

Anni Ahtiainen

WORK RELATED CHALLENGES AND SHERBORNE  
DEVELOPMENTAL MOVEMENT -EDUCATIONAL EVENING  
FOR VEHMAA DAY CARE PERSONNEL

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# WORK RELATED CHALLENGES AND SHERBORNE DEVELOPMENTAL MOVEMENT -EDUCATIONAL EVENING FOR VEHMAA DAY CARE PERSONNEL

Ahtiainen Anni

Satakunnan ammattikorkeakoulu, Satakunta University of Applied Sciences

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The aim of this Bachelors thesis was to provide better awareness of working ergonomics for personnel working with children under school age and evoke interest towards Sherborne Developmental Movement. The thesis was implemented in co-operation of commune of Vehmaa and the employees working in different day care units.

The environment of a day care unit is often designed according to the needs of the children. Putting on and taking off clothes, dining areas, sleeping areas and other surroundings set various every day challenges for the personnel's loading of the work. Repetitive actions performed in a various heights depending on the children's age and size creates this complex and challenging environment to work in.

Material for this thesis and the educational evening was collected from June to August in 2010 at Vehmaa day care Päivänkakkara personnel and from family child minders in a meeting using a single question "What is loading in your job?" This information was used to construct the lectures in order to be as beneficial as possible.

Educational evening concerning proper working ergonomics, work load and ability in addition to Sherborne Developmental Movement was implemented as a single evening education for the 17 workers in October.

The majority of the staff felt they learned important issues to promote their own work ability. They all felt that these types of educational evenings are a very efficient way to provide knowledge.

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# 1 INTRODUCTION

Ergonomics is vastly studied and important field especially now when the legislation of higher retirement age is on the table. In order to maintain work ability longer and still keep the loading of the work appropriate better ergonomical solutions are required. Proper working ergonomics is a common term used while talking about occupations such as a nurse or a car mechanic, but what about the employees working with children; lifting and working in low positions every day. Ergonomics is a wide term and in this thesis “ergonomics” is used to describe mainly musculoskeletal ergonomics.

The strain to the back increases when the angle of the back increases. Lifting an object from the floor the effect of the weight of the body is remarkable. (Riihimäki & Leskinen, 2001). Working in a day care includes several other tasks beside the work with children, among others office work with a computer and different meetings. Depending on the age of the children taken care of the challenges of the work are different. This bachelor’s thesis focused on the aspect of working with children in the day care or home settings. The personnel of Vehmaa day care consist of employees of several educational backgrounds and the term care giver is used to describe all of them.

As in many day care units also the amount of children with special needs is rising in Päivänkakkara day care. The children are often restless and need additional support from the care givers. Sherborne Developmental Movement is a method that provides the children with the abilities and preparedness to develop oneself both personality-wise and physically. This Bachelor thesis and its end product the educational evening is set to provide the personnel the basic idea of Sherborne Developmental Movement in order to introduce a new tool to answer the challenges of the occupation.

The aim of this bachelor’s thesis was to arouse interest towards one’s own work ability, loading of the work and working ergonomics in addition an insight to Sherborne Developmental Movement.

## 2 AIM OF THE THESIS

The aim of the thesis is to provide information through and education evening about Sherborne Developmental Movement, proper working ergonomics, work load and ability for the personnel working with children under the age seven. The nature of the work provides constant challenges from the ergonomical point of view and the educational evening works as an important reminder of the importance of taking care of one self.

## 3 WORK ABILITY AND WORK LOAD

Proper work load benefits the workers health and improves work ability, where as too easy or strenuous work does not provide sufficient challenge to the body. Cognitive load is becoming more common while technology is developing and new information is transformed into new behaviour. Psychosocial load has increased remarkably and the management of work and stress, healthy atmosphere and possibilities to influence on one's work are the most important actions to enhance the psychosocial well being. The loads of musculoskeletal and respiratory system are referred as physical load. Working position, use of force and working movements are few of the loading factors when assessing physical load. Overall loading is formed by the mutual effect of work and leisure time and should be taken into account when assessing the workers work load. (Rauramo, 2008)

Pohjonen & Töyry (2001) have found that exercise has indirect effect on work ability, nevertheless action towards a sole variable will not increase work ability. Finnish Institute of Occupational Health uses work ability house while describing the work ability of a person. This four-store building is constructed so that each floor supports the other. The base of work ability is the health and function including physical, psychological and social function. The next step is

occupational knowledge consisting of professional skills and the basic education which answer to the expectations of growing work ability requirements. The third floor is the floor of attitudes, values and motivation; workers own attitude towards the work is in a key role when it comes to work ability. Work itself, the last floor of the house is combining the environment, work and the organization. The leadership is a crucial part of this floor and points out how important role the superiors have on the support of the personnel's work ability. Work place health promotion is an important process supporting the well-being and functional capacity of employees as well as advancing the productivity and workplace functions. At best this could be part of everyday routines, but it requires genuine participation on both sides from the management and personnel. (Finish Institute of Occupational Health. 2010.)

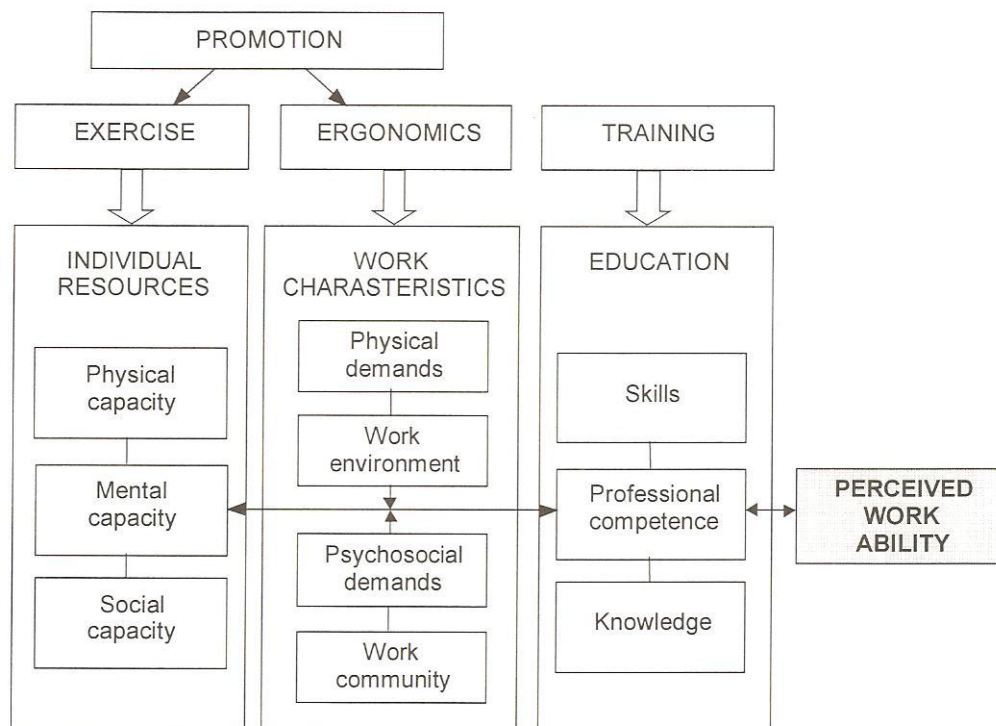


Figure 1. Work ability model by Pohjonen, 2002. (Modified from Ilmarinen 1999)

Ilmarinen (1999) describes work ability as an interaction between the individual and the work. The comprehensive and dynamic conceptual model of work ability (Figure 1.) portrays the three main factors affecting the perceived work ability; individual resources, education and the characteristics of the work. Lindström

(2002) introduces how the development of a working environment wraps around three issues; health, wellbeing and know-how, this model is used among other in Finnish Institute of Occupational of Health.

## 4 ERGONOMICS

Ergonomics defined by International Ergonomics Association: ergonomics is composed of two Ancient Greek words; ergon-work and nomos-laws and can be called as science of work. A scientific discipline consisting of interaction between humans, other elements of the system and the profession that applies data, methods, theory and principles to optimize overall performance of the system and human well-being. (International Ergonomics Association. 2010.)

Ergonomics is characterized as an approach in which considerations of physical, social, cognitive, organizational, environmental and other relevant factors are taken into account. These domains are not exclusive and evolve constantly; new ones are created and old ones take on new perspectives. (Dietmar Gude, 2007). The goal of ergonomics is a human-work system; the development of the work, healthiness and safety of it. (Hanhinen, Parvikko, Rantanen, Tamminen-Peter, 1994, 17.). Luopajarvi (2001) on the contrary finds that the work, the environment and the tools used should be modified according to the needs and characteristics of the worker. She also remarks that the most level-headed and effective way of promoting proper working ergonomics is the prodromal way of designing.

Occupational physiotherapy works as a resource in promoting work ability but the employee's own contribution in maintaining physical, mental and psychological work ability in a constantly evolving and demanding work life is crucial. (Hyvinvointi opetustyössä, 1999, 110.) Analyzing and evaluation of working ergonomics is part of occupational health care and every employee has the right to have their working load estimated. (Ketola & Lusa, 2001)

Working ergonomics can be assessed by using different tools. Hartin-Kouhia (2009) introduces OWAS-scale evaluating postural loading during work, TIKKA scale evaluating both physical and psychological loading and a Työpaikan ergonomia selvitys-scale which provides perspective both for the development of the work and the working conditions in her thesis. Occupational and Health department have elaborated Näppärä, an assessment tool to determine the deprivation and dangers for the workers health. (Jääskeläinen, 2010).

#### 4.1 Occupational safety and health act

The objectives of this act are to ensure and maintain the working capacity of employees as well as to prevent occupational diseases, accidents and to eliminate other hazards. To improve working environment and other conditions related to work. Furthermore this act states that the employer is obliged to provide sufficient information concerning the work and all the related issues. Employee needs to work towards the goal in co-operation with the employer. Occupational safety and health act clarifies that not only the employer but also the employee is responsible of the proper ergonomics in the working habitat. Regulations over the ventilation, working space and other ergonomical challenges such as lighting and heat demand a proper protection over the employer. The occupational safety and health act gives guidelines to the work in all aspects, from medical examination to first aid and machines and other equipment. This act can be modified to the work of students, soldiers and to different discipline facilities. The second chapter includes several important issues related to the responsibilities of the management; assessment of the hazards, work load, working environment and educational issues. (Occupational safety and health act, 299/1958)



#### 4.2 Ergonomical issues; noise, lighting and air

Sound progresses in waves which reflect from the objects around us. Soft surfaces absorb more sound than hard ones and big objects form sound shadows behind them decreasing. "Strong above 85 dB noise causes permanent hearing damage gradually during 10 to 20 years." It has been shown that poor sound environment poses a threat to the health and performance of voice organs. The physiological effects of noise are increasing blood pressure, hormonal secretion and changes in digestive system which are considered as symptoms of stress. Work which acquires attention, visual inspection, listening and acquisition of knowledge become more complex while performed under noise strain. (Olkinuora, 2001)

Majority of the information is acquired through vision. Occupational safety, performance and likeability are influenced by the colours and luminance in the working space. The ability to focus, detect and certainty of seeing increases when the lighting is brighter. Nevertheless through ageing all these qualities weaken and as well as the quantity also the quality of lighting should be considered according to the situation. This should be taken into account while designing work stations. This issue of lighting concerns mainly working by the computer or tasks that require ability to focus, such as reading a bed story in a dim room during nap time. (Olkinuora, 2001)

The quality of air is very important in terms health and thrive on the space. Most of our time is spent indoor environment and is affected by heat, moist, dust particles and different organical and inorganical substances. Since 1980s there has been a creasing worry over the quality of air in office, day care and school buildings. Air condition is used to interact with impurities of the air but the main goal is to maintain proper heat and quality of air in the working space. (Kähkönen & Olkinuora, 2001).

### 4.3 Ergonomical challenges in day care

In a changing working environment the development of knowledge is needed constantly. Ongoing education of proper working positions and correct positioning of the special furniture assists the maintenance of ergonomical working. (Saarsalmi, 2008, 49.) Day care units are furnished for children's needs encumbering the bodies of the workers. (Friman, 2010, 19). Every day care unit has its own possibilities and challenges in terms of ergonomics. (Kokkonen, 1994, 34). Units having children with different ages and needs create the possibility to work differently. The work load in terms of ergonomics differs while working with 2-3-year-olds or pre-school aged children. (Mykkänen, 2001, 57). Rauramo (2008) points out how all equipment should be modifiable for workers of all ages and sizes to secure less loading working positions.

In Päivänkakkara day care the group activities, lunch time and free play time often create high noise levels, which has already resulted in the lowering of the hearing in care givers despite the elaboration of the space. Day care units are furnished and prearranged to optimize the modifiability of the working positions and conditions. The decisions should be made incorporation with the personnel, builder, designer and the occupational health and safety personnel. (Mykkänen, 2001)

### 4.4 Ergonomical challenges in home environment

Working at home as a family child carer provides the advantage of working in a familiar and adaptable environment on the other hand working exclusive of co-workers support and the possibility of intermissions often results in higher work load and even fear of not controlling the situation. (Keskinen, 2002). Pohjonen (2002) writes how one of the main problems in working at home is the ergonomically challenging work equipment and conditions. Mykkänen (2001)

clarifies how home environment is usually designed for everyday life and the ergonomical decisions have been made earlier, providing a normal sizing for example in future. All of the family child carer's homes are evaluated and examined prior to the employment in Vehmaa. (Ahtiainen, 2008).

## 5 SHERBORNE DEVELOPMENTAL MOVEMENT

According to Veronica Sherborne Developmental, International Sherborne Association SDM has two main objectives: awareness of oneself and awareness of others. Awareness of oneself is gained through experiences of movement and listening via touch and by feeling inner physical sensations. This allows a person to grow confidence and self-esteem both at physical and emotional level. Awareness of others is more about interacting and building positive relationships. Through shared movement activities a person can be supported and encourages according to ones needs.

*"Through my experience of teaching and observing human movement, and of learning through trial and error, I have come to the conclusion that all children have two basic needs; they need to feel at home in their own bodies and so to gain mastery, and they need to be able to form relationships."* Veronica Sherborne (1990).

Sherborne Developmental Movement (SDM) was created in 1960's by Veronica Sherborn (1920-1992) and it is based on Rudolf Labans movement analysis. This method is widely used with different kind of groups and providing versatile exercise. In order to practice this method one needs attend and education organized by a certified organization. Originally Sherborne Developmental Movement was born for the needs of developmentally challenged, but due its modification qualities it is widely used by teachers and therapists working with different age groups. Self image, motor skills, social interaction and the

development of learning abilities can be supported using SDM as part of the teaching. (Sherborne, 1990; Laasonen, 2005)

Method of teaching, goals and exercises are modified according to the needs of the group or the individual. The exercises are built as a progressive system starting from the senses and moving up towards interaction exercises. The motor skills exercised in using SDM serve as a base for more complex skills which require combination of body parts and simultaneous movement. SDM-themes portray the exercises how our moving is built. (Laasonen, 2007, 1)

Awareness of the body and space, sense of rhythm and time, interaction and the recollection of the force of the movement and movement flow are the key themes of Sherborne method. The aims of the SDM exercises are to create a safe environment to build strong self-esteem, to create situations where the child can develop social skills, to help the child to separate and connect sense findings. To develop child's learning abilities and interaction skills and to help the child independently to seek the experiences required. (Laasonen, 2007, 3-4).

According to Laasonen (2007) the basis of the SDM education is how everyone has the right to learn; to feel at home in one's own body, to move and use one's body as they wish and to regulate one's activity level. Learn in safe and secure environment, to act in one's own pace also in a group, to learn to function in different roles, to make choices, to be as active and as independent as possible, but still receive support and guidance if needed. To learn through experience, enjoy performing the task and also to receive instructions through those sense channels which one holds the best. One should be allowed to learn to interact both with a group and an adult.(Laasonen, 2007).

According to Bergström & Althoff (2000) the Sherborne method is found so effective due to the communication and interaction between the participants. Each SDM session is built according to the child's needs and the thought that the child learns from his or hers peers. Exercises are implemented on three different

levels of function where the movement takes place; frontal, sagittal, and horizontal level. The level of space portray different starting positions and the implementation of the movements on low; where majority of the exercises are implemented in the beginning high or in the levels in between. These issues are important to take into account while exercising the awareness of space. During the session the atmosphere is one of the most important factors; it has to provide inspiration and the feeling of security. (Laasonen, 2005)

### 5.1 Sherborne Developmental movement in Finland

SDM has been growing popularity since the 1990s and it is used in day cares, schools and physical education of the youth and children. SDM can also be used as a part of physical exercise for the adults and elderly to support the development using both individual and group aims. Most of the material written describes Sherborne method as a method for children's physical activity nevertheless with some imagination and modification it is suitable for all ages. (VAU ry. 2009.)

Sherborne educations in Finland are organized among others by Tutoris; yksilöllisesti yhdessä, VAU ry and Liiku ry. The aim of these educations is to provide both adequate theoretical knowledge and practical know-how to implement Sherborn Development Movement. These educations are open to everyone who is interested in the topic. In the beginning of the 1990's the courses organized in Finland were held by foreign lecturers, but soon after the majority of the responsibilities of the courses have been on Finnish educators. The education of SDM in Finland deviates from the international one with the focus on the theoretical background of learning process and didactical modifications. In Finland the professionals working with children with learning difficulties in addition to the co-operation and behaviour problems and to profound developmental problems are the ones growing interest towards the method. (Laasonen, 2005, 131)

## 5.2 Labans movement analysis

Laban movement analysis (LMA) is created by Rudolf Laban and it is commonly used by dancers, physical and occupational therapists among others as a human movement analysis system. LMA is a system for observing, describing and understanding of all forms of movement. (Sandlos, 1999)

Laban's movement analysis is focussed on the body and all its elements; space, force and time all three are present in every movement and if one is changed others change accordingly. Originally Labans theory consisted of 16 core themes, from which Veronica Sherborne adopted eight first ones and from which in Finland have been merged to six core themes. (Laasonen, 2005)

LMA is divided in three main parts. In which direction in the space the body is moving; backwards- forwards, high-low or sideways, constituting the dimensional scale, without the awareness of the body this part becomes meaningless. What part of the body is moving; in a successive way or simultaneously, is it moving coordinated as whole or is the movement confined to extremities. In what way the body is moving; the most important part consisting of motion factors energy, flow, space and time. (Sherborne, 1990)

Veronica Sherborne, clarifies the idea of Labans movement theory with a diagram (Figure 2.) where the central circle represents the central part of body and both extremities. Below the relationship towards the gravity, either allowing it to work on the body or resist it. On the left Sherborne lists the six directions of space and above the circle the relationships with others. On the right side of the central circle are the movement qualities continuity is indicated with the arrows. Term gentle is preferred over "light", and "controlled" over "bound" in terms of flow. Laban's terms "sudden" and "sustained" replace "quick" and "sudden".

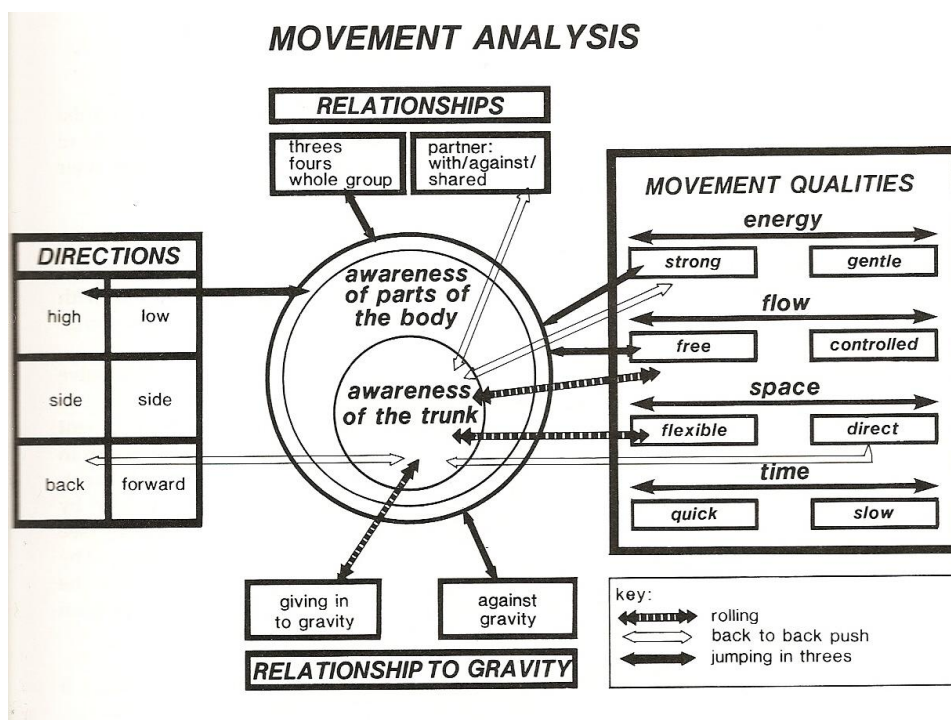


Figure 2. Laban's movement analysis according to Veronica Sherborne(1990)

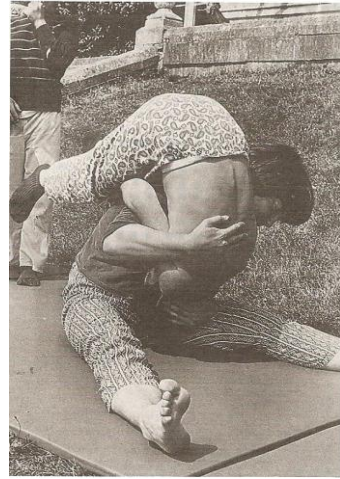
### 5.3 Ergonomical challenges of Sherborne Developmental Movement

SDM method can be used as modification for groups and individuals of all ages. The instructor guides the group to work as independently as possible and individuals requiring assistance work with and adult of with an older child. (Laasonen, 2005 & Sherborne, 1990). I was unable to find any research on the ergonomical factors of this method. Laasonen (2005) describes how the movements and exercises can be implemented in three different planes and on different levels; low, high and everything in between.

Even a slight deviation from the erect position of the back increases the loading of the back, demanding more static muscle strength. (Cedercreutz & Hanhinen, 2005). While bending forward the role of postural muscles increases remarkably. (Cedercreutz, 2001). Exercises performed with a partner require firm and safe support, trust and resolution for safe performance. Several of the exercises in Sherborne Developmental Movement are conducted on the floor in the low level. (Laasonen, 2005; Laasonen 2007; Sherborne 1990). Cedercreutz & Hanhinen

(2005) state while sitting the centre of gravity moves forward, increasing the static muscle activation in comparison to up right standing position. Sitting unsupported and leaning forwards doubles the amount of muscle activation needed. (Cedercreutz, 2001)

Picture 1. Summersault-exercise according to Veronica Sherbone Developmental movement for children: mainstream, special needs and pre-school(1990)



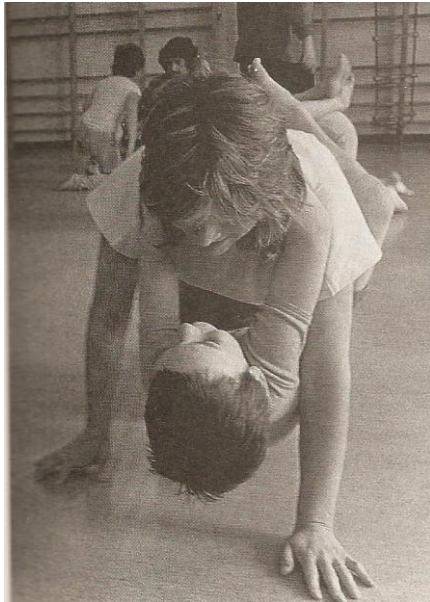
Picture 2. Summersault backwards, Sherborne (1990)

Lifting above the shoulder level load heavily the upper limb and shoulder muscles. (Cedercreutz & Hanhinen, 2005). Cedercreutz (2001) Static hold of the upper extremities doubles the needed muscle activation of the supporting muscles while in sitting. Upright positions of the upper extremities, the extreme positions of the wrist and powerful twisting movements of the forearm increase the risk of stress illnesses. (Ketola, 2001).

Exercise such as the baby monkey (Picture 3.) portrayed in Developmental Movement for children, mainstream, special needs and pre-school (1990), where the child cling against the gravity having legs around the adults lumbar spine and arms around the cervical spine portrays well the ergonomical challenges that an assistant can confront. The adult can also support the child against the gravity



from the back and this way helping the child and relieving the muscle exertion. (Sheborne, 1990). Working with children either in pairs or in a small group the level of noise is often high. The teacher should use deep voice to gain everyone's attention. (Sherborne, 1990)



Picture 3. Baby monkey, child hanging on the “mother monkey”

## 6 VEHMAA KUNTA DAY CARE PLAN

“Child-centred, safe and imitating the home up-bringing”. This is the ideology behind the day care organized in the commune of Vehmaa which provides a variety of choices for the parent to choose their child's care depending on the need. Families are entitled to day care or a family child care provided by the commune or the possibility of child home care allowance for the parents of under 3-year-old child nursed at home. (Ahtiainen, 2008)

Recently the commune of Vehmaa has started an activity club for children above 3 years old held three times a week. These possibilities are provided for the families in order to find a proper solution for their current situation. The day care Vehmaa consists of a kindergarten, 9 family child carers and the activity club. Evening and night care are not arranged at the moment. The plan of day care in Vehmaa commune is according to the national guidelines published in 2005. Guidelines for day care have not been revised, except the pre-school plan. (Aaltonen, Lounasaari, Pusa & Vanhatalo, 2005)



Picture 4. Päivänkakkara day care in November 2010.

### 6.1 Päivänkakkara day care

Päivänkakkara is a day care unit for children between the age of 3 and 6 years old, with integrated pre-school of 21 places with the resources for 2 children with special needs. The personnel consists of a special educator kindergarten teacher, a kindergarten teacher, 7 practical nurses and child minders each responsible of seven children. The building is in three stories, where upstairs works as the pre-school, street level as the day care, lunch area and sleeping room and the personnel's facilities and play cave are located in the cellar. The yard area has a climbing frame, two play houses, sand box and swings where the children play during the breaks. (Ahtiainen, 2008)

## 6.2 Family Child Care

DeBord, & Sawyers (1996) use the term of “family child care” in their article “The Effects of Training on the Quality of Family Child Care for those with and not associated with professional Child Care Organizations” of a form of day care performed at home. This form of day care organized for the majority of children under 3 years. Children are minded of at the care givers home in groups of 4 to 5 children and divided according the area of residence or the need or wish of the care. Shift care is focused into family child care due to the amount of children requiring this form of care. (Ahtiainen, 2008). Working alone creates the freedom of modifying one’s own working method and at the same time fortifying the possibility of a human error. Inaccessibility to express one’s feelings between co-workers in the situation at hand has an effect on the work load of the care giver. Several literature reviews reveal how strengthening of professional growth provides the resources to survive the loading of the work and maintaining work ability. (Keskinen, 2002)

## 7 THESIS PROJECT

The subject of the thesis was chosen according to the personal interests of the writer. Motor skills, learning difficulties and children were the original field of interest while starting the process of the bachelor’s thesis. During the process the aim and subject of the thesis changed towards working ergonomics and the ergonomical challenges that Sherborne method possessed. Originally the project was set to be implemented with the personnel of Päivänkakkara day care but very soon after the first discussions the home child carers were decided to be included. The topic was discussed with the personnel in order to gain their insight and determine their level of interest and commitment. Sherborne Development Movement was found interesting by the special educator kindergarten teacher to bring new ideas for the workers.

## 7.1 Schedule

In January 2010 the final decision of the thesis and the content was made. The preliminary table of content was described in April 2010. During the summer 2010 the evaluation of the loading factors started and the thesis agreement was signed in September 2010, although both parties were in consensus of this bachelor's thesis all ready before that. The educational evening for the personnel was implemented in 27<sup>th</sup> of October and all 17 invited participated throughout the whole evening. The maturity exam was written and thesis presented in November 2010.

Autumn 2009- January 2010	Aim and the direction of interest is developed. Topic and the content of thesis was made with the co-operating party
Spring 2010	Preliminary table of content was introduced Theoretical background was collected in terms of references
Summer 2010	June: Observation of the working ergonomics at Päivänkakkara day care July: Theoretical background writing process and observing the day routine of Päivänkakkara. Clarification of the table of content and the content of the thesis
Autumn 2010	August: The structure of the lectures, getting acquainted to the day routine in Päivänkakkara and meeting the family child carers. September: The co-operation contract was written and the educational evening was prepared. October: Implementation of the thesis and changes to the written work November: Finishing up the written part, presentation of the thesis and maturity test

Table 1. Study plan

## 7.2 Collecting the data

The data was collected from June to August 2010 by visiting the day care on 4 separate days. Most of the data was collected by observing several situations during a normal day of a care giver. To receive information about the challenges

of the work a small one question interview was implemented in site while the subject was working. Non-structured interview and free conversation was used to receive as versatile answers as possible. A meeting with the family child carers was also visited to require information about the challenges of loading work. This material in addition to the material found from the literature was used to construct the education evening. At the end of the educational evening feedback over the material, topic and the lecturer was collected with questions: How did you feel about the education? Would you want more functions like this? And in the end the possibility to other comments.

### 7.3 Implementation of the thesis

The project was implemented as a single evening education in October for the personnel working with children under the age of 7 either in a day care or in a home environment. The implementation was done in a form of lecture and practical exercises of SDM. All 17 members of the personnel participated to the educational evening and the feedback of the lectures were positive. Most of the participants felt that the topic was interesting and information received was useful, for few these issues were already familiar and they felt the lectures worked more as reminder rather than giving anything new.

### 7.4 Education material

The material for the education consists of a power point presentation of work ability, work load and ergonomics to discuss and point out the possibilities and challenges of the work. The basic idea was that the education would refresh and bring something new to the personnel's everyday work in terms of the topics. Part of the lecture was also work ability and information about the work place health promotion regarding exercise and passive treatments to provide everyone the equal opportunity to benefit from them. The last part consisted of the theory behind Sherborne Developmental Movement accompanied by a short video

material of SDM, Suomen kehitysvammaisten Liikunta ja Urheilu ry; SDM-Menetelmä, vaikeasti vammaisten ja autististen lasten liikunnassa. 2007.

All participants received their material copied before the lecture and during the lectures had the possibility to utilize literature concerning Sherborne Developmental Movement. The duration of the educational evening was three hours including a coffee break. The first part consisted of a lecture of work ability, work load and ergonomical challenges, which were discussed on the bases of the challenges that rose in the interview and observation days. The benefits and usability of assistive aids such as grip tongs and an adjustable chair on tyres and a sitting position where one knee is on the ground was shortly discussed.

After the break we focused on SDM; the themes, goals possibilities and followed a short video. Group tasks were given after the film to enhance the learning experience. The groups of three care givers had the task to come up with short Sherborne method using exercise lesson maximum of 15 minutes. Topics were shy, clumsy and hyper active children and tactile hypersensitivity. The topics were chosen according to the Developmental movement for children book.

After 20 minutes of planning each team presented their key ideas and exercises using this method. The possibility for questions and discussion was left to the end of the evening.

## 8 DISCUSSION

The aim of my bachelor's thesis was to evoke interest on SDM and provide information about proper ergonomical working positions in addition to work ability and load. I chose the topics as well as the education as the way of implementation due to a request from Päivänkakkara day care. I was unable to find a lot of information about the proper working ergonomics in day care work or while taking care of children at home. The Vehmaa day care personnel consist of

family child carers and personnel working in Päivänkakkara day care with several educational backgrounds, I had to ensure the suitability of for everyone.

My personal interests lie in the motor development of children and all aspects related. I wanted to have a functional part in my thesis and after getting acquainted with the Sherborne Developmental Movement I wanted to know more about it. The initial contact with the co operating party was made in December and the original topic was learning disabilities and motor learning. In May the final topic was formed and I started my assessments and interviews.

Originally the idea was to have some kind of other material such as posters, but I felt that personal guidance would be more effective. I was aware of the fact that the topic for the most part was all ready very familiar for the participants, but I wanted to provide them with the latest knowledge and some new ideas in practice. After the lecture I found that this would have been a topic for two separated times as it felt a bit heavy towards the end.

The education date was decided with the day care manager in the beginning of September and it was held as part of the personnel's additional education. The material was copied by the Day care manager for the participants and I brought four books of Developmental movement for children, mainstream, special needs and pre-school with me as a reference. The video clip shown was from SAMK Library.

This bachelor thesis was also a possibility for me as a becoming physiotherapist to challenge myself and seek constructive feedback. Lecturing is part of the job description of a physiotherapist and in my opinion the practical exercises of this topic have not been sufficient. This experience gave me the change try something new learn from it and use it to my benefit.

For further suggestions I would like to see more studies of the working ergonomics in the field of day care. Educations about using tools such as Jorvin karkeamotorinen testi 5-vuotiaille or Movement ABC would provide the

personnel more readiness to evaluate and support the child's development. It would also be interesting to see how after SDM education the caregivers would use the knowledge in practice.



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### VARHAISKASVATUKSEN HENKILÖKUNTA

Tervetuloa keskiviikkona 27.10.2010, kello 18.00 päiväkotiin kuuntelemaan ergonomialuentoa ja kurkistamaan Sherborne menetelmän maailmaan.

Koulutus toteutetaan osana opinnäytetyötä fysioterapian koulutusohjelmassa. Kouluttaja toimii Satakunnan ammattikorkeakoulun fysioterapia opiskelija Anni Ahtiainen.

Ilta on päivähoitohenkilökunnan täydennyskoulutusta ja palkallista työaikaa.

Power point presentation SDM-menetelmä ja työergonomia.

## Ergonomia



- Ergonomian tarkoitus on turvata työntekijän terveys, hyvinvointi, turvallisuus ja tuottavuus työympäristössä
- Perusajatuksena on työmenetelmien,-välineiden ja työn sovittaminen ihmisen ominaisuuksia ja tarpeita vastaaviksi.

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27.10.2010

## Työkuormitus



- Sopiva työkuormitus edistää työkykyä ja terveyttä
- Henkinen ja fyysinen kuormitus
- Työn kokonaiskuormitus
- Palautuminen ja kohtuus
- Fyysisen kuormituksen arviointiin kuuluu mm.
  - työasennot
  - tauotus
  - valaistus
  - ääniolosuhteet

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## Fyysinen kuormitus



- Toistotyö
  - nostot
  - kierrot
  - pukeminen
- Dynaaminen ja staattinen lihastyö
  - kantaminen
  - peppujen pesu

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## Psykososiaalinen kuormitus



- Vuorovaikutus
- Käyttäytyminen työyhteisössä
- Yhteistyö
- Työn
  - Johtaminen
  - Organisointi

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## Kognitiivinen kuormitus



- Yleisimmin esiintyy tietotyössä
- Kohdistuu aivoihin työelämän osaamisen vaatimuksien ja teknologian kehittymisen muodostumisen myötä.

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## Ergonomia



- Ennakointi
- Työasennot
- Apuvälineet
- Työympäristö
  - Melu eri tilanteissa: ruokailu, vaatetus
  - valaistus
  - tilat; käyttöön sopivuus
  - tautotus, henkilökunnan tilat

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## Työympäristö



- Työoloilla on suuri merkitys työkyvyn ylläpitämisessä ja monien sairauksien puhkeamisessa.
- Kotiympäristö
  - yksinyöskentely
  - matalat kalusteet
  - ahtaus
- Päiväkotit
  - matalat kalusteet

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## Haastavia työasentoja



- Lapsen nosto lattialta
- Vaipan vaihto
  - pepun pesu
- Pukeminen ja riisuminen
- Tiskien purkaminen kärrystä
- Matalien pöytien pyyhkiminen
- Työskentely matalan pöydän äärellä

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## Oikea nostotekniikka



- Ota haara- tai käyntiasento
  - Asetu mahdollisimman lähelle nostettavaa
  - Kyykisty selkää eteen kallistaen
  - Ota tukeva ote
  - Nosta hallitusti jalkoja apuna käyttäen
  - Pidä nostettava mahdollisimman lähellä vartaloa
  - Vältä kiertoja ja riuhtaisua noston aikana
- Jos mahdollista pyydä rohkeasti lasta nousemaan ylös itse

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## Melu, valaistus ja sisäilman laatu



Melu:

- Jatkuva altistuminen
- Materiaalit

Valaistus:

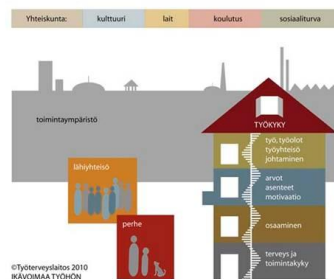
- Tärkeä niin pääte työkentelyssä kuin joka päiväsissä askareissa

Sisäilma:

- Sisäilman laatu on tärkeä viihtyvyyden ja terveyden kannalta.

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## Työkykytalo(www.ttl.fi)



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## Tule-oireiden syitä



- **Liikunnan puute**, yksipuoliset toistoliikkeet, ikääntyminen, elämäntavat, yli- ja **alipaino**, tupakka, alkoholi, perintötekijät, **stressi**, riskienotto, **kuormitustekijät**, jaksaminen, työasennot, rasitus, **tapaturmat**, unihäiriöt, ympäristö, asenteet ja muut psykososiaaliset tekijät

(Suomen fysioterapeutit)

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## Veronica Sherborne



- Veronica Sherborne 1922-1990
- Menetelmä kehitetty Labanin liiketeorian pohjalta.
  - Mikä osa kehosta liikkuu?
  - Mihin suuntiin keho liikkuu?
  - Miten keho liikkuu?
- Käytössä kouluissa, päiväkodeissa ja erilaisissa ryhmissä.

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## SDM



Tavoitteet

- Luoda tilanteita joissa lapsi voi kehittää sosiaalisia taitoja
- Auttaa lasta toimimaan hallitusti niin että hän oppii erottelemaan ja yhdistelemään aistihavaintoja
- Auttaa lasta kehittymään niin että hän hakee itseohjautuvasti tarvitsemia kokemuksia
- Luoda turvallisia toimintatilanteita vahvan itsetunnon kehittämiseksi.
- Edistää lapsen oppimisvalmiuksia ja -kykyä toimia vuorovaikutustilanteissa

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## SDM



- Teemat
  - Kehonhahmotus
  - Tilanhahmotus
  - Liikevirta
  - Liikkeen voiman tiedostaminen
  - Liikkeen ajan ja rytmin tiedostaminen
  - Työskenteleminen parin ja ryhmän kanssa

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## Video



Miten soveltaisit harjoitteita omassa työssäsi?

Millaisia vuorovaikutustilanteita huomasit nauhalla?

Mitä harjoituksia haluaisit kokeilla käytännössä?

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## Ryhmätehtävä



- Suunnittele lyhyt ryhmätuokio käyttäen SDM menetelmää.
  - kömpelöt lapset
  - ujot lapset
  - ylivilkkaat lapset
  - kosketusherkät lapset

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