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The Effect of the Work Environment on Workplace Wellbeing - Research at a Youth Centre

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The Effect of the Work Environment on Workplace Wellbeing - Research at a Youth Centre

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The purpose of this Bachelor's thesis is to research the effect of the work environment on workplace wellbeing. The workplace studied in this research is a Youth Centre in Helsinki, which received a renovation in 2015. The study focuses on the effect of the changes in the working environment for the youth centre employees as well as the effect of the renovation process on the employees' wellbeing and on the operation of the youth centre. The research method used is a qualitative research, conducted with two questionnaires and an interview session.

The new interior design of the youth centre is based on the Stress Free Area® -concept, which is a wellbeing innovation created by Margit Sjöroos. The theoretical part of this thesis explains the Stress Free Area® -concept, workplace wellbeing as a current topic, different elements of the work environment and the research methodology of this thesis.

The aim of the questionnaires was to find out about the stress factors of the work environment, the behavior of the users and how the employees feel about the renovation. The first questionnaire was given to the youth centre employees before the renovation. The second questionnaire was aimed to be given after the renovation, but due to the renovation being delayed, the second questionnaire was answered when the renovation was still in progress. To obtain more information, a final interview was held after the renovation was finished. The interview was semi-structured and was held face to face with employees at the youth centre. The results from the questionnaires and interview are compared and analyzed to find out what effect the renovation and changes in the work environment have had on the employees' workplace wellbeing.

The results of the questionnaire and interview answers show that the renovation was a major stress factor for the employees. Due to the renovation being delayed, the employees had additional stress at the workplace. However, the renovation was necessary and provided the workplace with improved spaces and equipment, which makes the work more manageable and pleasant. Based on the results of the research and an interview with designer Margit Sjöroos, a chapter about advice for managing a renovation is included in this thesis. This information can be useful to improve workplace wellbeing in similar projects in the future.

Keywords Workplace wellbeing, work environment, interior design, renovation

Fehér, Hanna

Työympäristön vaikutus työhyvinvointiin - tutkimus nuorisotalossa

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Tämän opinnäytetyön tarkoitus on tutkia työympäristön vaikutusta työhyvinvointiin. Tutkittu työympäristö on nuorisotalo Helsingissä, jonne tehtiin remontti vuonna 2015. Tutkimus kohdistuu vaikutuksiin, joita työympäristön muutoksilla oli nuorisotalon työntekijöihin sekä remontin vaikutuksesta työntekijöiden hyvinvointiin ja nuorisotalon toimintaan. Tutkimusmenetelmänä on laadullinen tutkimus, joka toteutettiin kahdella kyselyllä ja yhdellä haastattelusessioilla.

Nuorisotalon uusi sisustussuunnittelu perustuu Stress Free Area® -konseptiin, joka on Margit Sjöroosin kehittämä hyvinvointi-innovaatio. Opinnäytetyön teoreettinen osuus kertoo Stress Free Area® -konseptista, työhyvinvoinnista ajankohtaisena aiheena, työympäristön eri osatekijöistä sekä opinnäytetyön tutkimusmenetelmistä.

Kyselyiden tavoitteena oli saada tietoa työympäristön stressitekijöistä, nuorisotalon käyttäjien käyttäytymisestä sekä siitä, mitä mieltä työntekijät ovat remontista. Ensimmäinen kysely annettiin nuorisotalon työntekijöille ennen remonttia. Toinen kysely oli tarkoitus antaa remontin jälkeen, mutta remontin viivästyksestä johtuen toiseen kyselyyn vastattiin silloin kun remontti oli vielä kesken. Lisätiedon saamiseksi pidettiin haastattelusessio remontin valmistuttua. Haastattelu oli puolistrukturoitu ja se pidettiin kasvotusten työntekijöiden kanssa nuorisotalolla. Kyselyiden ja haastattelun tuloksia verrataan ja analysoidaan selvittääkseen mitä vaikutuksia remontilla sekä työympäristön muutoksilla on ollut työntekijöiden työhyvinvointiin.

Kyselyiden ja haastattelun vastausten tulokset osoittavat, että remontti oli merkittävä stressitekijä työntekijöille. Remontin viivästyksestä johtuen työntekijöille koitui ylimääräistä stressiä työpaikalla. Remontti oli joka tapauksessa tarpeellinen ja toi työpaikalle parannetut tilat ja laitteet, mikä helpottaa työntekoa ja tekee siitä miellyttävämpää. Tähän opinnäytetyöhön sisältyy myös tämän tutkimuksen tuloksiin ja suunnittelija Margit Sjöroosin haastatteluun perustuva kappale remontin toteuttamiseen liittyvistä neuvoista. Tätä tietoa voidaan käyttää hyödyksi työhyvinvoinnin kehittämiseksi vastaavanlaisissa projekteissa jatkossa.

Avainsanat Työhyvinvointi, työympäristö, sisustussuunnittelu, remontti

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1 Introduction

Facility Management is a broad field and interior design is a part of every facility. The interior design has many effects, starting with the first impression a person gets when entering the facility and influencing the whole experience when being inside the facility. Factors such as the colours, lighting and acoustics of the space influence people in various ways which can be either positive or negative. This is why the importance of interior design should not be underestimated. Modern facilities should aim to provide the best environments possible. The interior design also has an effect on the workplace wellbeing, which can be improved with the right elements.

The purpose of this thesis is to research the effects of the work environment on the workplace wellbeing. The workplace where the research is made is a Youth Centre in Helsinki, which was renovated in 2015 with a new design based on The Stress Free Area® -concept. The Stress Free Area® -concept is a wellbeing innovation created by Margit Sjöroos. The concept is used in the interior design of numerous locations and projects of Margit Sjöroos's company Conbalance Oy. The youth centre is used by different groups varying in age, including youth aged 9-18, children, elderly people and different hobby groups.

In this thesis, a qualitative research is conducted to study the influences of the work environment on the workplace wellbeing. The study focuses on the changes in the working environment for the youth centre employees, the effect of the renovation on the employees' wellbeing and the operation of the youth centre, as well as the changes concerning the behavior of the users (in this case the main users which are the youth, aged 9-18). The main research questions are: have the changes in the working environment improved the workplace wellbeing of the employees? Also, what effect does the renovation process have on the work environment and workplace wellbeing? Could the renovation have been handled in the different way, to decrease the stress factors it causes? Making a research about the effects and changes of the new design of the facility can give valuable information of the benefits of this kind of environment both as a working place for the staff and as a social facility for different user groups. A chapter about advice concerning renovation processes is written based on an interview with the designer Margit Sjöroos, which can be used for future projects.

The research was conducted by giving the Youth Centre staff two questionnaires, one before the renovation and the second one during the renovation process. Also, a final interview session was held when the renovation was finished. The theory of the report focuses on workplace wellbeing as a current issue and the factors of multisensory interior design, for example how different colours affect the moods of people.

2 Workplace wellbeing

Wellbeing at work is a current topic and the benefits of investing in workplace wellbeing have been noted in the society. Factors preventing workplace wellbeing include constant stress, feeling of not being valued as well as leadership being rigidly hierarchical. According to Professor Guy Ahonen, mental ill-health at workplace costs 21 billion Euros per year, which is an enormous loss money-wise as well as in human suffering. According to the Institute of Occupational Health in Finland, the calculated profit from investing in workplace wellbeing is six times compared to the investment spent. Marjatta Jabe, the author of the book “The Workbook of Workplace Wellbeing”, says that “Workplace wellbeing means having joy of life and a feeling of significance and control. The personnel’s wellbeing and their work results are improved by the same means.” Investing in workplace wellbeing also gives the company a good image, attracting valuable workers. (Jabe 2012, 6)

There is no shortcut to workplace wellbeing, but it has to be achieved by determined work. Workplace wellbeing includes the policies, processes, work arrangements, safety, cooperation, communication, occupational healthcare, expertise, leadership and management of the organization. (Jabe 2012, 9) Other key functions include projects and lectures promoting health and wellbeing, culture and recreational activities, wellbeing measurement and monitoring as well as the working conditions. (Jabe 2012, 19) Marjatta Jabe states in her book that it is important realize that “The work spaces, working environment and working conditions have a major impact on the wellbeing and safety.” It is important to consider when it becomes necessary to improve these conditions. (Jabe 2012, 133) The working environment should provide a good atmosphere for everyday work, inspire and supports the company’s operation. (Jabe 2012, 134)

Workplace wellbeing should be considered as a competitive advantage, not just as a misunderstood cliché. Providing a good working life is what positions the organization for success on the long run. According to the Institution of Occupational Health in Finland, the definition of workplace wellbeing is: “The work is meaningful and smooth in a safe, health promoting and career supportive working environment and work community.” Workplace wellbeing also means the wellbeing and state of alertness of the individual as well as the work community. Above all it is the ongoing development of the work community into a direction where everyone has the chance to experience enjoyment of work and feelings of success. (Kehusmaa 2011, 14)

Part of the overall workplace wellbeing is insuring proper working conditions, which can be considered to be the core of workplace wellbeing. These proper conditions are achieved when the basic requirements of the workplace are fulfilled, meaning that the working conditions

are safe and the work does not pose a threat on the health of the worker. Also, the workload should be at an appropriate level and the working equipment and tools functional. (Kehusmaa 2011, 112)

3 Work environment

Significant factors influencing the work environment include physical aspects such as the colours of the space, lighting, acoustics, carpeting and plants. This chapter describes the effects they have in a space, and how they can be used to improve the work environment.

3.1 Colours

It is a scientifically proven fact that colours are either directly or indirectly relevant to humans' health. The psychological effect that colours have is unexpectedly significant. According to Seppo Rihlama in his book "Lighting and Colour in Interior Design", the farther away the workplace or home is from direct contact to nature, the more important it is to use colours to fill the void this creates. (Rihlama 2000, 50) The effect of working in a space that has poor colouring and lighting is usually indirect and subconscious. However, it can cause symptoms such as headache, fatigue, loss of appetite, loss of interest in work, nervousness and eye illnesses. Many factors should be considered in the colour design, such as the activity which happens in the space, the amount of time spent in the space, the amount of light needed, the height and shape of the space and the interior design, among many others. (Rihlama 2000, 51)

Colours can have therapeutic and psychological effects, and they can have an influence on the experience in the space. The following chart explains the effects of certain colours. (Rihlama 2000, 56 & 65)

Colour	Effect
Red	<ul style="list-style-type: none"> • aggressive, makes space seem smaller and distressing • helps with coming up with ideas, but not developing them • should be used only as a stimulant with other colours
Light pink	<ul style="list-style-type: none"> • a sensitive colour, which can be used with white or light green • creates sensitive amiability
Orange	<ul style="list-style-type: none"> • makes the space seem smaller • warming, stimulating and festive • can be used in small portions, but not large areas

Colour	Effect
Brown	<ul style="list-style-type: none"> • dark brown can create a good background for colourful material • light brown is calming • can cause apathy when used in large areas • recommended mainly for floors and in very light shade for spaces which have multicoloured materials
Yellow	<ul style="list-style-type: none"> • liberating, relieving, encourages taking contact, increases happiness and is refreshing • prominent and strongly stimulating • warming and seems to make the space slightly smaller • bright yellow should be used only in small details • light yellow is good for bringing sunshine into a space, and combed with white and plants, creates a positive, life-affirming atmosphere
Green	<ul style="list-style-type: none"> • in interior design helps to maintain the correct dimensions of the room • creates a calming and balancing environment (except yellowish green) • hopeful, tender and reassuring • the therapeutic symbol of balance
Turquoise	<ul style="list-style-type: none"> • light turquoise is a calming and pleasant background • bright turquoise in large surfaces have a negative effect • turquoise clashes with plants
Blue	<ul style="list-style-type: none"> • blue interior design has a harmonious effect • it can expand and cool the space • blue surrounding is good for developing ideas
White	<ul style="list-style-type: none"> • on its own, provides only emptiness • can be felt as desolate, for example in hospitals • is a good background in spaces which has colourful materials • used with other colours, can have a strong transparent and clarifying effect
Purple	<ul style="list-style-type: none"> • can both inspire and provide peace of mind • is good for using in festive spaces • light purple can be comforting
Gray	<ul style="list-style-type: none"> • the most sombre and ordinary colour • light gray can be used in spaces which have colourful material • light gray can also be used as a transitional colour when moving from one space to another
Black	<ul style="list-style-type: none"> • black reserves all light and does not provide anything therapeutically or psychologically • use is inappropriate when considering positive health effects

Table 1: The psychological effects of colours (Rihlma 2000, 56 & 65)

3.2 Lighting

Light has effects on humans' health not only through eye site but also through light radiation, which has a more holistic effect on humans' overall health, research indicates. Natural light from the sun is the most useful for humans. However, certain times of the year are darker and receiving sufficient sunlight is not possible. The closer to natural sunlight the lighting conditions of a space are, the better the seeing conditions will be. Having the best possible lighting in a workplace will improve the working capacity and mood of the employees. (Rihlama 2000 13)

Proper lighting improves health, safety, productivity and the atmosphere of the space. Having optimal lighting at a workplace is needed for workers to have the highest level of alertness. It also reduces health hazards, such as dry eyes. The most important factor influencing sight is the lighting in the space, but also the size, reflecting characteristics and colours of the space have an effect. The lighting and colours have an influence on the state of mind. A positive influence on the state of mind can improve work efficiency. (Työterveyslaitos 2014a)

To achieve the best lighting, which is bright enough, can be expensive at a workplace. However, the increased productivity of the workers makes it worthwhile to invest in proper lighting. Inadequate lighting causes risk of injury and tiredness of eyes. Most people would choose light with intensity of 1000-3000 lux (lx), if they were given the chance. The lighting strength of inside spaces where continuous work is done should be at least 200 lux. (Työterveyslaitos 2014b) But productivity is increased by several percent already by raising the lux from 500 lx to 1600 lx. (Työterveyslaitos 2014a)

3.3 Acoustics

Sound and noise have a significant impact on humans. "Humans react to noise even if they are not aware of it. Research has shown levels of stress hormones rising even for people who do not feel bothered by the noise," says Tarja Ketola, the head of Finland's Nature Conservation Association. (Peltoranta 2010, 56) Studies show that around 30-40% of people are sensitive to sound, to whom having the right kind of sound environment is especially important. According to technology licentiate and acoustic design expert Mikko Kylliäinen, buildings need to be designed in a way that the right sounds are heard and the unwanted noise is not. On the other hand, complete silence is unnecessary and expensive. Humans do need to hear the background sounds which they feel belong to the environment. The sense of hearing and experiencing sound is a complicated phenomenon. A certain level of background sounds can create a peaceful soundscape which improves concentration. A self-produced background sound-

scape, such as pleasant background music, can smooth out the disturbance of audio spikes. (Peltoranta 2010, 56-57)

Noise can create problems in a workplace, influencing the ability to concentrate, causing stress, and even leading to hearing damage (such as tinnitus, hearing loss and hypersensitivity to sound). (Työterveyslaitos 2010) A sound or noise can be harmful when it exceeds 80 decibels (dB). There are ways to indicate if the noise at a workplace is at a harmful level. For example, if the worker has difficulty hearing or if the ears are ringing after the workday. (Työterveyslaitos 2015)

The Institute of Occupational Health of Finland carried out the TOTI -project, which researched the effects of acoustics and noise on the work performance, for example on working memory and cognitive performance. The research was conducted over a period of three years and focused on open office environments, which included a genuine work environment as well as an open office laboratory. Valtteri Hongisto, the senior researcher of the Institute of Occupational Health and the project leader of the TOTI -project, states that "The research indicated that with good acoustics the work performance of especially the work which requires working memory can be improved. Good acoustics decreased the amount of unwanted distinction of voices, which increased the ability to concentrate on work tasks." (Rauha avotoimistoon 2012, 48)

Acoustic panels are used to control and decrease the sound emanating to other areas of the facility. There are a variety of acoustic solutions, the suspended ceiling being the primary surface for acoustic panels. Acoustic panels can also be used as floating boards or installed into the wall. The acoustic panels can be designed and customized in a way that they suit the surroundings. (Rauha avotoimistoon 2012, 48-49)

3.4 Carpeting

Carpeted floors used to be common in offices and homes some decades ago. However, when they became associated with allergies they were practically removed from use altogether. The modern fitted textile carpets are entirely different than the ones used back then. The old fitted carpets were attached with sturdy glue, which released strong emissions. The material was thick, collected dust and was difficult to clean. Fitted carpets have since improved and are now easily removed and washed. The textile carpet can be almost any size and is attached with specially designed individual tape pieces instead of glue. The carpet fibre is compact and does not collect dust. If the carpets are chosen considering the fibre length, compactness, washability and installation method, they rarely cause allergies and are suitable for both offices and homes. Textile carpet pieces also provide acoustic benefits. The carpet

works as soundproofing, which is useful in the work environment to decrease noise impact. (Alanko 2013)

3.5 Plants

Indoor plants are used as part of interior decorating in public and work spaces. Placing plants indoors brings the nature closer to people in an age when more and more time is being spent inside. Physiological measurements have shown that plants improve the subjects' alertness and mood. Research also shows that plants provide numerous other benefits. For example, plants improve air quality. The plants clean the air, since they are capable of absorbing harmful substances released from building materials, computers and other electronic devices. Plants also increase the relative humidity of the room, which can be too low especially during the winter months when heating is used. Water evaporates from the plants and moisture is released into the air. Plants can also decrease the room temperature. (Karimo, Kosamo, Ronkainen & Viljakka 2007, 9-12)

Plants are also used for visual purposes such as dividing a space, and according to colour psychology the colour green is calming, decreases anxiety, balances as well as revives. Plant decorating gives a positive image to people, which is beneficial for companies and work places. The plants also decrease noise and echo in the space. Other ways plants are used are for example covering possible flaws of the space, obstructing vision in wanted areas, connecting different spaces and improving the overall image of the company by emphasizing soft values. (Karimo et al. 2007, 12-13)

Plants promote the wellbeing of employees and also give a positive impression to customers, business partners and visitors. There is a range of different kinds of inside plants suited for work environments. A plant wall is a good choice for company premises and other work environments, because it has several functions. The plant wall is a nice display, but can also be used as a space divider and sound insulation. Plants on a wall give colour to large surface areas. Attaching the plants to the wall also saves space from the floor. Plant pots are used as part of a professionally designed entity, and the plant shape can be chosen to have a stem, bush or a specifically cut shape. The best locations for the plants are the lobby and the meeting rooms. Maintaining the plants properly is important, and hiring a professional service for taking care of the plants is useful. (Karimo 2013, 34-36)

4 The Stress Free Area® -concept

The Youth Centre renovation design is based on the Stress Free Area® -concept. The Stress Free Area® -concept is a wellbeing innovation created by Margit Sjöroos, which began devel-

opment in 1997 and was presented in Finland in 2004. This design concept uses multisensory ergonomics and neurophysiologic aspects which take into account the effects of the physical, digital and mental environment on humans' wellbeing. By implementing colour, perception and usability psychology the aim is to create a space which has reduced negative physical stress factors and supports the factors influencing the state of alertness related to different activities and situations. The concept utilizes brain research and can be implemented regardless of the culture or individual. This design concept is unique in the world and has won several innovation awards. It is a registered trademark in countries including the EU, the United States, China and Russia. (Conbalance Oy 2013)

Margit Sjöroos has worked on numerous projects with the Stress Free Area® -concept with her company Conbalance Oy. The concept can be implemented in different facilities and locations such as service and innovation spaces, learning environments, building design, city planning, hospitality and catering facilities, offices as well as social, health and wellbeing institutions. (Conbalance Oy 2013) The topic of this thesis was given by Margit Sjöroos who is the designer of the new interior design in the Youth Centre. Based on other projects of Margit Sjöroos, the Stress Free Area® -concept design has positive influences on the users of a facility. (Sjöroos 2016)

In the wellbeing point of view, it is important to consider the combined effects of all senses, instead of focusing on the effect of just one sense. Factors influencing the senses are for example lighting, colour tones, air quality, layout, electromagnetic fields and state of alertness. (Conbalance Oy 2013) A well designed environment can increase alertness and inspire actions and innovation. A poorly designed space on the other hand can dull the senses, decrease creativity and even cause aggression. The Stress Free Area® -concept combines the visual and physical ergonomics of the environment. The tools for achieving the optimal environment are factors such as controlled use of colours, furniture with the right kind of design shape, indirect lighting and frequency-based acoustics. (Jokiranta 2010)

Stress can be divided into three categories: negative, positive and neutral stress. Humans need both negative and positive stressors in everyday life, and creating a completely stress free area is not the goal. However, the aim is to create a space in which the stress can be regulated. Long-lasting negative stress factors have a strong influence on the motivation, work effectiveness and wellbeing. The Stress Free Area® -concept uses multisensory and multidisciplinary aspects to help individuals regulate the stress factors of the environment. (Conbalance Oy 2013)

5 Comparison of the old and new design of the youth centre spaces

This chapter describes the changes made in three of the spaces in the youth centre: the kitchen, the recreation room and the sports hall. The pictures show the comparison of the rooms before and after the renovation. Also, a short description of the changes made in other parts of the facility is included.

5.1 The kitchen

Everything in the kitchen was renewed. The new kitchen design includes different, brighter and more cheerful colours. New kitchen appliances were installed, such as two ovens instead of one, which helps with cooking for many people. A new waste management system was added, which enables recycling. The lighting was changed to be more sensory-friendly. (Sjöröos 2016)



Figure 1: Kitchen before



Figure 2: Kitchen after

5.2 The recreation room

The recreation room was also designed in a different colour theme. The walls that were a dark orange are now light green. A fitted carpet was added to the floor to decrease the amount of noise spreading to other areas. One large acoustic panel was added to the wall to also improve acoustics. The picture of the acoustic panel, a flying parrot, was chosen by the youth. In this way, the acoustic panels, which are necessary for sound control, are used as part of the interior design, adding a personal touch to the space. The television screen was moved to a different wall. The sofas and some other furniture in the room are the same ones as before. (Sjöroos 2016)



Figure 3: Recreation room before



Figure 4: Recreation room after

5.3 The sports hall

The sports hall floor was renewed. The new floor is made from a different material, which is softer and more suitable for sports such as dancing. The sound equipment, technology, DJ stand and sound system were also renewed. The elements having a negative effect on the state of alertness were removed, for example the colours of the space were changed into more sensory-friendly. Also, the mirrors were changed from easily breakable ones to protection door mirrors. The curtains covering the large windows were also renewed. (Sjöroos 2016)



Figure 5: Sports hall before



Figure 6: Sports hall after

5.4 Other spaces

The youth centre also received a new studio for playing music and recording. The music making has become easier and the acoustics were improved, for example by carpeting the floor. The lobby area of the youth centre also received changes. The colour theme and wall surfaces were renewed. The information desk was changed for a more modern, arch-shaped desk. An acoustic improving carpet was installed in the sitting area. The youth centre has a game room which was also renovated and renewed. The colour theme was changed and new computers and equipment were brought in. (Sjöroos 2016)

6 Implementation of the renovation

6.1 Delay of the youth centre renovation

The youth centre renovation process was delayed by a sum of many reasons. The youth centre was being used during part of the renovation, but most of the work had to be done when the centre was closed. For example, the holiday seasons like winter break and summer were used for renovating most areas. Therefore, certain time limitations had an effect. During the renovation of the billiard room, unexpected moisture damage was found from under the floor. This was a setback that also prolonged the renovation. Other factors influencing the delay of the renovation were the fact that the renovation company was over-booked and the leader of this project became sick, and had to be replaced by someone else from the company. Also, comments on the designer's design were given a few months late, which caused some problems when the renovation began. Some tender requests were also sent late from schedule. The delay of the youth centre had an effect on the work environment and conditions of the youth centre, the users' comfort and overall stress levels of everyone involved in the renovation. However, the renovation had certain positive factors. For example, the users (youth) were active and participated in the renovation by choosing certain elements related to the design. Also, the designer continued to participate in some of the renovation meetings free of charge, even though the renovation was delayed and it was not mandatory. (Sjöroos 2016)

6.2 Advice for future renovation projects

There are certain ways to implement a renovation in a way that it will have a better chance of being executed as smoothly as possible. First of all, the person who is chosen to be the leader of the renovation should be someone who is willing to take the job and has motivation to plan and execute the necessary steps for managing the renovation. The leader should have the skills to handle stress and prepare the rest of the team for the renovation. It is also necessary to have the ability to think positively, have a constructive attitude and patience to

handle possible delays or other difficulties. The attitude of the renovation leader will have an effect on the other people involved in the project, which can be either positive or negative. Anything can happen during the process of the project, so it is important to be able to accept the human dimensions. (Sjöroos 2016)

7 Research methodology

Methodology defines the means of studying the research topic or phenomenon. Methodologies can be categorized broadly (for example qualitative or quantitative) or narrowly (for example conversation analysis) in social research. Methods, on the other hand, are specific research techniques, such as interviewing, observation or audio recording. (Silverman 2011, 53)

The main purposes of research are exploration, description and explanation. Making a re-search includes data collection and analysis methods. Choosing particular data collection and analysis methods are determined based on what is aimed to find out in the research. Research types are commonly divided into five major categories: experimental, survey, archival analysis, historical and case study. These research types can also be combined in the project. (Walliman 2011, 174-175)

The four main methods used for qualitative research are observation, analysing texts and documents, interviews and focus groups as well as audio and video recording. These methods can also be combined. In qualitative research, data collection such as interviews is generally conducted with small samples, the aim being to gain an authentic understanding of people's experiences. Interviews with open-ended questions are the most efficient method to gain this kind of data. (Silverman 2011, 42-44) An interview is a useful data collection method, because it enables the researcher to notice if the question has not been understood, the quality of the answers can be judged and visual signs (for example smiles and nods) can be noted. An interview can be structured, semi-structure or unstructured. A semi-structured interview has defined, open-ended questions and there is time for the answers to be developed. (Walliman 2011, 192-193) A semi-structured interview was used in this research.

A questionnaire is a useful and flexible data collection method. The benefits of using a questionnaire include: the respondents have more time to answer the questions therefore answer them more carefully, the questions are fixed and stay the same for each respondent and also the respondents can remain anonymous. When forming a questionnaire, there are certain aspects which must be considered to enhance the response rate. For example, it should not contain too many questions and they should be kept simple, written in unmistakably clear language. (Walliman 2011, 190-191)

The data collection methods used in this research were two sets of questionnaires and one interview session with the youth centre employees. The first questionnaires were delivered by the researcher when visiting the youth centre, while participating in a meeting related to the youth centre renovation. The first questionnaire was answered before the renovation. The second questionnaire was a follow-up questionnaire given to the employees about six months later, when most of the renovation had been completed and the youth centre had been in use with part of the new design. However, the delay of the renovation had an effect on the answers of the questionnaire. The answers received from the first questionnaire are compared to the answers received from the second questionnaire to find out what changes occurred in the work environment and the effects of those changes.

The third part of the research, the semi-structured interview with three youth centre employees at the youth centre, gives a final outlook on the effects of the work environment when the renovation had been basically completed (with only minor details lacking). During the interview the employees were shown pictures of youth centre before the renovation, so they could better remember how the youth centre's old design looked like. The questionnaire and interview results are compared and analysed to find out the effects on workplace wellbeing.

8 Questionnaire and interview results

8.1 Questionnaire 1: Before the renovation

This first interview questionnaire was given to the youth centre employees before the renovation. The questionnaire had 9 questions, including open-ended questions and options of choosing from scale of 1-5. Three out of four employees answered the questionnaire. The questionnaire can be seen in the Appendix.

The respondents had slightly differing opinions about how pleasant the working environment is. One respondent felt it is quite pleasant, the second thought it is neutral and the last one thought it is only slightly pleasant. One respondent commented that a yard or closeness to nature would make the work environment more pleasant. Two respondents commented that the renovation is necessary to improve the work environment, because it has been a long time since it was last renovated.

Two respondents answered that the work environment has quite a significant effect on the work. However, the main influence comes from the contents of the work and not the environment. The most important factor of the work environment according to one respondent is safety, meaning that there should not be mould problems or other safety issues. Also, the

aesthetics is only of secondary importance. One respondent answered that the work environment has only a slight effect on the work.

The respondents were asked about stress factors in the work environment. Two respondents mentioned that the work environment is unorganized and messy. Also, the spaces of the facility are inconvenient. Two respondents also mentioned the bad acoustics and noise to be a stress factor. One respondent also mentioned the lack of light to be one of the biggest stress factors. Two respondents mentioned the Square as a stress factor. It is the area surrounding the youth centre, which is in the vicinity of the train station and pubs, causing a restless environment due to substance abusers.

When the employees were asked if they feel tiredness at the workplace, each one answered that they feel a slight amount of tiredness. In the comments one respondent mentioned that fatigue is caused by the workload, lack of employee resources and the hectic nature of the work. Another respondent said that fatigue is seasonal and changing. The support of the work community and colleagues were mentioned to be valuable, and that the fatigue is the sum of many things, not just one individual factor.

The employees were asked if the day of week has an effect on the level of tiredness. All employees answered that they are more tired in the end of the week. One reason for this is that most of the work is during Wednesday to Saturday and this is when they meet most of the users. Also, in the end of the week it is easier to get stressed. One respondent mentioned Monday morning to be difficult since most work at the youth centre is done in the evening. They were also asked if the time of year has an influence on the level of tiredness. All respondents mentioned that the dark time of the year (winter, before Christmas holiday and the beginning of spring) is when they feel most tired.

The employees were also asked if there is disorderly behaviour among the youth users of the youth centre. All respondents answered that there are occasional incidents. The misbehaviour can have an effect on the mood of the personnel as well as on the wellbeing of the other youth. However, it is not very common and is part of the nature of the work. When asked if the behaviour of the youth changes based on the day of week, all of the employees replied that they do not notice changes according to what day it is. Two respondents commented that rather the personal life situation of the youth has an influence.

All of the employees answered that the need for the renovation is important. One respondent commented that the renovation is needed and timely, though making the changes causes everyday life at work to be more difficult.

8.2 Questionnaire 2: During the renovation

The second questionnaire was given to the employees about six months after the first questionnaire. It includes some of the same questions as the first questionnaire, as well as some additional, more specific questions. The initial goal was to give the second questionnaire after the renovation was complete and the youth centre had been in use with the new design. However, due to the delay in the renovation, the second questionnaire results depict the influences of having the renovation prolonged and incomplete, and how it effects the work environment and workplace wellbeing. Four out of four employees answered the questionnaire, which has 11 questions. It can be seen in the Appendix.

When asked how the pleasant the environment is, two employees answered that the working environment is neutral. One employee thought that it is quite pleasant, while the fourth employee answered that it is only slightly pleasant. One employee commented that the working environment might be pleasant when the renovation is complete, though it is unlikely because a lot of money has been spent and they did not receive what they wanted. Another employee commented that a yard or larger windows would make the work environment more pleasant. A third employee commented that the spaces are confusing and disorganized.

The second question asked how much the working environment influences the work. Most employees answered that the influence is quite significant, only one employee answered that it is neutral. One person commented that the daily environment has a great influence. The fourth respondent commented that it is distressing that the users (youth) are often asking when the renovation will be finished and saying that the billiard room looks like a hospital, because the walls are white.

The third question asked what stress factors are in the working environment. One employee answered that all of the unfinished parts of the renovation are stress factors, such as missing rubbish bins which leads to rubbish lying around and that it is interesting that such a small thing could not be ordered. Another employee answered simply "the renovation". The third employee answered that the noise and darkness are stress factors. The fourth employee also mentioned the high level of noise, and that the space is "hall-like".

When asked if they feel fatigue at work, three employees answered that they feel a medium amount. The fourth employee answered that they feel only a little amount of fatigue. The fifth question asked if the day of the week has an influence on the stress levels or fatigue. One respondent answered that the end of the week is more stressful. Another employee answered that typically it is most difficult to get started on Monday. Another employee also mentioned the beginning of the week, especially morning shifts and that the energy-levels are

highest in the middle of the week. The final respondent answered that the most difficult days are Tuesdays or when there is a meeting about the renovation. The respondents were also asked if the time of year has an effect on the stress levels or fatigue. All respondents answered that the winter is the most difficult time of the year, when it is dark. The lighter time of year was mentioned to be easier. One employee also mentioned that the poorly executed renovation does not help.

The questionnaire also asked if there is disorderly behaviour among the youth and if the employees have noticed changes in the behaviour of the youth after the renovation. Since the renovation was not yet complete, this question could not be answered properly. One employee did not answer these questions at all. Another employee answered that there is no disorderly behaviour among the youth. Two employees answered that there is some disorderly behaviour. One of them said that the work is more stressful on these days. The other employee said that the occasional disorderly behaviour is part of the job and they are there to meet and guide these kinds of youth.

The ninth question on the questionnaire was if there is a difference in the behaviour of the youth based on the day of week. Two respondents said that there is no difference. Another employee answered that towards the end of the week there is more energy among the users, and the fourth respondent said that on Friday the users are usually more restless.

The last three questions of the questionnaire were focused on the renovation at the youth centre as a whole. These questions were aimed at the time when the renovation would be complete; therefore they could not be fully answered. The employees were asked how important they feel that the youth centre was renovated. Each employee thought that it is important, one half thought that it is very important while the other half replied that it is quite important. One of the employees also commented that it would have been important that the spaces look like the youth's place. When asked what has been the most important change in the spaces of the youth centre after the renovation, two respondents mentioned the new technology in the sports hall and one person wrote that the hall also looks better. Also, the kitchen was said to look and serve better. The new paint on the surfaces was mentioned, but that everything else has "just been standing and there is no difference". One respondent answered only that the renovation "will never be finished".

The final question asked the employees' opinion of the fact that the youth centre was renovated with the Stress Free Area® -concept design, which is based on brain and sensory research. This question could not be answered properly either, because the renovation was incomplete and parts of the design elements were missing, such as the acoustic panels. Two respondents did not even know that the renovation design was based on the Stress Free Area®

-concept. One person commented that they would like know why it was used and another left the question unanswered.

The following chart shows the employees' answers to the questions which had options of choosing from scale 1-5. The scale was 1 = Not at all, 2 = Slightly, 3 = Neutral, 4 = A lot, 5 = Highly. The chart is used to compare the answers of both questionnaires.

	Questionnaire	How pleasant is the working environment?	How much does the work environment affect your work?	Do you feel tiredness at work?	How important do you feel the renovation in the youth centre is?
Respondent 1	1	3	2	2	4
	2	3	4	3	5
Respondent 2	1	2	4	2	4
	2	2	4	3	4
Respondent 3	1	4	4	2	4
	2	4	4	2	4
Respondent 4	1	-	-	-	-
	2	3	3	3	5

Table 2: First and second questionnaire answer comparison

8.3 Interview: After the renovation

The final part of the data collection for the research was an interview session with the youth centre employees, three of which were able to participate. The interview took place when the renovation was over, though some small details were still incomplete. However, the available resources for the renovation were used up and the final meeting to close the renovation had been held one week earlier. The interview took place three months after the second questionnaires had been answered. The aim of the interview session was to collect information about the employees' opinions of the youth centre after the renovation was finished and to find out how the workplace environment has changed.

During the interview, the questions and discussion was about how the employees feel after the renovation is over and what they feel is the most important factor in the renovated spaces of the youth centre. From the renovated spaces, the kitchen and sports hall got the best feedback. The kitchen was something that everyone was pleased with. The colours of the kitchen are liked, and the fact that there are two ovens instead of one was mentioned to be very useful when cooking for many people. The new technology and equipment in the sports hall was the best part of the renovation, in the opinion of one of employees. Another employee said however that the new floor in the sports hall is more difficult to clean than the previous one.

One employee mentioned the new equipment, including new computers in the game room and new equipment in the studio to be the best part of the renovation. The new equipment has made the work more pleasant and manageable. The carpets in the living room and lobby area were mentioned to have improved the acoustics. However, the acoustic panels were said to not have helped with the noise levels. This could be because they are too small or there are not enough of them.

The employees are pleased that the renovation is over, though it seemed that they were not completely satisfied with all of the results or the way the renovation had been executed. One employee mentioned being sort of forced to be in charge of the renovation, even though it was something they had not asked for. This caused additional stress for the employee.

9 Research analysis

The answers for the first and second questionnaire differed significantly. The answers for the first questionnaire were longer and more detailed, while the answers for the second questionnaire were short and gave a more negative impression, which indicated frustration. Certain questions in the second questionnaire were not answered at all by some employees. Because the second questionnaire answers were lacking information and the questions could not be properly answered due to the delay of the renovation, a final interview was found to be necessary to gain more information for the research.

On the other hand, certain questions had similar answers in both the first and second questionnaires. The dark part of the year, winter, was mentioned to cause tiredness at work in both questionnaires. Also, the chart indicates that the questions which had a scale to choose the answer from did not differ much in the first and second questionnaires. If the second questionnaire had been answered after the renovation was finished, the answers would have most likely been quite different.

Based on the second questionnaire answers, it was surprising to find out that the employees were not aware or interested in the fact that the new design of the youth centre was based on the Stress Free Area® -concept. The Stress Free Area® has had positive results in previous renovation projects, for example in another youth centre (Sjöroos 2016). It would be useful for the employees to know also the facts about the Stress Free Area® -concept, and why it was used. This information could be explained in one of the renovation meetings, so that each employee is informed and would understand the concept.

It was clear that the renovation caused significant amounts of stress for the employees. There were many factors which caused the renovation to be delayed. The renovation took all in all

over a year to be completed. The ongoing process and added disturbance and strain what it caused was an additional stress factor at the workplace for the employees. Though the factors causing the delay could not be influenced during the renovation process, there are certain aspects that can be taken into consideration while planning a renovation as well as ways to handle the setbacks during the renovation.

Though the renovation process was a stress factor for the employees, the renovation has still had a positive influence on the workplace wellbeing, because the work environment has been improved and the changes have made the work more manageable. Especially the new technical equipment was appreciated by the employees. Also, the new design of the kitchen and improved billiard room received positive feedback from the youth, according to the employees. Also, the elements of the Stress Free Area® -concept, such as the acoustic improving carpeted floor areas and new design in the kitchen have improved the workplace wellbeing.

10 Conclusion

Making a research about a project that lasted more than a year gave useful insight about the influence of the work environment on the workplace wellbeing. The length of the renovation was a stress factor, but the renovation was necessary and worthwhile. Many aspects of the youth centre were changed to improve the work environment. For example, the new technical equipment, acoustic improvements and renewed kitchen makes the employees' work easier. In this way, the workplace wellbeing was improved.

Renovations are usually processes that include unexpected elements and problems. A renovation will undoubtedly have an effect on the workplace environment of any facility. However, as written in this report, there are ways to make the renovation run as smoothly as possible. The most important thing is to be able to handle the stress and have the right kind of attitude. Though the delay of the renovation caused problems and a delay also in the process of this thesis, it did provide interesting new information and perspectives to the research results.

The research could be continued later, when the renovated youth centre has been in use for longer. This way the problems of the renovation would not be so clear in the mind of the employees, and the focus would be on the workplace environment as a whole. This would give more information about the effects of the new design in the youth centre. The environment is only one aspect of workplace wellbeing and many factors are influencing the employees' wellbeing. Research could also be made about the other factors influencing the workplace wellbeing in the youth centre.

The meaning of the work environment on the workplace wellbeing is currently a topic of more and more interest and importance. The Stress Free Area® is an example of how the physical environment can be used to improve the wellbeing of people. When the employees' wellbeing is taken care of, companies and other workplaces improve their chances of thriving.

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Appendixes

Appendix 1: Nuorisotalon remontti: Kysely ennen remonttia

1. Kuinka viihtyisäksi koet työympäristön?

1	2	3	4	5
En yhtään	Hieman	Neutraali	Viihtyisä	Erittäin viihtyisä

Kommentteja:

2. Kuinka paljon työympäristö vaikuttaa työntekoosi?

1	2	3	4	5
En yhtään	Hieman	Neutraali	Paljon	Erittäin paljon

Kommentteja:

3. Ono työympäristössä stressitekijöitä? Mitä?

4. Koetko väsymystä työpaikalla?

1	2	3	4	5
En yhtään	Hieman	Neutraali	Paljon	Erittäin paljon

Kommentteja:

5. Onko viikonpäivällä merkitystä stressitekijöihin tai väsymyksen tasoon?

6. Onko vuoenajalla merkitystä stressitekijöiden tai väsymyksen tasoon?

7. Tapahtuuko nuorisotalon käyttäjien keskuudessa häiriökäyttäytymistä? Miten se vaikuttaa töissä viihtymiseen?

8. Onko nuorten käyttäytymisessä eroja viikonpäivästä riippuen?

9. Kuinka tärkeäksi koet nuorisotaloon tehtävän remontin?

1	2	3	4	5
En yhtään	Hieman	Neutraali	Tärkeä	Erittäin tärkeä

Kiitos!

Appendix 2: Youth Centre renovation: Questionnaire before the renovation

1. How pleasant do you feel the work environment is?

1	2	3	4	5
Not at all	Slightly	Neutral	A lot	Highly

Comments:

2. How much does the work environment affect your work?

1	2	3	4	5
Not at all	Slightly	Neutral	A lot	Highly

Comments:

3. Are there stress factors in the work environment? What?

4. Do you feel tired at work?

1	2	3	4	5
Not at all	Slightly	Neutral	A lot	Highly

Comments:

5. Does the day of week have an influence on the stress factors or level of tiredness?

6. Does the time of year have an influence on the stress factors or level of tiredness?

7. Is there disruptive behaviour among the youth centre users? How does it affect the work comfort?

8. Is there a difference in the behaviour of the youth based on the day of week?

9. How important do you feel the renovation at the youth centre is?

1	2	3	4	5
Not at all	Slightly	Neutral	A lot	Highly

Thank you!

Appendix 3: Nuorisotalon remontti: Kysely Stress Free Area -konseptisuunnittelun valmistuttua

1. Kuinka viihtyisäksi koet työympäristön (nuorisotalon tilat)?

1	2	3	4	5
En yhtään	Hieman	Neutraali	Viihtyisä	Erittäin viihtyisä

Kommentteja:

2. Kuinka paljon työympäristö vaikuttaa työntekooosi?

1	2	3	4	5
Ei yhtään	Hieman	Neutraali	Paljon	Erittäin paljon

Kommentteja:

3. Onko työympäristössä stressitekijöitä? Mitä?

4. Koetko väsymystä työpaikalla?

1	2	3	4	5
En yhtään	Hieman	Keskiverto tasolla	Paljon	Erittäin paljon

Kommentteja:

5. Onko viikonpäivällä merkitystä stressitekijöihin tai väsymyksen tasoon?

6. Onko vuodenajalla merkitystä stressitekijöiden tai väsymyksen tasoon?

7. Tapahtuuko nuorisotalon käyttäjien keskuudessa häiriökäyttäytymistä? Miten se vaikuttaa töissä viihtymiseen?

8. Oletko huomannut eroa nuorison käyttäytymisessä remontin jälkeen?

8. Onko nuorten käyttäytymisessä eroja viikonpäivästä riippuen?

9. Kuinka tärkeänä koet nuorisotaloon tehdyn remontin?

1	2	3	4	5
En yhtään	Hieman	Neutraali	Tärkeä	Erittäin tärkeä

10. Mikä on ollut mielestäsi tärkein muutos nuorisotalon tiloissa remontin jälkeen?

11. Mitä mieltä olet siitä, että nuorisotaloon on tehty aivo- ja aistitutkimukseen liittyvä konseptisuunnittelu?

Kiitos vastauksista! Vertaan näitä vastauksia ensimmäisen kyselyn vastauksiin opinnäytetyössäni.

Appendix 4: Youth centre renovation: Questionnaire after the Stress Free Area -concept design is completed

1. How pleasant do you feel the work environment is (the premises of the youth centre)?

1	2	3	4	5
Not at all	Slightly	Neutral	A lot	Highly

Comments:

2. How much does the work environment affect your work?

1	2	3	4	5
Not at all	Slightly	Neutral	A lot	Highly

Comments:

3. Are there stress factors in the work environment? What?

4. Do you feel tired at work?

1	2	3	4	5
Not at all	Slightly	Neutral	A lot	Highly

Comments:

5. Does the day of week have an influence on the stress factors or level of tiredness?

6. Does the time of year have an influence on the stress factors or level of tiredness?

7. Is there disruptive behaviour among the youth centre users? How does it affect the work comfort?

8. Have you noticed a difference in the behaviour of the youth after the renovation?

9. Is there a difference in the behaviour of the youth based on the day of week?

10. How important do you feel the renovation done at the youth centre is?

1	2	3	4	5
Not at all	Slightly	Neutral	A lot	Highly

10. What do you think has been the most important change in the youth centre premises after the renovation?

11. What do you think about the fact that the youth centre received a concept design based on brain and sensory research?

Thank you for your answers! I will compare these answers with the answers from the first questionnaire in my thesis.