which interferes with their abilities to perform effectively on the job and thus contributes to a worse person-job fit. Older employees may, for example, job craft by attending training workshops to update their capacities and skills. This results in the following hypothesis (H3):

H3: Four weeks post intervention (T2), employees in the experimental group report higher job-person fit (3a) and work ability (3b) compared to their scores prior to the intervention and to the control group.

3.5 Interventions to increase work engagement

Job crafting is hypothesized to positively relate to work engagement by various studies. For example, according to Van Wingerden, Bakker, & Derks (2017), participating in job crafting interventions increases basic need satisfaction and work engagement over time. The relationship between job crafting and work engagement has been discussed and analyzed by many different researchers (Bakker, 2011; Bakker et al., 2004; Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Demerouti et al., 2001; Tims, Bakker, & Derks, 2013; Xanthopoulou et al., 2009). In general, it has been argued that work engagement may be increased through an increase in resources. Job resources are not only needed for dealing with job demands, but they are also important in their own right (Hobfoll, 2002; Coetzer, & Rothmann, 2007). Schaufeli and Bakker (2004) introduced a motivational process in which job resources are linked, via work engagement, to organizational outcomes. According to Coetzer, & Rothmann (2007), “job resources can play an intrinsic motivational role in fostering learning, development and individual growth, or through an extrinsic motivational role that helps individuals achieve their working goals”. Job resources are linked to positive organizational outcomes via work engagement. This results in the following hypothesis (H4):

H4: Four weeks post intervention (T2), employees in the experimental group report higher work engagement compared to their scores prior to the intervention and to the control group.

3.6 Interventions to decrease burnout

"Burnout is an occupational hazard that continues to draw immense attention as it relates to significant costs for employees and organisations" (Bakker et al., 2014, Schaufeli et al., 2009). It has emerged as an enormous problem in most countries, not only in the lowest socioeconomic groups, but at all societal levels (Albertsen et al., 2010).

Burnout is a negative affective state occurring due to recurring distress, conceptualized as a depletion of an individual's energetic coping resources (Kristensen et al., 2005, Maslach et al., 2001, Shirom, 2005). High levels of burnout mean that employees have insufficient resources to deal effectively with their job demands (Gorgievski & Hobfoll, 2008). From the perspective of Conservation Of Resources (COR theory, individuals invest in resources for protection against situational demands or negative experiences (Hobfoll, 2002). The Job Demands-Resources (JDR) model states that a high level of job demands accompanied with low resources results in higher chances of burnout (Bakker, & Demerouti, 2007). This means that proactive employees (with a lot of resources) are likely to avoid or reduce burnout via job crafting. The intervention that will be conducted during this study is focusing on job crafting and SOC behavior which requires a proactive attitude from employees. Moreover, one of the dimensions of job crafting is decreasing job demands while another is increasing job resources, this is trained in order for employees to be better able to cope with job demands and therefore reduce burnout. Moreover, recent evidences indicates that job crafting improves task performance through reducing exhaustion of employees (Demerouti et al., 2015, Petrou et al., 2015). Other studies (Chauhan, 2009; Azeem, 2010) emphasize the necessity of tools and mechanisms that can enable individuals to effectively handle work place demands towards reducing burnout. This results in the following hypothesis (H5):

H5: Four weeks post intervention (T2), employees in the experimental group report less burnout compared to their scores prior to the intervention and to the control group.

3.7 Interventions to increase task performance

Various studies show that job crafting is an important means to increase employee job performance. First of all, Bakker, & Demerouti (2017) found that, by means of the JD-R Theory, job crafting positively influences employee in-role performance. "Through job crafting behavior, both the motivational path and the health-impairment path may be altered through seeking resources and seeking challenges as well as optimizing demands" (Bakker & Demerouti, 2017). Moreover, Weseler, & Niessen (2016) found that if employees perform some extra tasks, their need to improve the quality of their tasks is fulfilled. This is argued to lead to increased performance and intrinsic motivation, according to Ryan & Deci (2000). This results in the fact that proactivity at work is associated with increased task performance.

Weseler & Niessen (2016) also found evidence that supervisor-rated and self-reported task performance were both positively related to extending task boundaries. By means of job crafting, employees are encouraged to initiate changes in their resources and demands. Consequently, this may increase the person-fit (Tims et al., 2016). Rudolph et al. (2017) also argue that an increase in task performance may be achieved through the (perceived) meaningfulness of the job tasks and an increased person-job fit. Van den Heuvel et al. (2009) also state that the perceived meaningfulness may function as a resource to help sustain employee's performance. This are all reasons to argue that job crafting can be an important means to achieve increased task performance. Lastly, in a diary study (Demerouti, Bakker, & Halbesleben, 2015)

was found that daily seeking resources was positively related with task performance. This results in the following last hypothesis (H6):

H6: Four weeks post intervention (T2), employees in the experimental group report higher task performance compared to their scores prior to the intervention and the control group.

3.8 Intervention as mediators

According to a study of Gordon, Demerouti, Le Blanc, Bakker, Bipp, & Verhagen (2018), employees are better able to perform their jobs by having the control needed to influence their daily work environment with job crafting. Studies (e.g. Gordon et al., 2017) found that job crafting and other voluntary, proactive work strategies can increase performance and yield organizational benefits (Demerouti & Bakker, 2014; Lyons, 2008). By means of two studies (study 1 among medical specialist and study 2 among nurses), Gordon et al. (2017) found favourable support for job redesign interventions that utilize job crafting. Results found increases in employees' self-initiated behavior and positive changes in their well-being and performance (adaptive, task, and contextual performance). This suggests that job crafting interventions can inspire employees to proactively change their job, which can be beneficial for both the employees and their organizations. Lastly, the intervention enhanced the positive changes in participants' job crafting.

As argued above, it is believed that job crafting behaviors are mainly associated with positive outcomes, since proactive employees, capable of modifying their working environment, are also more likely to contribute positively to the organization (Bakker, & Demerouti, 2007). In addition, according to Kooij, van Woerkom, & Wilkenloh (2017), job crafting behaviors, by improving person–job fit, put employees in a position to achieve better performance and also to have higher well-being. This positive relationship was also observed in a quasi-experimental study, conducted with teachers, in which it was shown that a job crafting intervention had positive effects on employee wellbeing (van Wingerden, Bakker, & Derks, 2017).

Moreover, according to Berg, Dutton, and Wrzesniewski (2013), it is hypothesized that participating in a job crafting intervention aimed at adjusting the job to employees' strengths and interests leads to higher levels of job crafting. This will, in turn, promote person-job fit and other favorable outcomes.

By means of doing an intervention, job crafting and SOC behavior is aimed to increase. This is a realistic expectation since the intervention will learn participants how to apply job crafting and SOC practices. Moreover, since it has been proven that job crafting results in various positive outcomes for the organization and the employees (e.g. increase work engagement, person-job fit and well-being), a mediation effect of job crafting and SOC can be expected (Figure 1).

H7: The relationship between the intervention over time and the outcomes (burnout, work engagement, person-job fit, work ability and task performance) is mediated by job crafting and SOC.

4. Method

4.1. Research design and procedure

The intervention is designed as a quasi-experimental intervention study. This type of study design is also conducted by Van den Heuvel et al. (2015) and Gordon et al. (2018), which base their effectiveness on the JD-R Theory and SCT (Social Cognitive Theory). There are two measurements in time. These two measurements are labelled as T1 for a base measurement, T2 five weeks after the workshop has taken place. Measurement T1 has been conducted to determine the base-line scores of participants. Measurement T2 has been conducted to determine the effects over time of the training/intervention. A randomized control group has been used, consisting of employees working in different warehouses. In the experimental group, three different warehouses are included. For the control group, also three warehouses are incorporated. This departments and corresponding groups of employees has been chosen since they all perform the same tasks and therefore could score on the same scale. According to Demerouti et al. (2017), by using a physically separated control group, cross-contamination is prevented.

The intervention consisted of an initial training, four weeks of job crafting behaviour (on all four dimensions), one week of SOC and an evaluation session. The initial training is aimed at triggering the employees to engage in job crafting and SOC behaviour. Each training consisted of about 10-20 employees, representing a team of the warehouse (low-skilled and physical work) department. During the evaluation session they were compensated since they received sweets and cookies. Last of all, most workshops have been attended by a HR-representative and some also by their warehouse managers.

4.1.1. Before the training

Before the training, unstructured interviews were conducted with some (randomly selected) employees from all different locations. The outcomes of this interviews were used to obtain information on the most important job demands and job resources.

The other aim of this interview was to find out best practices of employees already crafting their job and to adjust the intervention to current practices. In this way, examples could be provided in the intervention that are applicable to their work situations. This anonymous input of employees was used during the training, which results in in suggestions or discussion points for the employees that want to craft their jobs. Moreover, the management of the logistics department was informed on the upcoming training/intervention.

4.1.2. The Job Crafting/SOC Training

The workshop started with providing and explaining the theoretical background on job crafting and SOC. After that, a work analysis was performed since this was an input for the personal action plan. During the training, a PowerPoint presentation was used (found in appendix B (in Dutch)). All employees participating in the training were provided an information booklet in order to be able to construct their personal action plan and some additional information on job crafting and SOC behaviour was provided, as to be seen in appendix D. The questionnaire for base-line measurement T1 (Appendix C) was provided at the start of the training. Participants filled in the questionnaire before they received any information regarding job crafting/SOC. This measurement is done by means of a quantitative survey, measuring all constructs as reported in the research model (figure 1) and 3 control questions (e.g. gender, age and management

responsibilities). A HR-representative also attended the training to help employees with their personal action plan.

The theoretical background of job crafting and SOC was provided first. Then, examples of job crafting behaviors were provided and employees were helped, by means of their task analysis, to construct their personal action plan. Lastly, employees were asked to make up their personal action plan, guided by as: "This is a situation at work that gave me additional energy", "This is a situation that has cost me a lot of energy" and "this is a situation that taught me how to work more efficient". When individual employees filled out these questions, answers were discussed in the training group. The last part consisted of setting personal goals. These goals were aimed at the different job crafting and SOC dimensions. Moreover, they needed to be SMART. This means 'Specific', 'Measurable', 'Achievable', 'Relevant' and 'Time Bound'. Setting SMART goals means employees' can clarify the ideas, focus efforts, use time and resources productively, and increase the chances of achieving they want. Additionally, participants had to formulate actions to attain their personal goals. Each participant had one week to attain their goal (job crafting increasing resources in week 1; decreasing demands in in week 2; optimizing demands in week 3 and increasing challenges (demands) in week 4. Moreover, focusing on SOC was done in week 5. The SOC training consisted of establishing a personal project for each participant that aims toward more effective coping with an individually important job demand or to activate an individually valued job resource. Each employee chooses a specific goal (selection), develops a (step-by-step) action plan to achieve this goal in an optimal way (optimization), and considers alternative strategies in cases of external or internal hindrances during goal accomplishment (compensation). This was all done during week 5.

4.1.3. After the Job Crafting/SOC training

After the five weeks of job crating and SOC behaviour, an evaluation session was held. To ensure enough participation during the five weeks of crafting and SOC, the different warehouses have been visited and participants were asked to indicate whether everything went well and if they were able to reach their before-stated goals. This visits were aimed at encouraging employees to start job crafting and participating in SOC activities.

Five weeks after the workshop, a follow-up training at all facilities was planned. This session was planned to discuss if all goals have been reached, if there have been any bottlenecks or problems in the process and to present the intermediate results. Above that, all participants were asked to fill out again the same T1-questionnaire to be able to compare the results of the T1-questionnaire with this follow-up questionnaire. Research (e.g. Boyton, 2004, & Morgan, Rapee, & Bayer, 2017) have found that incentives significantly increases response rate in follow-up questionnaires. Therefore, cookies and sweets were brought during the follow-up meeting, which was indicated during the first session. The PowerPoint presentation of the Evaluation session is to be found in appendix E.

4.2. Strategy of data analysis

SPSS Statistics has been used in order to be able to analyse the data. After all data (at T1 & T2) had been collected, data has been prepared for analysis. Reversely stated questions have been recoded (several burnout questions). Moreover, boxplots and Little's MCAR tests were performed to indicate outliers and see whether data was missing at random. After the T1-measurement, a reliability analysis has been conducted to measure the scale reliability (Cronbach's Alpha). This is the most widely used metric to assess reliability of a measure and the acceptable lower limit should be set on 0.7 (Hair Jr., Black, Babin, Barry, & Anderson, 2014). For SOC and its dimensions, the Kuder-Richardson's coefficient (KR20) is used,

since it is a special case for Cronbach's alpha when items are dichotomous. The results indicate a higher value than 0.7 on all variables except compensation (however, being close to 0.7) (see table 1).

The statistical analysis was done by means of independent sample t-tests and Mixed Two-Way ANOVA's. To perform independent sample t-tests, it is important that the data sample is free from significant outliers and that the data is approximately normally distributed. This normality is tested with Shapiro-Wilk's test. Insignificant results ($p>0.05$) indicate normally distributed data.

Two-way Mixed ANOVA's have been conducted to assess hypotheses 1a, 2a and 3-6. Two-Way Mixed ANOVA's have been used in similar studies and contexts and it is therefore a good strategy in order to be able to analyse the intervention's effect on the experimental group when comparing to the control group (Gordon et al., 2018; Van den Heuvel et al., 2015). In this study, time is the within subject factor whereas group (i.e. experimental and control) is the between-subject factor. Moderation of age for job crafting and SOC (H1b and H2b) were both tested with a moderation analysis in SPSS. Hypothesis 7 is tested by means of mediation. Mediation will be tested by means of multiple regression.

Table 1. Cronbach's alpha test

Cronbach's alpha	**Variable**
0.974	Elective Selection (SOC)
0.841	Loss-Based Selection (SOC)
0.640	Optimization
0.847	Compensation
0.881	SOC
0.810	Person-job fit
0.766	Burnout
0.758	Disengagement
0.790	Exhaustion
0.941	Work engagement
0.853	Performance
0.750	Decreasing demands (job crafting)
0.812	Increasing challenges (job crafting)
0.781	Increasing resources (job crafting)
0.910	Optimizing demands (job crafting)
0.846	Job crafting

4.3. Measures

In this study, 5 dependent variables -or outcome variables were measured: work ability, person-job fit, burnout, work engagement and employee job performance. The data of the surveys was coded by a user-created code to guarantee total anonymity. According to Murdoch et al. (2014), this potentially increases the willingness to participate in the questionnaire. Pre-existing measures (in previous research) were used as these are tested on validity.

Work ability: Work ability is measured using the Work Ability Index (WAI) derived from Gould, Ilmarinen, Järisalo, & Koskinen (2008), which measures work ability on 7 items. However, work ability is divided in two sub-categories: 'current' and 'future'. The difference is that current work ability focuses on the current abilities of the employees. It consists of 3 items and one of these items is: *'Are you (physically) still able to comply with your current job demands?'* The future category focuses on (predicted) future work

ability; i.e. the abilities of employees predicted in the upcoming months/years. It consists of 4 items, e.g. *'How often do you look positively at the future?'*

Person-job fit (P-J fit): is defined as the compatibility between an individual's characteristics (psychological needs, goals, values, personality and abilities) and those of the specific job they are going to do (Mikkelsen, 2015; Wong, & Tetrick, 2017). Current research often uses two types of person-job fit. The first is the balance between employee needs or desires and the supplies that a job provides: needs-supply fit (Edwards, 1996). The second type of person-job fit considers fit from the perspective of the organization rather than the employee itself. Demands-abilities fit occurs when the individual possesses the abilities (skills, knowledge, time, energy) to meet job demands (Caplan, 1987). Therefore, the measure of Cable, & De Rue (2002) based on needs-supply fit and demands-abilities fit was used in this research. One of the example items of 'needs-supply fit' is: '*There is a good fit between what the job offers me and what I am looking for in a job'.* One of the example items of 'demands-ability fit' is: *'There is a good match between the demands of my work and my personal capabilities'.* All items are scored from 1 – 5 (Strongly Disagree-Strongly Agee).

Work engagement: was measured with the UWES (Utrecht Work Engagement Scale) developed by Schaufeli, & Bakker (2004). This scale rates high on factorial, convergent, discriminant and predictive validity (Van Wingerden, Bakker, et al., 2017). Each one of the items either measure vigor, dedication or absorption as these are the established factors of work engagement (Bakker, 2011). Moreover, this scale has been used in similar contexts (Gordon et al., 2018). One example item includes: '*My job inspires me'.* All items are scored from 1 – 5 (Strongly Disagree-Strongly Agee).

Burnout: This outcome variable was measured by the Oldenburg Burnout Inventory (Demerouti, Bakker, Vardakou & Kantas, 2003). OLBI (Demerouti, Bakker, Vardakou, & Kantas, 2003) scale has been used in similar contexts (Gordon et al., 2018) and measures exhaustion and disengagement with 8 items on a 5 point scale (Strongly Disagree-Strongly Agree). Example question: 'There are days I already feel exhausted when I arrive at my work' Example question of disengagement: 'It happens more and more often that I talk about my work in a negative manner'.

Performance: was measured by Goodman, & Svyantek (1999) scale of task performance of 6 items. This scale has been used in similar contexts (Demerouti, Bakker, & Gevers, 2015; Demerouti, Bakker, & Halbesleben, 2015). All items are again scored from 1 – 5 (Strongly Disagree-Strongly Agee). One example question is: 'I fulfill all my requirements from work'.

Job crafting: was measured by using the general Job Crafting scale of Petrou, Demerouti, Peeters, Schaufeli, & Hetland (2012). This scale includes items regarding the three dimensions of Job Crafting (Increasing Resources, Increasing Challenges and Decreasing Demands). However, as suggested by Demerouti & Peeters (2017), this intervention will substitute the Decreasing Demands dimension by the Optimizing Demands dimension. This scale is partly based on Tims, Bakker, & Derks (2012). All items are again measured on 5 point scale (Strongly Disagree-Strongly Agree). Each dimension of job crafting consists of 4 questions.

Job demands and job resources: were measured by several questions in the questionnaire and by qualitative interviews as an input for the intervention in order to be able to tailor it to the needs of the employees. The job resources included in the study/questionnaire were performance feedback (e.g. "I get appropriate feedback about the quality of my performance"; Hackman, & Oldham, 1975), job control (e.g.

"I can myself decide how to perform my work"; Karasek, 1985) and social support (e.g. "My supervisor is concerned about the well-being of its employees"; Morgenson, & Hum, 2006). Three questions were included about each type of job resources and these questions were measured on a five-point Likert scale. Job demands include physical demands (e.g. "Work requires a lot of physical strength"; Morgenson, & Hum, 2006). Moreover, psychological demands is measured by three items (e.g. "Work requires a lot of psychological strength"; Morgenson, & Hum, 2006). These job demands and resources were measured in order to perform an appropriate task analysis (sub question 1). Moreover, H7 states that job crafting will mediate the relationship between the Intervention x Time and its outcomes. However, if this does provide insignificant results, the second test could be to split job crafting in job demands and job resources as mediators.

SOC (Selection, Optimization, Compensation): was measured using the scale also used in the paper of Demerouti, Bakker, & Leiter (2014). This assessed the SOC strategies (Elective Selection, Loss-Based Selection, Optimization & Compensation) with the short instrument developed by Freund and Baltes (1998; Baltes, Baltes, Freund, & Lang, 1995). With this instrument, each strategy is assessed by three bipolar items. Each item consisted of two statements, one reflecting the target SOC strategy, and the other offering an alternative, non-SOC-related strategy.

4.4. Participants

The experimental group consisted of 59 employees. Moreover, the control group consisted of 29 employees. However, these employees were working at different locations, but this does not mean that they had different work activities. Of all 59 employees, 34 employees were working at location 1, while 17 employees were working at location 2, and 8 employees were working at location 3. They are all performing the same kind of tasks. Moreover, some entries may be invalid due to missing participant ID's. The group completing the first round of questionnaire (T1), and thus attended the Job Crafting workshop, was composed of 62 employees, while the group of employees completing the second questionnaire (T2) was made up of 59 employees. Therefore, the experimental group consisted of 59 employees with a pre- and post-measurement. The control group consisted of 29 employees that filled in both the questionnaire at T1 and T2. The employees of the experimental group were between 45 and 67 years old. The mean age was 53.2. The control group consisted of employees between 45 and 65 years old and the mean age was 55.8. The experimental group consisted of 33 males and 26 female employees. The control group consisted of 16 males and 15 females employees. Moreover, the experimental group consisted of 9 employees with managerial responsibilities, while the control group consisted of only 4 employees with managerial responsibilities.

5. Results

5.1 Sample and response

There is some difference in the response rate of the experimental group at the different measurement occasions (NT1=62, NT2=59). Therefore, the 59 complete responses will be incorporated in the analyses. The control group consisted of 29 valid measurements (respondents that filled in both the questionnaire at T1 and at T2). Since all respondents were using their own personal code (appendix C) measurements at T1 and T2 could be easily coupled. Shapiro-Wilk's test for normality showed that the normality assumption was partly violated on the mean scores of the variables. This was expected however, as the sample size is

small, which limits the normality of the data (Sweet & Grace-Martin, 2010). Nevertheless, the independent sample t-test and paired-sample t-test conducted in this research is considered robust enough (Larson & Farber, 2012).

5.2 Task analysis

A task analysis is performed by means of interviews. The output is showed in table 3. Moreover, the current problems in the warehouse are discussed, in order to adjust the intervention to these current problems. Above that, the problems identified could be an input for some recommendations for the management and input for the intervention. Quantitative analysis is performed (with job resources and job demands: table 2) in order to obtain extra concrete input for the intervention.

Table 2. Quantitative task analysis LSP

	Experimental [T1]	Control [T1]	Total [T1]
Physical workload	3.182 (0.674)	3.103 (0.357)	3.156 (0.588)
Psychological workload	3.068 (0.576)	2.988 (0.413)	3.042 (0.527)
Performance feedback	3.333 (0.387)	3.276 (0.480)	3.314 (0.418)
Social support	3.249 (0.531)	2.988 (0.645)	3.163 (0.581)
Job control	3.158 (0.781)	3.172 (0.493)	3.163 (0.696)

Table 3. Qualitative task analysis LSP

Location:	Analysis of problems:
Location 1	• We get too few compliments (especially from managers). • Physically very heavy work (few resources but a lot of demands) • Leading hands are incompetent and are not able to distribute work well, rotation not possible. • Communication not optimal and enforcement of the rules not done well. • Target-values differentiation not possible (older employees vs. younger employees): different capabilities
Location 2	• High-low tables (tables that are adjustable to heights) • More pallet trucks needed. • Positive approach or atmosphere necessary.
Location 3	• Communication not optimal (with supervisors) • More resources needed: • High-low tables (tables that are adjustable to heights) • Pallet trucks (two times at minimum needed). • Personal approach needed (to get feedback and solve problems.) • Rake (from the USA) needed to prevent back problems. This rake is used before, but not bought any more.
Location 4	• Sit-stand chairs and floor mats for better work experience and less physical problems • Pallet trucks (pallets that are adjustable to heights) • High workload (too much sick leave). • Too few compliments (colleagues and managers).
Location 5	• Sit-stand chairs and floor mats for better work experience and less physical problems • Mentally also very demanding since • High workload (too much sick leave). • Too few compliments (especially from managers, also from other colleagues: negative work atmosphere). • People are specialized in certain tasks and therefore rotation is not possible.
Location 6	• Communication not optimal (with supervisors) • Pallet trucks (two times at minimum needed). • Personal approach needed (to get feedback and solve problems.) • Rake (from the USA) needed to prevent back problems. This rake is used before, but not bought any more. • Trolleys need to be removed from the path of works since this leads to unsafe situations: lay-outs are not properly used.

5.3 Comparison experimental and control group

The next step is to compare the experimental and control group by means of an independent sample t-test. The independent sample t-test will be done at the two measurement occasions. It is important to note that the two groups (experimental and control) do not differ regarding some demographics. The groups do not significantly differ as regard to age (t=1.763; p=0.08), managerial responsibilities (p=0.858; t=-0.180) and gender (p=0.504; t=0.671). At T1, overall, the control and experimental group's scores are not significantly different. The only exceptions are person-job fit and job crafting. The score of job crafting of the control group (M=3.05, SD= 0.47) is significantly lower than the experimental group (M=3.46, SD= 0.46). This is also the case for decreasing demands (experimental: M=3.33; SD= 0.82, control: M=2.83; SD= 0.60) and increasing resources (experimental: M=3.68; SD= 0.71, control: M=2.82; SD=0.57), that differ significantly when comparing the control group with the experimental group. Above that, the person-job fit differs significantly (experimental: M=3.33; SD= 0.67, control: M=3.16; SD= 0.30). The mean scores of the variables at T1 are presented in the table below (Table 4).

Table 4. Mean scores variables at T1 (with t-tests)

	Experimental [T1]	Control [T1]	T-test [T1]
Mean Job Crafting	3.455 (0.446)	3.047 (0.469)	t=-3.953, p=0.000**
Increasing challenges (1-3)	3.011 (0.507)	2.828 (0.602)	t=-1.502, p=0.137
Decreasing demands (4-6)	3.333 (0.819)	2.839 (0.595)	t=-2.893, p=0.005**
Increasing resources (7-9)	3.678 (0.708)	2.816 (0.568)	t=-5.708, p=0.000**
Optimizing demands (10-13)	3.711 (0.473)	2.905 (0.62)	t=-1.687, p=0.095*
Mean SOC	1.528 (0.05)	1.526 (0.07)	t=-0.170, p=0.865
Elective Selection	1.605 (0.131)	1.597 (0.137)	t=-0.226, p=0.822
Loss-based selection	1.619 (0.136)	1.586 (0.230)	t=-0.758, p=0.450
Optimization	1.446 (0.236)	1.471 (0.260)	t=0.450, p=0.654
Compensation	1.446 (0.220)	1.448 (0.271)	t=0.036, p=0.971
Mean Work Engagement	3.022 (1.146)	3.075 (1.001)	t=0.215, p=0.830
Mean Burnout	2.742 (0.445)	3.138 (0.366)	t=4.415, p=0.000**
Exhaustion	2.546 (0.470)	2.931 (0.422)	t=3.726, p=0.000**
Disengagement	2.936 (0.531)	3.345 (0.386)	t=3.688, p=0.000**
Mean Task Performance	3.489 (0.767)	3.528 (0.756)	t=0.231, p=0.818
Mean Person-job fit	3.333 (0.671)	3.161 (0.300)	t=-1.166, p=0.100*
Needs-supply fit	3.226 (0.674)	2.793 (0.600)	t=-2.93, p=0.004**
Demands-abilities fit	3.441 (0.769)	3.000 (0.745)	t=-2.55, p=0.012**
Work ability (current)	3.719 (0.660)	3.368 (0.715)	t=2.27, p=0.026**
Work ability (future)	2.481 (0.698)	3.181 (0.521)	t=-4.78, p=0.000**

As to be seen in the mean scores, there is still room for improvement. The SOC-values rate 1 or 2 while the other constructs rate on a scale of 1-5. At T2, more constructs score significantly different ($p<0.05$) (table 5) compared to the experimental group. This was expected, since the experimental group should increase more than the control group, according to the hypotheses.

Table 5. Mean scores variables at T2 (with t-tests)

	Experimental [T2]	Control [T2]	T-test [T2]
Mean Job Crafting	3.576 (0.375)	2.928 (0.504)	t=-6.782, p=0.000**
Increasing challenges (1-3)	3.249 (0.453)	2.828 (0.602)	t=-3.666, p=0.000**
Decreasing demands (4-6)	3.480 (0.662)	2.759 (0.642)	t=-4.856, p=0.000**
Increasing resources (7-9)	3.768 (0.653)	2.816 (0.568)	t=-6.704, p=0.000**
Optimizing demands (10-13)	3.750 (0.485)	3.216 (0.471)	t=-4.907, p=0.000**
Mean SOC	1.449 (0.114)	1.557 (0.09)	t=3.792, p=0.000**
Elective selection	1.463 (0.277)	1.609 (0.237)	t=3.043, p=0.003**
Loss-based selection	1.559 (0.190)	1.586 (0.230)	t=0.581, p=0.563
Optimization	1.396 (0.219)	1.540 (0.287)	t=1.435, p=0.155
Compensation	1.379 (0.243)	1.494 (0.290)	t=1.216, p=0.227
Mean Work Engagement	3.202 (1.060)	3.075 (1.002)	t=-0.536, p=0.593
Mean Burnout	2.782 (0.394)	3.190 (0.377)	t=4.612, p=0.000**
Exhaustion	2.521 (0.449)	2.991 (0.493)	t=4.474, p=0.000**
Disengagement	3.046 (0.494)	3.388 (0.376)	t=3.278, p=0.002**
Mean Task Performance	3.644 (0.705)	3.517 (0.746)	t=-0.778, p=0.439
Mean Person-job fit	3.517 (0.542)	3.132 (0.328)	t=-4.125, p=0.000**
Needs-supply fit	3.452 (0.576)	2.724 (0.472)	t=-5.892, p=0.000**
Demands-abilities fit	3.582 (0.694)	3.092 (0.610)	t=-3.236, p=0.002**
Work ability (current)	3.944 (0.571)	3.368 (0.715)	t=4.084, p=0.000**
Work ability (future)	2.712 (0.748)	3.181 (0.521)	t=-3.03, p=0.003**

5.4 Correlation table

Table 6. Correlation table

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Person-job fit																	
2. Job crafting	-.198																
3. SOC	-.013	-.046															
4. Elective Selection	.065	-.098	-.750**														
5. Loss-Based Selection	-.084	.082	-.574**	.681**													
6. Optimization	-.036	.078	.819**	-.944**	-.772**												
7. Compensation	.039	-.123	.921**	-.750**	-.767**	.782**											
8. Increasing Challenges	-.234	.487**	-.046	.011	.231	-.059	-.132										
9. Decreasing Demands	-.108	.821**	0	-.018	.034	.04	-.053	.356**									
10. Increasing Resources	-.21	.877**	-.021	-.096	.126	.061	-.107	.283*	.591**								
11. Optimizing Demands	-.043	.627**	-.082	-.178	-.12	.168	-.082	-.088	.271*	.572**							
12. Burnout	-.271*	-.047	-.012	.083	.155	-.073	-.078	.199	-.118	-.025	-.106						
13. Work Engagement	.169	-.114	-.02	.02	-.06	-.032	.04	-.186	-.108	-.044	-.012	-.313*					
14. Performance	.095	-.06	.053	.079	-.033	-.104	.138	-.096	-.035	.037	-.102	-.15	-.285				
15. Work ability (current)	.221	.080	.011	.062	-.165	-.052	.133	.137	.115	-.023	.015	-.330*	-.302*	.286*			
16. Work ability (future)	-.070	.118	-.041	-.064	.112	.078	-.156	.081	.001	.177	.103	.121	-.086	-.318*	-.311		
17. Exhaustion	-.251*	-.083	.007	.041	.115	.015	-.115	.076	-.106	-.182	-.177	.902**	-.201	-.245*	-.306*	.304*	
18. Disengagement	-.189	-.196	.125	-.016	.091	.060	.011	.046	-.224*	-.240*	-.290	.915**	-.246*	-.134	-.254*	.138	.651**

This is the correlation matrix of all variables at T1. As to be seen, job crafting correlates significantly with the four dimensions (increasing resources, increasing challenges, decreasing demands and optimizing demands). This is the same for SOC and its components (Elective Selection, Loss-Based Selection, Optimization and Compensation). Job crafting correlates significantly with Burnout, while not significantly with the other predicted outcomes (table 6). SOC does also not correlate significantly with the predicted outcomes. However, this could be due to the fact that SOC and job crafting practices are rarely done at T1. This will be investigated upon in the next sections.

5.5 Hypotheses tests

5.5.1 The effects of Job Crafting

The first hypothesis is about the effect of the intervention on job crafting (practices). The first hypothesis predict that after the intervention's completion, the experimental group demonstrates an increase in Job Crafting behavior at T2 and compared to the control group. This is tested with a paired sample t-test and a Two-way Mixed ANOVA.

H1a: Compared to the pre-intervention score (T1) and the control group, employees participating in the intervention demonstrate an increase in Job Crafting behavior four weeks after the intervention (T2).

This hypothesis regarding the job crafting intervention examines the effect of the intervention on job crafting of the experimental group compared to the control group (figure 2 until 6). This is done by means of a two-way mixed ANOVA (see table 7). Time is the within-subjects factor (2 groups: T1 and T2) and group (experimental or control) is the between-subjects factor. A significant interaction effect on increasing challenges ($F(1,86) = 10.075$, $p = 0.002$, partial $\eta 2 = 0.105$), optimizing demands ($F(1,86) = 10.956$, $p = 0.001$, partial $\eta 2 = 0.113$) and decreasing demands ($F(1,86) = 7.790$, $p = 0.006$, partial $\eta 2 = 0.083$) was found.

However, it should be noted that the optimizing demands dimension showed significant results in the other way than expected (control group increased more than the experimental group). This could be due to the fact that the experimental group scored significantly higher at T1, meaning that there was less room for improvement. This will be further discussed in the discussion section. For increasing resources, the values were not significant: $F(1,86) = 2.952$, $p = 0.089$, partial $\eta 2 = 0.033$. It must be noted however, that the increasing resources and decreasing demands dimensions did not meet the assumptions of homogeneity of variances and Box's M-test, since at T1 the means of the control and experimental group differ strongly for these two dimensions.

For the decreasing demands dimension, the control group decreases in score (T1=2.84 and T2=2.76) and the experimental group increases somewhat (T1=3.33 and T2=3.48). Regarding optimizing demands, both groups show an increase in scores (control: T1=2.905, T2=3.216, experimental: T1=3.712, T2=3.750). Again, for increasing challenges, the control group stays the same (T1=2.83 and T2=2.83) and the experimental group increases somewhat (T1=3.011 and T2=3.249). Lastly, the two-way mixed ANOVA for the overall job crafting score was highly significant ($F(1,86) = 36.553$, $p = 0.000$, partial $\eta 2 = 0.298$).

By means of a paired sample t-test (comparing the experimental group at T1 and T2), it was concluded that participants' level of job crafting is significantly higher at T2 compared to T1 ($t(58) = -4.791$, $p = 0.000$). Looking at the crafting dimensions individually, two dimensions (increasing challenges; decreasing resources) increased significantly for the experimental group over the four-week time-period. Only decreasing demands did not increase significantly, however it did increase over time. Optimizing demands did increase significantly for the control group, not for the experimental group.

Therefore, increasing resources did not provide significant results on the two-way mixed ANOVA, however, it did provide significant results at the paired samples t-test, meaning that it did increase over time. In conclusion, this hypothesis is accepted for job crafting in general, increasing challenges and decreasing demands, but not for the dimension increasing resources and optimizing demands.

Table 7. Two-way mixed ANOVA results job crafting

Dimension	*Mean$_{time}$ (standard deviation)*		*T-test results*	*Group x Time interaction effect*	*Time effect*
Job crafting	*Control*	**M_{T1} = 3.047 (0.47)**	**t(58) = -4.791**	**F(1,86)=36.553**	**F(1,86)=0.002**
		M_{T2} = 2.928 (0.50)	**p = 0.000**	**p=0.000**	**p=0.962**
	Experimental	**M_{T1} = 3.455 (0.45)**		**η^2=0.298**	**η^2=0.000**
		M_{T2} = 3.576 (0.38)			
Increasing resources	*Control*	**M_{T1} = 2.816 (0.57)**	**t(58) = -2.458**	**F(1,86)=2.952**	**F(1,86)=2.952**
		M_{T2} = 2.816 (0.57)	**p = 0.017**	**p=0.089**	**p=0.089**
	Experimental	**M_{T1} = 3.678 (0.71)**		**η^2=0.033**	**η^2=0.033**
		M_{T2} = 3.768 (0.65)			
Increasing challenges	*Control*	**M_{T1} = 2.828 (0.60)**	**t(58) = -4.541**	**F(1,86)=10.075**	**F(1,86)=10.075**
		M_{T2} = 2.828 (0.60)	**p = 0.000**	**p=0.002**	**p=0.002**
	Experimental	**M_{T1} = 3.011 (0.51)**		**η^2=0.105**	**η^2=0.105**
		M_{T2} = 3.249 (0.45)			
Optimizing demands	*Control*	**M_{T1} = 2.905 (0.62)**	**t(58) = -3.027**	**F(1,86)=10.956**	**F(1,86)=17.956**
		M_{T2} = 3.216 (0.47)	**p = 0.004**	**p=0.001**	**p=0.000**
	Experimental	**M_{T1} = 3.711 (0.47)**		**η^2=0.113**	**η^2=0.173**
		M_{T2} = 3.750 (0.48)			
Decreasing demands	*Control*	**M_{T1} = 2.839 (0.60)**	**t(58) = -0.868**	**F(1,86)=7.790**	**F(1,86)=0.665**
		M_{T2} = 2.759 (0.64)	**p = 0.389**	**p=0.006**	**p=0.417**
	Experimental	**M_{T1} = 3.333 (0.82)**		**η^2=0.083**	**η^2=0.008**
		M_{T2} = 3.480 (0.66)			

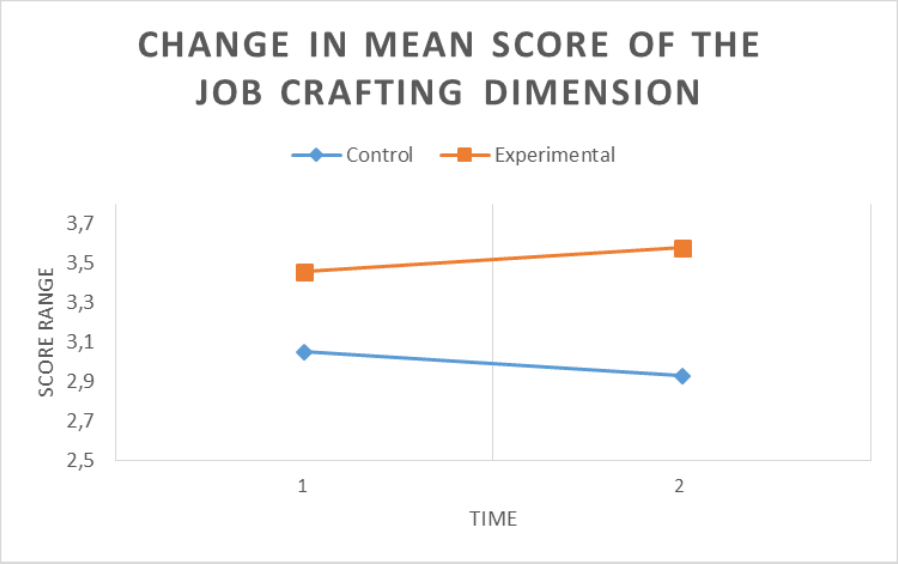

Figure 2. Change in mean score of the job crafting dimension

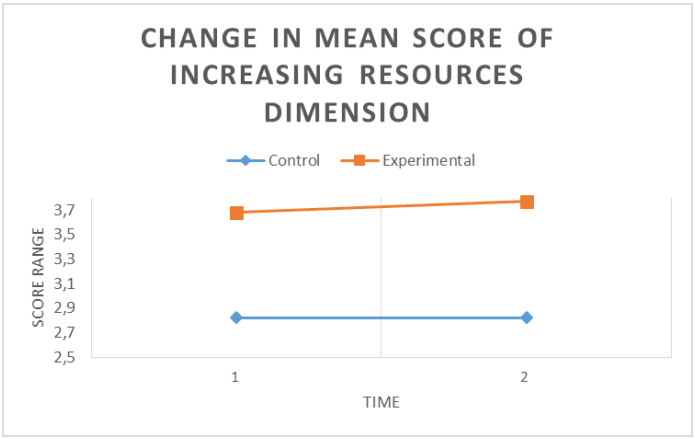

Figure 3. Change in the mean score of the increasing resources dimension (not significant)

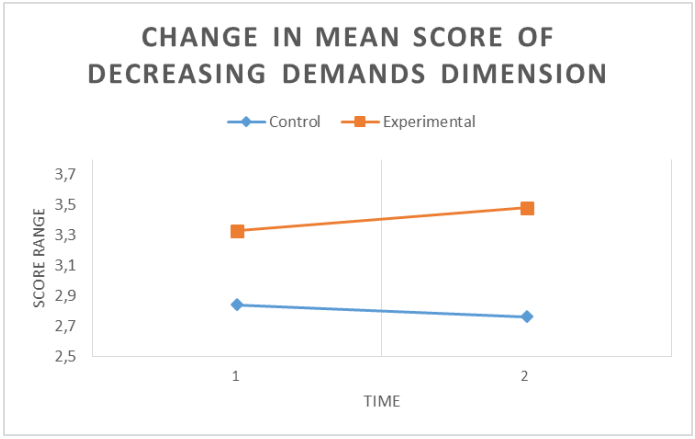

Figure 4. Change in the mean score of the decreasing demands dimension

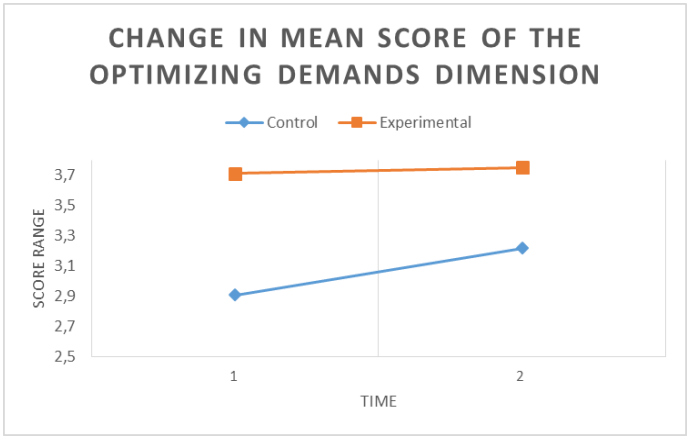

Figure 5. Change in the mean score of the optimizing demands dimension

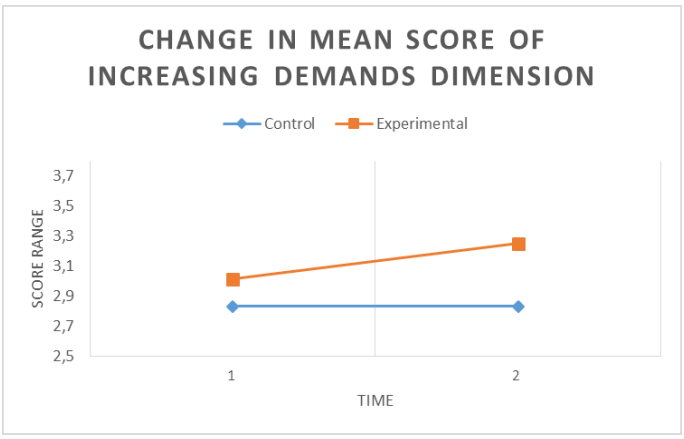

Figure 6. Change in the mean score of the increasing demands dimension

H1b: Age positively moderates the relation between the intervention and job crafting behavior.

Next, it was tested whether the increase in job crafting behaviour is stronger for older employees compared to younger employees. The results are presented in the table below (table 8). Measure indicates the moment in time (T1 or T2), while the group indicates which group is analysed (control or experimental group). Moreover, age is centralized and interaction effects are used in the table below. Data was converted in order to be able to create a new variable that combines the moment in time and the group. In the first step, the independent variable and moderator were centralized. In the second step, a new variable was computed: Measure x Group x AgeCentr (independent variable x moderator centralized). After that, a linear regression was performed.

Table 8. Moderation analysis of job crafting

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig**
(Constant)	3.228	0.044		73.478	0.000
MeasurexGroup	0.002	0.022	0.008	0.114	0.000
AgeCentr	-0.011	0.005	-0.148	-2.079	0.039
MeasurexGroupxAgeCentr	0.339	0.076	0.318	4.440	0.909

As to be seen, age is negatively related to job crafting: The higher the age, the fewer the job crafting activities. This is a significant result. Moreover, there is a positive regression with Intervention x Time (Measure x Group): If the people participated in the intervention (experimental group), this results in more job crafting activities. This result is significant. Moreover, there is no negative interaction effect in Measure x Group x Age: however, this result is not significant. In conclusion, this hypothesis is rejected.

5.5.2 The effects of SOC

The second set of hypotheses is about the effect of the intervention on SOC (practices). Hypothesis 2a predict that after the intervention's completion, the experimental group demonstrates an increase in SOC behavior at T2 and compared to the control group. This is tested with a paired sample t-test and a two-way mixed ANOVA.

H2a: Compared to the pre-intervention score (T1) and the control group, employees participating in the intervention demonstrate an increase in SOC strategies behaviour four weeks after the intervention (T2).

The aim of the second hypothesis is to find effects of the training on the dimensions of SOC (figure 7 until 11). This hypothesis predicts that after the intervention's completion, the experimental group demonstrates an increase in SOC behaviour at T2 (after four weeks) and compared to the control group. An already mentioned in the method section, SOC behaviour is measured by values 1 and 2. More SOC-behavior corresponds to a higher score on this construct.

The effect of the intervention on the experimental group compared to the control group was tested. This is done by means of a two-way mixed ANOVA (see table 9). Time is the within-subjects factor again (2 groups: T1 and T2) and group (experimental or control) is the between-subjects factor. A significant

interaction on Elective Selection (F (1,86) = 9.925, p = 0.002, partial η2 = 0.103), Optimization (F (1,86) = 10.597, p = 0.002, partial η2 = 0.110) and Compensation (F (1,86) = 9.273, p = 0.003, partial η2 = 0.097) was found. For Loss-Based Selection no significant effect was found (p>0.05): Loss-Based Selection (F (1,86) = 2.946 p = 0.09, partial η2 = 0.033). For the SOC dimension (all SOC variables together) a significant effect was found (F (1,86) = 22.411, p = 0.000, partial η2 = 0.207).

Next, after running the paired sample t-test comparing T1 and T2 mean scores of the experimental group (N=59), it was concluded that SOC in general and all of this dimensions increased significantly at T2 (M=0.472) compared to T1 (0.551): (t(58) = 5.274,p = 0.000).

The hypothesis is accepted for all dimensions, except the loss-based selection dimension.

Table 9. Two-way mixed ANOVA results SOC

Dimension	*Mean$_{time}$ (standard deviation)*		*T-test results*	*Group x Time interaction effect*	*Time effect*
SOC	*Control*	**M_{T1} = 0.475 (0.07)**	**t(58) = 5.274**	**F(1,86)=22.411**	**F(1,86)=4.124**
		M_{T2} = 0.442 (0.07)	**p = 0.000**	**p=0.000**	**p=0.045**
	Experimental	**M_{T1} = 0.472 (0.09)**		**η^2=0.207**	**η^2=0.046**
		M_{T2} = 0.551 (0.11)			
Loss-based Selection	*Control*	**M_{T1} = 0.413 (0.23)**	**t(58) = 2.621**	**F(1,86)=2.946**	**F(1,86)=2.946**
		M_{T2} = 0.413 (0.23)	**p = 0.011**	**p=0.090**	**p=0.090**
	Experimental	**M_{T1} = 0.382 (0.14)**		**η^2=0.033**	**η^2=0.033**
		M_{T2} = 0.440 (0.19)			
Elective Selection	*Control*	**M_{T1} = 0.400 (0.14)**	**t(58) = 4.651**	**F(1,86)=9.925**	**F(1,86)=7.162**
		M_{T2} = 0.390 (0.24)	**p = 0.000**	**p=0.002**	**p=0.009**
	Experimental	**M_{T1} = 0.393 (0.13)**		**η^2=0.103**	**η^2=0.077**
		M_{T2} = 0.551 (0.28)			
Optimization	*Control*	**M_{T1} = 0.530 (0.23)**	**t(58) = 2.417**	**F(1,86)=10.597**	**F(1,86)=0.242**
		M_{T2} = 0.461 (0.29)	**p = 0.019**	**p=0.002**	**p=0.624**
	Experimental	**M_{T1} = 0.556 (0.24)**		**η^2=0.110**	**η^2=0.003**
		M_{T2} = 0.606 (0.22)			
Compensation	*Control*	**M_{T1} = 0.553 (0.26)**	**t(87) = 2.839**	**F(1,86)=9.273**	**F(1,86)=0.341**
		M_{T2} = 0.507 (0.29)	**p = 0.006**	**p=0.003**	**p=0.561**
	Experimental	**M_{T1} = 0.556 (0.22)**		**η^2=0.097**	**η^2=0.004**
		M_{T2} = 0.623(0.24)			

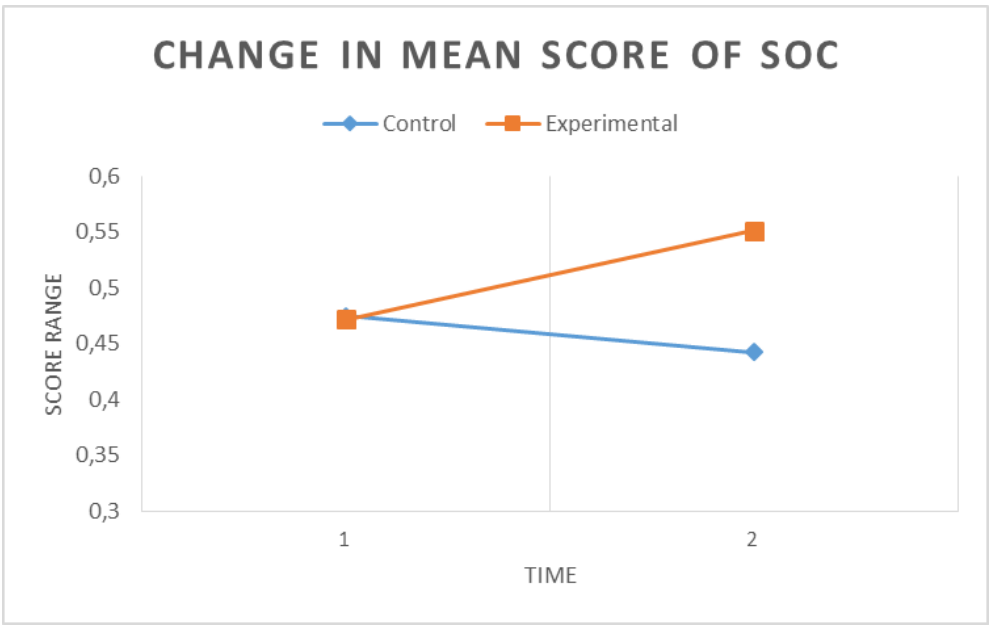

Figure 9. Change in mean score of the SOC dimension

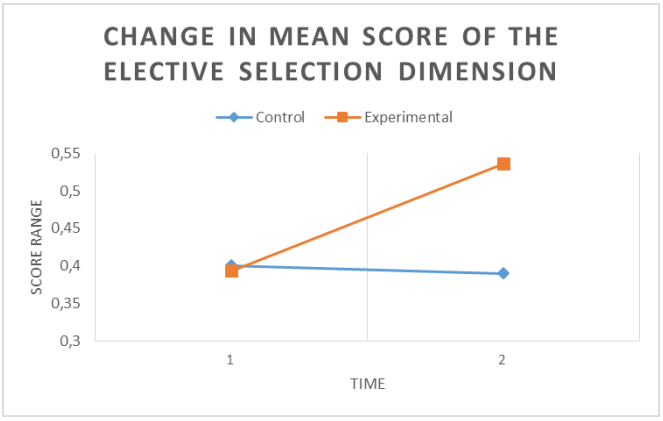

Figure 7. Change in mean score of the elective selection dimension

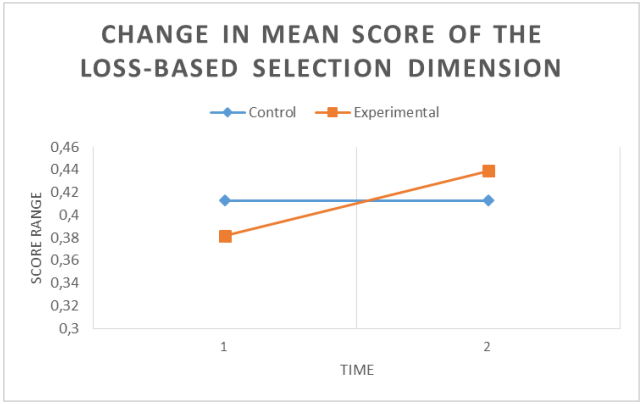

Figure 8. Change in mean score of loss-based selection dimension (not significant)

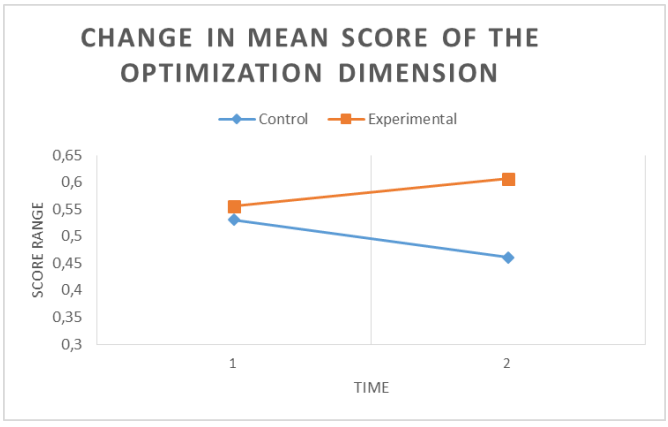

Figure 10. Change in mean score of compensation dimension

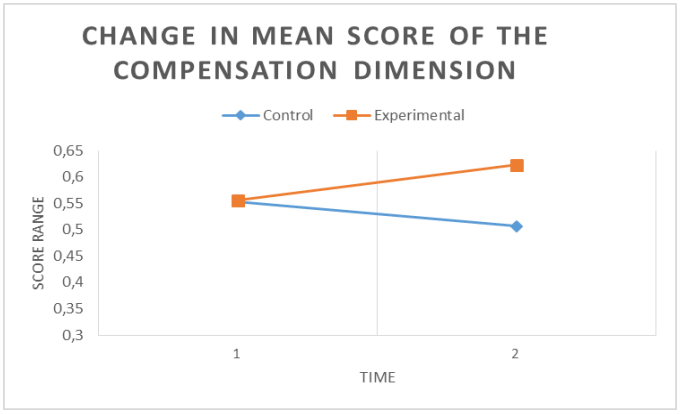

Figure 11. Change in mean score of optimization dimension

H2b: Age positively moderates the relation between the intervention and SOC behavior.

Table 10. Moderation analysis for SOC

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig**
(Constant)	1.502	0.012		72.200	0.000
MeasurexGroup	0.127	0.027	0.333	4.638	0.000
AgeCentr	-0.001	0.001	-0.039	-0.548	0.584
MeasurexGroupxAgeCentralized	-0.002	0.004	-0.032	-0.446	0.656

As to be seen in table 10, the main results of this moderator analysis are that there is no significant effect of Age. Moreover, there is a positive effect of Intervention x Time (Measure x Group): If the people participated in the intervention, this resulted in more SOC-behavior. This result is significant (p=0.000). Lastly, there is no significant moderation effect of age. In conclusion, this hypothesis is rejected.

5.5.3 Outcome variables

The next couple of hypotheses reflect the person/ work-related outcomes of the job crafting and SOC interventions. This is tested with a two-way mixed ANOVA. Since there are only two levels in time (T1 and T2), there is no need to assess sphericity. The first results are represented in the following Table 11.

Table 11. Two-way mixed ANOVA results - outcome variables

Dimension	*Mean$_{time}$ (standard deviation)*		*Group x Time interaction effect*	*Time effect*
Person-job fit	*Control*	**M_{T1} = 3.161 (0.30)** **M_{T2} = 3.132 (0.39)**	**F(1,86)=5.327** **p=0.023** **η^2=0.058**	**F(1,86)=2.834** **p=0.096** **η^2=0.032**
	Experimental	**M_{T1} = 3.333 (0.67)** **M_{T2} = 3.517 (0.54)**		
Performance	*Control*	**M_{T1} = 3.529 (0.76)** **M_{T2} = 3.517 (0.75)**	**F(1,86)=3.663** **p=0.059** **η^2=0.041**	**F(1,86)=2.723** **p=0.103** **η^2=0.031**
	Experimental	**M_{T1} = 3.489 (0.77)** **M_{T2} = 3.602 (0.71)**		
Burnout	*Control*	**M_{T1} = 3.172 (0.40)** **M_{T2} = 3.190 (0.38)**	**F(1,86)=0.008** **p=0.927** **η^2=0.000**	**F(1,86)=4.481** **p=0.037** **η^2=0.050**
	Experimental	**M_{T1} = 2.735 (0.45)** **M_{T2} = 2.782 (0.39)**		
Work engagement	*Control*	**M_{T1} = 3.075 (0.21)** **M_{T2} = 3.075 (0.19)**	**F(1,86)=9.713** **p=0.002** **η^2=0.101**	**F(1,86)=9.713** **p=0.002** **η^2=0.101**
	Experimental	**M_{T1} = 3.022 (0.14)** **M_{T2} = 3.202 (0.14)**		
Work ability (current)	*Control*	**M_{T1} = 3.368 (0.71)** **M_{T2} = 3.368 (0.71)**	**F(1,86)=11.247** **p=0.001** **η^2=0.118**	**F(1,86)=11.247** **p=0.001** **η^2=0.118**
	Experimental	**M_{T1} = 3.719 (0.66)** **M_{T2} = 3.930 (0.57)**		
Work ability (future)	*Control*	**M_{T1} = 3.181 (0.52)** **M_{T2} = 3.181 (0.52)**	**F(1,86)=6.902** **p=0.010** **η^2=0.076**	**F(1,86)=6.902** **p=0.010** **η^2=0.076**
	Experimental	**M_{T1} = 2.478(0.70)** **M_{T2} = 2.693 (0.75)**		

Dimension	*Mean$_{time}$ (standard deviation)*		*Group x Time interaction effect*	*Time effect*
Disengagement	*Control*	**M_{T1} = 3.345 (0.09)** **M_{T2} = 3.388 (0.08)**	**F(1,86)=0.768** **p=0.383** **η^2=0.009**	**F(1,86)=0.228** **p=0.048** **η^2=0.045**
	Experimental	**M_{T1} = 2.936 (0.06)** **M_{T2} = 3.047 (0.06)**		
Exhaustion	*Control*	**M_{T1} = 2.931 (0.42)** **M_{T2} = 2.991 (0.49)**	**F(1,86)=2.784** **p=0.099** **η^2=0.031**	**F(1,86)=0.461** **p=0.499** **η^2=0.005**
	Experimental	**M_{T1} = 2.546 (0.47)** **M_{T2} = 2.521 (0.45)**		

H3: Four weeks post intervention (T2), employees in the experimental group report higher sustainable employability (person-job fit and work ability) compared to their scores prior to the intervention and to the control group.

The first hypothesized effect relates to work ability (Figure 12 & 13) and person-job fit (Figure 14). It was hypothesized that after the intervention was completed (T2), employees in the experimental group would report an increased job-person fit and work ability compared to the control group (H2).

Work ability is divided into 'current work ability' and 'future work ability', which has been explained in the 'Measures' section, 4.3. For current work ability, results show a significant Group×time interaction effect ($F(1,67) = 11.247$, $p = 0.001$, partial $\eta2 = 0.118$). Moreover, for future work ability, results also show a significant Group×time interaction effect ($F(1,67) = 6.902$, $p = 0.010$, partial $\eta2 = 0.076$). The current work ability score of the control group stayed the same over time (T1=3.368, T2=3.368) and those of the experimental group increased over time (T1=3.719, T2=3.930). Similarly, for the future work ability score, the control group stayed the same over time (T1=3.181, T2=3.181) and those of the experimental group increased over time (T1=2.478, T2=2.693)

Results show a significant Group × Time interaction effect ($F(1,67) = 5.327$, $p = 0.023$, partial $\eta2 = 0.058$). for person-job fit. The person-job fit score of the control group decreased over time (T1=3.161, T2=3.132) and those of the experimental group increased over time (T1=3.33, T2=3.517).

In conclusion, this hypothesis is accepted.

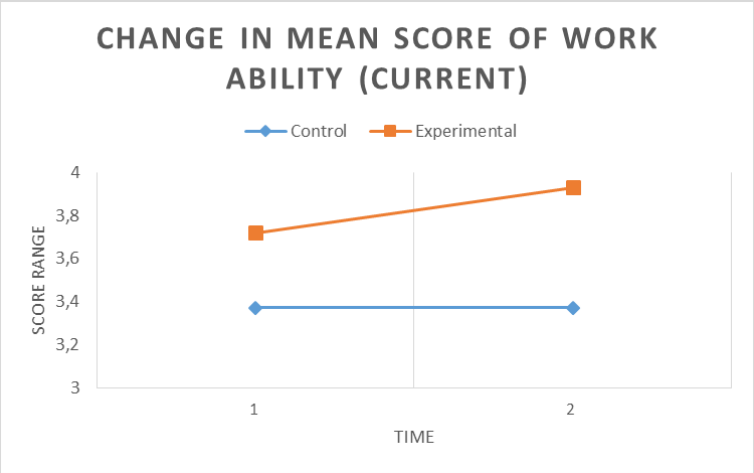

Figure 12. Change in mean score of work ability Current

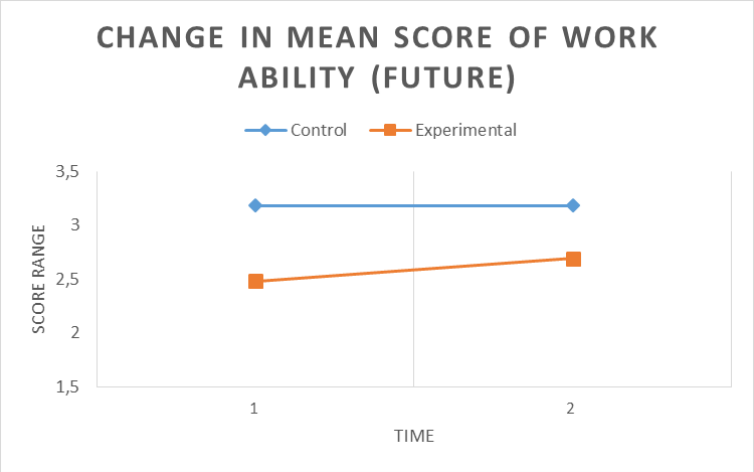

Figure 13. Change in mean score of work ability Future

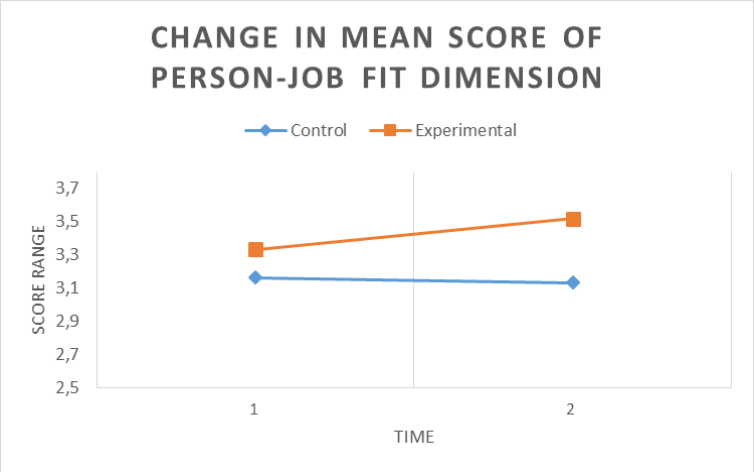

Figure 14. Change in mean score of person-job fit dimension

H4: Four weeks post intervention (T2), employees in the experimental group report higher work engagement compared to their scores prior to the intervention and to the control group.

Secondly, the construct work engagement will be examined (Figure 15). It is predicted that employees in the experimental group report higher work engagement compared to the pre-test scores and also compared to the control group. Results indicate evidence for a significant Group×time interaction effect ($F(1,86) = 9.713$, $p = 0.002$, partial $\eta 2 = 0.101$) and thus evidence for hypothesis 5 is obtained. The mean scores showed an increase for the experimental group (T1=3.02 and T2=3.20) while the score of the control group stayed the same (T1=T2=3.075). In conclusion, this hypothesis is accepted.

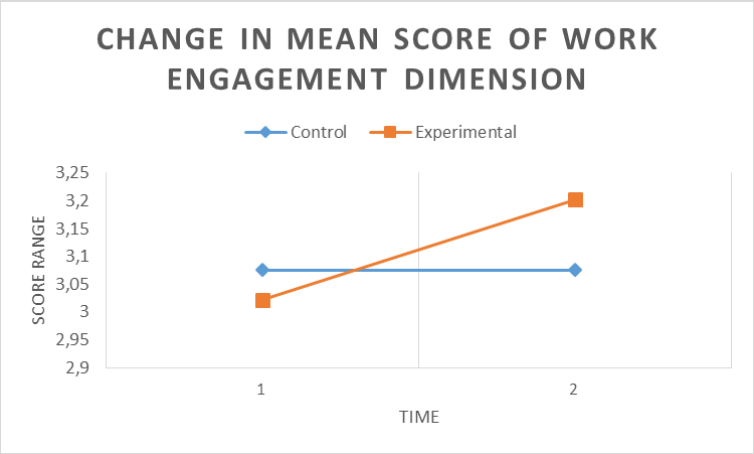

Figure 15. Change in mean score of work engagement dimension

H5: Four weeks post intervention (T2), employees in the experimental group report less burnout compared to their scores prior to the intervention and to the control group.

Next, the construct burnout will be examined (Figure 16). It is subdivided into exhaustion and disengagement. It is predicted that employees in the experimental group report lower burnout (exhaustion and disengagement) scores compared to the pre-test scores and also compared to the control group.

Results show a non-significant Group × time interaction effect for exhaustion ($F(1,86) = 2.784$, $p = 0.099$, partial $\eta 2 = 0.031$). Moreover, results also show a non-significant Group × time interaction effect for disengagement ($F(1,86) = 0.768$, $p = 0.383$, partial $\eta 2 = 0.009$). In conclusion, this hypothesis is rejected.

For the overall dimension of burnout, it results in a non-significant Group × time interaction effect ($F(1,86) = 0.008$, $p = 0.927$, partial $\eta 2 = 0.00$). In conclusion, this hypothesis is rejected.

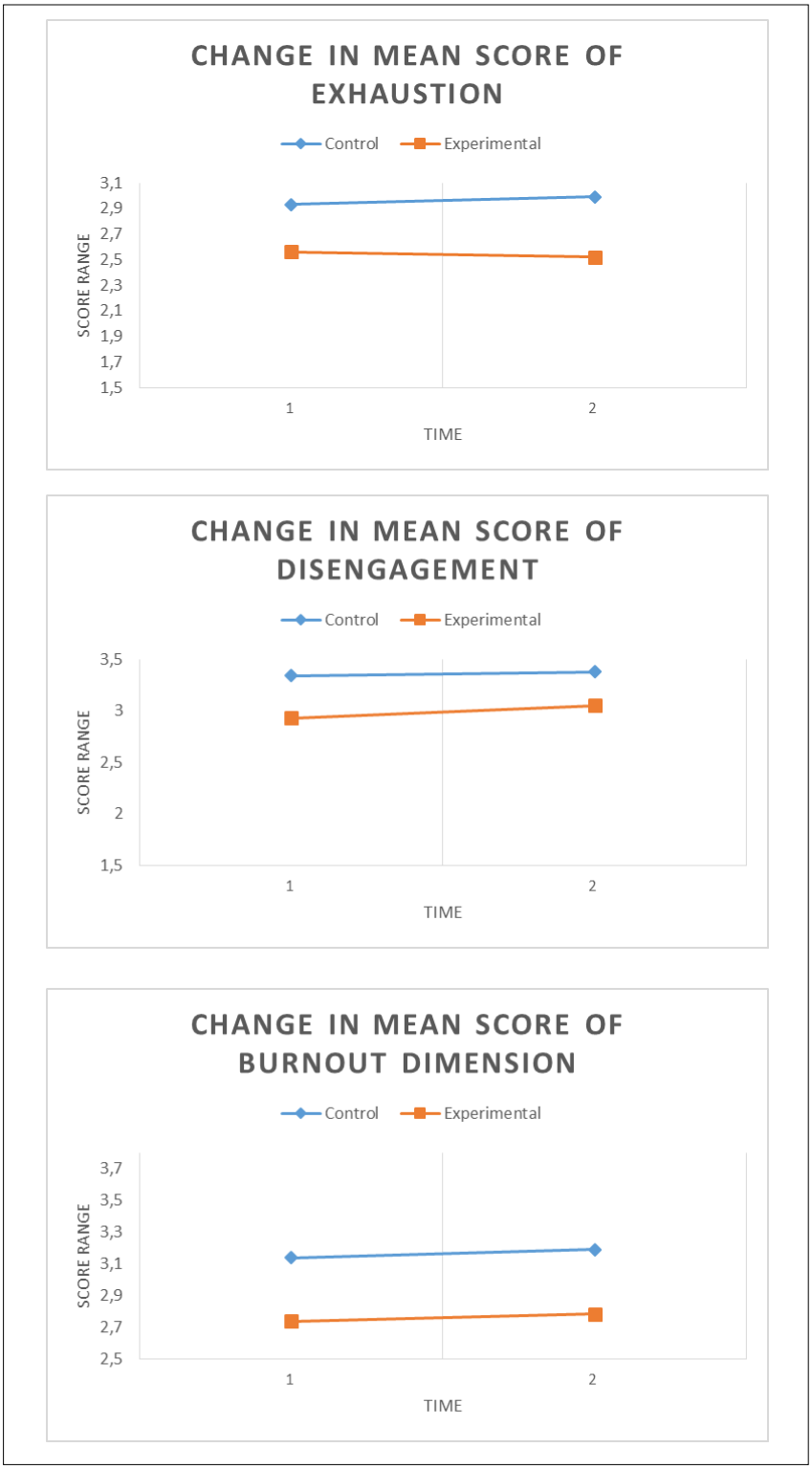

Figure 16. Change in mean score of burnout dimension

H6: Four weeks post intervention (T2), employees in the experimental group report higher task performance compared to their scores prior to the intervention and the control group.

Lastly, the construct performance will be examined (Figure 17). It is predicted that employees in the experimental group report higher performance compared to the pre-test scores and also compared to the control group. Results show an almost Group×time interaction effect ($F(1,86) = 3.663$, $p = 0.059$, partial $\eta 2 = 0.041$) and thus a clear trend towards significance for hypothesis 7 is obtained. The mean scores showed an increase for the experimental group (T1=3.49 and T2=3.64) while the control group decreased somewhat (T1=3.53 and T2=3.52). In conclusion, this hypothesis is accepted.

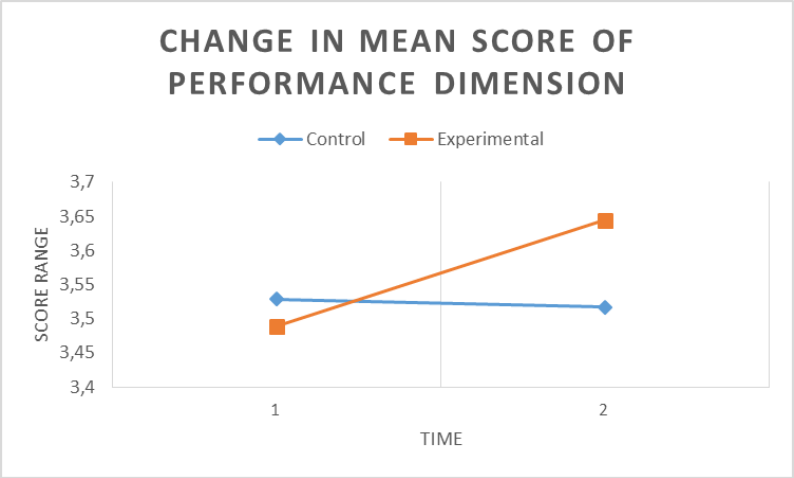

Figure 17. Change in mean score of performance dimension

5.5.4 Mediation

H7: The relationship between the intervention over time and the outcomes (burnout, work engagement, person-job fit and task performance) is mediated by job crafting and SOC.

The third hypothesis addresses the mediation effects of the job crafting and SOC intervention. This is tested by means of multiple regression. The method of the intervention study of Gordon, Le Blanc, & Demerouti (2017) was followed to conduct the mediation. First of all, 'Measure' indicates the moment in time (T1 or T2), while the group indicates which group is analysed (control or experimental group). Therefore, the independent variable is Measure x Group to include the time (T1 or T2) and to combine this with the group (experimental or control). Several steps have been followed. Step 1 tests whether the intervention (Measure x Group) is significantly related to the outcome (dependent variable). Step 2 includes the test of the mediating effect to see if the intervention had a significant effect on job crafting/SOC (the mediators). In step 3, the mediator needs to predict the outcome measure after controlling for the predictor. In step 4, in order to conclude full mediation, the effect of the independent variables on the outcome must not be significant when the mediator is included.

First of all, the outcome work engagement is tested with multiple regression (see figure 18). *Step 1:* The relationship between Measure x Group -> Work engagement is non-significant (p=0.368). *Step 2:* The relationship between Measure x Group -> Job crafting and SOC is significant (p=0.000). *Step 3:* The relationship between Job Crafting/SOC -> Work engagement is non-significant too (p=0.918; p=0.208). Therefore, the hypothesis for mediation is rejected for work engagement.

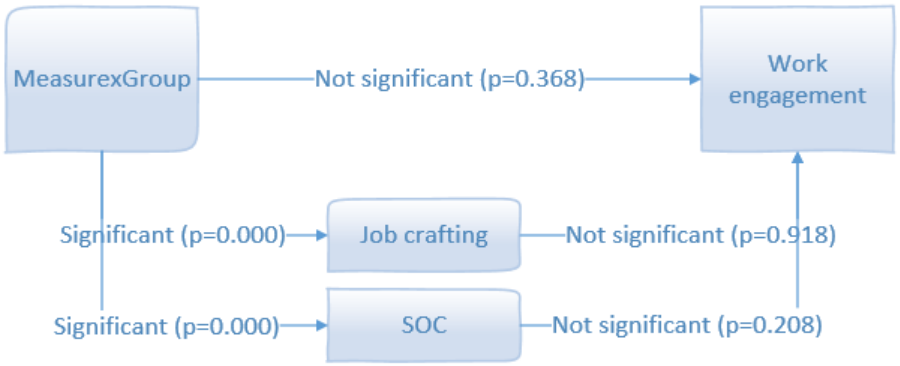

Figure 18. Mediation analysis - outcome: work engagement

Secondly, the outcome person-job fit is tested for mediation with job crafting/SOC (see figure 19). *Step 1:* The relationship between Measure x Group -> Person-job fit is significant (p=0.001). *Step 2:* The relationship between Measure x Group -> Job crafting and SOC is significant (p=0.000). *Step 3:* The relationship between Job Crafting/SOC -> Person-job fit is non-significant (p=0.911; p=0.109). Therefore, the hypothesis for mediation is rejected for person-job fit.

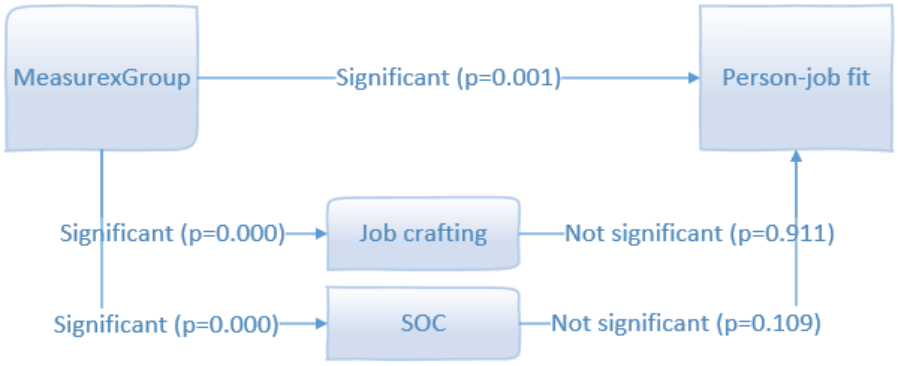

Figure 19. Mediation analysis - outcome: person-job fit

Thirdly, the outcome (task) performance is tested with multiple regression (see figure 20). *Step 1:* The relationship between Measure x Group -> Person-job fit is non-significant (p=0.242). *Step 2:* The relationship between Measure x Group -> Job crafting and SOC is significant (p=0.000). *Step 3:* The relationship between Job Crafting/SOC -> Person-job fit is non-significant too (p=0.207; p=0.667). Therefore, the hypothesis for mediation is also rejected for (task) performance.

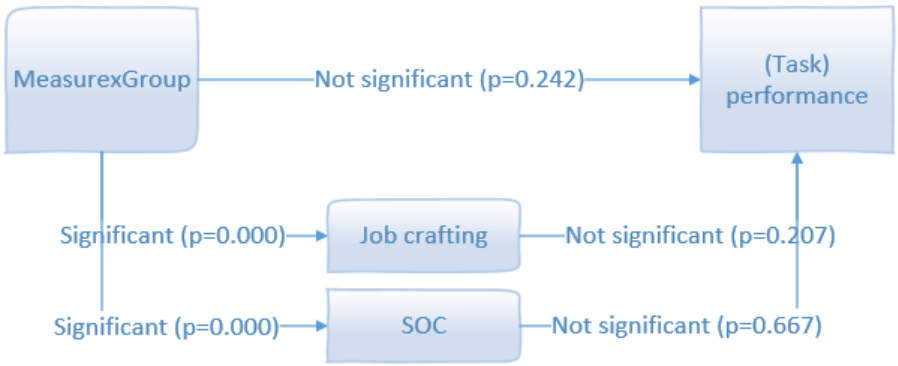

Figure 20. Mediation analysis - outcome: Performance

Next, the outcome burnout is tested with multiple regression (see figure 21). *Step 1:* The relationship between MeasurexGroup -> burnout is significant (p=0.018). *Step 2:* The relationship between Measure x Group -> Job crafting and SOC is significant (p=0.000). *Step 3:* The relationship between Job Crafting/SOC -> Burnout is significant (p=0.008; p=0.015). For step 4, it is tested whether there is full mediation or partial mediation. This is done with a regression model that includes two independent variables (the mediator and the independent variable itself) and the dependent variable. For this total regression model, only the mediator job crafting is significant (p=0.047). The independent variable Measure x Group is not significant (p=0.109). Therefore, this results in full mediation. For SOC, the mediator is not significant (p=0.114) and the independent variable is also not significant (p=0.136). This results in partial mediation.

The separate dimensions of Exhaustion and Disengagement have also been tested.

For disengagement: *Step 1:* The relationship between MeasurexGroup -> Exhaustion is not significant (p=0.202). *Step 2:* The relationship between Measure x Group -> Job crafting and SOC is significant (p=0.000). *Step 3:* The relationship between Job Crafting/SOC -> Disengagement is significant for job crafting (p=0.011), but not significant for SOC (p=0.062).

For exhaustion: *Step 1:* The relationship between MeasurexGroup -> Exhaustion is significant (p=0.003). *Step 2:* The relationship between Measure x Group -> Job crafting and SOC is significant (p=0.000). *Step 3:* The relationship between Job Crafting/SOC -> Exhaustion is significant (p=0.034; p=0.015). For step 4, it is tested whether there is full mediation or partial mediation. For this total regression model, the mediator job crafting is not significant (p=0.215). The independent variable Measure x Group is significant (p=0.018). For SOC, the mediator is also not significant (p=0.184) while the independent variable is significant (p=0.035). This results in partial mediation.

Overall, this hypothesis is partly accepted for burnout.

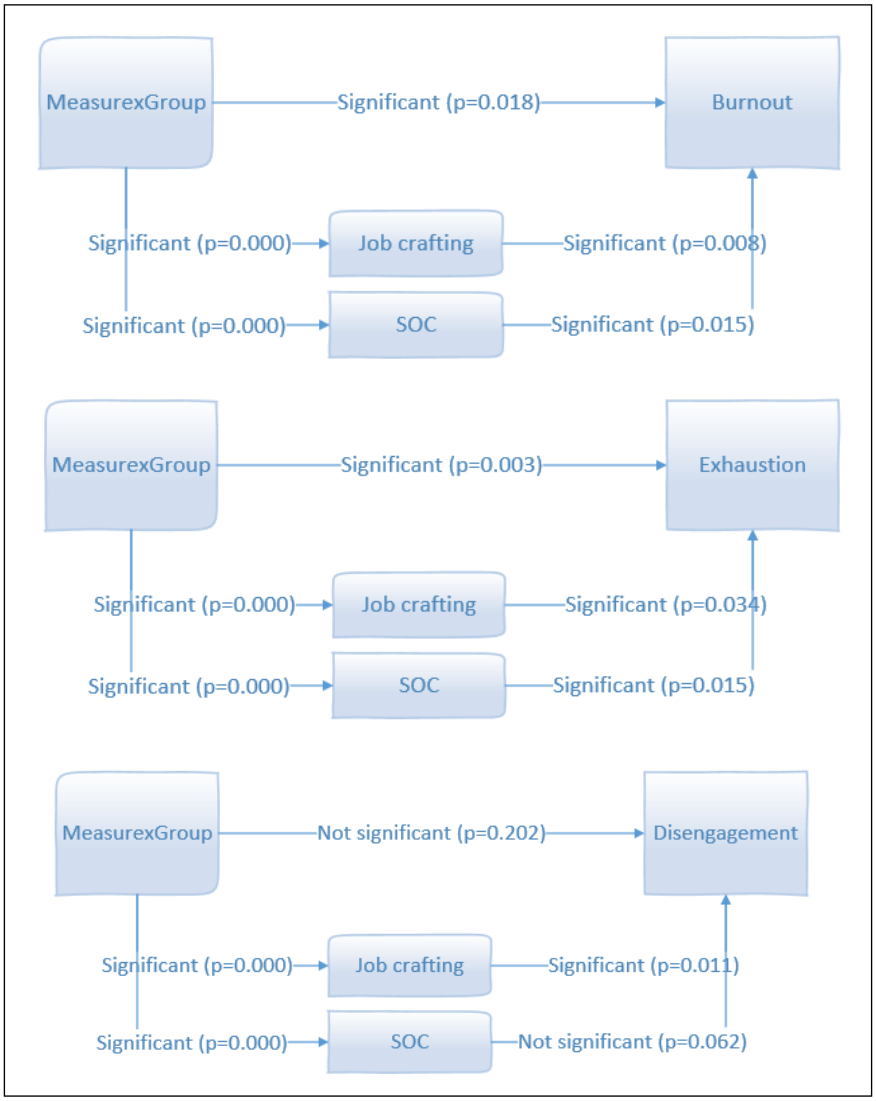

Figure 21. Mediation analysis - outcome: Burnout

Next, the outcome current work ability is tested with multiple regression (see figure 22). *Step 1:* The relationship between Measure x Group -> work ability is significant (p=0.000). *Step 2:* The relationship between Measure x Group -> Job crafting and SOC is significant (p=0.000). *Step 3:* The relationship between Job Crafting -> Work ability (current) is significant (p=0.003), while it is not significant for SOC (p=0.623). For step 4, it is tested whether there is full mediation or partial mediation. For job crafting, the

mediator job crafting is not significant (p=0.059). The independent variable Measure x Group is significant (p=0.003), resulting in partial mediation. Therefore, this hypothesis is partly accepted.

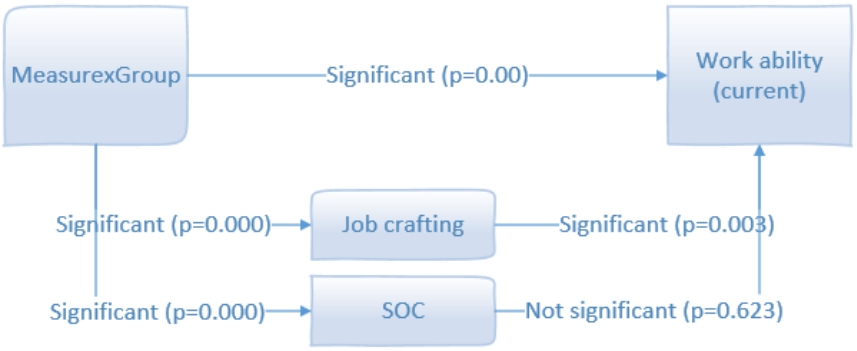

Figure 22. Mediation analysis - outcome: Work ability (current)

Last, the outcome future work ability is tested with multiple regression (see figure 23). *Step 1:* The relationship between Measure x Group -> work ability (future) is not significant (p=0.297). *Step 2:* The relationship between Measure x Group -> Job crafting and SOC is significant (p=0.000). *Step 3:* The relationship between Job Crafting/SOC -> Work ability (future) is not significant (p=0.329; p=0.997). Therefore, this hypothesis is rejected for future work ability.

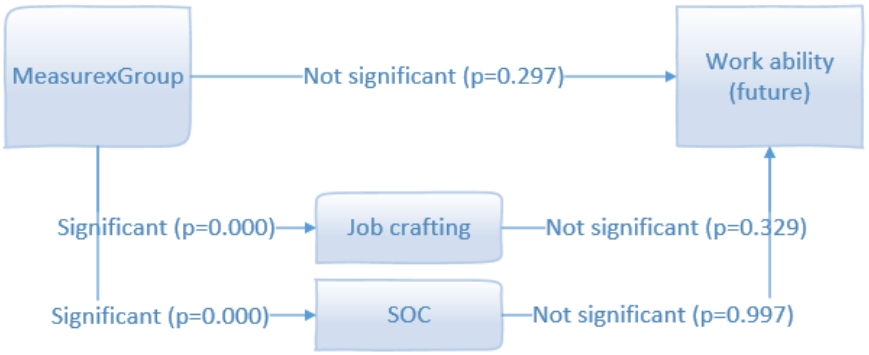

Figure 23. Mediation analysis - outcome: Work ability (future)

As not all hypotheses are accepted (only the mediation of SOC and job crafting on burnout, job crafting and current work ability), alternative mediations will be tested in order to search for the underlying mechanism of the several relationships.

First alternative mediation:

Furthermore, further research could include person-job fit as a mediator for the intervention and its outcomes. It should be investigated whether person-job fit can serve as explicatory mechanism for changes in the outcomes variables (e.g. work engagement, task performance and burnout and work ability) after the intervention. This could be interesting since a worse person-job fit could be an initiator for successful job crafting because employees want to restore their person-job fit. Also, as Tims and Bakker (2010) argue, a person-job misfit leads to job crafting behaviour. With the help of job crafting employees can shape their work to their own needs and abilities, which increases their person-job fit. It is hypothesized that person-job fit will mediate the relationship between the intervention and the

outcomes (work engagement, task performance, burnout and work ability). Therefore, this is tested in figures 24 & 25.

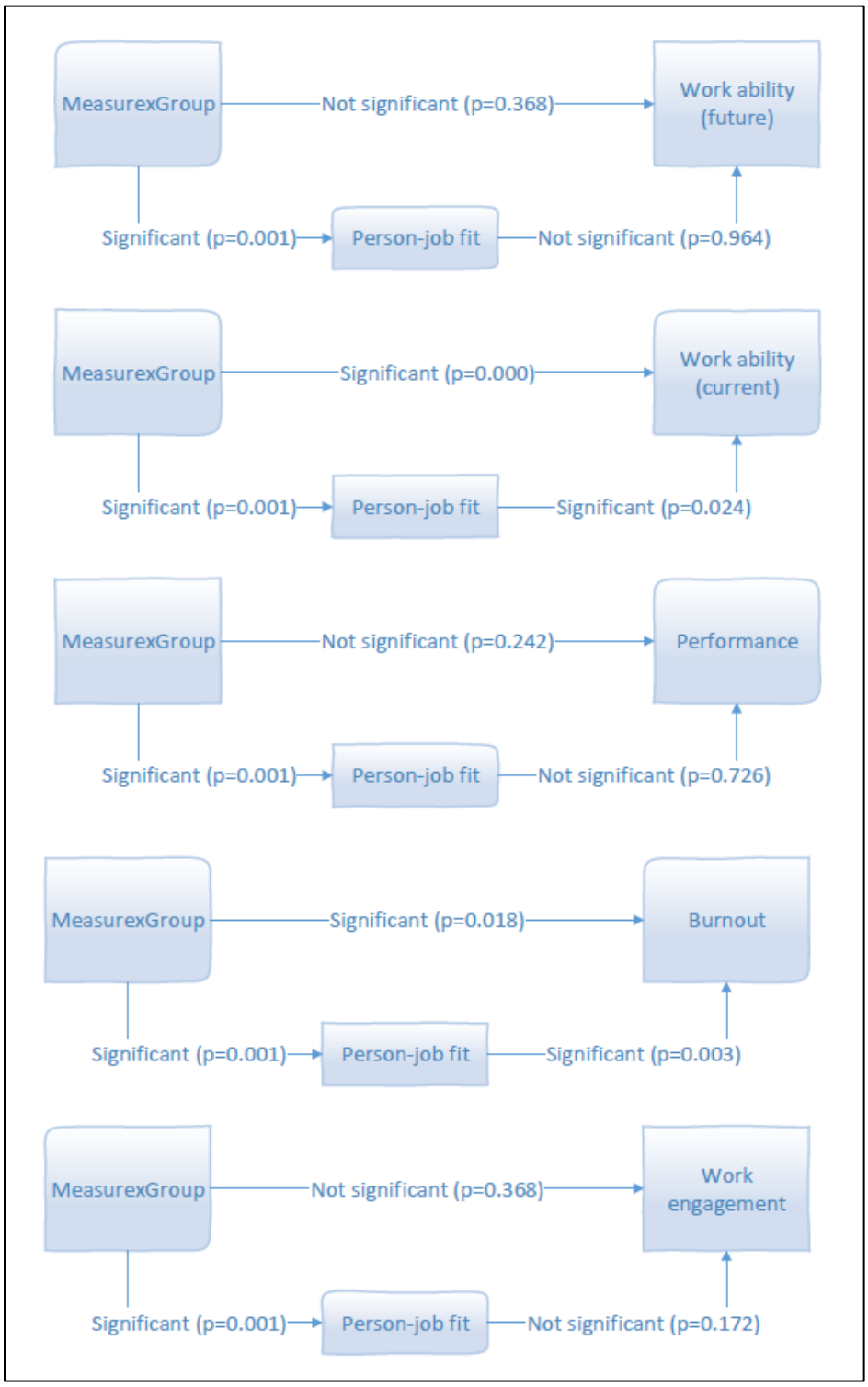

Figure 24. Mediation analysis with person-job fit (PART 1)

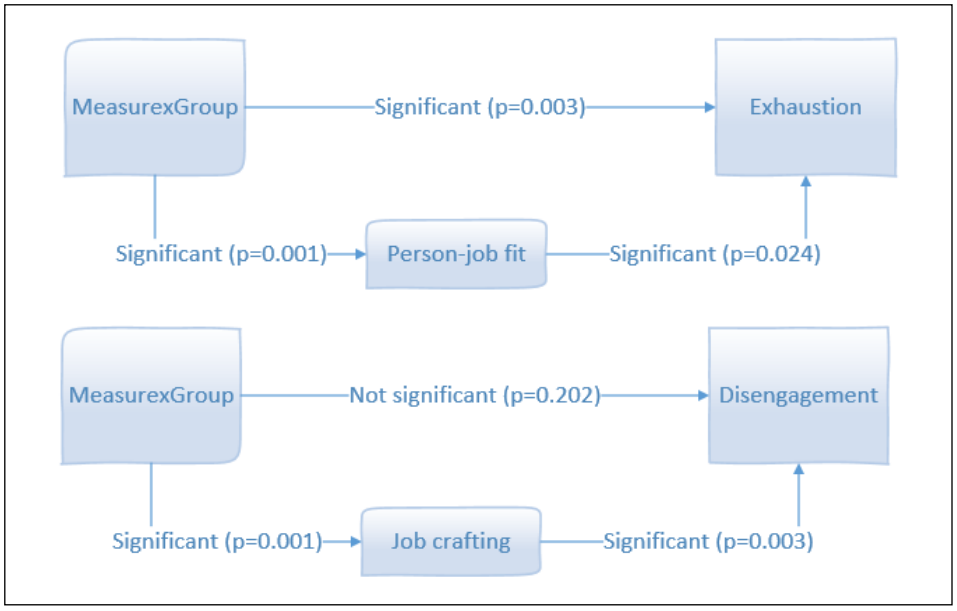

Figure 25. Mediation analysis with person-job fit (PART 2)

In conclusion, step 1 is the same as with job crafting and SOC as mediators. For step 2, the relationship between Measure x Group and person-job fit is significant (p=0.001). For step 3, the relationship between person-job fit and the outcome is significant for two outcomes (current work ability and burnout with both its dimensions exhaustion and disengagement). Therefore, step 4 will be conducted for these outcomes. This results in partial mediation for current work ability and exhaustion, since the mediator is not significant (Current work ability: p=0.142; Exhaustion: p=0.100) and the independent variable is significant (Current work ability: p=0.001; Disengagement: p=0.013). For burnout and disengagement, it results in full mediation, since the mediator (person-job fit) is significant (Burnout: p=0.013; Disengagement: p=0.007) and the independent variable is not significant (Burnout: p=0.08; Disengagement: p=0.540).

Therefore, this hypothesis is partly accepted.

However, one extra mediation (of job demands and job resources separately) will be tested below in order to find more significant effects on outcomes.

Second alternative mediation:

Lastly, it should be investigated whether job demands or job resources can serve as explicatory mechanism for changes in the outcomes variables (e.g. work engagement, task performance and burnout, work ability and person-job fit) after the intervention. This could be interesting since job crafting in total was expected to be the explanatory mechanism, however there were some non-significant outcomes found with this previous mediation. This non-significance of the job crafting as mediator could be due to the fact that employees focused specifically at (decreasing) job demands or (increasing) job resources instead of both. Therefore, these are tested separately in the last alternative mediation. It is hypothesized that person-job fit will mediate the relationship between the intervention and the outcomes (work engagement, task performance, burnout and work ability). This will be tested in the figure 26 & 27.

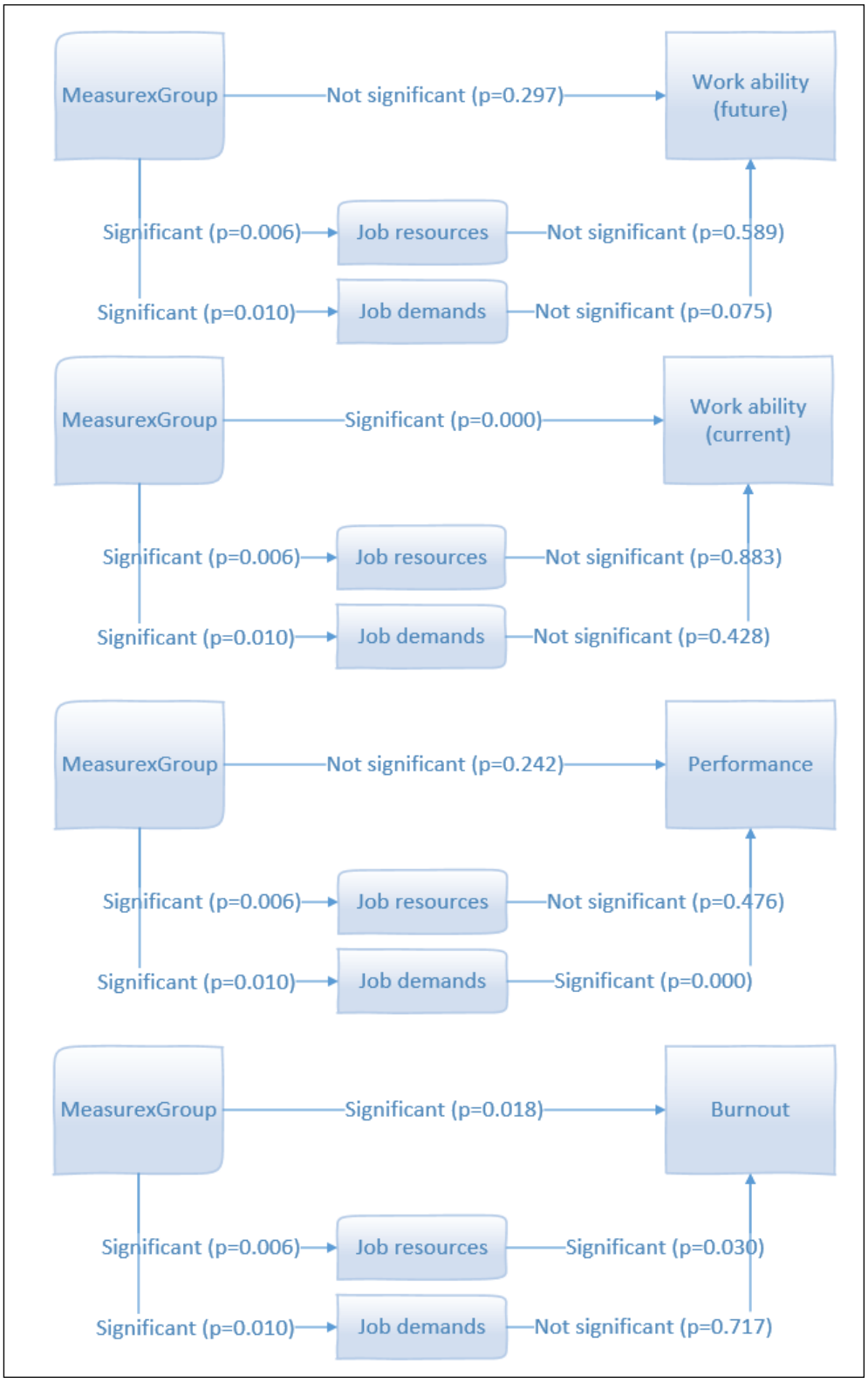

Figure 26. Mediation analysis with job resources and job demands (PART 1)

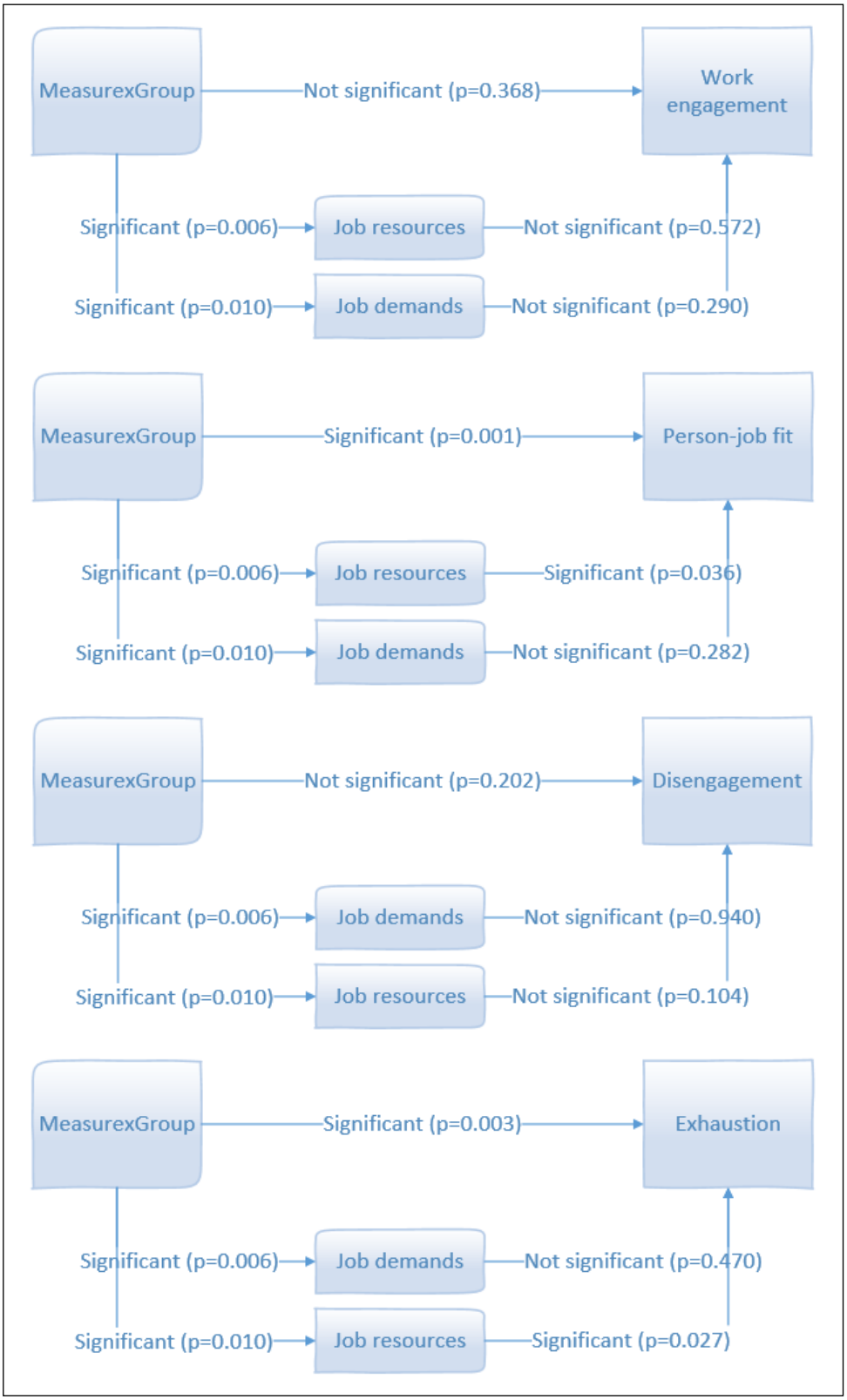

Figure 27 Mediation analysis with job resources and job demands (PART 2)

In conclusion, step 1 is the same as with previous mediation testing. For step 2, the relationship between MeasurexGroup and job demands and resources is significant (p=0.006; p=0.010).

Regarding job demands: The direct relationship between the independent variable and the organizational outcome performance is not significant. However, for step 3, the relationship between the mediator job demands and the outcomes is significant for this outcome (performance).
Regarding job resources: For step 3, the relationship between job resources and the outcomes is significant for three outcomes (burnout in total, exhaustion and person-job fit).

Results of step 4 show that the mediation of job resources on burnout, exhaustion and person-job fit is partial mediation since the mediator (job resources) is not significant (Burnout: p=0.082; Exhaustion: p=0.094; Person-job fit: p=0.130) while the independent variable is significant (Burnout: p=0.048; Exhaustion: p=0.011; Person-job fit: p=0.005)

All of the above stated mediations are partial mediations.

Therefore, this hypothesis is also partly accepted.

6. Conclusion

The main goal of this master thesis was to increase employees' overall person-job fit, work ability, job performance and work engagement while decreasing burnout by means of an intervention. Moreover, work engagement and overall performance was expected to increase while decreasing burnout. An intervention has been performed at the warehouse department of LSP (Logistics Service Provider) in the Netherlands. Increasing the sustainable employability employees is important as organizations strive for a workforce that is vital and has a high work ability in order to be profitable. Moreover, the current workforce is aging at LSP and all organizations worldwide are faced with the challenge of retaining and motivating aging employees to remain actively engaged. A job crafting and/or SOC intervention might be a valuable tool for accomplishing these goals by helping aging employees to better utilize their experience in specific processes and techniques at the workplace.

Supported by previous research, there is theoretical and empirical evidence that job crafting behavior (i.e. increasing resources, optimizing demands, increasing challenges and decreasing demands) is related to increased motivation, work engagement, performance, person-job fit and decreased burnout. Moreover, there is preliminary (theoretical) evidence to suggest that the SOC dimensions are related to indicators of successful aging, such as life satisfaction, quality of life and well-being. Therefore, it is expected to influence person-job fit. However, there is a literature gap in SOC literature, since little research is yet focusing on the input and conclusions and implications of an intervention focusing at SOC and more is known about the intervention of job crafting (based on the JD-R Theory and the Social Cognitive Theory). At first, a task analysis is done at LSP to see the current resources that are used, the experienced job demands and overall attitude towards the job and organizational change. The other main goal of the structured interview was to find best practices of people already crafting their job and to adjust the intervention to current practices. In this way, examples could be provided in the intervention that are applicable to their work situations.

The problem statement of increasing person-job fit, work engagement and task performance while decreasing burnout to keep employees sustainable employable was converted to the following research question; '*Can a job crafting and SOC intervention stimulate (older) people in low-skilled warehouse work to adjust their job to fit their capacities and interests in order to stay motivated and sustainable employable?*' It was expected that a job crafting/SOC intervention would result in increased job crafting and SOC behavior. It was furthermore predicted that this would consequently result in decreased burnout, increased employee work engagement, increased person-job fit (i.e. as a measure for sustainable employability) and increased employee job performance (task performance).

The current study revealed evidence to suggest that a job crafting/SOC intervention based on the JD-R theory, Selection Optimization Compensation theory, Socioeconomical Selectivity theory and the Social Cognitive theory can lead to increased job crafting behavior (i.e. increasing challenges and decreasing demands) and SOC behaviour (dimensions: Elective Selection, Optimization and Compensation) in employees. This effect was measurable five weeks after the intervention and compared to the control group. Moreover, in the intervention group work engagement, performance, work ability and person-job fit significantly increased five weeks after the intervention was completed and compared to the control group. No moderation of age in the relationship between Intervention x time and job crafting/SOC behaviour was found. Moreover, the relationship between the intervention over time and the outcome current work ability was mediated by job crafting. Above that, the relationship between the intervention

over time and the outcome burnout was mediated by job crafting and SOC. Since the other outcomes were non-significant with job crafting and SOC as mediators, other mediators were tested. First of all, the mediator person-job fit has been tested which again results in significant effects for current work ability and burnout. This is the same as with job crafting. Lastly, job demands and job resources have been tested separately as mediators, this resulted in a significant mediation of job demands in the relationship between the intervention and performance. Moreover, job resources significantly mediate the relationship between the intervention and burnout, as well as person-job fit.

This results in the following summary (Table 12):

Table 12. Hypothesis summary

Hypothesis:	Accepted / Rejected:	Comments:
H1a: Compared to the pre-intervention score (T1) and the control group, employees participating in the intervention demonstrate an increase in Job Crafting behavior four weeks after the intervention (T2).	Accepted	Significance for all dimensions, except optimizing demands (significant in the wrong direction since control group increased more than experimental group) and increasing resources.
H1b: Age positively moderates the relation between the intervention and job crafting behavior.	Rejected	Negative regression in age: The higher the age, the lower the job crafting activities. However, not significant.
H2a: Compared to the pre-intervention score (T1) and the control group, employees participating in the intervention demonstrate an increase in SOC strategies behavior four weeks after the intervention (T2).	Accepted	Accepted for all dimensions except loss-based selection.
H2b: Age positively moderates the relation between the intervention and SOC behavior.	Rejected	Negative regression in age: the higher the age, the more SOC behavior. However, not significant.
H3: Four weeks post intervention (T2), employees in the experimental group report higher sustainable employability (job-person fit and work ability) compared to their scores prior to the intervention and to the control group.	Accepted	Very significant effect (p=0.023)
H4: Four weeks post intervention (T2), employees in the experimental group report higher work engagement compared to their scores prior to the intervention and to the control group.	Accepted	Very significant effect (p=0.002)

H5: Four weeks post intervention (T2), employees in the experimental group report less burnout compared to their scores prior to the intervention and to the control group.	Rejected	Not significant (p=0.927). Burnout increases in both the control and experimental group.
H6: Four weeks post intervention (T2), employees in the experimental group report higher task performance compared to their scores prior to the intervention and the control group.	Accepted	Significant effect (p=0.058)
H7: The relationship between the intervention over time and the outcomes (burnout, work engagement, person-job fit and task performance) is mediated by job crafting and SOC.	Rejected	Significant results: mediation of job crafting and SOC for burnout outcome. Moreover, significant result for mediation of job crafting on work ability (current). *Alternative mediation of person-job fit: significant effect for work ability (current) and burnout.* *Alternative mediation of job demands and job resources: significant effect of job demands for performance and significant effect of job resources for burnout and person-job fit.*

7. Discussion

7.1 Change in job crafting and SOC behaviour

This study was aimed at developing a further understanding of the effectiveness of a SOC and job crafting intervention. The study followed a combination of the intervention design of Van den Heuvel et al. (2015) and van Woerkom et al. (2017). In line with Demerouti, & Peeters (2017), optimizing demands is added to the already widely used dimensions of job crafting (i.e. increasing challenges, decreasing demands and increasing resources). The intervention was conducted in a warehouse environment with low-skilled employees and one of the requirements was that employees were at least 45 years old. This requirement was brought into place since developed countries will face aging population in the ongoing years. According to the OECD (2019), the amount of employees who retire each year is going to exceed the amount of newcomers. Therefore, the potential labor force will decrease. This results in the European countries raising their retirement age (The New York Times, 2009) and employees that need to work longer which may result in a potential misfit since older individuals experience it more difficult to cope with ongoing (technological) changes (Wong, & Tetrick, 2017). Previous studies have focused on the public sector (Van den Heuvel et al., 2015; Van Wingerden, Bakker, et al., 2017a, 2017b), health care (Gordon et al., 2018) or among Greek public sector employees (Demerouti et al., 2017), the current study focusses on older aged employees with different cultural backgrounds and employment duration. This answers to the identified future research direction in the study of Van Wingerden, Bakker et al. (2017a) who request

future intervention studies to be conducted in different occupational groups. This intervention is a valuable addition to the limited existing literature on job crafting interventions. However, it is even more welcome in the existing literature on SOC interventions. Although, there is preliminary (theoretical) evidence to suggest that the SOC dimensions are related to indicators of successful aging, such as well-being, life satisfaction, and quality of life, there is a literature gap in SOC literature, since little research is yet focusing on the conclusions and implications of an intervention focusing at SOC. There has been some theoretical research; however, this usefulness of SOC for older employees has never been tested in practical settings. Therefore, this research contributes to current literature.

The results of the current study align with previous results on job crafting interventions: the intervention can lead to more job crafting behavior (increasing challenges and decreasing demands; Gordon et al., 2018; Van Wingerden, Bakker, et al., 2017a). Optimizing demands is proposed to replace the reduction of hindering demands dimension (Demerouti & Peeters, 2017), as this dimension has been found to lead to negative job outcomes (Petrou et al., 2012; Weseler & Niessen, 2016b). Optimizing demands and reducing demands are closely linked as they both are forms of reduction oriented crafting (Demerouti & Peeters, 2017; Petrou et al., 2012). Optimizing demands is a form of proactive demand crafting (by-passing inefficient working methods) whereas decreasing hindering demands is more reactive. Although the optimizing demands dimension did increase for both the control and experimental group (even more for the control group), it did not provide evidence for a higher increase of the experimental group in contrast to the control group. Therefore, it did provide significant results in the other way than expected (the control group increased more than the experimental group). Reasons for this could be that the initial score (at T1) was much lower for the control group compared to the experimental group. Therefore, there was more room for improvement. On the other hand, since it is a more proactive form of job crafting, the employees in the control group could be more proactive. By just reading the question in the questionnaire, employees in the control group could start thinking about new ways to improve their work and make it more efficient. As seen in the interviews, employees know ways to improve their work processes but not think actively about it, when not asked for. This could imply that interventions/training session could not be the best way to improve 'optimizing demands'. However, just providing employees with tools to be proactive and think about more efficient processes could be enough.

The increased decreasing demands behavior in the experimental group may be explained through the reported increase in exhaustion. Decreasing demands includes behaviors targeted towards minimizing emotional, mental or physical job aspects to reduce one's workload or pressure (Petrou et al., 2012). During the measurement period, workload at LSP may have increased, resulting in increased exhaustion symptoms. Workload at LSP is always higher at the end of the month since orders have to be packed before the next month. Therefore, the moment of measuring is of extreme importance. The post-intervention questionnaire was conducted at the experimental group between 20th of June 2019 and the 25th of June 2019 while the control group filled out the questionnaire between the 23th of June 2019 and the 2th of July 2019. Consequently, decreasing demands strategies may have occurred as a natural coping mechanism to deal with this increased workload at the experimental group (Demerouti, Bakker, & Halbesleben, 2015; Petrou et al., 2012). This might be a reason for the none-significance of the optimizing demands and increasing resources dimension. Another reason might be that due to the high workload, procedures or processes could not be changed/optimized since all people had to do was make sure that their work will be finished. The last reason for not getting significant results for the optimizing demands dimension was that participants in the intervention indicated during the meetings that there are a lot of

problems with higher management and things cannot easily be changed within LSP. All they are focusing on is productivity and financial data. Therefore, they are not motivated to think about optimizing demands, since there is no supportive culture within LSP. This is a problem for the whole organization that needs to be addressed.

In the two-way mixed ANOVA, the increasing resources dimension did also not provide significant results, however it is being close to significance. For the univariate t-test, the increasing resources dimension did provide significant results, meaning that it did increase significantly for the experimental group, while ignoring the control group. Therefore, in contrast to previous studies, there is no clear evidence that the current job crafting intervention can yield more increasing resources behavior, but results show a clear increase in the experimental group while the control group stayed the same. An explanation for the non-significant partial increase in increasing resources could be that some employees may have found it difficult to ask for advice or feedback from colleagues, due to the perceived time pressure to complete their tasks and partly because of their notion that they do not need help from colleagues as they are specialized in their own tasks and know perfectly what and how to execute their tasks. Overall, this study forms a valuable addition to the existing knowledge on the effects of a job crafting intervention on job crafting behavior, since the study aligns with previous results (Gordon et al., 2018; van den Heuvel et al., 2015) on job crafting interventions: the intervention can lead to more job crafting behavior.

Second, we sought to contribute to the intervention by introducing age as a potential moderator in the intervention with job crafting/SOC relationship. It was found that, age did not positively moderate the relation between the intervention and job crafting behavior. This means that the intervention will not result in a higher increase in job crafting behavior for older employees compared to younger employees. However, this intervention did only focus on employees of 45 years and older. This is already a group of (older) employees. Therefore, within this group, getting (even) older does not predict an increase in job crafting behavior. Niessen, Swarowsky, & Leiz (2010) found a possible explanation for this, since their study revealed that age was negatively related to person-job fit and performance after organizational change. These relationships were mediated by job experience. Job experience made it more difficult for (young and old) employees to adapt to workplace changes (Niessen, Swarowsky, & Leiz (2010). Therefore, it is expected that older employees who have been working in the organization for a very long time already, find it difficult to see by themselves what can be changed or what has to be changed. However, to test this alternative explanation, job experience should be incorporated in follow-up studies.

The results of the current study extend the current literature on SOC interventions: the intervention can result in more SOC-behavior (Elective Selection, Optimization, & Compensation). Only focusing on the experimental group, it can be concluded that SOC-behavior increases for these employees, four weeks after the intervention (for all dimensions). When comparing the results to the control group, employees in the experimental group experience more SOC-behavior on three dimensions (Elective Selection, Optimization and Compensation), except for the Loss-based Selection dimension. This Loss-Based Selection refers to changes in goals such as reconstructing the goal hierarchy by focusing only on the most important goals (Freund, n.d.). A possible finding for not providing significant results is that the important personal goals might be central to a person's well-being and therefore not easily abandoned in the face of loss (Freund, n.d.). In this case, it might be more adaptive to stick to one's goal by acquiring new resources or activating unused resources for alternative means of pursuing goals (i.e. Compensation). Moreover, since there is such a high workload, changing one's goal hierarchy might even not be possible, since (performance) targets have to be met. As (almost) all dimensions provide significant results,

hypotheses are accepted and results are as expected. Therefore, this study certainly forms a valuable addition to scholars' knowledge on the effects of a SOC intervention since the results of the current study extend the current literature on SOC interventions: the intervention can result in more SOC-behavior for three dimensions (Elective Selection, Optimization, & Compensation). Moreover, this study shows that there is evidence that concrete plans about when, where, and how to take steps towards the selected goal are effective in successful goal achievement (Gollwitzer & Sheeran, 2006). This means that, beyond goal-setting, SOC trainings should encourage the employees to generate action plans towards the goals, to choose the right opportunity to act, and finally to make the decision to act. Third, job crafting and SOC (behavior) were tested as possible mediators for the relationship between the intervention and the outcomes. Significant results were found for the mediation of job crafting and SOC with burnout. Moreover, significant results were found for the mediation of job crafting on current work ability. Since job crafting/SOC as a mediator did not provide significant results for all outcomes, person-job fit, job demands and job resources were tested as separate mediators. Person-job fit as a mediator did provide a significant effect for work ability (current) and burnout. Moreover, job demands did provide a significant effect of for performance and a significant effect of job resources for burnout and person-job fit was found. This means that the focus on job demands was associated with the increase in (task) performance, while the increase in resources was most predominantly responsible for the increase in person-job fit. This means that both job demands and job resources need to be combined and get both the same attention in an intervention, since they are both responsible for different outcomes. Since all possible mediators were significantly associated to one or more outcomes, the combination of job crafting (with job demands and job resources) and SOC is effective in getting the most (useful) outcomes for organisations. This is in line with earlier research that states that job crafting interventions are associated to job crafting behaviour which is, in turn, associated to positive organizational outcomes. For instance, according to van Wingerden, Bakker, & Derks (2017), a job crafting intervention had positive effects on employee wellbeing. For example, this study also showed significant effects of the mediation of job crafting with burnout.

7.2 Change in outcome variables

Furthermore, the effect of increased job crafting and SOC behavior on outcomes as burnout, task performance, work engagement and person-job fit has been studied. New findings on these variables are needed as findings regarding the effect of job crafting and SOC behavior on these outcomes differ amongst studies. As suggested by scholars, further evidence on this must be gathered to draw rigid conclusions (Gordon et al., 2018; Van Wingerden, Bakker, et al., 2017a). This study answers to this request.

As the study sample and context strongly differs from earlier studies (on job crafting), findings are extremely relevant for overall generalizability of the results of a job crafting and SOC intervention. In contrast to previous findings and the author's expectation, feelings of burnout amongst employees have not decreased significantly between the start of the intervention (T1) and 4 weeks after the intervention (T2). Contrary to the expectations, burnout did increase for both the experimental group and the control group. It should be noted that the experimental group already scored significantly lower at T1 (2.735), compared to T1 of the control group (3.172). This means that there was less room for improvement for the experimental group. Another reason for the non-significant results could be that workload has been higher at T2 compared to T1. As already mentioned, the experimental group filled out the questionnaire at the end of the month, some days earlier compared to the control group. This could have resulted in an increase in burnout since performance-targets have to be met. However, it is also possible that at T2,

more employees were ill compared to T1, however, this has not been checked and could be incorporated in questionnaires for further (future) research.

In line with previous findings (Petrou et al., 2012; Van Wingerden, Bakker, & Derks, 2017; Bakker, 2011; Bakker et al., 2004; Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Demerouti et al., 2001; Tims, Bakker, & Derks, 2013; Xanthopoulou et al., 2009) and the author's expectation, feelings of work engagement amongst employees in the experimental group have increased significantly between the start of the intervention (T1) and 4 weeks after the intervention (T2). Scores on work engagement remained equal for the control group at T1 compared to T2. This is as expected and in line with the JD-R theory that states that work engagement is the result of an optimal balance between job demands and resources (Bakker & Demerouti, 2014). The job crafting intervention is aimed at (re)storing the optimal balance between job demands and job resources. During the past decade research has focused on these effects of work engagement (Zwinkels, Ooms, & Sanders, 2009; Halbesleben, Harvey, & Bolino, 2009). Several studies (Harter, Schmidt, & Hayes, 2002; De Lange, De Witte, & Notelaers, 2008; Halbesleben, 2010) have found evidence for the positive effects of work engagement on different organisational outcomes. Work engagement appears to be related to better performance (in-role and extra-role performance) (Bakhuys Roozeboom, & Schelvis, n.d.). Extra-role performance includes behavior that is not required by the job description but has a positive effect on the organization (Halbesleben, Harvey, & Bolino, 2009). A study by Xanthopoulou, Bakker, Demerouti and Schaufeli (2009) found that high levels of work engagement were related to a high financial turnover. Moreover, other research (Salanova, Agut, & Peirò, 2005) found that engaged employees in a restaurant were perceived as better by the customers. Several studies have focused on the relationship between work-engagement and other organizational outcomes. For example, work-engagement is related not only to personal initiative (De Lange, De Witte, & Notelaers, 2008), organisational commitment (Halbesleben, 2010), low turnover intention (Halbesleben, 2010; Harter, Schmidt, & Hayes, 2002) but also to customer satisfaction and loyalty (Salanova, Agut, & Peiro, 2005).

Work engagement is also linked to individual health outcomes. Employees with high levels of work engagement are full of energy and are less likely to develop work related stress complaints, which can have severe negative impact on employees' health ((Bakhuys Roozeboom, & Schelvis, n.d.). Several studies have found evidence for this positive effect on health (Simpson; 2009; Shimazu, Schaufeli, Kubota, & Kawakami, 2012; Schaufeli, Bakker, & Van Rhenen, 2009; Halbesleben, 2010). For example, high levels of work engagement resulted in fewer lost working days due to accidents (Simpson, 2009), less ill-health Shimazu, Schaufeli, Kubota, & Kawakami, 2012), and sickness absence (Schaufeli, Bakker, & Van Rhenen, 2009), and increased general health (Halbesleben, 2010). Therefore, since LSP has a lot of sick leave, an increase in work engagement by means of the intervention could potentially decrease this (current) problem.

Thirdly, in line with previous findings (Ryan & Deci, 2000; Rudolph et al. 2017) and the author's expectation, task performance amongst employees in the experimental group has increased between the start of the intervention (T1) and 4 weeks after the intervention (T2). This is nearly significant. The control group decreased over the period, while , the experimental group increased over time. Job Crafting (intervention) studies have frequently addressed the role of Job Crafting behavior in positively influencing performance of individuals. For example, the JD-R Theory states that job crafting influences employee in-role performance positively (Bakker & Demerouti, 2017). By means of job crafting practices, both the motivational path and the health-impairment path may be altered through seeking resources and seeking challenges as well as optimizing demands (Bakker & Demerouti, 2017). Weseler & Niessen (2016) found

empirical evidence that indeed both supervisor rated as well as self-rated task performance is positively related to extending task boundaries. It is therefore argued that job crafting – increasing challenges in particular - is an important means to achieve this. In this study, increasing challenges has increased significantly over time and performance is measured by self-ratings. Therefore, this study is in line with the research of Weseler, & Niessen (2016).

Lastly, in line with previous findings (Kooij, van Woerkom, Wilkenkoh, Dorenbosch, & Denissen, 2017; Berg, Dutton, and Wrzesniewski, 2013) and the author's expectation, person-job fit amongst employees in the experimental group has increased between the start of the intervention (T1) and 4 weeks after the intervention (T2). This effect is significant. The control group decreased over this period. In contrast, the experimental group increased over time. This increase in person-job fit is in line with the expectations (Kooij, van Woerkom, Wilkenkoh, Dorenbosch, & Denissen, 2017).

Taken together, this study has offered the first experimental test of whether a SOC intervention is effective in enhancing SOC behavior and can be used to enhance person-job fit, work engagement, performance and burnout. The results of the current study extend the current literature on SOC interventions: the intervention can result in more SOC-behavior for three dimensions (Elective Selection, Optimization, & Compensation). Moreover, the current study aligns with previous results on job crafting interventions: the intervention can lead to more job crafting behavior (on three dimensions: increasing challenges, optimizing demands and increasing resources). Whereas existing conceptualizations of job crafting have predominantly framed job crafting in terms of the changes that employees make in their job demands and job resources in order to improve their psychological well-being (e.g., Tims et al., 2012), this study also includes 'optimizing demands' as a job crafting dimension. Demerouti and Peeters (2017) introduced optimizing demands as a form of reduction-oriented crafting rather than decreasing hindering demands. New findings on the outcome variables are of value as findings regarding the effect of job crafting and SOC behavior on these outcomes differ amongst studies. As suggested by scholars, further evidence on this must be gathered to draw rigid conclusions (Gordon et al., 2018; Van Wingerden, Bakker, et al., 2017a). Work engagement, performance and person-job fit significantly increased four weeks after the intervention was completed and comparing it with the control group. Therefore, this intervention is deemed effective since it provided significant results and contributes to existing literature.

7.3 Limitations of this research

Some limitations of this study are identified in this paragraphs. First, the study could have been influenced by organizational factors. For example, the workload may have increased during the study due to the time of the month and a new contract manager at one location. This consequently may have influenced the work experience of the employees and actual workload (number of orders) could be incorporated in further research. Secondly, the control group consisted of employees at other locations of LSP, who are doing the same type of work in general. However, as the department (location) used is different, managers have different procedures and visions which may influence outcomes. Lastly, the sample size of the control group (N=29) compared to the experimental group (N=59) is small, which may impede reliability of the results. Nevertheless, the potential benefits of using a physically separated location as a control group was valued since it prevents cross contamination between the experimental and the control group. Thirdly, for some important constructs, there are differences in baseline scores for the experimental and control group. Consequently, this may influence the results since a higher initial score for the experimental group may result in situations where the experimental group has less room for a possible increase,

compared to the control group. This may, in turn, result in non-significant results. For example, the total job crafting dimension has an higher initial score for the experimental group compared to the control group. This is the case for all job crafting dimensions, and most extremely for the optimizing demands dimension (T1 experimental: 3.711; T1 control: 2.905). Moreover, for burnout the initial values also differ much. For SOC, work engagement and task performance, the initial values are 'approximately' the same (according to the independent t-test). Also for person-job fit, the values slightly differ at T1 for the control and experimental group. Therefore, some dimensions differ in initial values for the control and experimental group. A reason for this could be a difference in groups which has occurred by chance, since employees were randomly assigned. Moreover, employees of the experimental group knew they were going to participate in an afternoon training for some hours while the control group just filled out the questionnaire during work. Therefore, the conditions of filling out the questionnaire were different (in the meeting room, just before the training or filling out the questionnaire at the workplace), which could have influenced the results.

Besides that, there are limitations with regard to the results. The current study was conducted in a very specific context, and every specific company culture and organization is unique. Therefore, the results are not generalizable across all organizations. The changing climate and culture to be open to new ideas might influence the (potential) openness of employees to job crafting. Moreover, the job activities in warehouse employees require less skills compared to higher-skilled employees. The warehouse environment is a workplace for mostly low-skilled people. Understanding, and consequently the outcomes, of job crafting may be different in jobs which require more mental or emotional exertion. However, the intervention could be tailored to individual needs and skills in order to be able to use the training in different locations.

Second, there are two limitations regarding the intervention training. The workshop was not performed by a professional trainer. However, one member of the HR-team attended the trainings. Moreover, participation was not voluntary, and all employees were invited to take part in training by their supervisor. According to research, the training is more effective if employees voluntarily participate since this increases commitment (Van den Heuvel et al., 2015). Self-initiated behaviour (like job crafting and SOC) should not be forced (Petrou et al., 2015).

Third, there are several limitations regarding the questionnaire. First, it contains self-report measures, which may be biased. Second, the used questions were translated from English to Dutch. Although done carefully, it is possible that some questions may have lost their initial meaning. Nevertheless, Cronbach's alpha measures were sufficient (>0.7). Fourth, as already mentioned earlier, the baseline measurements were different for the control group compared to the experimental group, resulting in a situation where the experimental group has less room for improvement compared to the control group. This is one of the drawbacks of this study. Nevertheless, this study has provided significant effects on 75% of the proposed hypotheses.

Lastly, the questionnaire did not include the years someone has already worked in the company. This should be included since the longer you stay in one company -- even if you change jobs internally – employees get stuck in doing the same working routine every day. The more often and more fearlessly you step out of your comfort zone of work, the more your comfort zone will expand. Kunze, Boehm, & Bruch (2013) include occupational status and tenure as potential moderators for the relationship between age and resistance to change, since employees with high levels of autonomy in their jobs as well as lower-tenured employees may develop better SOC competencies, which in turn potentially influences the age

and resistance to change relationship. According to their study, the negative relationship between age and resistance to change was much more pronounced under conditions of short organizational tenure, whereas employees with longer organizational tenure show almost a zero relationship between age and resistance to change. Therefore, this variable could be of importance to further research in SOC/job crafting.

7.4 Directions for further research

The current study is unique due to the fact that the logistics (warehouse) environment consists of a mix of different employees (with different demographical backgrounds and cultures). This may influence the results, as suggested by Demerouti (2014). Within LSP, lots of different nationalities are currently doing the same work. Therefore, more intervention studies among samples with a variety of backgrounds could be of added value.

It may furthermore be of value to develop an enhanced understanding of the job crafting dimension 'optimizing demands', since this has been substituted for the dimension of 'reducing hindering demands' (Demerouti & Peeters, 2017). However, the current study still includes both concepts. More (intervention) studies on the 'optimizing demands' dimension could be helpful in gaining a better understanding of its usefulness/added value.

According to Hamel (2011), the need for proactive employees is growing and growing. Therefore, an intervention like this (focused on job crafting and SOC) may be a very important tool to help individuals to become better self-managers at work. The intervention itself is not specific to any work environment (although it could be tailored to the specific work context by providing examples) and may therefore be implemented in different organizations, as well as with different groups of employees. Employees can choose themselves which job demands and job resources are important/relevant for them to craft. The intervention can also be tailored to meet the unique needs of the organization, e.g. by focusing on specific resources, such as asking for feedback, or by including extra training days for more practicing and learning (Van den Heuvel, Demerouti, & Peeters, 2015). The intervention can be further developed to be used at the team-level (Van den Heuvel et al., 2015; McClelland, Leach, Clegg, & McGowan, 2014). It is recommended to implement the intervention in collaboration with participatory groups, as it helps to get support from employees and managers. Moreover, encouraging participants after the training day to participate in job crafting/SOC behaviour is important, for instance by e-mail or text messages.

Lastly, as stated before, including 'organizational tenure' as a variable in future research could be helpful and interesting.

7.5 Practical implications

Generally, within organizations there remains lot to be gained in order to satisfy the workforce, increase person-job fit and thereby enhance sustainable employability. The aid of SOC behavior in this process is new and found to be of great significance in the increase of person-job fit, increase of performance and increase of work engagement. This makes this study practically relevant to especially managers or leaders experiencing difficulty in retaining the older workforce and keeping them healthy and satisfied. By using job crafting, these managers or leaders acquire a new means to give the employees the feeling that they are valued and effort is made to accommodate their wishes, possibly resulting in higher satisfaction and fewer illness within this company. Moreover, although not currently studied, there is preliminary evidence (e.g. Van Wingerden, Bakker, et al., 2017b) that job crafting behavior may continue to occur long after an

intervention as several researchers shows that it is contagious (Bakker, Rodríguez-Muñoz, & Sanz Vergel, 2016; Peeters et al., 2016; Tims, Bakker, Derks, et al., 2013). It should be tested whether this is also the case for SOC behaviour. During the job crafting training, employees can be explained and encouraged to increase resources to adapt to increased job demands. Moreover, by optimizing their job demands through seeking more efficient ways to work and perform tasks, employees can further find a balance between their demands and resources at the task and job. Last of all, by being intrinsically motivated to increase demands, they can increase their own work engagement and motivation. This may create room for managers to put time in other tasks, as the employees are provided the skills and abilities to manage their own health and motivation (Bakker et al., 2012). Therefore, a job crafting/SOC intervention may therefore be a cost-effective tool in establishing a motivated, healthy and well-performing workforce. Moreover, this research focuses on job crafting interventions in an international setting (with a workforce from different nationalities) which is valuable since most research has focused on samples consisting only of Dutch employees.

The current study is unique due to the fact that a lot of different employees with different backgrounds and cultures are currently doing the same work. Therefore, by means of the intervention and qualitative interviews, the author has learned that, tailoring the intervention to the individual needs and abilities provides the best results. Every employee (particularly in this multinational context) has different needs which makes it valuable to provide trainings in small groups. Moreover, the author has learned that in some cases, e.g. 'optimizing demands', the scores of the control group did increase after the five weeks. Since the control group did not get a training session, this is a surprising finding. This increase in the control group could be due to the fact that older employees know very well what tasks/processes can be changed, however, they are afraid that the organization does not stimulate this. By means of the questionnaires, they see that management is concerned about these topics, which encourages them to start implementing their ideas. This was also an important outcome of the interviews: Employees have the belief that management does not stimulate changes in work routines/procedures. Therefore, often, just by explaining that they do, employees can become more proactive. Still, the intervention has resulted in several significant outcomes. However, the first step that could be of value is to show employees that change is possible. After that, the intervention of job crafting and SOC can result in favorable outcomes for both the employees and the organization.

First, this study contributes to existing literature on implementing interventions in organizations. Previous research on interventions offered only limited evidence for the effectiveness of implementing these interventions with regard to an increase in job crafting behaviour (Wingerden, Bakker, & Derks, 2016), job redesign (Holman & Axtell, 2016), and positive organizational outcomes (Meyers, van Woerkom, & Bakker, 2013). Moreover, a recent study of Gordon et al. (2018) performed a job crafting intervention in healthcare (among medical specialists). Still, the impact of job crafting interventions in different organizations is largely unknown. This study has designed an intervention that gives employees more individual control over the specific demands and resources within their work environment (job crafting) and gives them more control over the goals and targets that have to be obtained on an individual level (SOC). As to be suggested by Gordon et al. (2018), this study also extends on job redesign theory by including learning narratives. It is expected that these will add to the effectiveness of the intervention by enabling other employees to learn from each other and from their own past behaviours.

Second, this study contributes to the job crafting literature by examining the effects of job crafting on various organizational outcomes. Past studies on job crafting have suggested that proactively optimizing

one's work tasks can be beneficial for individuals and organizations, but results are mainly correlational and further information is needed to say more about the directionality of these effects (Gordon et al., 2018; Leana, Applebaum, & Shevchuk, 2009; Petrou et al., 2012; Van den Heuvel et al., 2015). This study investigates the effect of a job crafting intervention on a range of employee and organizational outcomes, including work engagement, burnout (disengagement and exhaustion), person-job fit and performance over a period of five weeks. Since participants are distributed to the experimental or control group in a random manner and there are two measurements in time (after 5 weeks the second measurement is conducted with the same questionnaire), this study provides causality. Therefore, it certainly contributes to existing job crafting literature.

Third, this study offers the first experimental test of whether a SOC intervention can be used to enhance person-job fit, work ability, work engagement, performance and burnout. Currently, literature on SOC is scarce. Little is known about SOC interventions in combination with aging employees and interventions. One study (Angerer, Herbig, Heiden, Poppe, & Müller, 2015) performed a SOC intervention in a hospital (with nurses). This study concluded that implementing a SOC training enhanced mental well-being, particularly in employees with strong commitment to the intervention. However, this study did not find any (significant) organizational outcomes. This current study focuses on individual and organizational outcomes for older warehouse workers, which makes it a valuable addition to current research. Other studies are needed to conform the hypotheses in other settings and make it generalizable to more organizations.

More specifically, this study yielded important insights and results for LSP. First and foremost, the person-job fit, work ability and performance was positively influenced. Furthermore, a qualitative task analysis (with interviews) was conducted in which special wishes from the employees were listed (e.g. additional pallet trucks that were needed). Implementing these wishes by the management could increase their satisfaction (and person-job fit) even more. Additionally, employees have been taught a skill to be able to manage their own resources and demands to deal with changes at work, e.g. changes in workload and changes in tasks. The headquarter of LSP has been acquainted with a tool to establish a engaged, sustainable employable workforce, able to manage their resources and demands bottom-up. This is particularly important as LSP is known for its dynamic environment in which workload varies per day and month. By providing the employees an adequate amount of autonomy to deal with those changes, management may be alleviated from this task, creating room for other tasks. However, management should keep the wishes of employees in getting some resources to perform their jobs well in mind, in order to create a satisfied and healthy workforce. Third and last, although the current study focused only on employees of three locations, the intervention may also be applied in other locations. This may result in gains (increased person-job fit, increase work engagement and performance) throughout the whole company. To conclude, the management should provide training sessions for job crafting/SOC once per period, while also asking (e.g. in interviews) for their wishes with regard to needed resources (that could only be implemented by the management).

7.6 Conclusion

In conclusion, the current study partly satisfies the main research objective and successfully answers the research question (‘*Can a job crafting and SOC intervention stimulate (older) people in low-skilled warehouse work to adjust their job to fit their capacities and interests in order to stay motivated and sustainable employable?’)*. The answer to this research question is “yes” since the main objective to

increase person-job fit, work ability, work engagement and task performance while decreasing burnout has been achieved (except for decreasing burnout). The significance of Job Crafting and SOC in achieving this has been theoretically argued and empirically justified. Moreover, it is concluded that although not all results were as expected, the Job Crafting/SOC intervention was a success. It has been shown that after the Job Crafting intervention, employee' person-job fit, work ability, performance and work engagement has increased. Only, employees did not experience a decrease in burnout after the intervention. However, plausible explanations have been provided for this e.g. there was less room for improvement for the experimental group, a higher workload at T2 compared to T1 and the experimental group filled out the questionnaire some days earlier compared to the control group). However, overall, this again stresses the importance of this intervention to achieve a satisfied, motivated and sustainable employable workforce.

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Appendix contents

Appendix A: Overview interventions

Wingerden, Bakker, & Derks (2017)	• Increase in work engagement • Increase in basic need satisfaction
van den Heuvel, Demerouti, & Peeters (2015)	• Increase in self-efficacy • Increase in well-being • Increase in leader-member exchange
Wingerden, Bakker, & Derks (2017)	• Increase in job crafting behaviour (2 weeks and 1 years after intervention) • Decrease in hindering job demands and increase in challenging job demands (2 weeks after intervention) • Increase in structural job resources and decrease in hindering job demands (1 year after intervention) • Effects on feedback, opportunities for self-development and self-efficacy (1 years after intervention) • Effect on in-role performance (1 year after intervention)
Wingerden, Bakker, & Derks (2017)	• Increase job crafting behaviour • Improved in-role performance
Wingerden, Bakker, & Derks (2014)	• Increase work engagement • Improved in-role performance
Wingerden, Derks, Bakker, & Dorenbosch (2013)	• 80% were able to craft their jobs • Less work pressure
Gordon, Demerouti, Le Blanc, Bakker, Bipp, & Verhagen (2018)	• Personal and organizational benefits • Partial support increase in well-being
Kooij, van Woerkom, Wilkenloh, Dorenbosch, & Denissen (2017)	• Job crafting interested positively related to person-job fit • Increase in job crafting strengths
Sakuraya, Shimazu, Imamura, Namba, & Kawakami (2016)	• Increase work engagement • Decrease psychological distress • Improved job crafting behavior (cognitive part)

Appendix B: PowerPoint presentation of training

Even voorstellen

- Karlijn van den Dungen – 23 jaar
- Student Master: Operations Management & Logistics (TU/e)
- 5 maanden stage
- Ik richt me op alle 45+ werknemers in de warehouses.

Wat gaan we doen?

1. Vragenlijst I
2. Training
3. Follow-up bijeenkomst
4. Vragenlijst II
5. Aanbevelingen voor management

Waarom 45+ werknemers?

- Mentale en fysieke belastbaarheid wordt minder
  - ➢ Toch moeten jullie nog langer doorwerken
  - ➢ Kunnen we hier een oplossing voor verzinnen?

Problemen in kaart brengen

- Kijk samen met je (oudere) collega's wat nodig is om je werk goed vol te kunnen blijven houden tot je pensioen
- Zorg dat je tevreden blijft met het werk dat je doet

- ➢ Je taken zullen niet veranderen.
- ➢ Je werk kan wel anders, fijner aanvoelen als het beter gaat.

Aan de slag

Probeer de vragen in het boekje te beantwoorden. Bedenk een situatie tijdens je werk…

- … waar je energie van kreeg/wat je leuk vindt
- … wat je energie kostte/wat je niet leuk vindt
- … waarvan je geleerd hebt om makkelijker/effectiever te werken.

Bedenk alleen dingen waar je zelf invloed op kan hebben.

Aanpassen van je werk (job crafting)

1. Werkhulpbronnen zoeken
2. Taakeisen verlagen
3. Taakeisen optimaliseren
4. Uitdagingen zoeken

Ik zal een paar voorbeelden geven..

Doelen

Het doel van deze training: zelf de regie nemen op je werk

- Aanknopingspunt: werkanalyse
  - In kaart gebracht wat fijn is > wat werkt goed
  - Wat minder fijn is > wat werkt minder goed
  - Hoe je makkelijker/effectiever kan werken
- Nu: doelen stellen en actieplan maken!

Werkhulpbronnen: Welke middelen heb ik tot mijn beschikking?

Analyse: "Ik wil meer/betere hulpmiddelen om mijn zware werk beter te kunnen uitvoeren".

Werkhulpbronnen: Welke middelen heb ik tot mijn beschikking?

Doel: "Ik wil de komende week 10 minuten zelf proactief na te denken over (mogelijke) hulpmiddelen."

Werkhulpbronnen: Welke middelen heb ik tot mijn beschikking?

Actie: "Zodra ik 1 of 2 ideeën heb waardoor ik mijn werk beter zou kunnen uitvoeren, vertel ze tegen mijn teamleader".

Uitdagingen: Hoe kan ik mezelf ontwikkelen?

Analyse: "Ik wil graag meer contact met andere mensen uit de organisatie."

Uitdagingen: Hoe kan ik mezelf ontwikkelen?

Doel: "Ik wil minstens 1x in de maand andere werknemers helpen het werk goed uit te voeren." OF "Ik wil een betere band creeëren met minstens 2 naaste collega's".

Uitdagingen: Hoe kan ik mezelf ontwikkelen?

Actie: "Ik bied me 2x per maand aan om jonge mensen te begeleiden tijdens de eerste fases van hun werk, om ze de benodigde kennis en vaardigheden bij de brengen." OF "Ik spreek af dat elke woensdag ik of één van mijn collega's iets lekkers meeneemt in de pauze".

Taakeisen optimaliseren: Hoe kan het slimmer?

Analyse: "Ik wil graag zo efficient mogelijk werken."

Taakeisen optimaliseren: Hoe kan het slimmer?

Doel: "Ik wil elke keer als er iets kapot gaat of niet werkt meteen actie ondernemen."

Taakeisen optimaliseren: Hoe kan het slimmer?

Actie: "Je bent bezig met werken en beseft opeens dat je hulpmiddel kapot is. Dit wist je al maar je was vergeten dit door te geven en op te volgen. Nu moet je werken met een ander hulpmiddel, waardoor het langer duurt. Door alles meteen op te pakken voorkom je dit."

SOC

Nu zijn er ook nog andere manieren om je werk beter bij jou aan te laten sluiten.

- Jullie hebben een baan waarbij je vooral fysiek werk moet doen. Hoe ervaren jullie dat? Denk je dat je dit tot je pensioenleeftijd vol kunt blijven houden?

SOC (Selection, Optimization, Compensation)

Merken jullie een verschil in wat je fysiek kunt met bijvoorbeeld 10 jaar geleden? En wat doe je daarmee?

Wat kunnen jullie doen?

1. Concentreer je op een paar doelen per dag in plaats van teveel tegelijk te willen.
2. Als je problemen ervaart bij de uitvoering van je werk, vraag dan om hulp bij je leidinggevende.
3. Als je een bepaald onderdeel van je werk heel belangrijk vindt en daar veel voldoening uit haalt, bespreek dan de mogelijkheden om daar meer tijd aan te kunnen besteden.
4. Als iets niet gaat zoals je wilt, probeer dan een andere manier te vinden om het werk uit te voeren.

Welk doel zou jij willen gebruiken?

En nu?

Komende 4 weken iedere week 1 doel nastreven:

- Week 1: Werkhulpbronnen verhogen
- Week 2: Taakeisen verlagen
- Week 3: Taakeisen optimaliseren
- Week 4: Uitdaging zoeken
- Week 5: SOC

Samenvatting

- Probeer je doelen de komende 5 weken na te streven.
- Neem zelf initiatief, en zorg dat je je werk zo optimaal mogelijk kunt blijven uitvoeren. Maak het bespreekbaar!
- Mocht je vastlopen, neem contact met me op!
  - karlijnvddungen@hotmail.com

Appendix C: Questionnaire pre- and post-intervention (T1 & T2)

Beste deelnemer,

Vorige maand ben ik gestart met mijn stage van 5 maanden bij de internationale logistieke dienstverlener! Ik studeer Operations Management and Logistics aan de Technische Universiteit van Eindhoven en ga me de komende maanden bezighouden met duurzame inzetbaarheid (onder leiding van Irene Laieb – Vrijhof). Het doel is om een een goed beeld te krijgen van de werkzaamheden die jullie moeten verrichten en te kijken wat als belastend wordt ervaren. Ik hoop dat ik jullie uiteindelijk kan helpen met persoonlijke oplossingen waardoor het werk van jullie allemaal leuker/uitdagender en beter te doen is. Ik hoop dat jullie de vragenlijst zo eerlijk mogelijk invullen, want ik ben de enige die de resultaten van de vragenlijst gaat bekijken/analyseren. De vragenlijst neemt ongeveer 10 minuten in beslag. Er zijn geen goede of fouten antwoorden. De antwoorden die u heeft gegeven zullen vertrouwelijk worden behandeld en de verwerking en rapportage van de gegevens zal zodanig gebeuren dat, wanneer u geen persoonlijke terugkoppeling wenst, de resultaten niet te herleiden zijn tot individuele deelnemers aan het onderzoek.

Alvast hartelijk dank voor uw deelname!

Met vriendelijke groet,
Karlijn van den Dungen

Het invoeren van deze code is nodig om een persoonlijke terugkoppeling te kunnen geven, zonder dat de anonieme behandeling van de gegevens van deelnemers die geen persoonlijke terugkoppeling wensen geschaad wordt.

CODE1	De tweede letter van de voornaam van uw moeder (bijvoorbeeld de letter I bij Liesbeth)	
CODE2	De tweede letter van de voornaam van uw vader (bijvoorbeeld de letter E bij Peter)	
CODE3	De tweede letter van uw geboorteplaats (bijvoorbeeld de letter I bij Eindhoven)	
CODE4	De derde letter van de maand van uw verjaardag (bijvoorbeeld de letter I bij mei)	
CODE5	De laatste letter van de voornaam van uw oma (de moeder van uw moeder) (bijvoorbeeld de letter A bij Helma)	

Wat is uw geslacht?

❍ Man

❍ Vrouw

Wat is uw leeftijd?

.....

Heeft u leidinggevende taken?

❍ Ja

❍ Nee

Job demands

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Het werk vereist veel spieruithoudingsvermogen	1	2	3	4	5
Het werk vereist veel spierkracht	1	2	3	4	5
Het werk vereist veel fysieke inspanning	1	2	3	4	5
De baan vereist veel psychologische inspanning	1	2	3	4	5
Ik heb genoeg tijd om mijn werk te doen	1	2	3	4	5
Tijdens mijn werk maak ik gebruik van complexe apparatuur of technologie	1	2	3	4	5
De zitplaatsen op het werk zijn voldoende (bijvoorbeeld voldoende zitmogelijkheden, comfortabele stoelen en goede houdingsondersteuning)	1	2	3	4	5

Job resources

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Ik heb de mogelijkheid om hechte vriendschappen te sluiten in mijn werk	1	2	3	4	5
Mijn leidinggevende maakt zich zorgen over het welzijn van de mensen die voor hem / haar werken	1	2	3	4	5
Mensen met wie ik werk, zijn geinteresseerd in mij.	1	2	3	4	5
Anderen in de organisatie geven informatie over de effectiviteit van mijn werkprestaties.	1	2	3	4	5
Ik ontvang feedback over mijn prestaties van andere mensen in mijn organisatie.	1	2	3	4	5
Het werk zelf geeft me informatie over mijn prestaties.	1	2	3	4	5
Op mijn werk kan ik mijn eigen beslissingen nemen over het plannen en uitvoeren van mijn werk.	1	2	3	4	5
Met dit werk kan ik zelf bepalen hoe ik mijn werk ga uitvoeren.	1	2	3	4	5
De baan geeft me een kans om mijn persoonlijk initiatief of ideeën te gebruiken bij het uitvoeren van het werk	1	2	3	4	5

Fit

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Er zit een goede aansluiting tussen wat mijn baan mij biedt en waar ik naar op zoek ben in een baan.	1	2	3	4	5
De kenmerken waar ik naar op zoek ben in een baan worden zeer goed vervuld door mijn huidige baan	1	2	3	4	5
Het werk wat ik op dit moment doe, geeft mij zowat alles wat ik wil van een baan	1	2	3	4	5
De match is erg goed tussen de eisen van mijn werk en mijn persoonlijke vaardigheden.	1	2	3	4	5
Mijn vaardigheden en de training passen goed bij de vereisten van mijn werk.	1	2	3	4	5
Mijn persoonlijke vaardigheden en opleiding komen goed overeen met de eisen die mijn baan aan mij stelt	1	2	3	4	5

Werkvermogen

Omcirkel in hoeverre je momenteel in staat bent om te werken? 0 = helemaal niet, 10 = optimaal

0	1	2	3	4	5	6	7	8	9	10

	Heel slecht	Slecht	Matig	Goed	Heel goed
In hoeverre is je huidige werkvermogen voldoende voor de fysieke vereisten van je werk?	1	2	3	4	5
In hoeverre is je huidige werkvermogen voldoende voor de mentale vereisten van je werk?	1	2	3	4	5

	Onwaarschijnlijk	Niet zeker	Vrij zeker
Denk je, als je kijkt naar je huidige gezondheid, dat je in staat bent om de komende 2 jaar je huidige werk uit te blijven voeren?	1	2	3

	Vaak	Vrij vaak	Soms	Vrij zelden	Nooit
Als je kijkt naar de komende drie maanden: Denk je dat je dagelijkse activiteiten (zowel werk als privé) kunt gaan genieten?	1	2	3	4	5
Als je kijkt naar de komende drie maanden: Verwacht je veel actief te zijn?	1	2	3	4	5
Als je kijkt naar de komende drie maanden: Verwacht je alert te zijn?	1	2	3	4	5
Hoe vaak kijk je positief naar de toekomst?	1	2	3	4	5

Vormt je huidige gezondheid een belemmering bij het uitvoeren van je huidige werk?
(Vink meerdere opties aan indien van toepassing)

☐ Er is geen belemmering.
☐ Ik kan mijn werk doen, maar ik heb last van enkele symptomen aangaande mijn gezondheid.
☐ Door mijn gezondheid voer ik mijn werk soms trager uit of pas ik soms mijn werkmethodes aan.
☐ Door mijn gezondheid voer ik mijn werk vaak trager uit of pas ik soms mijn werkmethodes aan.
☐ Door mijn gezondheid kan ik enkel deeltijds werken.
☐ Ik ben helemaal niet in staat om te werken.

Hoeveel werkdagen ben je gedurende het afgelopen jaar (12 maanden) afwezig geweest ten gevolge van ziekte?

- ❍ Geen
- ❍ Max. 9 dagen
- ❍ 10 - 24 dagen
- ❍ 25 - 99 dagen
- ❍ 100 - 365 dagen

Burnout (disengagement, exhaustion)

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Er zijn dagen dat ik me moe voel voordat ik op mijn werk aankom.	1	2	3	4	5
Na het werk heb ik meer tijd nodig dan in het verleden om te ontspannen en me beter te voelen.	1	2	3	4	5
Ik kan de druk van mijn werk heel goed verdragen.	1	2	3	4	5
Tijdens mijn werk voel ik me vaak emotioneel uitgeput.	1	2	3	4	5
Na het werken heb ik genoeg energie voor mijn vrijetijdsbesteding.	1	2	3	4	5
Na mijn werk voel ik me meestal uitgeput en vermoeid.	1	2	3	4	5
Meestal kan ik de hoeveelheid van mijn werk goed beheren	1	2	3	4	5
Ik vind altijd nieuwe en interessante aspecten van mijn werk.	1	2	3	4	5
Het gebeurt steeds vaker dat ik op een negatieve manier over mijn werk praat.	1	2	3	4	5
De laatste tijd denk ik minder na over mijn werk en doe ik mijn werk bijna op de automatische piloot.	1	2	3	4	5
Ik vind dat mijn werk een positieve uitdaging is.	1	2	3	4	5
Later kan ik mezelf losgekoppeld voelen van dit type werk.	1	2	3	4	5
Soms walg ik van mijn werktaken.	1	2	3	4	5
Dit is het enige werk wat ik mezelf zie doen.	1	2	3	4	5
Ik voel me meer en meer betrokken bij mijn werk.	1	2	3	4	5

Work engagement

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Op mijn werk barst ik van de energie.	1	2	3	4	5
Op mijn werk voel ik me sterk en krachtig.	1	2	3	4	5
Ik ben enthousiast over mijn baan	1	2	3	4	5
Mijn baan inspireert me	1	2	3	4	5
Als ik 's morgens opsta, heb ik zin om naar het werk te gaan	1	2	3	4	5
Ik voel me gelukkig als ik intens hard werk	1	2	3	4	5
Ik ben trots op het werk dat ik doe	1	2	3	4	5
Ik ben ondergedompeld in mijn werk	1	2	3	4	5
Ik word meegesleept als ik aan het werk ben	1	2	3	4	5
Over het algemeen ben ik tevreden over mijn baan	1	2	3	4	5
Ik denk er vaak aan om te stoppen met werken	1	2	3	4	5

Performance

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Ik voldoe aan alle werk-vereisten van mijn werk	1	2	3	4	5
Ik presteer goed in mijn baan door taken uit te voeren zoals ze verwacht worden van mij.	1	2	3	4	5
Ik ben bekwaam op alle gebieden van mijn werk, ik kan alle taken goed uitvoeren en afhandelen.	1	2	3	4	5
Mijn aanwezigheid op het werk is boven de norm.	1	2	3	4	5
Ik volg de informele regels die zijn opgesteld om de orde te handhaven.	1	2	3	4	5
Ik heb het gevoel dat ik geschikt lijkt voor een rol van een hoger niveau.	1	2	3	4	5

Job crafting

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Ik vraag om meer taken als ik mijn werk heb afgerond.	1	2	3	4	5
Ik vraag om meer verantwoordelijkheden.	1	2	3	4	5
Ik vraag om meer taken.	1	2	3	4	5
heb ik ervoor gezorgd dat ik minder emotioneel inspannend werk hoefde te verrichten.	1	2	3	4	5
heb ik ervoor gezorgd dat ik minder geestelijk inspannend werk hoefde te verrichten.	1	2	3	4	5
heb ik ervoor gezorgd dat ik minder fysiek zwaar werk hoefde te verrichten.	1	2	3	4	5
heb ik anderen gevraagd om feedback te geven over mijn functioneren.	1	2	3	4	5
heb ik collega's om advies gevraagd.	1	2	3	4	5
heb ik mijn leidinggevende om advies gevraagd.	1	2	3	4	5
Ik vereenvoudig werkprocessen of procedures om mijn werk gemakkelijker te maken	1	2	3	4	5
Ik bedenk oplossingen om mijn werk op een eenvoudigere manier te volbrengen	1	2	3	4	5
Ik verbeter de werkprocessen of procedures om mijn werk eenvoudiger maken.	1	2	3	4	5
Ik verbeter de werkprocessen of procedures om mijn werk eenvoudiger maken	1	2	3	4	5
Ik verander werkprocessen of procedures die mijn werk vertragen.	1	2	3	4	5

Per regel wordt een stelling gepresenteerd die persoon A en persoon B beschrijft. Omcirkel voor elke regel of persoon A of persoon B u beter omschrijft.

Persoon A:			Persoon B:
Ik concentreer al mijn energie op een paar dingen.	A	B	Ik verdeel mijn energie over veel verschillende dingen.
Ik focus altijd op het enige belangrijkste doel op een bepaald moment.	A	B	Ik ben altijd bezig met verschillende doelen tegelijkertijd.
Als ik nadenk over wat ik wil in het leven, concentreer ik mezelf op een of twee belangrijke doelen.	A	B	Zelfs als ik echt nadenk over wat ik wil in het leven, wacht ik af wat er gebeurt in plaats van me te verbinden aan slechts een of twee specifieke doelen.
Als dingen niet zo goed gaan als voorheen, kies ik een of twee belangrijke doelen.	A	B	Als de dingen niet zo goed gaan als voorheen, probeer ik toch al mijn doelen te houden.
Als ik iets belangrijks niet kan doen zoals ik dat eerder deed, zoek ik een nieuw doel.	A	B	Als ik iets belangrijks niet kan doen zoals ik dat eerder deed, deel ik mijn tijd en energie onder vele andere dingen.
Als ik iets niet zo goed meer kan doen als vroeger, denk ik wat nou echt belangrijk voor mij is.	A	B	Als ik iets niet zo goed meer kan doen als vroeger, wacht ik af en kijk wel wat er komt.
Ik blijf werken aan wat ik heb gepland tot ik slaag.	A	B	Als ik niet meteen slaag in wat ik wil doen, probeer ik niet lang andere mogelijkheden.
Ik doe er alles aan om een bepaald doel te bereiken.	A	B	Ik wacht liever een tijdje en kijk of de dingen vanzelf goedkomen.
Als iets belangrijk voor me is, dan wijd ik mezelf er volledig aan.	A	B	Zelfs als iets belangrijk voor me is, kan ik me er nog steeds niet volledig mee bezighouden.
Als dingen niet zo goed gaan als vroeger, blijf ik andere manieren proberen totdat ik hetzelfde resultaat kan bereiken als vroeger.	A	B	Als dingen niet zo goed gaan als vroeger, accepteer ik het.
Als iets in mijn leven niet zo goed gaat als vroeger, vraag ik anderen om advies of hulp.	A	B	Als iets in mijn leven niet zo goed gaat als vroeger, besluit ik zelf wat ik eraan moet doen, zonder andere mensen te betrekken.
Als het moeilijk voor me wordt om dezelfde resultaten te krijgen als vroeger, blijf ik harder proberen totdat ik het net zo goed kan als daarvoor.	A	B	Als het moeilijk voor me wordt om dezelfde resultaten te krijgen als vroeger, is het tijd om die verwachting los te laten.

Appendix D: Hand-out booklet

Training Job Crafting – LSP

Karlijn van den Dungen – kvandendungen@ups.com

2019

Introductie

Dit document is bedoeld als een werkboekje om doelstellingen te formuleren naar aanleiding van de training die ze hebben gehad. De methode die hiervoor wordt gebruikt is 'job crafting'. Dat houdt in dat je zelf kijkt naar de mogelijkheden die er zijn om je functie zo optimaal mogelijk uit te kunnen voeren. Daarbij houd je rekening met je eigen competenties, sterktes en behoeftes en ook hoe je je werk goed vol kunt houden tot aan je pensioen.

Kenmerken job crafting

Het zelf of samen met collega's optimaliseren van je eigen werk door kleine concrete aanpassingen aan te brengen.

Je werk zo goed mogelijk aan laten sluiten op je persoonlijke behoeftes, sterke kanten, interesses en fysieke en/of cognitieve capaciteiten.

Dit alles met oog voor de doelstellingen van de organisatie en zonder collega's, klanten, etc te benadelen.

Voorbeelden job crafting

Hulpbronnen verhogen	Taakeisen optimaliseren	Uitdagingen verhogen
✓ Feedback zoeken ✓ Samenwerken met een collega ✓ Afwisselen van werktaken ✓ Aankleding werkplek ✓ Iets lekkers voor elkaar meenemen in de pauze: betere band opbouwen met collega's	✓ Taken versimpelen ✓ Effectief werken/planning maken ✓ Heldere afspraken maken ✓ Rustige ruimte zoeken om bij te komen	✓ Talenten en interesses inzetten (jongere werknemers helpen) ✓ Deelnemen aan het workshops

SOC

Naast job crafting, is SOC een andere methode om het werk aan te passen.

SOC (Selection, Optimization, Compensation) wordt veel gebruikt naarmate je langer in je werk zit en langdurige fysieke of mentale klachten krijgt. Naarmate je ouder wordt, kun je een verlies in gezondheid oppakken met een van de volgende strategieën:

1. Je energie concentreren op een paar doelen per dag in plaats van veel verschillende doelen stellen.
2. Als je een bepaalde taak/doel niet meer kan uitvoeren door problemen, vraag naar de mogelijkheden voor andere taken bij je manager.
3. Als iets heel belangrijk voor je is, kun je ervoor kiezen alles te geven om deze taak dan goed uit te voeren, en dan heel vel voldoening te voelen.
4. Als iets niet gaat zoals je wilt, probeer je andere manieren te vinden om hetzelfde uit te voeren.

En dan nu over naar het werkplan, die begint op de volgende pagina…

Werkanalyse

Situatie waar ik energie van kreeg/die ik fijn vond en graag meer van zou willen ervaren..

Situatie die energie kostte/die ik niet fijn vond en graag zou willen verbeteren..

Situatie waar ik zelf invloed op had zodat ik mijn werk makkelijker/effectiever kon maken..

Wanneer jullie fysieke/mentale vermindering voelen, wat doen jullie dan?

Doelen stellen

Nu gaan we de voorafgaande analyses koppelen aan doelen en acties. We gaan proberen om de werkanalyse van het eerste deel te gebruiken om richting te geven aan het job craften: verhogen van hulpbronnen, optimaliseren van taakeisen en uitdagingen vergroten. We gaan doelen formuleren, maar deze moeten voldoen aan een paar eisen (SMART):

- Specifiek (precies geformuleerd)
- Meetbaar (wanneer heb je je doel bereikt?)
- Aangrijpen (je moet 100% erachter staan)
- Realistisch (doel moet haalbaar zijn)
- Tijdsgebonden (Wanneer ga je het doen?)

Je gaat per week 1 doel proberen te bereiken. De weken zijn als volgt ingedeeld:

Week	**Focus**
1	Verhogen van werkhulpbronnen
2	Optimaliseren van taakeisen
3	Uitdagingen vergroten
4	Taakeisen verminderen
5	SOC-doelen

Week 1: Verhogen van werkhulpbronnen

In week 1 wil ik de volgende doelen nastreven..

Hieraan koppel ik de volgende acties..

Week 2: Taakeisen verminderen

In week 2 wil ik de volgende doelen nastreven..

Hieraan koppel ik de volgende acties..

Week 3: Optimaliseren van taakeisen

In week 3 wil ik de volgende doelen nastreven..

Hieraan koppel ik de volgende acties..

Week 4: Uitdagingen zoeken

In week 4 wil ik de volgende doelen nastreven..

Hieraan koppel ik de volgende acties..

Week 5: SOC-doelen

In week 5 wil ik de volgende SOC-doelen nastreven (1/m 4 – zie slides) met de volgende actie:

Appendix E: Presentation of the training at T2 (Evaluation session)

Even voorstellen

- Karlijn van den Dungen – 23 jaar
- Student Master: Operations Management & Logistics (TU/e)
- 5 maanden stage
- Ik richt me op alle 45+ werknemers in de warehouses.

Wat gaan we doen?

1. Vragenlijst I
2. Training
3. Evaluatie bijeenkomst
4. Vragenlijst II
5. Aanbevelingen voor management

Waarom 45+ werknemers?

- Mentale en fysieke belastbaarheid wordt minder
  - Toch moeten jullie nog langer doorwerken
  - Kunnen we hier een oplossing voor verzinnen?
  - Hoe hebben jullie de training ervaren?

Problemen in kaart brengen

Wat is er kwalitatief uit gekomen?

Analyse: "Ik wil meer/betere hulpmiddelen om mijn zware werk beter te kunnen uitvoeren".

Wat is er kwalitatief uit gekomen?

Analyse: "Ik wil meer waardering van anderen in de organisatie".

Wat is er kwalitatief uit gekomen?

Analyse: "Ik wil graag zo efficiënt mogelijk werken."

Wat is er kwalitatief uit gekomen?

Analyse: "Ik wil op de juiste manier beoordeeld worden."

Wat gaan we nu doen?

Actie voor jullie: "Je bent bezig met werken en beseft opeens dat je hulpmiddel kapot is. Dit wist je al maar je was vergeten dit door te geven en op te volgen. Nu moet je werken met een ander hulpmiddel, waardoor het langer duurt. Door alles meteen op te pakken voorkom je dit."

Wat gaan we nu doen?

Actie voor jullie: "Geef elkaar complimenten en waardering".

Wat gaan we nu doen?

Actie voor jullie: "Ga zelf op zoek naar hulpmiddelen die jou zelf zouden kunnen helpen met het uitvoeren van je werk".

Wat gaan we nu doen?

Actie voor het management: "Geef gehoor aan de wensen van de werknemers".

Wat gaan we nu doen?

Actie voor het management: "Denk zelf mee met hulpmiddelen en kijk op de werkvloer wat er nodig is om werknemers langer in dienst te houden."

Wat gaan we nu doen?

Actie voor het management: "Geef medewerkers waardering en probeer persoonlijk naar de mensen te kijken. Deel successen ook binnen de organisatie".

Wat heb ik ermee gedaan?

- Tot nu toe nog veel bezig met data analyse.
- Echter heb ik alle suggesties wel besproken in de HR-meeting.
- Na afloop van mijn onderzoek zal ik een rapport uitbrengen naar het management met alle aanbevelingen en suggesties die ik van jullie per locatie heb gekregen.

- Ik wil jullie heel erg bedanken voor de inzet!
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