



Turun yliopisto
University of Turku

CORPOREALITY

A methodological study of supporting creativity in futures workshops

Master's Thesis in Futures Studies

Author:

Satu Tuittila

Supervisor:

Adjunct professor Katriina Siivonen

16.10.2017

Turku



Turun kauppakorkeakoulu • Turku School of Economics

The originality of this thesis has been checked in accordance with the University of Turku quality assurance system using the Turnitin OriginalityCheck service.

Table of Contents

| | | |
|-------|---|----|
| 1 | INTRODUCTION | 7 |
| 1.1 | Background | 7 |
| 1.2 | Aims of the study with research questions..... | 9 |
| 1.3 | The Futures workshops method | 10 |
| 1.3.1 | Structure of the method..... | 11 |
| 1.3.2 | Elaboration of the method..... | 12 |
| 2 | THEORETICAL FRAME | 14 |
| 2.1 | Phenomenology, the philosophical frame | 14 |
| 2.2 | Futures studies perspectives – alternative futures, preferable futures and images of futures | 16 |
| 2.3 | Creativity and groups | 18 |
| 3 | METHODS AND MATERIAL..... | 20 |
| 3.1 | Research strategy..... | 20 |
| 3.2 | Research material and methods..... | 21 |
| 3.2.1 | Two Papua pataan ja peltoon? - futures workshops..... | 21 |
| 3.2.2 | Matrix for invitees of the two workshops | 25 |
| 3.2.3 | Questionnaires..... | 27 |
| 3.2.4 | Interviews..... | 29 |
| 3.2.5 | Working diary and personal notes | 30 |
| 3.3 | Analysing process | 31 |
| 3.4 | Ethical considerations | 33 |
| 3.5 | Limitations of the material and methods used | 34 |
| 4 | ANALYSIS | 36 |
| 4.1 | Creativity..... | 37 |
| 4.1.1 | The participants’ experiences of creativity during the workshops .. | 37 |
| 4.1.2 | Diversity of the workshops’ participants | 39 |
| 4.1.3 | Outdoor exercises..... | 42 |
| 4.1.4 | Lunch Cooking..... | 45 |
| 4.1.5 | Hindering and supportive elements of creativity | 49 |
| 4.2 | Futures thinking..... | 51 |
| 4.2.1 | Facilitation | 52 |
| 4.2.2 | Corporeal and multisensory elements | 54 |
| 4.2.3 | Hindering and supportive elements of futures thinking..... | 57 |
| 4.3 | Interconnection of workshop theme and creative practices | 58 |

| | | |
|-------|---|----|
| 4.3.1 | Planning, structure and content of the workshop..... | 59 |
| 4.3.2 | The time frame and focus of the workshops..... | 61 |
| 4.3.3 | Creativity and future orientation in the results and the experiences | 63 |
| 4.3.4 | What kind of interconnection exists in between creative practices and the particular aims of the workshops?..... | 65 |
| 4.4 | Impacts of the workshops..... | 66 |
| 4.4.1 | Responses of the workshop participants | 68 |
| 4.4.2 | Positive engagement for supporting sustainability | 73 |
| 4.4.3 | Knowledge in futures thinking | 74 |
| 5 | CONCLUSIONS | 76 |
| | REFERENCES..... | 78 |
| | Research material | 78 |
| | References | 78 |
| | APPENDIX 1 KUTSUKIRJE..... | 85 |
| | APPENDIX 2 TAUSTAKIRJE | 86 |
| | APPENDIX 3 INSTRUCTION SLIDES IN THE WORKSHOPS..... | 88 |
| | APPENDIX 4 PARTICIPANTS OF THE WORKSHOPS | 92 |
| | APPENDIX 5 KYSELYLOMAKE VERSTAISSA..... | 93 |
| | APPENDIX 6 KYSELYLOMAKE 2..... | 94 |
| | APPENDIX 7 INTERVIEW QUESTIONS | 95 |
| | APPENDIX 8 CREATIVITY GRAPHS FRIDAY AND SATURDAY..... | 96 |

List of figures

| | | |
|----------|---|----|
| Figure 1 | Collage of views around Myllärintalo (Photos by Siivonen 28– 29.10.2016)..... | 22 |
| Figure 2 | Collection of some of the ingredients for cooking (Photo by Siivonen 28.10.2016)..... | 23 |
| Figure 3 | Brainstorming exercise ongoing on sheets with drawn sprouts (Photo by Siivonen 28.10.2016) | 24 |

| | | |
|----------|---|----|
| Figure 4 | Group work for future image ongoing (Photo by Siivonen 29.10.2016) | 24 |
| Figure 5 | Saturday morning opening circle outdoors (Photo by Siivonen 29.10.2016)..... | 43 |
| Figure 6 | Collage of activities in Friday cooking – (Photos by Siivonen 28.10.2016)..... | 47 |
| Figure 7 | Collage of some dishes created on Friday and Saturday (Photo by Siivonen 28-29.10.2016) | 49 |

List of tables

| | | |
|---------|--|----|
| Table 1 | Expertise matrix for workshop participants | 26 |
| Table 2 | Graph from the first questionnaire..... | 28 |

1 INTRODUCTION

Perception opens a window on to things
Merelau-Ponty 2009, 62

1.1 Background

Creativity is one of the most praised features in any area of innovation and development including the futures studies. The concept of creativity is wide, elusive and it is understood in very diverse ways in different contexts. It is similar to terms like imagination, innovation, inspiration, inventiveness, originality and talent which may be used partly overlapping or even synonymous (e.g. Plucker, J.A. & Makel M.C. 2010, 48; Runco & Jaeger 2012).

In the futures studies creativity is an essential element needed in imagining and examining the different possible futures to be (e.g. Slaughter 1991; Bell 2009b). Wendell Bell (2009a, 169) draws comparisons between art and futures studies where creativity, intuition, imagination and innovation are desired and valuable. Creativity can be approached in different ways in futures studies context. In this study I will consider it from a perspective of group creativity. Futures imaging, creating options and possibilities of futures, is shaping human consciousness maintains Richard Slaughter (1991, 499). He then continues that imaging can play a significant role as a cultural force for defining goals for different kinds of achievements (Slaughter 1991, 501).

Futures workshops is a participatory futures method where collective futures imagination is utilised. The method is usable and used in many different situations and with different kinds of participants from experts to ordinary citizens as example in communities, municipalities, NGO's, corporations and small firms. It is mainly developed and evaluated through the experiences in the practical world. (Jungk and Müllert 1987, 5–11; Dator 1993; Vidal 2006, 2–3; Bell 2009, 300–305; van Vliet et al 2012; Luttamäki 2016,157.)

There are different ways to support creativity in futures workshops. The structure of the method itself is supportive for collective idea generation and elaboration. Different kind of tools are used within the futures workshops to support creativity and group work (e.g. Jungk & Müllert 1987; Heinonen & Ruotsalainen 2013). For example, Robert Jungk and Norbert Müllert (1987, 61) suggest storytelling, games and role plays to support creativity. Another example is Futures Window, a cavalcade of provoking images often accompanied with music used in Futures Clinique (Heinonen & Ruotsalainen

2013). In the Emergence conference different kind of artistic activities including e.g. gaming, storytelling, writing, playing, drawing and crafting were explored in the futures workshops content (Selin 2015).

To support creativity and particularly creative futures thinking is an ongoing challenge for the facilitators and organisers of the futures workshops. The balance between creativity and practical solutions is delicate to facilitate and is often accompanied with restricted time and other resources claims Ville Lauttamäki (2016.)

From the documents of the futures workshops I have skimmed through and from my personal though limited experience of several futures workshops seems that a use of corporeal¹ meaning bodily experiences or multisensory elements for supporting creativity in them is unusual. Consequently, this seemed like a less researched area in creativity support in the futures workshops. Corporeality and multisensory elements are linked to creativity via concepts of silent or tacit / kinaesthetic knowledge² where experience and action have important role in knowledge formation (e.g. Parviainen 2006; Aromaa & Tiili 2014; Pink 2015).

To explore and discuss creativity support in futures workshops I am making a qualitative study by analysing a practical process of two futures workshops. These workshops are called *Papua pataan ja peltoon* (Beans for pots and fields) and will provide material for a research network called *Kasvunpaikat* (Ground and Growth). The network aims to develop ecologically sustainable agriculture in a culturally sustainable way. The network includes partners from the University of Helsinki, the University of Turku, LUKE the Natural resources institute of Finland and from the design company Måndag. (Kasvunpaikat 2016.) The topic of the workshops having no obvious relationship to creative corporeality or creative use of multisensory practices creates an interesting challenge to explore the research questions and to test the validity of corporeal practices in diverse contexts.

With the results of this study I aim to provide new alternative ideas for supporting creativity and creative futures thinking in the futures workshops. Furthermore, I wish to participate and complement to the surprisingly exiguous material of the methodological discussion of the futures workshops. Moreover, my personal extensive professional background as an artist and a teacher in the field of contemporary dance provide a usable source of experience in the field of corporeality and creativity.

¹ The term *corporeal* refers to bodily existence and is practically identical with term *bodily*. However, the term *corporeal* and the noun form *corporeality* seem to refer to bodily reality including cultural experiences which serves better the needs of this study (Foster 1996:xi; Foster 2011:13).

² Concept of silent/tacit knowledge means practical knowledge which appears from or is learned by practical function (Parviainen 2006, 68).

1.2 Aims of the study with research questions

The aims of this study are to experiment corporeal and multisensory practices in the futures workshops and accordingly investigate alternative ways to support creativity in the workshop practices. The study is evidently a qualitative research where the intention is to increase the understanding of creative processes in the futures workshops method. It focuses on experiences and meaning as in qualitative research according Laine (2010, 28). In line with Jouni Tuomi and Anneli Sarajärvi (2004, 38) my aim is to increase consciousness of the experienced but not yet consciously reflected. This research is a methodological study of creativity support and it includes two futures workshops where these methodological questions are explored in practice.

In this research I will focus on the experiences of the participants of the workshops, corporeality and participatory methods as an essential part of futures research. It is an example case from where the creative practices experimented could be utilised, varied and developed for futures workshops practices if they are proven potential. Also, with this study I wish to provoke discussion about the relevance of corporeality and multi-sensorial elements within the futures studies.

The practicalities of two workshops supporting the aims of “Kasvunpaikat” research network and the experiments of corporeal and multisensory ways of supporting creative futures thinking in futures workshops are interweaved. The main aims for the workshops were to contemplate the possible future worlds where the use of legumes (as peas and beans) is a natural part of our culture and to promote sustainable cuisine and agriculture. This created a kind of ideological background of sustainable development³ for the workshops which is necessary to note. The workshop theme is linked for example to ecological discussions of climate change and agriculture, cultural food consumption habits and degree of protein self-sufficiency in Finland. As an example, approximately 70% of protein consumption in Finland is animal based and meat consumption has doubled between years 1961–2011 (FAOSTAT 2011) whereas a domestic alternative for vegetarian protein being legumes as peas and beans are currently covering a modest 3% of protein consumption in Finland (Ahokas et al. 2016, 13.).

The frame of legumes is creating a multidimensional frame for workshop’s content but also it creates a frame for my planning of workshop’s structures and creativity support activities. To consider the theme of the workshops is significant because it has an influence to the preferred participants and to the tools used in the workshops.

³ The concept of sustainable development originates in Brundtland’s commission report “Our common Future” from year 1987 and it is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987, p. 43).

The objectives of the study are:

1. To investigate practical corporeal and multisensory practices in two futures workshops.
2. To organize, plan and facilitate two futures workshops which promote the sustainable cuisine and agriculture where the corporeal and multisensory practices are used.
3. To analyze and evaluate how and if the use of corporeal and multisensory practices are supporting creative futures thinking in futures workshops.
4. To discuss the interconnectedness of the creative practices and the topic and aims of the particular future workshops.

From these aims and objectives the following two research questions are formed:

How can creative futures thinking be supported in futures workshops by corporeal and multisensory experiences?

What kind of interconnection exists in between creative practices and the particular aims of the workshops?

1.3 The Futures workshops method

In futures research there are several participatory methods in use using both face to face meetings or multi-locations (e.g. different digital meeting possibilities) and varying from small groups to over 1000 people (Glenn 2009a). Among the participatory methods different kind of workshops can vary in their titles and origins. Nevertheless they have many similarities including identification and/or analysis of the main focus, discussions and imagining of plausible and preferable, organising the ideas and creating some kind of strategy or implementation plan for the future (Jungk & Müllert 1987; Slaughter 1991; Vidal 2006; Bell 2009; Glenn 2009a). The aims of the workshops whether being more toward strategic planning, developing alternative future images or scenarios or provoking surprising futures determines the best tools to be used in the workshops.

Among the participatory methods in futures studies futures workshops is an important and regularly used method. The idea of futures workshops originates to Austrian

Robert Jungk who organised in the 1950's structured group meetings for citizens to solve problems and develop proposals for desired future. The first *Future workshop*⁴ was organised in 1962. (Jungk and Müllert 1987; Dator 1993; Bell 2009a; Lauttamäki 2016.)

The futures workshops method is about creating desirable futures and it has particular value in its heuristic and experiential nature. The creative methods, use of imagination and emotions are emphasised strongly in the method. Team work, learning, critique, democracy and empowerment are emphasised and the focus is on participative group processes and real-life problems. The method supports an ability to bring forward creative and new ideas, to share knowledge and to find new ways to achieve desired futures. It is also a platform for data acquisition and social learning (Jungk and Müllert 1987; Dator 1993; Slaughter 1991; Vidal 2006; Bell 2009; Lauttamäki 2016.) Jungk and Müllert (1987:5–11) argue that the employment of people's imagination is far too ignored as a resource.

Creativity is much emphasised in the futures workshops method and Jungk was inspired by the diverse creative methods which activated the intuition of individuals, synergy effects in groups and critical potentials to create an image of an alternative future (Jungk and Müllert 1987, 61-63). In addition to the general aspects for supporting creativity in a group work situation there are several kinds of warm-up exercises and tools in common use for stimulating creativity in the workshops such as games, improvisation, role plays, storytelling, brainstorming exercises as all imaginative uses of one object, relaxing music, relaxation exercises, meditation, guidance for future trips in imagination and collections of visuals as photos, paintings, drawings and video clips (Jungk & Müllert 1987, 61–63; Vidal 2006; Heinonen & Hiltunen 2012, Heinonen & Ruotsalainen 2013).

1.3.1 Structure of the method

Classic Future workshops according to Jungk and Müllert (1987, 115–121) consist of following phases:

1. The preparation phase (happens before the actual workshops)

⁴ *Future workshop* is the original term by Jungk (Jungk and Müllert 1987) which he used for the method, however later the plural form of *Futures workshops* has been established to be the one in use. The plural form is used in this study with couple of exceptions referring to Jungk's text directly.

This includes organising and planning the themes, the participants, the methods, the time tables and the room and local facilities of the workshop.

2. **The critique phase** (the first phase in the workshop)

This includes critical and comprehensive discussions and an investigation of the problems and structuring and grouping the ideas to some sub-themes. To reduce the material manageable the ideas can be clustered and scored either openly or by closed voting.

3. **The fantasy phase**

This includes warm-up exercises and diverse creative techniques in an attempt to work up a utopia and ideas of positive solutions and to develop social fantasies of the participants. Moreover, these ideas can be clustered and then scored for further development.

4. **The implementation phase**

This includes evaluation of the ideas and assessing their practicability followed by an elaboration of an action plan.

1.3.2 *Elaboration of the method*

As a popular futures studies method the futures workshops has been used and developed to several variations. There are many practices and additional futures methods used within or between the phases of the classical structure. Examples of methods used as tools within the workshops are e.g. brainstorming (Osborn 1953) futures wheel (Glenn 2009b) and different kinds of Futures tables as PESTEC (Heinonen & Ruotsalainen 2013). Moreover, the results of the workshops may be summarised e.g. as action plans, proposals for project, visions or short stories (e.g. Jungk and Müllert 1987, 69–72; Bell 2009a, 304; Lauttamäki 2016).

As examples of elaboration two versions of Futures workshops developed in Finland Futures Research Centre are Futures Clinique (Heinonen & Ruotsalainen 2013) and ACTVOD-futures workshop (Lauttamäki 2016). Futures Clinique utilizes several futures research methods: Futures Window (Heinonen & Hiltunen 2012), Futures Wheel, Futures table (PESTEC), identification of weak signals (e.g. Mendonca et al. 2004) and their impact, identification of Black Swans or Wild cards (e.g. Mendonca et al. 2004) and their impact ending with a scenario narrative built on the findings of previous phases (Heinonen & Ruotsalainen 2013). ACTWOD presented by Lauttamäki (2016) in turn is inspired by ideas of Peter Checkland (CATWOE) and combines tools as Futures Wheel; a table including: actors, customers, transformation processes, values, obstacles,

drivers and as an option also products; concept of futures images and e.g. a timeline including needed actions, actors and resources for a concrete action plan. (Lauttamäki 2016:159–162.)

In both of them the composition of participants is claimed as an essential factor and it is suggested that the participants should never be from only one organisation or sector or industry but rather have a wide range of background in profession, age and school of thoughts (Heinonen & Ruotsalainen 2013; Lauttamäki 2016, 158). For creativity support Futures Window including a cavalcade of provoking images with accompanied music is presented in Futures Clinique (Heinonen & Ruotsalainen 2013). In these methodological articles any other multisensory or corporeal activities are not stated or any stress for creative warm up or other supportive activities are not highlighted.

Anyhow, there exists futures workshops where corporeal elements have been used as elemental part of the process. For example, futures workshops related to national Myrsky-project⁵ utilised particularly theatre methods and improvisation guided by professional actor Niina Nurminen (Siivonen 2010.) I have also assisted in Leena Jokinen's futures workshops⁶ where we used corporeal warm-up exercises. Nevertheless, any methodological discussion of these corporeal and artistic elements used is not available.

Even the futures workshops is a popular method (e.g. Bell 2009a; Lauttamäki 2016, 157) relevant methodological literature of it is very limited and the *Future workshop* book by Jungk and Müllert (1987) is still an essential reference. Anyhow, reports of several futures studies which have used futures workshops or very similar participatory methods as a main method in the study are plenty. Relevant comparative literature can be found in e.g. reports of FFRC (e.g. Hietanen & Saarimaa 2016; Nygrén 2016; Ruotsalainen et al. 2016), in scenario workshop literature (e.g. Ralston & Wilson 2006; Chermack 2011) and innovation lab presentations (e.g. Leminen 2015).

⁵ National Myrsky-project (2008–2011) aimed to increase the well-being of youth with diverse art activities.

⁶ Finnish Sea Cluster 13th January in 2016 in Helsinki and Playground-parks for all ages 9th February in 2016 in Pori.

2 THEORETICAL FRAME

Between sense experience and knowing
Merleau-Ponty 2009: 60

The research subject is a participatory method and corporeal and multisensory ways of supporting creativity of the participants in it. A philosophical perspective to knowledge and knowing which emphasises experience, corporeality and subjectivity appears meaningful in this context. Phenomenology, where the perception, experiential knowledge and corporeality are emphasised as a focus of research and a way to understand the world (e.g. Parviainen 2006; Adams & van Manen 2008; Merleau-Ponty 2009; Laine 2010) is appropriate philosophical perspective for my study having similar research objectives.

The theoretical frame of this study is constructed on three levels where the phenomenology is making a philosophical perspective, a kind of background boundary from where the study is approached. Theories from futures studies and of creativity in groups are forming the second particularly to this study focused level of theoretical frame giving reference to my examination of the workshops. I am combining these perspectives to create a flexible and multiple framework for the study of creativity support. The third, most practical level is formed of the concepts arising from the research material which I will contemplate in the analysis part.

2.1 Phenomenology, the philosophical frame

Phenomenology is studying a phenomenon as they appear to us states Jaana Parviainen (2006, 43). It explores ways to be focused on and sensitive to subjective, the concrete and prereflective aspects of the world (Adams & van Manen 2008). Edmund Husserl's phenomenology can be seen as a kind of reflective attitude toward world and oneself rather than as a method. It aims to release the existing theoretical and methodological presumptions and has intention to unprejudiced and curious perception of a phenomenon. Phenomenological description aims for alive and precise concepts, which indicate intuition and immediate reflection before theorising. (Parviainen 2006, 46–49.)

In phenomenology the individual experience and subjectivity are underlined and reality is approached by perception and lived, corporeal experiences claim e.g. Timo Laine (2010) and Catherine Adams and Max van Manen (2008). The emphasised perception, intuition and experience can be focused both into researcher's own experiences

and understanding and other people's experiences and understanding of the research subject tells Parviainen (2006, 44–45). Additionally, the focus of a study can be on the structures of an experience or on the structures of consciousness Jari Kaivo-Oja (2017, 96) complements.

In this study my interest is directed toward multisensory and corporeal ways of producing knowledge where experience and active participation has an important role. This kind of knowledge producing is used and discussed in e.g. ethnographic research (e.g. Frykman & Gilje 2003; Aromaa & Tiili 2014; Pink 2015) and in movement research (e.g. Parviainen 2002; 2006; Anttila 2009). Parviainen (2006, 50) talks about revealing a phenomenon through action and kinaesthesia where a researcher is an active participant, not an observer outside. According to Parviainen (2006, 96) silent, kinaesthetic knowledge and abstract, conceptual knowledge can supplement not replace each other.

My personal multisensory and corporeal experiences as a researcher (gathering the research material and knowledge of the subject in facilitating the workshops) are in a minor role in this research supporting the research data. Instead the corporeal and multisensory experiences of the workshop participants are central. These experiences are examined as a potential way to produce creative futures thinking and knowledge about future. The body is understood as a knowing entity not only as source of experiences rationalised by the mind (e.g. Merleay-Ponty 2009, 171–177; Pink 2015, 26) and accordingly the practical knowledge is valued as the theoretical knowledge.

Kaivo-Oja (2017, 96) argues that “Husserl's ideas about intentionality are highly relevant for participatory foresight research”. Intentionality means that one is directed toward something and it refers to actions and efforts made or to be made. My intention is to reveal potential on corporeality in futures thinking by constructing two workshops so that they supports this intention in the best possible way.

Another valid aspect of phenomenology is self-reflexivity, an intention to recognise and release personal intentions and biases toward the research material and an effort to see the material from different perspectives and to be open for new interpretations (Parviainen 2006, 48–49). This means that I need to be critical e.g. toward my eagerness of proving the potentiality of corporeality within futures studies.

To analyse and interpret the research material of participatory method and corporeal activities I have utilised the ideas and perspectives of ethnographers Billy Ehn (2014) and Sarah Pink (2015). For example Ehn (2014, 61–62) urges to note and collect together very different kind of observations which might look trivial but together reveal new interesting perspectives to a phenomenon. Pink (2015, 142) stresses that the analysis is “a process of re-insertion, through memory and imagination work” and it includes experiences or researcher's embodied knowing.

Phenomenological approach, the unprejudiced perception and description of a phenomenon from different perspectives appears as a relevant approach to study experiences of creativity. According the principals of phenomenological reduction I am aiming to reveal the essential characteristics of the studied phenomena as it has been represented to my *transcendental ego*. *Transcendental ego* (Parviainen 2006, 49–50) means a constant self-reflexion to my work, to my biases, to my ideas, conceptions and personality and their construction, in order to be capable of recognizing the shared experienced world. With this I practically mean my intention to describe and study my material, particularly the experiences of creativity in the workshops, so that they as phenomena, structures and experiences would increase the understanding of multisensory and corporeal practices within futures workshops.

2.2 Futures studies perspectives – alternative futures, preferable futures and images of futures

Futures studies is a large multidisciplinary field including many scientific philosophical perspectives, methodologies, methods and a need for wide understanding of the concept of knowledge (e.g. Bell 2003; Malaska 2003; Niiniluoto 2009). According to Pentti Malaska (2003) the theoretical background is characterised by following aspects: long time perspectives, normativity and characteristics of knowledge and additionally to rational also interpretative, contingent and visionary.

According to Jungk and Müllert (1987, 6–26) in futures workshops the intention is to make better future and the future is seen as alternative preferred future images which are created in the workshops. Slaughter maintains (1991, 507) that “futures workshops provide a flexible way of dealing with futures concerns, nurturing images, and exploring their implications”. The concepts of alternative futures, preferable futures and images of futures are creating the theoretical viewpoints of futures studies in the context of this study.

Future can be seen as branches of tree which are defining alternative possibilities suggests Ilkka Niiniluoto (2009, 61) and continues that “future is still open to some extent, as its features will depend on chance events and human choices.” Malaska (2003, 12) maintains that in the present moment future is not yet determined but it is truly contingent meaning that different possibilities of futures are not determined to come true and that they are also objects of decision making. According to Niiniluoto (2009, 61) the duty of a futurist is to create alternative possible futures, asses the probability of them and evaluate their preferability or desirability. The active role, futures making is also embedded in futures workshops practices.

The branches or paths to future can be seen leading toward preferable or avoidable alternatives. The idea of preferable futures arises many scientific and philosophical questions as of evaluation, judgement, values and moral philosophy. For example, whose preferable, what is the criterion for it and how it can be measured are questions discussed in the subject area (e.g. Bell 1997; 2009b; Niiniluoto 2009.) Without diving deeper to the philosophical discussions it can be stated that supporting and improving the welfare of human kind and our environment are among the included objectives of futures studies (Bell 2009a; 73). The active participation in society and political dialogue and an aim to transform society are seen as commitments of futurists by e.g. Bell (2009a, 73–75), Malaska (2003, 13) and Niiniluoto (2009, 61) and futurology, originated to Ossip Flechtheim in 1940's, has strongly ideological even utopian base (Ketonen 2009, 34).

The alternative futures can be dealt with and processed by concept *images of the future*. Images of the future are according Fred Polak (1973, 10) “systematic projections toward future” which are influenced by science, religion and values in the sociocultural context. They are mental constructions including future orientated conceptions and perceptions, assumptions and beliefs but also observations and facts about the present maintains Anita Rubin and continues that images include both realistic and imaginative elements (Rubin 1998; 2000). Furthermore, the influence of the images of future to a person's decision making can be both conscious and unconscious Rubin (2000, 16) remarks.

Slaughter (1991, 500) talks about imaging as a social process and it has a central role in creative abilities. Through futures images goals can be defined or they can outline alternatives to avoid. In the formation of images of future Bell (2009a, 82–83) says that there can be different focuses like the factors which are producing the images, the content of images or the consequences of them. Slaughter (1991, 503) stresses the importance of images of future because imaging can have important cultural significance. They are a tool to evaluate and revalue the desired future he continues.

Images of the future is a concept that the most futurist share maintains Bell (2009a, 82) and continues that the images are influencing people's actions and behaviour in trying to adapt or avoid a coming future or to create a wanted one. This according Bell (2009a, 82) makes the images one of the influential causes of future. Polak (1973) highlights the awareness of ideal values and a capacity to imagine as source of operational activity and contribution to cultures and societies. When creating futures images e.g. in workshops the participants can recognise the different actions needed toward a desired image, identify the roles to have and tasks to make and become active in futures making (Jungk and Müllert 1987.) Bell (2009a, 93–94) highlights the empowering of the citizens to imagine and design the futures.

In this study the images of future are used as a concept in two futures workshops. The participants' created images of future world of year 2040 in group work framed by theme of legumes and sustainability. The idea that the future we are striving for can be something essentially different from the past (Ketonen 2009, 34) was an inspiring motivator for me in planning and facilitating the futures workshops.

2.3 Creativity and groups

Creativity in this study is particularly seen in the group context. In the futures workshops method the creative work happens in the group and the customs of the group work are affecting the results and the work process itself. Also, in the creativity research a focus shift has happened from individuals toward groups and creativity as the importance of group work and creative collaboration is increasing in the working life (Concalo 2009, xii; Poutanen 2016, 10; Ziebro & Northcraft 2009, 135).

In this study the elusive concept of creativity is understood as in the standard definition of creativity where it has two parts: originality and usefulness, (Sternberg & Lubart 1999, 3; Runco & Jaeger 2012, 92). This standard definition is complemented with Petro Poutanen's (2006, 10) thoughts of creativity as an iterative process of discovery with emergence as an important concept, Tim Ingold's (2014, 126–134) ideas of creativity as undergoing rather than doing, an ability imagine as a way of life to find creative responds in the constantly transforming world and with futurist Tom Lombardo's (2006, 46) description of creativity as an ability "to produce novel ideas, inventions, and behaviors" by exercising foresight which is not bound by the restrictions of the present. In other words creative futures thinking is an ability to imagine something radically different from today's world and present possibilities.

Collective creativity can be defined as a situation where collaboration and interaction of participants with diverse backgrounds are focused on problem solving or idea creations, suggests Poutanen (2016, 10). There are different kind of scientific perspectives of the creativity in groups which may emphasise e.g. the information exchange, increase of convergent and divergent thinking, inspiring and effective communication and feedback, networks or a systemic phenomenon and participatory and socio-cultural aspects (Poutanen 2016, 19–22; Ziebro & Northcraft 2009, 136–140). Rietzschel et al. (2009, 1) highlight the necessity to "approach creativity as a multidimensional sequence of behaviors" and to understand that in different phases of a creative process the same variables are not automatically affected or they are not affecting similarly. For example, creativity in idea generation does not necessarily carry on to the elaboration or implementation phases (Rietzschel et al. 2009, 18).

The challenges in group creativity are to understand how people with diverse cultural, social and professional backgrounds can benefit of the collaboration and use successfully their knowledge, states Poutanen (2016, 11, 70). Synergy effect is a term Jonali Baruah and Paul Paulus (2009, 30–37) call the “added benefit of group collaboration that is the result of cognitive or motivational stimulation that results from the group interaction process” and which enables the group to exceed the contribution of its individuals.

Poutanen (2016, 71) highlights the following results of his doctoral theses *Complexity and collaboration in creative group work* as essential for creative group processes: understanding the complexity and non-linearity in creative processes and the importance of the concept of emergence in developing innovative ideas. He lists seven factors which are the most important for nurturing creative collaboration: 1) building a proper culture of working together, 2) knowing the regularities in creative process, 3) embracing variation and context, 4) encouraging emerging practices within the groups, 5) identifying levels and focus of creativity, 6) appreciating subjectivity, the diversity of participants and their interpretations as an iterative process and 7) nurturing the communication landscape, the dialogue as a reflexive critical discussion (Poutanen 2016, 66–69).

Sirkka Heinonen (oral information 12.10. 2016) suggests that creativity in the workshop context could be divided to three dimensions 1) creativity of the participants 2) creativity of the tasks and structures in the workshops and 3) creativity of the results. She continues that these three dimensions are obviously interconnected but high creativity in one of them does not necessary mean high creativity in the two other ones.

3 METHODS AND MATERIAL

I observe external objects with my body
Merleau-Ponty (2009, 104)

3.1 Research strategy

To make a methodological study of futures workshops method and to study corporeal and multisensory ways of supporting creativity a practical experiment is a natural way to explore the topic. The practical workshops provide the place for experiential and multisensorial to be explored and according phenomenological approach reveal the substance of the phenomenon by action and participation (e.g. Parviainen 2006, 50; Aromaa & Tiili 2014; Pink 2015).

Two futures workshops including the whole process from planning to results and two questionnaires examining the experiences of the workshop participants create the main source for this research. Two interviews are deepening the viewpoints of the workshop participants and four interviews are mapping the professional experiences of the Finland Futures Research Centre's (FFRC) personnel on the topic. Additionally, I have kept a research diary making notes of the multiple details and observations during the process. From the case workshops there are photographs, audio recordings of the group discussions and the results of the group work in a form of big sheets creating a kind of systemic idea maps of futures, futures images. The interviews and group discussions are recorded and they are transcribed by making notes with time line. The interviews and the answers in the questionnaires are in Finnish and all the translations in this study are made by the author.

In the analysis the emphasis is to examine the applicability of corporeal and multisensory practices in futures workshops for creativity support. Additionally the interconnectedness of the workshop theme and creative practices and impact of the workshops are studied. The material is analysed by first clustering and coding the material to make it more approachable and then identifying the major themes with relevant subthemes for further analyses and discussions. Four major themes were found: creativity, futures thinking, interconnection of workshop theme and creative practices and impacts of the workshops. The experiences of the participants are used as material for creating meaning and understanding of the phenomenon of creative futures thinking which is in line with intentions of phenomenological approach according Laine (2010).

3.2 Research material and methods

3.2.1 *Two Papua pataan ja peltoon? - futures workshops*

The two futures workshops were called *Papua pataan ja peltoon? -tulevaisuusverstas* (Beans for pot and field? -futures workshops) and they supported the aims of *Kasvunpaikat* research network to develop ecologically sustainable agriculture in a culturally sustainable way. The workshops intended to create futures images of a world where a substantial use of legumes is natural. The essential ideas for corporeal and multidisciplinary practices were planned according the subject content of the workshops and the aims of *Kasvunpaikat* network.

The time and the place of the workshops were Friday 28th October from 9 am to 2 pm and Saturday 29th October from 10 am to 3 pm in 2016. The workshops were identical in their content. The schedule was chosen to enable farmers to participate (not during the busy season) and for other participants a working day and a free day made it possible to use either work time or free time for participation. The place *Myllärintalo*, at Halinen Turku was chosen because it has a nice multi-layered environment by waterfalls with rural and industrial scenery. Additionally *Myllärintalo* has a cosy atmosphere inside and a kitchen with fairly good equipment which could be used. The importance of location is stressed by e.g. Jungk and Müllert (1987) and Heinonen et al (2012).

On Friday there were 15 participants and on Saturday nine. The workshop process can be divided to three phases: 1) the pre-phase included all the organisational tasks, invitation process, information letter for enrolled participants and several practical preparations before the workshops, 2) the actual two workshops included practical creative activities, group work and the first questionnaire and 3) the post-phase included transcribing the gathered material and results and the second questionnaire. (The invitation letter and the information letter with background material in Finnish are in appendix 1 and 2)

To examine creativity support with corporeal and multisensory ways two phases of activities were chosen for experiment. First, outdoor activities in the beginning of the workshop were related to environment, perception and futures imaging and they aimed to create relaxed atmosphere with responsive presence. The outdoor activities began with casual presentation tasks by throwing a small bag of beans in the circle in random order telling very short personal stories or memories of legumes. Another task positioned participants on lines in the yard depending on first their habits of eating legumes and second their professional working relation to legumes. This task aimed to in a playful way give some information of the participants to each other. The following warm up

tasks were targeting to wake futures thinking. The participants were guided eyes closed to first sense their presence and then to concentrate on listening the environment and the recognition of sounds and their durations in timeline from far past to future. The listening exercise was followed with a short perception walk to the surroundings for listening, smelling, touching and looking at scenery and details with the similar task of recognizing the layers of time, ancient, old, present and imagining the possibilities in future. The layered surroundings of *Myllärintalo* can be seen in the image collage below.



Figure 1 Collage of views around Myllärintalo (Photos by Siivonen 28–29.10.2016)

After first group work session second corporeal and multisensory phase was cooking the lunches together from easy to use legume products. The participants made several diverse dishes from provided food material consisting of the sponsored pea and bean products added with fresh ordinary vegetables and herbs, vegetarian dairy products and spices. The idea was to make common easy to cook food from sustainable ingredients.

My intention was to get acquaintance with pea and bean products and sustainable cooking and to allow creativity and experiment for the groups. Therefore, no recipes were chosen beforehand. A list of www pages with legumes recipes were printed for searching ideas and instructions if needed. This created a platform for creative and multisensory experiences with the main theme.



Figure 2 Collection of some of the ingredients for cooking (Photo by Siivonen 28.10.2016)

The research material gathered from the workshops includes results of the group work and the group discussions, receipts of the legume dishes made in the workshop and my personal experience of the whole process. The group work produced results of 1) six big sheets with brainstorming ideas of topic legumes including fact and fiction, food and non-food, 2) six big sheets of futures images in a form of a kind of systemic map collected from post-it pads, writings and drawings and 3) a collection of recipes of legume dishes created in the workshops. (The instruction slides in Finnish are in appendix 3).

In the futures images the workshops participants grouped the ideas and mapped their interconnections. They added in the supportive and hindering aspects in operational environment of the particular future image. Additionally, they marked with stars ideas easy to act out right away. The intention of the group work requested from *Kasvunpaikat* was to gather plenty of legume related ideas in futures images rather than get

fewer but further elaborated concepts. Examples of the brainstorming sheet and futures image sheet in following images:



Figure 3 Brainstorming exercise ongoing on sheets with drawn sprouts (Photo by Siivonen 28.10.2016)



Figure 4 Group work for future image ongoing (Photo by Siivonen 29.10.2016)

For documentation the group work discussions were recorded with a recorder in each group. The discussions are transcribed with time coded notes. My presentation in the beginning of the workshops and the conclusion discussions were not recorded. To document my personal experiences I made notes during the workshops when possible and wrote research diary after each day.

Adjunct professor Katriina Siivonen, my supervisor was in a role of an assistant in my workshops. She took photographs of all phases during both workshops and helped with practical tasks like cooking coffee etc. The facilitation and the leading role of the workshops were in my response. The photographs were taken for documentation and memory support of the workshops and I asked permission for taking them.

Receipts and pictures of the legume dishes which were invented during the lunch cooking are gathered to a booklet in PDF form. The booklet was e-mailed to the participants and it can be freely shared in e.g. social media.

3.2.2 *Matrix for invitees of the two workshops*

In invitation process to ensure the diversity of the participants an expertise matrix was used. The matrix was a modified version of matrixes Vilja Varho and Petri Tapio (2013) have developed for Delphi studies to qualify the results with heterogeneous composition of expertise in the panel. Different perspectives and backgrounds are needed to broadly assess changes that may be upcoming, e.g. in technologies, policies, or values. In this kind of matrix the participants are categorised with relevant types of expertise (and possible other characteristic as age and gender) and so it transparently demonstrates adequate variation. (Varho & Tapio 2013: 615.) The table shows the simple form of expertise matrix used for the invitees in the case workshops which helped to compose the diversity for a model workshop and in practice to keep the track of participants and their diversity in both days.

Table 1 Expertise matrix for workshop participants

| Expertise matrix | contact details | Knowledge of legumes | Impact network | Fri | Sat |
|--|-----------------|----------------------|----------------|-----|-----|
| Farmers | | | | | |
| Teachers* | | | | | |
| Chefs/restaurants | | | | | |
| Shopkeepers | | | | | |
| Processors of products | | | | | |
| Governmental/communal actors | | | | | |
| Researchers, ecologist, KEKO ⁷ students | | | | | |
| End consumers & Martha org. | | | | | |
| Sustainable business (Bastu) | | | | | |
| | | | | 0 | 0 |

* home economics in public schools or cooking and catering in vocational education

The invitees were expected to have at least one of the following characteristics 1) have some knowledge of legumes 2) have an impact group 3) having some knowledge or interest in sustainability⁸. From those ideas a composition of possible participants groups was formed, assuming that many of participants can be clearly identified in only one category and other parts are sophisticated or wild guesses or can be inquired by phone. I thought of these three categories as essential because in addition to different kind of knowledge of legumes the idea of having impact groups refers to futures studies as futures making. It felt important to have natural implementation and sharing possibilities via networks of the results and ideas gathered in the workshops. Knowledge of or interest in sustainability preferably from very different kind of backgrounds would additionally increase the diversity aimed and the substantial diversity was aimed to support creativity in futures thinking.

Very different kinds of connections were used to find varied composition of participants to the workshops. They were approached mainly by phone and a supportive e-mail letter. The letter was usually sent directly after the phone call, or sometimes beforehand when the reaching the person proved to be difficult. Also, some organizations were asked to deliver the e-mail invitation to their members. Furthermore, suggestions of suitable participants or contacts for informing of the workshops were asked from most of the contacted persons, which created a growing network of useful information

⁷ Sustainable development studies unit at the University of Turku

⁸ The last point is lacking in the table due the difficulty of explicitly prove it in many invitees but was used e.g. when recruiting the student participants from Sustainable Development studies.

for invitations. In a later phase of invitation process the workshops were also offered as optional studies for Sustainable Development Studies (KEKO) students at the Turku University and they were also advertised via Futures Studies students' information sites.

The final composition included farmers, researchers, processors of legume products and environmental authorities. Teachers, personnel of communal food services and members of Martha organisation had all great impact networks. Students of biology, futures studies and sustainable development studies with diverse backgrounds and one performer (making ecological production) complemented the composition. Among contacted or cancelled invitees were chefs and restaurants and sustainable business investors who would have an important image impact and shopkeepers who are a link between producers and consumers. The list of the participants is in appendix 4.

The one page invitation letter delivered by e-mail included: the aims and the presentation of the topic area of the workshops, practical information of the dates, place and buss connections (with a map link), including services (morning coffee and lunch) and enrolling and information details. Additionally, it had a short description of where the results will be used and stored, the note of the summary of results to be sent to the participants, information of Masters Theses work and presentation of "Kasvunpaikat" network. (The invitation letter is in Finnish in appendix 1)

3.2.3 *Questionnaires*

The core elements to make good questionnaires are to frame the focus, to define the goals and the type of information expected and to decide the questionnaire mode state Don Dillman et al. (2014, 95–99). A big challenge in questionnaires is to get the people motivated to answer because they feel too long and complex. Dillman et al. (2014, 28 – 39) e.g. stress the convenience for participants, the use of polite and correct language and establishing trust (safety and ethics).

The workshop participants' were given two short questionnaires to gather research material of their personal experiences in them. The aim was to get more detailed information of creativity experiences and the issues which influenced on the experiences. The first one was filled at the end of the workshop and it aimed to the spontaneous respond right after the whole day. From the 24 given forms 23 were returned (approximately 95 %). The first questionnaires were returned anonymously and they are coded for use (FFRC QI – 1–23).

The second questionnaire was sent by e-mail approximately three months later in the beginning of February in order to examine what could be significant in supporting creativity and futures thinking. It inquired the supportive and hindering elements of creativi-

ty and futures thinking in the workshops as well as the possible impacts of the workshops in participants’ attitudes or behaviours. From these 24 questionnaires 19 were returned (approximately 80%) after three reminding messages. These e-mailed questionnaires are coded (FFRC QII–1–19) and used and quoted anonymously in the analysis even though I know the identities of the respondents.

The first questionnaire asked about the personal experiences of the participants in relation to creativity. The question asked 1) whether they had previous experiences of futures workshops, 2) to draw a graph about the experience of creativity during the workshop (see figure 5 below), 3) which issues influenced the rising or sinking of creativity, 4) how the outdoor morning session influenced the day with descriptive examples, 5) how the lunch cooking influenced the afternoon with descriptive examples and 6) whether they had any other feedback. The answers were transcribed. (The questionnaire in Finnish is in appendix 5).

Table 2 Graph from the first questionnaire

| | | | | | | | |
|------------------------|------------------|--------------------|---------------|------------------------------|---------------|---|----------------------|
| very creative | | | | | | | |
| neutral | | | | | | | |
| creativity is hampered | | | | | | | |
| | warm up outdoors | topic presentation | brainstorming | Group work of future image 1 | lunch cooking | Group work of future image, operational environment | close up discussions |

The second questionnaire was e-mailed and to make the response as easy as possible the five question groups were both as attachment and also directly answerable in the e-mail. The questionnaire asked if something in the workshop practices particularly stayed in mind, supporting or hampering elements of creativity and inspiring or hampering elements of futures thinking in the workshops and reasoning for the answers. Furthermore, the participants were asked about possible utilisations of the ideas from the workshops and whether they had changed their actions or attitudes after them. (The second questionnaire in Finnish is in appendix 6).

3.2.4 Interviews

Interviews are widespread and popular in qualitative research methods, particularly in social sciences. Interviews can be divided into structured, semi-structured and open interviews; from where the semi-structured are common in qualitative research giving a clear subject outline by the interviewer but at the same time having room for spontaneous descriptions, narratives and probes or follow-up questions. (Brinkman 2008: 471; Morgan & Guevara 2008: 470) Additionally, interviews may be categorised to question-based where a series of questions creates the outline of an interview and topic-based interviews where a list of areas and issues are creating a framework for an interview (Morgan & Guevara 2008: 470).

Good interview questions according to Svend Brinkman (2008) are brief, simple, and open and often the emphasis is on concrete descriptions of the interviewee's experiences rather than on abstract reflections. The research interviews are usually recorded and then transcribed. (Brinkman 2008: 472.) Even the recordings create an aural document of the interview including information of intonation, pauses etc. Poland (1999, 14) reminds that there are a lot of non-verbal communication which are not revealed in aural recordings like body postures, looks and the physical setting.

The conducted interviews were semi-structured and organized with a few core questions which aimed to cover the topic from the intended perspectives. All the interviews were performed in Finnish at Finland Futures Research Centre and they were recorded. The recordings of interviews have been transcribed by noting the discussions with timeline including most of the discussion. From the recordings I was also able to listen again the intonation, rhythm, duration and the mode of the dialogue which can reveal (and remind) me of some of the non-verbal communication happened during the interviews.

Three interviews of the personnel of FFRC were performed in June and August 2016 and they lasted from 35 to 60 minutes. All the personnel gave permission to be identified. The interviewees were chosen due to their considerable experience of futures workshops conducting and they were Education Manager Leena Jokinen, Project Manager Anna Kirveennummi and Former Head of Development and one of the main inventors of ACTVOD – method Olli Hietanen. They were asked about their thoughts, practical ways and experiences of supporting creativity and futures thinking in futures workshops. Also hindering aspects were discussed. The aim was to reveal silent knowledge about practicalities in moderating workshops as well as discuss about their perspectives of and approaches to creativity and futures thinking in futures workshops. (The translation of interview questions of the personnel can be found in appendix 7).

The fourth interviewed of the personnel of FFRC was my supervisor Adjunct Professor Katriina Siivonen who assisted me on the two futures workshops. The interview was performed in Finnish on the 1st December 2016 and it lasted 40 minutes. Questions for her were considering the actual workshops and her observations during them. Additionally, she was encouraged to compare her observations to her opinions and experiential knowledge of supporting creative futures thinking in workshops. When working as an assistant, Siivonen had better potential for observations than the author in a leading moderator's role. (The interview questions of Siivonen can be found in appendix 7).

In November 2016 two interviews of the participants of the futures workshops were performed and they lasted from 20 to 45 minutes. One participant from Friday and one from Saturday were asked about their experiences of supporting creative futures thinking in the workshops. The interviews aimed to deepen the information asked in the questionnaires at the end of the workshops and the personal experience was highlighted. The interviewees were chosen among Turku based participants with potential of coming to an interview relatively easy and without extra costs. They were anonymous representatives for each day. The interviewees were wishing their anonymity and their interviews are coded (FFRC interview P-1-2).

Depending on the answer of first question whether they had participated in other futures workshops before the content and order of the main topics were slightly varied. These interviews were conducted more topic-based manner and the main questions were asking about supportive and hindering elements for creativity and futures thinking in the futures workshops (as general) and in the particular case workshops. During the interview the different phases of workshops were reminded to them and discussed with the interviewees and additionally some general discussion of experiences of the workshop method took place. (The interview topics are presented in appendix 7)

3.2.5 *Working diary and personal notes*

The research diary is used as a supportive source including notes of the nearly six month's long pre-face of the workshop, the personal experiences and observations of the entire workshop process. I made short notes during the workshops about the atmosphere, participants' activity and engagement and wrote about my experiences and feelings after each workshop day. The diary ensures that the multiple details as questions, contemplations, decisions and atmospheres during the process are notated and saved. It is a valuable source in presentation of the process and in discussing and evaluating the decisions made.

3.3 Analysing process

Analysis of qualitative data is described by Graham Gibbs (2012, 2–3) as a kind of transformation where a collection of data is processed to consistent and perceptive description and interpretation has a significant role. Colin Robson (2011, 474) describes thematic coding as a generic approach to analysing qualitative data, the data is collected, grouped and labelled. As the phenomenological perspective is creating the philosophical boundaries of this study the analyses of the material is approached from that perspective and the perception and interpretation are emphasised together with aim of making something experienced to something known (e.g. Tuomi & Sarajärvi 2004, 33–35 ; Laine 2010). In this analysis the thematic coding of material makes it more approachable and my phenomenological interpretation is assisting in making the experiences of participants to shareable knowledge.

The focus of analysis is on the corporeal and multisensory practices tested in the futures workshops and also in their interconnectedness to the workshop theme of legumes. To avoid my possible biases the experienced hindering elements for creative futures thinking in the workshops are examined. Additionally I am interested in the impacts of the workshops which help in evaluating the success of my experiments to support creative futures thinking.

The workshops had explicitly presented objectives of 1) to create desirable images of future, 2) to cook lunch using legume products and 3) to get inspired to act through own choices and actions. Moreover, they had more implicitly my research objectives to experiment with creativity support which was told to the participants at the end of the workshops when asking to fill the first questionnaire. Both of these intentions formed the ideas how I structured the workshops and framed what kind of creativity experiences could take place in the workshops.

Also, my personal multisensory and corporeal experiences are part of the analysis process. When I was planning the workshops I experimented in cooking in order to find suitable and affordable ingredients. I visited the *Myllärintalo* and walked around its surroundings and I participated the workshops in a role of a facilitator. All these corporeal experiences have connection to the experiences of the workshop participants and aid me in interpreting their answers. Aromaa and Tiili (2014, 260) are underlining the importance of researchers comprehensive experiences of the phenomenon for creating understanding and writing of it. A phenomenological approach including researcher's multisensorial experiences and learning by participation instead of just observing is an alternative way to investigate other people's experiences says Pink (2015, 96).

The research material is analysed in following ways:

First, the answers of the questionnaires were collected from each question and then clustered by the themes in the answers. The creativity experience graphs (see the Table 2 in page 28) were copied and collected to two pages (Friday and Saturday – see appendix 8)⁹. All the interviews and personal notes from the workshops were colour coded by four themes: 1) supporting creativity, 2) hindering creativity, 3) particularly futures orientation (supporting and hindering) and 4) possible other interesting information of futures workshops. The discussion themes in group discussions during the workshops were mapped. This formed a more outlined and approachable data for further analyses.

In the second phase the grouped material, the workshop results and photographs from workshops were approached again with the research questions¹⁰ in mind in order to find the most meaningful material of the data for this study. After that four major themes were formed: creativity, futures orientation, influence of the legume theme and impacts of the workshops. Under the main themes corporeality (the main focus) and hindering elements (minimising my possible bias) were examined. Other distinctly arising elements in the material are also discussed under each main theme. Photographs are supporting my personal notes of the atmosphere in the workshops: the feel of surroundings outdoors, in the group work and in kitchen activities. Additionally, to examine the workshop process the mapped group discussions were discussed together with the group work results.

Third, the interconnection of the workshops' theme, the given frame of legumes and sustainability and the creative practices is studied by examining the different phases of the workshop and my practices of including the theme in them. Moreover, the possible impact of defined given frames of the workshops– sustainability and use of legumes – for creativity and futures thinking is contemplated. Finally, the described impacts of the workshops after three months are mapped, clustered and discussed ending in my interpretations of significant meanings of the material according phenomenological perspective.

⁹ The days are in separate pages because in one page the perceiving the variety of the graphs would have become difficult due multiple lines.

¹⁰ How can creative futures thinking be supported in futures workshops by corporeal and multisensory experiences? What kind of interconnection exists in between creative practices and the particular aims of the workshops?

3.4 Ethical considerations

There were some ethical questions to be considered in the research. The examination of peoples' experiences in relation to creativity is a personal topic. Permission for the names to be published (as a group of participants in Friday or Saturday workshop), photographing during the workshops as well as recording of the group discussions for research purposes were asked from the participants and it was allowed. Also, the participants were informed beforehand for what purposes the workshop material will be collected (for the "Kasvunpaikat" research network and MA theses) and the place it will be archived being FFRC.

Arja Kuula (2006, 127–129) states that anonymity is protecting the privacy of the participants in research projects and laws of data protections and personal details are preventing the miss usage of collected research material. She stresses the importance of confidentiality and the following of ethical principles.

Anyhow, the issue of anonymity is not unambiguous. When research participants are creating ideas and even innovations together as in futures workshops the question of ownership becomes an issue to consider. Anonymity would take away their right to the credits of the results. For example, in Myrsky-project the voice of the young people was performed through public presentations of diverse art work and their wish to be identified and heard was respected in the Myrsky-research project as well. (Siivonen et al. 2011, 38–39.) The participants in futures workshops are active participants, creating something together. A kind of collective ownership, without stressing the individual answers has been a custom in the several futures workshops I have experience of and in the workshops of FFRC. (e.g. Hietanen & Saarimaa 2016; Nygrén 2016; Ruotsalainen et al. 2016).

In the futures workshops of this study the participants are named and grouped by the day of participations. When the aim was to gather many ideas without significant elaboration of them I felt that a kind of collective ownership without any pressure for comparison between working groups would support free flow of ideas best. The interviewed workshop participants wished to be anonymous, so in the written material their gender and other possible identifications are faded and I used coding in quotations. In quotations from the both questionnaires coding is used as well even from the second ones I know the answerer by email. This is in line with the information in the workshops were the identification was grouped by the day of participation. The interviewed of FFRC are identified by their permission and this supports my aim to bring different voices of practical experience to the discussion. The identification of the opinions brings value to the practical, silent knowledge the interviewees have.

3.5 Limitations of the material and methods used

In **the futures workshops** method the time pressure is one of the challenging issues, creative imagining and more analytical processing toward useful results is aimed to happen in a relatively short time (couple of hours) in most cases today. The method is heavily relying on the participants and it is sensitive to the right mix of attendees argues Luttamäki (2016.) The communication and interaction between people can be challenging and there can be power relations between participants. Also, the consistent development of topics and essential questions during the process is demanding for facilitators and participants and requires sensitivity and flexibility from the facilitators. (Jungk, R. & Müllert 1987, 65–66; Vidal 2006, 11–12; Baruah and Paulus 2009, 33–37; Luttamäki 2016, 156–157.)

In these two example workshops an organisation of a whole futures workshop process is a demanding and time consuming task for one person. Ideally, there would have been more resources for the calling for participants to ensure the best possible diversity of experts for both days and for the workshop organisation. Some practical difficulties included reforming the groups for best possible combinations after last minute cancelling, when aiming to keep the flow with one facilitator. The group work recordings quality is poor because of background noise and they are not consistent with length again due to one facilitator using the recorders. Also, the size of the kitchen was too small for easy participation of everyone in the Friday group.

In the **interviews** reliability and interpretation are central issues in the method. For example the power relations between the interviewer and interviewee can influence the material. Also, the interpretation of the data relies on the interviewer. Consequently, biases are hard to ignore or avoid. (Holstein, J.A. & Gubrium J.F. 1998)

In this study a few more interviews of the workshop participants would have given wider perspective of the experiences in the workshops. This did not happen due to the limited time and travel support resources. Also, I recognised the influence of my personal background in my attitude within the interviews. When coming from the field of arts my pre-attitude was undoubtedly positive toward more artistic tools for supporting creativity – this has certainly been somehow perceivable. However, if the interviews are considered as a way to produce knowledge as James Holstein and Jaber Gubrium suggest (1998: 114) the more active engagement of the interviewer is not considered a problem. They continue that the interviewer should be as sensitive to *how* the meaning making is unfolding as much as *what* the questions ask. This can be compared to the self-reflexivity of the phenomenological perspective.

In the **questionnaires** the short length of them definitely limited the depth and the richness of the answers. However, when filling the first questionnaire people were tired

at the end of the intensive day, therefore, it had to be short and easy to answer. Additionally, experiences may be hard to verbalise and assessing one's own creativity is evidently highly subjective. In the second questionnaire the challenge was to get people to answer after a few months. Also, it is a relatively long time to remember more specific details and in contrast relatively short time for truly evaluate the impacts.

In the analysis the relatively short questionnaire answers create a challenge to the interpretation of the meaning and importance in them. Short answers do not reveal the nuances or depth of experiences well. Furthermore, the amount of them is too small for any generalisation. Nevertheless, together with other research materials including my personal experiences the answers give some ideas of the success of the workshops and of the experiences of creativity.

4 ANALYSIS

To say that there exists rationality is to say that perspectives blend, perceptions confirm each other, a meaning emerges.

Merleau-Ponty (2009, xxii)

With this analysis my intention is to examine the relevance and meaningfulness of corporeal and multisensory practices in the futures workshops for creativity support. Furthermore, I am interested in the interconnectedness of the workshop theme and creative practices with the possible influence of the given frame of the workshops – legumes and sustainability – to creativity and futures thinking. I am approaching this research material from a phenomenological perspective in order to reveal the experiences of creativity of the workshop participants and moreover the impacts of these experiences. The experiences of the workshop participants are complemented and discussed with the interview material of the faculty members of FFRC possessing significant experience of futures workshops and facilitation and furthermore with relevant literature of creativity, corporeality and futures thinking. The aim is to increase understanding of creative futures thinking within the futures workshops context.

In the workshops there were 24 participants and only one third of the participants had previous experience of futures workshops. This means that most of the participants cannot make any comparison in creativity support to earlier experiences of similar occasions. The particular corporeal and multisensory practices to support creativity in the workshops were the outdoor activities in the morning and the participatory lunch cooking. Additionally, it is important to remember that also sitting, discussing and writing are corporeal and multisensory activities even though the bodily actions are minor and multisensorial experiences of them are seldom conscious.

The research material was wide and interesting. Therefore, narrowing the focus somehow was needed. The analysis begins with discussing creativity and futures thinking and having the corporeal and multisensory elements in focus. To decrease my possible positive bias toward corporeality in the context the hindering elements for creativity and futures thinking were also inquired and were considered. The analysis continues with contemplating the influence of the given frames of legumes and sustainability to creativity and futures thinking and ends with examining the impacts of the workshops.

4.1 Creativity

The concept of creativity in this study is defined as an ability to imagine something radically different from today's world and present possibilities. The context of futures workshops, a participatory method, focuses the study particularly on creativity in groups. It is notable that the concept of creativity was not clearly defined when collecting the research material, so the answers are based on each individual's understanding of creativity. Aiming to reveal individual creativity experiences in the workshops a strict definition could have hampered the personal responses, e.g. by trying to make answers presumably correct. As a result the definition is working more as a guideline for evaluating the workshops' outcome and my process with the workshops.

The following already generally known important supportive elements of creativity in group context were evident and significant in the questionnaires and mentioned by all the interviewees: comfortable and relaxed atmosphere, feeling of no strict time pressure and diversity of the participants which broadens the perspectives. Additionally, the importance of the comfortable or inspiring place was emphasised and the previous together with some services (food and beverages) were highlighted in all faculty members' interviews as important supportive elements. These parallel the existing knowledge of supporting creativity in group context (e.g. Baruah and Paulus 2009; Poutanen 2016) and in participatory futures work (e.g. Jungk and Müllert 1987; Heinonen et al. 2012; Heinonen & Ruotsalainen 2013; Lauttamäki 2016) and so are not in the main focus of this study.

4.1.1 *The participants' experiences of creativity during the workshops*

The participants draw a graph of their experience of creativity over the workshop day in the first questionnaire (see the Table 2 in page 28) where the scale was from creativity hindered to very creative with neutral middle line. The results of Friday and Saturday (appendix 7)¹¹ are collected and show the variety of experiences.

Individual creativity experience graphs are diverse. Anyhow, in many of the graphs there is a slightly wavy curve starting higher in outdoor session, dipping in introduction and then rising again with curve peaking lunch cooking and/or second part of group session and dipping again toward the end.

¹¹ The amount of graphs would be difficult to see in one page. Also, two pages makes possible to compare the two days if needed.

The overall image shows that creativity experience during the workshops was mainly above neutral and many graphs show also very high creativity experiences during the workshops. The very high points (of individuals) vary including outdoor session, brainstorming exercise (papuorientaatio), group work creating future image both first and second part, lunch cooking, and final discussions which means every other part except the introduction which included slideshow and basic background information of the topic. (FFRC QI–1–23.) Interestingly though the presentations of facts was mentioned as an element of creativity support in questionnaires three months later (FFRC QII–9).

The widest dispersion is in the outdoor session where the graphs are from little below neutral to the highest creativity experienced. It is notable is that only in five graphs of 23 the graphs go a little bit below the neutral. Those phases are the introduction with slides, the brainstorming exercise (papuorientaatio), the presentation discussions at the end and the outdoor session, where the noise of the traffic was informed as disturbing. The hindering elements of creativity are discussed wider in chapter 4.1.5. (FFRC QI–1–23.)

The positive creative experiences equal well with the overall very positive feedback the participants gave in the questionnaires and also my personal experience of the workshops. The atmosphere felt comfortable, intensive and concentrated which is also stated by Siivonen (FFRC Siivonen 2016) in her interview. Anyhow, because the concept of creativity was not clearly defined the interpretation of feeling creative may parallel to feelings of positive interest, enjoyment etc. which are kind of similar but also often a supportive part of creativity experiences. For example social processes such as effective communication and inspiring others are presented as part of creative group practices by Poutanen (2016, 20).

The participants were also asked to explain which elements influenced the rising or sinking of the creativity graph. The main positive supportive elements mentioned by many were the group work and discussions, the lunch cooking and the outdoor activities. These same three elements are also distinctive in the participants' interviews and in the second questionnaires and are discussed more in detail in chapters 4.1.2, 4.1.3 and 4.1.4. Additionally other supportive elements stated are example the clear instructions and the positive facilitation, the possibility to concentrate to the topic, the personal interest with the importance of the topic, learning, sensations and experiences and enjoyable surrounding. (FFRC QI–1–23.)

In general, the creativity experiences of the participants were positive and many indicated high creativity experiences. There were individual variations in the graph's curves but only in couple of the graphs one part was slightly below neutral.

4.1.2 *Diversity of the workshops' participants*

Diversity of participants is already a generally considered aspect of creativity support in futures workshops and e.g. stated by Heinonen and Ruotsalainen (2013) and Luttamäki (2016). Moreover, in all the FFRC personnel interviews the diversity is emphasised and e.g. Hietanen (FFRC Hietanen 2016) speaks about inviting the surprising edges to workshops and about the necessity to have suitable amount of variety. The answers of the participants' did not bring up anything particularly new to the subject. Nevertheless, there were also a few of other kind, more critical comments about diversity and the group work which are discussed shortly below.

The participants of the workshops stated following examples:

“It was so much easier to talk with people with similar background though it was also interesting to hear very different kind of opinions from entirely different perspective.” (FFRC QI-3)

“I had some difficulties to grasp entirely the global, all-embracing ideas of the group members because I seemed to be the only one looking from very practical perspective. It would be nice to have one soul member in the group though it was very interesting to hear thoughts from people living in totally different environments”. (FFRC QII-1)

The participants are missing a soul member, someone with similar background and experiences to discuss with even they are stating their interest to hear opinions from other perspectives. It is understandable that feeling like an outsider or difficulties to connect to the discussions may occur in very diverse groups. Different kind of cultural, social and professional backgrounds are challenging a successful collaboration particularly with ad hoc working groups states Poutanen (2016, 66–70). The diverse backgrounds can hinder or slow down the process due a need for a common understanding of e.g. terms or concepts used. Also the common work practices and ways of collaboration may vary in different kind of contexts and adaptation or developing a new way might be needed (Poutanen 2016, 66–70). Challenges in coordination, information exchange, conflict situations and collective efficacy are listed by Seth Kaplan et al. (2015, 238) as main difficulties in groups with wide diversity.

To participate successfully in a multidisciplinary group work is a skill, and an example of silent knowledge needed. As stated earlier two thirds of the participants did not have earlier experiences of the futures workshops and maybe some of them did not have experiences in any kind of multidisciplinary group work or even in group work in general. This means that the skill of participatory work were uneven in the group. The following quotation shows a hindering opinion from another perspective:

“...one participant who probably was inexperienced with this kind of working mode had such banal ideas that felt a bit frustrating to elaborate and organise them in the group work.” (FFRC QII – 6)

For other members in a group an inexperienced member can feel like a strain slowing down the process as they might have a lot of questions or irrelevant and unuseful comments during the process. Moreover, the participant quoted above continues in his/her answer that it is impossible to know beforehand who has something to give for a workshop (FFRC QII – 6). The statement above reveals even if through frustration about skills and expertise in group work in that particular group. Even though the ideas had felt banal or uninteresting they were considered and the inexperienced participant's opinions were not excluded. Workshops can be platforms for collaborative education and co-creative learning as Heinonen and Ruotsalainen (2013) state and including everyone's ideas to the discussion certainly supports the learning to happen.

The clear frame of legumes in the theme and sustainability as openly stated perspective can have underlined particular knowledge required for the group work or at least expectations of it. My intention was to create wide and systemic futures images so the perspectives of e.g. end consumers and food professionals who do not necessarily have any particular knowledge of legumes were important. They have knowledge of many practical perspectives which as well are useful in creating futures images. As stated below the expertise may create other kind of problems in group work: *“...on another hand others inspired my creative thinking but then ideas were also blocked by an expert in legumes” (FFRC Q II – 15)*

An expert can become dominant in a group and intentionally or unintentionally block ideas which are coming from participants that are less experienced in the professional field. Opposite to the discussion above experience and knowledge can become a hinder of creative group work. In the interview of a participant (FFRC P2) s/he raised the influence of expertise as a hindering aspect of creativity. S/he was pondering the burden of professionalism, and how it can be difficult to let go the role of an expert or there is a desire to present one's wide knowledge of the topic which may hamper or prevent the more imaginative dealing with the topic. S/he continues that in a professional role it can be very difficult to become more crazy and “a creative fool”. The above correlates well to the challenges in power relations and of fear of losing one's face generally recognised as challenges in creative group work e.g. by Jungk and Müllert (1987, 76) and Baruah and Paulus (2009, 33–37).

When I listened the tapes of the group works the group discussions had one or two kind of leading participants and usually a more silent one¹². In four of the discussions the leading people were research experts and in two discussion farmers (males) and the most silent people were home economic teachers or people from the food services. Nevertheless, there were exceptions in each profession groups in the activity so the participation activity is as likely a matter of personality. Moreover, the discussions seemed fairly balanced in every group (having everyone involved and contributing) when the differences in personalities are taken into account. Moreover, the contribution of the more silent ones often brought in another kind of idea rather than just echoing the ongoing discussion. This means that even the contribution was less in amount it was valuable for the group work. (FFRC RG.)

Alexander Bolinger et al. (2015) are talking about the importance of glue role in creative group work, an ability to effectively coordinate individual efforts to facilitate group effectiveness. This means e.g. an ability to adopt neglected tasks (like making detailed notes) which facilitate the interaction and coordination of the members' contributions rather than seeking visible roles with personalised recognition. Without varied glue roles groups struggle to function optimally argue Bolinger et al. (2015, 269–270). In ad hoc group work as often in futures workshops optimising different roles and finding the necessary glue can be challenging and depend much on participants' earlier experiences and skills of group work situations.

In the group discussions I heard one example of taking a glue role as facilitator of a less talkative group. The glue was about taking a leader role which did not seem so tempting to anyone. This one person took role of suggesting actions, asking further questions but let a lot of space for silent work which apparently was more natural to that group. There were clearly less discussions than in any other group but I heard the sounds of writing or drawing and sounds of organising and changing the post-its on the big sheets continuously. It seems like she adapted to the quality of that group but clearly supported the work to progress. (FFRC RG.)

Kaplan et al. (2015) maintain that group diversity is supportive in idea generation and elaboration phases but when the ideas should be implemented successfully group conformity has proven more beneficial. In teams with conformity better coordination, information sharing and efficacy and less conflict seem to support the implementation practices. Accordingly they suggest that organisations should consider these shifting needs in innovation practices (Kaplan et al. 2015.) This is certainly good to recognise in

¹² The group size varied between three and five. The one group of three was smaller than planned, because the five last minutes cancellations mixed up the pre-thought grouping and reorganising it fast (and keeping prepared diversity) was difficult with one facilitator.

the futures workshops context as well. The team for implementing the result of a futures workshop does not need to be identical to the workshop participants and in my understanding it seldom is.

Considering the wide diversity in expertise and background of the participants (and inexperience of my facilitation of the futures workshops) so few negative comments seem to prove that my support for positive atmosphere and pleasant group work was fairly successful. Most of the open feedback was smileys, and general positive comments like:

“Thank you, inspiring experience and I learned a lot of new things”
(FFRC QI–15)

“Excellent and effective day, good that we were from so many backgrounds” (FFRC QI–11).

Additionally, the diversity is supportive in the idea generation phase as stated above by Kaplan et al. (2009). In these workshops the focus was on idea generation and identification of the systemic connections. Any particular selection or evaluation phases for further development were not made meaning there was less need for possibly conflicting discussions. Ideally, the result of these workshops would be material for further workshops or research selecting and elaborating the ideas further. Moreover, the participants took the ideas with them to their own diverse contexts for possible contemplation and elaboration.

4.1.3 *Outdoor exercises*

The outdoor morning session included sensing and perception exercises of the environment with futures orientation. From the perspective of creativity they were experienced as supportive for the concentration and to the orientation of the workshops. Breathing and listening eyes closed helped to settle down and being present in the moment and is mentioned as a strong influential element for the whole day as you can read in the following quotations:

“I felt less stressed out and observation of the environment helped to get free from other things” (FFRC QI–5),

“It helped to release the thoughts from the normal routines” (FFRC QI–6)

“The fresh tone from the morning activities resonated the whole day”
(FFRC QII–4).

The practices were felt as refreshing start of the day waking up the senses. Also, the nice surroundings with an inspiring utilisation of them created space for creativity and

stimulated to think the topic in various ways. Some comments talked about the inspiration for futures thinking which are contemplated more in chapter 4.2.2. (FFRC QI–1–23; FFRC QII–1–19.) Additionally, the outdoor exercises included informal introducing tasks which can support the positive atmosphere and team spirit and with that also support the creativity.

There were differences in the weather and sound conditions in the mornings. Friday was cloudy with traffic noise and Saturday sunny without particular traffic which may have affected the atmosphere. From my experience the Friday felt more intensive, more tensed but also it felt like there was more energy in the morning start. Saturday was more relaxed and convivial which may have several causes like smaller group, all females, nice weather, not working day (people presented themselves without professional titles) and also more relaxed facilitator (who had managed well the first workshop a day before). Anyhow, the possible influences of these different conditions are not distinctive in the material and so they were not seemingly significant for the experiences of creativity or for the overall atmosphere of the workshops. (RD Tuittila 2016.)



Figure 5 Saturday morning opening circle outdoors (Photo by Siivonen 29.10.2016)

Below I describe the beginning of Saturday morning session based on my personal notes and memories and the photographs:

It's clearly warmer than yesterday. We are waiting to start, one is missing, but no-one has cancelled. It is comfortable to be outdoors. I can feel the sun on my face and I hear the birds. The scenery looks more inviting, the fields and the river, even the blocks further on other side of the river. We are all women. We should start, the time is running, (even in this nice weather we could stay out for the whole day) ... We stand in a circle and listen to each other's stories; they are longer and kind of more emotional or personal than yesterday. We also laugh. People present themselves without titles and backgrounds, just names and stories. ...I stand in the yard and see people walking and standing in the scenery, the pace is calm, everything seems to go smoothly, I relax and I almost forget to give the discussion task for the coffee break. (RD Tuittila 2016)

The Saturday the weather was fine and less traffic made the surrounding even more pleasant than Friday. I was more relaxed myself after managing the Friday workshops. Saturday's smaller group, all female and not working day may have influenced the really informal and cosy atmosphere from the beginning.

The opening of the workshop is crucial states Jokinen (FFRC Jokinen 2016) and this parallels with my experiences in teaching and facilitating movement improvisation and other creative workshops. Kirveennummi (FFRC Kirveennummi 2016) talks about creating a good mood, people introduce each other which is giving a little bit background information for other participants, possibilities to recognise similarities or differences and it is also giving information for the facilitators of the perspectives. Jungk and Mül- lert (1987, 50–51) emphasise the informal opening for a workshop where people can chat and for example participate in organising the room, to do something together and introduce themselves in an informal way.

Siivonen (FFRC Siivonen 2016) believes that the opening tasks in the workshops created a relaxed atmosphere, the walking and observing the environment was something you did yourself as well as with the group. She continues that the participants were really present in the group work both days and that the work was intensive. Siivonen also emphasised that she did not see the use of mobile devices during the workshops (except with one at the end) which is not so common these days.

Bodily exercises are a useful tool to create a relaxed and concentrated mood easily. There are numerous short breathing, sensing and soft movement exercises (e.g. from different body work or meditation systems) to be utilised for becoming present and concentrated. For example Tufnell and Crickmay (1993, 1–40) introduce several imaginary exercises for mapping the body and Blom and Chaplin (1988, 58) talk about visualization of the body or mid-brain warm up exercises (as ongoing soft movements traveling in the body) as warm ups for movement improvisation. The bodily exercises help 'to

arrive' into the moment, forget the any stress and then to focus on to the day's tasks as stated by one participant: *"The listening and focusing to the moment improved the power of concentration and created space for creativity"* (FFRC QI-8).

The opening outdoors clearly helped the participants to relax and concentrate to the moment and to the tasks to come. To create a moment for arrival, relaxation even just by breathing a moment will support the workshops participants' ability to focus on the work. It does not need to happen outdoors or to take very long time but a moment given for relaxing and becoming present will pay back later with better concentration.

Jokinen (FFRC Jokinen 2016) says that she believes in corporeality for creativity support. She continues that we should use more movement, touching or singing etc. to reach the non-verbal and illogical ideas which are not so obvious in analytical and language orientated thinking.

An interesting argument of promoting creativity by Eric Rietzschel et al. (2009, 10–11) claims that an active mood (weather being negative or positive) is more beneficial for creativity than a deactivating mood. They continue that positive moods promoted flexibility in creative processes but negative moods perseverance, digging deeper within the matter. This is interestingly contradicting to the arguments of getting people relaxed. Nevertheless, it sounds reasonable to have perseverance when elaborating and aiming to reach further with the created material.

In my bean workshops the positive and active mode was intended for easy idea generation. According to the research material above it succeeded and the development of the intended mode was supported by corporeal practices outdoors.

4.1.4 Lunch Cooking

Second corporeal and multisensory phase in the workshops was cooking the lunches together from easy to use legume products. In the cooking several senses are active, tactile, smell and taste are all necessary in making food and particularly when inventing something new based on earlier experiential knowledge. I urged the participants to create their own dishes from the raw materials provided. In practice they seemed to look some seminal information of cooking times from the legume product packages and then improvised utilizing the experiential knowledge in groups.

For the lunch cooking I had four themes as a base for new grouping: cooking on stove, cooking in the oven, cold dish and dessert. The division was partly practical due to the space available but it also pushed for creating different kind of dishes from the same materials. At the same time mixing the groups was assisting in new discussions.

The practical activity, experience of new legume ingredients (as tempeh made of lupin or peas, new to most of us) and the free discussions and networking while cooking were the most significant among the experiences stated. The cooking was experienced as inspiring and creative, a learning experience because professionals and every man were cooking together and it also concretized beans as wide-ranging raw material. The cooking without given recipes was received as a challenge but also inventive and creative. It was also felt as boosting for the group work after the lunch because it created a break for digesting the earlier ideas and discussing with new people. (FFRC QI – 1–23.)

The kitchen was quite small for so many people and there was one negative comment about it making the cooking in groups difficult (FFRC QII – 10). Another participant (FFRC QII –13) mentioned cooking being turmoil but really fun. It is actually remarkable that there were no other comments about it, because I remember my distress when the Friday groups strolled to the kitchen. How this can ever work, I thought and I was suddenly happy that five persons had cancelled at the last minute. Below, I describe the Friday cooking based on my notes, memories and pictures:

The atmosphere is enthusiastic, the ingredients look inviting and smell of fresh herbs is strong. The salad bowls are huge and look delicious. The air is filled with light sings when people are asking for bowls, knives, spices, ingredients... they read loud the instructions of the packages, they share tasks. It is crowded, vivid, a creative chaos but with such positive energy. There is peeling, cutting, grating, measuring, blending, stirring, frying, boiling, baking... They do not use the listed webpages, they invent, adjust, modify. I'm making salad, helping to find tools, spices, ingredients. Kati¹³ makes coffee, helps to set the table. There is buzz of conversation and delicious smells start to spread. New flavours, I hear admiration and also wondering of the deliciousness of the courses and discussion continues vivid on the tables while eating. I hear subjects related to food like eating habits in families, different diets and prices of ingredients. (RD Tuittila 2016)

¹³ Katriina Siivonen



Figure 6 Collage of activities in Friday cooking – (Photos by Siivonen 28.10.2016)

From my observations of the group work the roles in a way reversed in the cooking sessions. Based on the tapes of group work many (not all) of the home economic teachers, personnel of communal food services and members of Martha organisation had participated discussions less, like in a complementing role, but in the kitchen they were able to utilise their knowledge well (FFRC RG). My observation that in addition to support creativity with practical activities the change in knowledge and expertise roles balanced the group work is confirmed by e.g. the following statements of the participants of cooking:

“Cooking particularly with this theme effectively strengthened the team spirit” (FFRC QI-16).

“Changing the ingredients material between teams was fun and created cooperation and feelings of success” (FFRC QI-17.)

“It was really nice to learn from each other” (FFRC QI-4)

The cooking created a platform to utilise and share different, experiential based silent knowledge in the workshops. Couple answers below describe the experiences of the participants below:

“The workshop working was really nice but demanding... it was challenging when we did not have recipes but we needed to create the dish to be served”. (FFRC QII–16)

“Useful and worth to get acquainted; there were new tastes for even experienced professional in the field...” (FFRC QI–11)

“New products and applying them” (FFRC QI–12)

The comments state practical but exciting challenges faced in cooking without using proven recipes and maintain the interest of getting acquainted with new products. Some of the products were new for even the food professionals and experiences of them were praised as useful.

For example, Aromaa and Tiili (2014, 265) are talking about corporeal knowledge as an important part of many professions being e.g. an ability to move or touch in a right way or an ability to smell and taste. Pink’s (2015, 12–13) example of multisensory knowledge practiced in everyday life is e.g. household work which includes culturally specific conventions, moralities and knowledge. In cooking this kind of practical knowledge manifested (according my memory) e.g. an ability to put a lot of water to boil (for any further use), to estimate the size of vegetable cuts for frying or oven to ripe in shorter time or in which order to perform the tasks for fluent procession.

Another kind of example of experiential knowledge noticed and admired by Siivonen (FFRC Siivonen 2016) was a home economic teacher’s ability to guide a suspicious group participant to elaborate the dish by tasting and adding ingredients gradually toward good result. This displayed experiential knowledge in both cooking and teaching/group work skills by including the members to the practices and not doing it for them.

The cooking produced an additional collection of results requested by one of the participants. Even I knew that the intention of many food professionals of the workshops were on the legume products and their usage, the practical utilisable knowledge, I had not thought of the collection of recipes. It was a very good and useful idea which I realised right after the workshops. The collection gathered to verbal (and visual) forms the practical experiments and knowledge which emerged in the cooking. Because the measuring in the intensive and creative cooking situation was not exact the afterwards collected recipes are approximate. In some of them there are added suggestions of alternative vegetables etc. which I see as kind of manifesting of and urging on creativity in everyday cooking. Examples of variety in the dishes can be seen in images below:

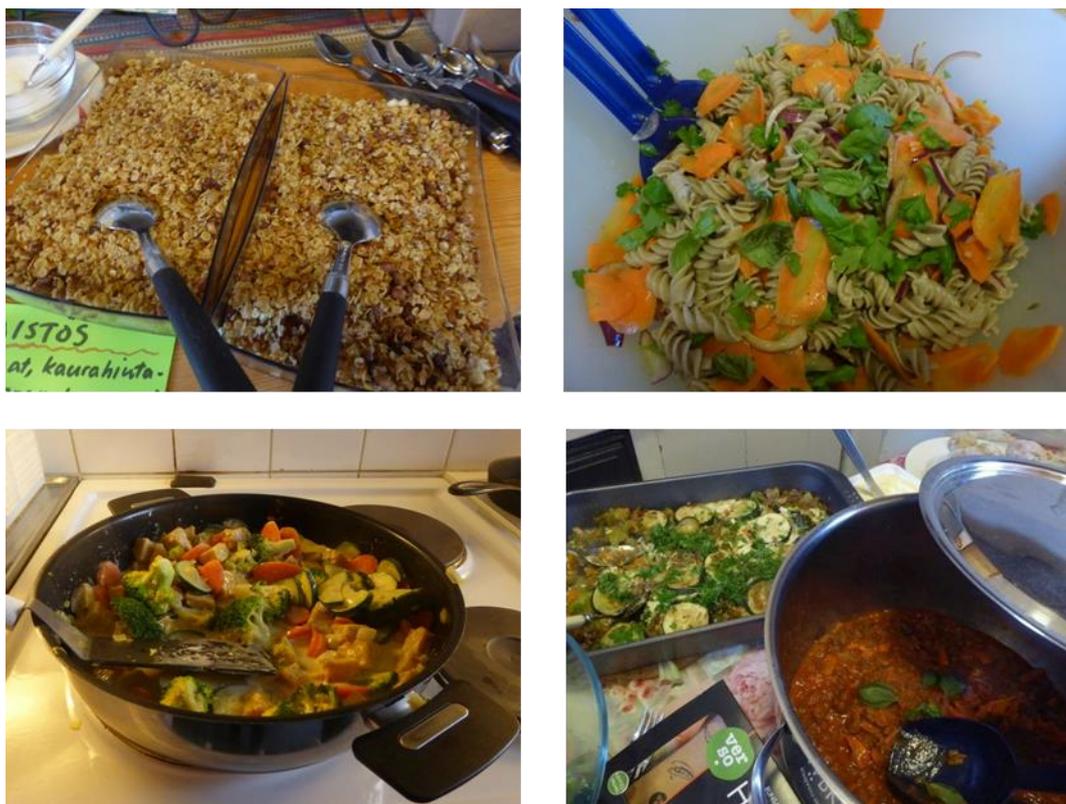


Figure 7 Collage of some dishes created on Friday and Saturday (Photo by Siivonen 28-29.10.2016)

The variety in the created dishes and in the collection of the recipes produced a good “beginner’s tool kit” for sustainable cooking. The cooking itself manifested experiential and tacit knowledge in the workshops and created platform for sharing this knowledge and for experiencing new products. It supported team spirit by equalising the abilities for useful and competent input of the participants with diverse backgrounds.

4.1.5 Hindering and supportive elements of creativity

To ensure a critical view to my experiments I contemplate the negative comments about outdoor session and cooking first and then discuss the other hindering elements mentioned by the participants. At the end of this chapter I summarise the conclusions of creativity support found in this chapter.

There were two negative comments about the morning sessions. The noise of the traffic had felt disturbing (FFRC QI–10) and the introducing exercises with bag of bean and positioning lines had reminded one participant of school days which s/he stated as hampering his/her creativity (FFRC QII–9).

There were a few negative comments about the lunch cooking as well as the small kitchen. One had felt the cooking was disconnected to the large scale of legume topic which was on focus of his/her groups' work (FFRC QI-15). Another one mentioned decreased effectiveness after meal which dropped creativity (FFRC QI-9). Additionally, the other one of the interviewed (FFRC P2) had not been particularly inspired by the cooking reasoning it for example with limited ingredients and that s/he had not utilised any of the recipes after the workshops. It did not support her/his creativity. S/he stated though that others seemed to really enjoy it and that it was a nice concrete idea to use and a practical way to have the lunch.

Among open feedback there were couple comments about a wish to have an expert to present the legume products and/or to get examples of good and proven recipes more like in a manner of fairs (FFRC QI-9; FFRC QII-14). These comments reveal that maybe some participant's expectations were more toward a kind of presentation of the topic than participatory workshop. The idea of workshops is not so familiar for many. The idea of having a chef or experienced cook was out of the resources available and more important it would have taken away the experiment part. I claim that by experimenting and inventing together as a group the level of creativity was much higher than following given instructions. Active participation additionally plays important role in (silent, practical) knowledge creation (see e.g Aromaa & Tiili 2014, 259).

The workshop participants commented some diverse hindering elements for creativity in addition to the hindering elements discussed above in diversity, morning session and lunch cooking. Most of the comments were about the group work part, some about organisation and structure like noise from many groups working in same space, lack of time to discuss all the ideas and the repetition in the presentation of group work. Some had felt the group work itself a difficult task or it had been challenging to focus on developing the task because discussions spread. Some commented critically their own narrow perspectives, tiredness or nervousness in the beginning. (FFRC QI-1-23; FFRC QII-1-19.)

In the interviews of FFRC personnel the time pressure was mentioned as one seminal hinder experienced in different ways. People coming late and leaving early makes the consistence of group work difficult. There should be enough time to first handle the ideas in a way already known to create space for something really new. The ability to tolerate a kind of empty phase, when all the first ideas are brought up and some time is needed to emerging something else has decreased the interviewed claimed. Participants disappear to their mobile devises or go to the toilet or start to do something else instead of allowing the kind of gap to happen. It was apparent that the interviewed think that these kinds of empty phases can nurture the creativity but somehow the ability to toler-

ate the empty moments has diminished. (FFRC Hietanen 2016; FFRC Jokinen 2016; FFRC Kirveennummi 2016; FFRC Siivonen 2016.)

In any case, considering the hindering aspects of creativity in this research material the more general aspect of creative group work were clearly more emphasised than the corporeal and multisensory elements. Noise of the traffic and crowded kitchen are technically avoidable by more careful scheduling or better resources for facilities. The decreased effectiveness after meal could have happened after any meal. The disconnection of cooking to the large scale of legume topic might have been helped with more active facilitation. For example I could have introduced the large complex impact network of food consumption more at some point though I wanted to leave the exploration of the topic very open – to be worked out by each group in their way. Anyway, no one else from the same group work had stated this problem so it was a personal experience rather than a distinctive hindering aspect felt by many participants. I also argue that the hindering memories of one person in relation to some practices (the introducing tasks reminding of school times) are not totally avoidable.

The corporeal practices used have mainly collected diverse positive comments from the participants. The opening tasks outdoors helped the participants to become present and concentrate to the tasks to come and motivated team spirit. Cooking was highlighted or positively mentioned in most of the first and second questionnaires. It included a practical element, a pause from more intellectual work and created a platform for practical silent knowledge to be utilized. It introduced new ingredients and educated how they could be utilised. It was a place for more informal discussion and networking also valued by the participants. From the above I can make conclusions that the corporeal and multisensory elements used in the workshops were experienced clearly as supportive for creativity.

4.2 Futures thinking

Futures thinking is an important part of human culture maintains Slaughter (1991, 499) and continues that without forward orientated temporality we would not create plans, goals and intentions or even meanings. And yet futures thinking is challenging. To comprehend the contingency of futures to come, to contemplate the complex impacts of today's situation and at the same time understand the possibilities to influence the futures by own actions (see e.g Slaughter 1991; Malaska 2003; Bell 2009a) can feel an overwhelming task. Moreover, the ability to imagine beyond the limits of today needs courage to throw oneself into the task and capacity to reduce self-critique. But then it is

“possible to ‘breach the bounds’ of present social reality and ‘imag-ine’ a very different world” claims Slauhgtter (1991, 511).

We cannot know everything of the future, only some parts of it and it frees us for using imagination a lot. Futures thinking can be practiced but the challenge is how to do it in a single workshops. In series of workshops it is possible to proceed with smaller steps. The above are thoughts from interviews of FFRC personnel and they also give following ideas for futures thinking support. Facilitation is very important, not only the methods and tools but *how* they are used and *how* the workshop is executed. It is important to make good questions and think how the questions frame and influence the answers. There should not be too many nor contradictory questions and the guidelines need to be clear. Facilitators should encourage the creativity and futures thinking and never be disrespectful. (FFRC Hietanen 2016; FFRC Jokinen 2016; FFRC Kirveennummi 2016.) Jokinen (FFRC Jokinen 2016) tells that she uses a term “lobotomy of self-criticism” which I think as a particularly apposite one in the creative group work context.

The workshop participants presented several elements which supported their futures thinking in the workshops. The importance of facilitation in promoting futures thinking was evident in the material. Loose frame in the task, diversity in the perspectives of the participants and the introduction presentation were also experienced as meaningful. (FFRC QI –1–23; FFRC QII –1–19.) It is also apparent in the material that creativity and futures thinking support are interviewed and it is difficult to clearly separate the supportive elements to either creativity or futures thinking.

4.2.1 Facilitation

The participants’ reported that facilitation assisted in releasing the thought from today, today’s problems and excessively rational (e.g. FFRC Q II –4, 12, 18) and the constant reminders of futures orientation during the day had helped to include it more fluently in own thinking (FFRC P1). In the overall feedback of the workshops clear instructions, balanced structure and good organisation are mentioned many times (FFRC QI 1–23) which shows the importance of well-planned organisation and facilitation.

When I analyse my own facilitation afterwards I assume I succeeded well in being clear with instructions, keeping the flow and supporting positive atmosphere. I am though critical to my performance in pushing the futures thinking further. I should have emphasised that more and even clearer. I felt it was really a lot to be in charge alone and taking care of the framework and facilitation. Keeping things progressing smoothly,

took a lot of my capacity. I also lack the experiential knowledge of futures promoting, how much to interfere and when. This I believe is only learned by practice.

Jokinen (FFRC Jokinen 2016) speaks about intuitive and experiential knowledge which enables the facilitator to listen and sense the group work sensitively, to recognise when it is needed to make changes, to add information or to reverse a bit. I recognise this well from teaching creative movement where my skills of facilitation are at least as important as my skills of the subject as a performer. I have a good general and practical knowledge of supporting creative group work such as creating supportive surroundings, helping to stay focused and making clear instruction and rules for the process stated e.g. by Baruah and Paulus (2009, 44–47). I recognize the need to shift between different instructions and situations (idea generation requires a safe atmosphere free from criticism but decision-making and selection are assisted by discussion and opposition) as stressed by Rietzschel et al. (2009, 18–19). Anyhow, I do not (yet) master the facilitator's particular role in futures workshops for tirelessly encouraging and questioning for achieving the usually later appearing, more fresh ideas, stressed by Jungk and Müllert (1987; 65–66).

Because the futures thinking is seemingly difficult the encouraging and boosting role of a facilitator is very vital. It needs sensitivity and skills to read the silent signs in the group. Jokinen (FFRC Jokinen 2016) talks how she is listening to the quality of sound from the groups and how her observation is partly unconscious presence in the situation. She likes to participate actively, question and push but she continues that each facilitator has their own style and they can support the futures thinking in individual ways. Facilitation is something more than choosing the tools and activities for workshops Jokinen (FFRC Jokinen 2016) emphasises.

With facilitation it is possible to at least partly tackle the power hierarchies within the group maintains Jokinen (FFRC Jokinen 2016). She continues that by e.g. pre-organizing group divisions to not have direct subordinates with their bosses in the same group if possible and reminding bosses of attentive listening, a less commanding role are tools to use. She likes to utilize humor and workshop rules which assist in fading power relations. In addition, she underlines that a facilitator should never be disrespectful, showing that the ideas produced are somehow insignificant or anemic. (FFRC Jokinen 2016.) This I can compare to improvisation teaching where the teacher's role is to support the emerging creativity not to manifest a personal talent (e.g. Blom & Chaplin 1988, 52).

Siivonen (FFRC Siivonen 2016) highlights the meaning of nonverbal communication in facilitation, the bodily expressions and e.g. facilitator's clothing for creating a certain kind of atmosphere or power relations. Ethnographer Ehn (2014) for example talks how we unconsciously make interpretations of people and their status by their clothing and

appearance. In the bean workshops the participants were invited to have clothes and shoes to start outdoors which also might have worked as un-emphasised dress code for casual clothing. No-one came with suite or jacket suit. I myself was wearing jeans and pullover with a wooden necklace with animal figures, which sort of felt matching the theme. Doing introductions in quilted jackets and many wearing stocking caps additionally assisted in the equalizing of possible power relations between the participants and between the facilitators and the participants.

Facilitation has an extremely important role in supporting futures thinking which is often challenging for workshop participants. Facilitators' role is to support creative and encouraging atmosphere and to release possible inhibiting power hierarchies between the participants. Additionally, facilitators should be aware of their own power relation to the groups emphasizing the supporting role not the personal capacity.

4.2.2 *Corporeal and multisensory elements*

There were seemingly less corporeal and multisensory elements mentioned as supportive for futures thinking than for creativity in the research material. The perception exercises in the morning had waked up the long time perspectives and nurtured the imagination of future. Below some examples of the comments:

"... the rural environment rooted in past and eyes closed listening opened the mind to the future" (FFRC QI-19)

"It was nice to close eyes and imagine the future sounds; it helped to direct the thought toward future" (FFRC QI-22)

"The walking around helped to think about issues more diverse" (FFRC QI-23)

"It tuned in to futures thinking – things are definitely different in year 2040" FFRC QI-11)

The multisensory observation of the environment had made it more concrete and easier to imagine the changes in sounds or landscape and to direct the thought toward future state the participants. What can change, what would be nice to preserve and what could rather change in the future were for example questions which had arisen during the perception task (FFRC P1; FFRC P2).

The sounds of nature, wind, water and birds, have a very long duration versus the traffic sound. Being eyes closed makes one more sensitive to other senses than vision: feeling of sun or wind on the face, smell of the autumn morning. These can support in waking up imagination, memories, wishes, what if – possibilities with given instructions of time and future. Working eyes closed is e.g. very used method in movement improvi-

sation focusing concentration to sensations of movement and other than visual references from the surroundings (e.g. Blom & Chaplin 1988, 31, 161–165; Tufnell & Crickmay 1993).

According to the material the visual layers in the surroundings of *Myllärintalo* (see examples in Figure 1 in page 22) having nature, agricultural, older industrial and modern elements were promoting the sense of time, understanding the changes already happened and to imagine what could happen. Below thoughts of one participant inspired by the layered surroundings:

“...how the environment changes, it was kind of concrete or well abstract in my mind but you can concretely show the changes present in the surroundings... you can concretely see something and how it could change so it easier to think of future aspects “ (FFRC P1)

Jungk and Müllert (1987; 116–117) emphasise the benefits of a nice place, an informal settings, catering and supportive facilities for relaxation. These elements are also distinctive in all the FFRC interviews. Hietanen (FFRC Hietanen 2016) emphasises the feeling of the space, how it can make you feel at home, how it can inspire and empower you– or not. He tells about challenges to find comfortable places for people with very different backgrounds, which would not be too technical or too bohemian for all participants. Also, Heinonen et al. (2012, 11–16) in their report of *Creative foresight Space and Foresight of Future Skills* stress the importance of having supportive surroundings for expressing and developing futures creativity.

The cooking session made the participants realise other kinds of futures orientation. The new legume products and development of new vegetarian dishes inspired some participants to think their own food consumption and how would their use of legumes influence the ecology and future. It had opened a more global and wider perspective for own consumption habits as stated below:

“I have started to think more global, ecological things related to vegetarian diet.” (FFRC QII–1)

“I have thought of future through ecology, how I can utilise the products or broad bean for example. How they function, how to utilize them?” (FFRC QII–16).

“The cooking made the legume theme more realistic. I felt that it could be something like this in the future.” (FFRC QII–6)

The cooking made the legume theme more concrete and attached it to the everyday life. The above statements talk for the benefits of some concrete practises for creating knowledge and understanding of complex issues. The abstract knowledge in the forms of ecological facts and global challenges presented in presentation and also contemplated in the group works were merging to the practical kinaesthetic and tactile knowledge

experienced in the cooking and in the feel and smell of ingredients. Then something complex and maybe distant becomes more concrete and close. It can make one conscious of own position in the matter. Additionally the cooking gave tools for an individual to make an impact, to influence the future and did not leave her/him totally helpless with the complexity.

The above is a good example of how different kind of knowledge, practical and abstract can supplement each other (e.g. Parviainen 2006). According to Pink (2015, 42) sensory knowing is context related. She continues that in knowledge transmission the intentionality, creativity, the self and agency are essential instead of just repetitive process of learning. The learning experiences might change fundamentally the idea of oneself and lead to significant behavioural, perceptual and psychological changes. Additionally, she encourages the researchers to extend the idea of ‘knowing in practice’ to the ‘imagining of practice’ for creating sense of the pasts and futures. (Pink 2015, 42–43.)

The practical cooking was a learning platform and a possible promoter of behavioural changes. Additionally it created a concrete image of possible future and this experienced image can promote the further imaging of futures possibilities. Below, a future orientated comment of one participant of the cooking session: “*Community spirit of the future and more sustainable diet were proven possible – we lived a moment in future*” (FFRC Q I –14). This comment beautifully described a concrete future image with sustainable diet and community spirit which s/he had experienced positive in the cooking session. This kind of ‘imagining in practice’ can support in behavioural changes toward desired futures.

Slaughter (1991, 512) highlights the meaning of experience being a profound level promoter of social change. To create a “direct experience of intrinsic value” which is something else than use-value or exchange-value is essential for a change toward more comprehensive understanding of reality and values shifting away from anthropocentric toward more biocentric argues Slaughter (1991, 511–512). He presents a system of Imagine the Future which includes e.g. sharing ideas and validating and celebrating steps toward ecological sustainability, steps that anyone can do toward better world.

In the bean workshops the multisensory practices were used for opening the sense of time toward the future and imagining the futures. The functional practices of cooking were a platform for value elaboration and learning of possible actions for any individual to make.

4.2.3 *Hindering and supportive elements of futures thinking*

The participants noted very few hindering elements for futures thinking. The cause may be in the difficulty of futures thinking in general. One of the participants complained about the difficulty to connect legumes and future in following way: *“I have not contemplated future via legumes after the workshops. The meaning of legumes for me feels an abstract concept”* (FFRC QII–11) Legumes and future did not feel natural concept together for her/him but were appearing abstract and maybe too distant. It could be that futures thinking as such is so unfamiliar that it is difficult to connect to it with something so concrete as legumes. In the interviews of the participants (FFRC P1; FFRC P2) the difficulty of letting go the realities and concrete was discussed and the earlier mentioned challenge of expertise was related to futures thinking as well. The limitation of time had hampered of getting further and deeper to the future with such a diversity of topics discussed (FFRC P1).

From the interviews of FFRC personnel I take up some hindering things they mentioned. The concept of the futures workshops is unfamiliar and the expectations may be about a lecture or a presentation. The concept of future itself is undefined, what does it really mean? Additionally, the meaning of the workshops may be unclear, what is aimed and why, which hampers the motivation. A jump to the different kind of future needs time and applying properly to the theme and imagining future is not necessarily solution orientated which may be difficult to understand as a target. Also the art based methods may cause a strong self-criticism – I cannot do this as well as an artist, I would look ridiculous. Losing one’s face in creative actions is a hampering fear. (FFRC Hietanen 2016; FFRC Jokinen 2016; FFRC Kirveennummi 2016; FFRC Siivonen 2016.)

Some of these hindering aspects mentioned above can be eased with clear information about the purposes and methods in the workshops and with attended and inspiring facilitation. Inspiring facilitation is also needed in situations where the worries of the present are hindering the imaginative futures thinking presented by Jokinen (FFRC Jokinen 2016). This kind of hinder parallels to Slaughter’s (1991) worry of pessimistic future views which make people to submit their future instead of actively making it towards the desired future. How to create space and atmosphere for releasing the worries of today and instead imaging a desired future is a challenge to the facilitators, particularly if the time frame is restricted. The restrictions of time, what is possible to include and contemplate in one workshop, is a generally known challenge for supporting creative futures thinking. More about the time challenges in the following chapter.

To support creative futures thinking the general supportive elements for creative group work should be applied. Jokinen (FFRC Jokinen 2016) and Hietanen (FFRC Hietanen 2016) are for example highlighting the group size, being ideally from five to

six, to ensure a fluent discussion but enough perspectives. From the general feedback of my workshops the group with inspiring diversity and facilitation were praised as creating an interesting and thought provoking (learning) experience. Participants mentioned also the need of time to recognise and find different kind of future signals and models. (FFRC QI –1–23.)

Futures thinking is about imagining different alternative possibilities to come, to think differently maintain e.g. Slaughter (1991), Niiniluoto (2009) and Bell (2009b). Supporting this is aimed in the futures workshops. Like Slaughter (1991, 507) claims, futures workshops is a flexible concept to deal with future concerns because they deliberately interlink rational and logical with intuitive and emotional. Similarly futures workshops is a practical concept to interweave more theoretical futures thinking to more practical and concrete practices of futures making. Approaching the perplex futures thinking from different perspectives and in different ways assists in changing the mind-set toward creative futures thinking.

The corporeal practices discussed above had worked considerably well in supporting creative futures thinking. They have nurtured the futures thinking and provided practical tools for futures making. The research material shows that the practical experiences can have distinctive influence to the impacts of a workshops more discussed in chapter 4.4. And as Jokinen stated earlier (FFRC Jokinen 2016) we should use more corporeal actions to get in touch with non-verbal and not so logical thinking of futures possibilities.

4.3 Interconnection of workshop theme and creative practices

The workshops had very clear frames for directing the creative futures thinking. The theme of legumes and ideas of ecological and cultural sustainability were explicitly present in invitations and background material. The idea of group work was to create futures images where use of legumes is common. This clearly focused the creative imagination of future narrowing out many plausible and preferable possibilities.

Is clear focus a hinder for creativity or for creative futures thinking? When improvising in movement dancers very often have some referents, they may be related to elements of space, time and movement qualities, to body parts, to sound, to props (like furniture, clothing etc.) or imaginary ideas as memories or stories (e.g. Tufnell & Crickmay 1993; Blom & Chaplin 1988). The referent helps to get deeper and further in movement exploration, it is a tool for finding something new. This kind of exploration is not about just anything what appears but related to particular focus, e.g. new ways of using space or crawling. The systematic exploration of improvisation by defining the

limits and invoking a structure for dance to happen is stressed e.g. in Lepecki's (1997, 17) article of Trisha Brown's choreographic practices.

Similarly, having some kind of frame or given referent in futures thinking can also lead further in imagination when it is possible to probe deeper in a more narrow area. I relate the improvising referents to e.g. "what if..." questions where the "what if" -idea works as referent and all the possibilities imagined are in some relation to that stated idea.

4.3.1 *Planning, structure and content of the workshop*

My planning of the workshops was strongly influenced by the given frame of legumes and sustainability; it e.g. had an impact on the aimed participants. Farmers¹⁴ were one seminal a kind of given target group from *Kasvunpaikat* and the idea of outdoor activities and finding a suitable place for that was already in my mind in a very early phase of the whole planning process. I thought of the multisensory knowledge of people who are working on fields – the sense of weather, soil, signs in nature, when to sow, when to harvest – the kind of multisensory silent knowledge which needs to be experienced to be gathered. I wondered how I could connect this somehow with corporeal creativity support, futures thinking and sustainability ideas in workshops and further more with other kind of participants without these experiences. I have to say it felt like a challenge.

The place of *Myllärintalo* with its multi-layered surroundings was excellent for this theme and is already discussed earlier. The creativity supporting activities in the two workshops were influenced by the theme of legumes and sustainability and in planning the workshop content I worked them in the day's practices in many different ways. For example, in opening circle we threw around a bag of beans for introducing turn which included short personal legume stories. For breakfast coffee I had baked buns with crushed peas and pea flower. In lunch cooking the tactile sense and motoristic skills were activated in addition to the taste and smell. Making food and eating it is really a multisensory activity connecting the more theoretical or abstract contemplations to experiential knowledge of legumes theme.

Already the introducing with short legume related stories brought up many multisensory memories as travels with exotic bean meals, pea soup days in schools, farts, smell of pea fields in the summer and experiences of unsuccessful growing of beans as exam-

¹⁴ Additionally Martha organisation and (small) producers of legume products were discussed in the *Kasvunpaikat* meeting I attended at 1.6.2016.

ples. Addition to relaxed way to get to know each other it opened the world of legumes from many perspectives and woke up thought process around the topic.

The acquaintance with new ingredients, the ideas for using new ingredients and concretising legumes as versatile raw material were highlighted as experiences from the cooking part by many participants' (FFRC QI-1-23; FFRC QII -1-19). These comments relate to the recognised needs for making a change in consumption habits stated by Ahokas et al. (2016). Ahokas et al. (2016, 54-55) maintain that most of consumers are preliminary positive for vegetarian orientated diet but the problem lies in practicalities. The consumers find it difficult to make tasty and nutritious vegetarian food and they would need tasty, easily available and easy to make products to change their consumption habits. The possible consumption changes are influenced by the structures of cultural food behaviours continue Ahokas et al. and suggest that if the new protein sources would find a suitable cultural corner they could become fast a part of common consumption habits (Ahokas et al. 2016, 52).

Experimenting with the legume products available gave different kind of practical tactile knowledge than only reading about them. Parviainen (2006, 96) talks how theoretical conceptual knowledge does not replace a practical education. Ahokas et al. (2016, 55) in their turn talk about challenges in change process because it needs more cognitive work and processing than repeating already familiar routines. To support a change in food consumption habits the changing process should be as simple as possible or the motivation for it should be so high that process is experienced as pleasant they argue. Even one futures workshop does not make one a professional in legumes cooking it can give experience and examples of tasty meals and so doing encourage for further usage. Furthermore, the cooking evidently influenced the participants' future actions which are more discussed in the coming chapter of impacts.

In the group work the legumes as the leading referent accompanied with ideas of sustainability created the frame but everything what could be included to that frame was the task of the participants to invent. So the target was to generate many ideas as widely and wildly as possible but still in connection to the future with legumes. When the form of the image was not clearly defined it leaved room for different kind of solutions for content and form and so for creative choices. Even with this pretty strict frame the participants commented on difficulty to have time to discuss all the ideas or to keep the focus in the workshops' frame (e.g. FFRC P1 and FFRC P2). At least according these comments the frames were not felt as restrictive but the clear theme of legumes with the concrete practices of cooking can have anchored the ideas to more pragmatic and near future.

4.3.2 *The time frame and focus of the workshops*

The time frame was five hours which meant limitation of things to involve. I wanted to avoid the feeling of stress and hurry which I have often felt as distracting from my creativity in some futures workshops. I also know from experience that all transitions from in to out, from task to the next take usually more time than anticipated. Furthermore, I wanted to give time for the supportive creative elements considerably more what I had experienced in futures workshops to examine the influence of creative practices more evidently.

The above meant that I had to make choices of what to include and what to leave out. Because the intension was to generate ideas and research material for *Kasvunpaikat* I left out deeper elaborations. There were no elections for most important material, or couple of chosen elements for deeper investigation. The elaborative element was to think of what is promoting or preventing the realisation of the developed image and to think of the systemic influences of the content to each other. Neither summaries of images e.g. in form of short descriptions or visions were made. This meant that concise formulated results from group work did not exist.

The above can leave a taste of open (or too loose) ending of the workshop. The end phase happened by sharing the results with free discussion (randomly changing groups in Friday and dividing groups to two discussion groups in Saturday). Looking the creativity graphs (see appendix 7) there is a slight down curve toward the end in many of the curves. There were a few comments about the last phase decreasing creativity because of repeating the earlier and being too short pushing toward self-evidence with banal short slogans (FFRC QI-14, FFRC QI-21). On the other hand there were comments which desired to progress the ideas further than just one student work (FFRC QI-1). In one comment of the utilisation of workshop ideas this loose ending is contemplated and suggestion of e.g. personal conclusions or commitments is presented (FFRC QII-6).

With the ending without concise formulated results I wanted to avoid a situation of wrapped visions made in a hurry without proper possibilities to critical elaboration before formulating them. And yet there was one comment in regards to hurrying at the end (FFRC QI-14). This comment could connect to the need or also to a habit of making concise formulation at the end of a workshop even if it was not particularly asked. The above presented idea of personal commitment would have been a good option creating a kind of personal conclusion leaving the ending less loose but without a stress which I aimed to avoid. In this time frame, the result material created is rich and interesting but definitely calling for and needing further elaboration. It is a resource for the researchers of *Kasvunpaikat* or an interesting base for other futures workshops.

Considering the restricted time frame I think it is important to consider both issues, the aimed results for the organisers or customer and what is it that the participants' gain. Particularly in workshops where the participants have wide diversity and probably have no direct benefit of the results it is important to enable other experiences than being driven into to exhaustion. For example the futures workshop can be an important learning experience, a platform for collaborative learning as stated by Heinonen and Ruotsalainen (2013) and a place to make useful networking. The schedule should not be so tight that there is not time for more informal discussions. The informal chatting and doing something else together as eating or playing etc. is also emphasised by Jungk and Müllert (1987) as an essential part of futures workshops. The positive experience can have a distinctive role in impacts of the workshops.

In the FFRC interviews the idea and utilisation of several successive workshops of the same topic was seen and experienced as beneficial and desirable (FFRC Hietanen 2016; FFRC Jokinen 2016; FFRC Kirveenummi 2016). Accordingly, this idea was praised in both articles of ACTVOD method (Lauttamäki 20016) and of Futures Clinique (Heinonen & Ruotsalainen 2013). Examples of conducted successive workshops in FFRC are e.g. *Kulttuurin kulmakivet*, cultural strategies in South-West Finland (Helander et al 2005) and *Varsinais-Suomen elinkeinostrategiaprosessin tulevaisuusverstaat – Peste Futures Lab*, a strategy process of industries in South-West Finland (Hietanen 2009).

Having a couple or a few workshops of the same topic allows digesting the ideas, more time for elaboration and also learning process of futures thinking to happen. It would also enable changes in group participants for supporting the varied needs in different phases of creativity process as suggested by Kaplan et al. (2015) discussed already earlier. It is actually interesting that the negative influence of lack of time is generally recognised in creative group work but yet it is so difficult to realise.

Focus of the workshops, the objectives and intentions of it are extremely important to consider when planning a workshop. Different tools, structures and practices promote different kinds of results. For example the ACTVOD structure is developed for achieving practical results in one-day workshops (Lauttamäki 2016, 156) and Futures Clinique aims to promote futures thinking and provocative more radical ideas (Heinonen & Ruotsalainen 2013). Both of the previous structures include similar elements as futures wheel, use of tables and creative working in groups but the emphasis in how they are used can vary. Additionally the amount and type of background work before and/or after the workshops can frame and direct the results in very different ways.

Whether the intentions are in problem solving, inventions, strategies or diverse future images the tools, structures and the methods used should be chosen accordingly. Hietanen (FFRC Hietanen 2016) says that the intentions are extremely important to

consider in planning and the workshop processes are different if the focus is in narrowing and finding a common understanding or in opening and widening the perspective in an organisation. Moreover, a process of exploring diverse (distant) futures differs from the previous (FFRC Hietanen 2016).

Both Kirveennummi (FFRC Kirveennummi 2016) and Hietanen (FFRC Hietanen 2016) maintain that ideas or perspectives included in presentations or opening part are always coming back in one way or another. They continue that even the questions are framing the ideas. The idea seeds or focusing questions can be useful or contaminating depending on the intentions maintains Hietanen (FFRC Hietanen 2016).

The focus of the workshop should similarly influence the creative practices used in them. What kinds of referents would be useful and supportive for these particular themes should always be considered. When the imagination should be as free as possible the task to find supportive creative exercises becomes more challenging, to not contaminate but yet direct the ideas further into futures, into something not yet known. My choices of the supporting activities were clearly related to the focus theme and intentionally supported the theme of the workshops. Moreover, I considered the time frame when planning the tasks and activities to avoid a stress caused by lack of time.

4.3.3 Creativity and future orientation in the results and the experiences

The result materials from the workshops show wide and rich range of different ideas. They include biological, ecological, social, economic and cultural aspects. The results from brainstorming exercises included products, properties, memories and actions. In the created futures images ideas were clustered round themes of e.g. food education, cultivation, food industry, legislation, politics, availability, consumers, world trade, research and innovation. (FFRC WR.)

In the recorded group discussions I recognised approximately 85 different themes which of nearly half are discussed in several of the groups. There is a rich variety of themes and ideas partly overlapping in the six group discussions. Examples of variety in themes are e.g. different kind of legume products from bean wine to coins, education, global and local trade, ideologies, plant breeding, food delivery services, ecological impacts, legislation, celebrity chefs, prejudices etc. (FFRC RG.)

Also, the varying perspectives to the same subject created versatility to the discussions and ideas. For example eating habits of children, the future consumers were discussed from ecological, educational, health and cultural viewpoints. There were ideas for e.g. school catering (like a legume day in a weekly menu), new nutrition guidelines,

educating catering personnel, tackling food prejudices, cultivating at homes or schools, having bean games and use of new phenomena education. (FFRC RG; FFRC WR.)

When I evaluate the futures orientation of the group discussions and the group work material my interpretation is that the participants used relatively much time for exploring the rich variety of issues involved in the systemic image. The future orientation is clearly visible being practical, pragmatic and having a feel of relatively near future. In the discussions the future orientation was present by e.g. thinking of impacts of education or plant breeding. (FFRC RG; FFRC WR.)

The two interviewed participants (FFRC P1; FFRC P2) state that the near future and more pragmatic and problem solving attitudes were emphasised in group discussions and work versus wilder imaginative ideas. The concrete framework of legumes may anchor the imaginative thinking and intentions of innovations to pragmatism and problem solving perspectives. Even the frame narrowed the focus the systemic network was wide and needed time to be explored which can have prevented the more radical futures imaging.

The above parallel my personal memories and notes. Group discussions felt vivid and varied contemplating different kind of subjects and including also many perspectives to the same subjects (RD Tuittila). The structure of the workshops (including brainstorming, futures images and supportive and hindering aspects) supported the diversity and different perspectives in futures thinking. Anyhow, my reminders of including fiction and wilder even totally foolish ideas turned out not to be very successful and the ideas invented were mostly pragmatic. My inexperience in boosting a bit more aggressively the wilder futures thinking did not support the push toward further and more imaginative future.

Examples of some of the more imaginative ideas are paper or plastic materials made of beans, bean gardens, fart gas utilization for house warming and beans as coins and part of exchange economy. Other one of the interviewed participants (FFRC P2) said that *“we are so attached to realities...people want to think in quite concrete way and its ok, but then it did not get particularly flying”*. Futures thinking, that world can become significantly unlike today is difficult and it would need practicing like any skill as discussed earlier about hindering elements of futures thinking. Nevertheless, discussing futures with people from different backgrounds assists in widening the perspectives and in thinking another way.

Among the results belongs the collection of recipes invented in the cooking session. They represent the practical experiments and innovations made in the workshops. Similarly to the group work, the cooking was framed by the theme of legumes and sustainability and additionally the ingredients available. The idea was to promote easy everyday cooking so addition to the legume products the vegetables I chose were common and

not pricey as carrots, onions, bell peppers and apples. Moreover the limited time for cooking (addition to challenge) was relevant in relation to everyday cooking situations at home where usually fast and easy cooking is preferred. The workshops resulted 15 recipes including cold and warm dishes, desserts and baking using legume products.

When considering Heinonen's (oral information 12.10.2016) idea of three dimensions of creativity (the participants, the structures and tasks, the results) in futures workshop context being interconnected but not necessary causal in these bean workshops I found some following conclusions. In my material I can have relevant evidence of the structures and tasks and results to evaluate them. Nevertheless, the participants' individual creativity I cannot evaluate from my material as I did not know them before. Traces of their individual creativity capacities are in the results but it is impossible to identify them.

I consider my structure and tasks as creative in the context of futures workshops because they explored some new kinds of (creative) tools to be utilised in them. The structure and tasks supported evidently well the participants' experiences of creativity according the material (FFRC QI –1–23; FFRC QII–1–19) however, whether the structures supported participants' actual creativity could be estimated from the results.

The success of the creativity of the results presented above can be discussed. The group work material is relevant and valuable for further research and the target was to get widely material. The collection of recipes created a practical tool for futures making for the participants and the workshops evidently inspired the participants in their later actions and thoughts. Nevertheless, I would grade the results as moderately creative in the context of creative futures thinking because of the pragmatic and near future emphases.

4.3.4 What kind of interconnection exists in between creative practices and the particular aims of the workshops?

My second research question asks what kind of interconnection exists in between creative practices and the aims of a workshop. First, I argue that an interconnection is not self-evident in workshops practices but it should be. In my case with bean workshops there definitely is an interconnection, because it was my intention. I particularly thought of corporeal and multisensory ways of supporting creativity within the context of legumes and sustainability as presented above. At this point the more interesting question is: why is this interconnection important?

Thinking in corporeal and multisensory practices there are many different kind of possibilities to support creativity with them. They can be useful for letting go strict self-

criticism and becoming more relaxed and present or they can create team spirit and be fun. Anyhow, if the creative practices are not connected to the subject of the workshop they can be a lot of fun but not necessarily supportive for the aims of the workshop at all. When having the connection the creative practices can e.g. lead the participant's to the area of subject in the beginning, provide surprising perspectives to the topic during the workshop and also promote (the challenging) futures thinking.

In the bean workshops the opening exercises guided to the theme and futures thinking. The cooking did not essentially bring surprising perspectives to the topic but it approached the topic from a practical, functional perspective bringing in another kind of experiential knowledge perspectives. A few comments from the participants highlight the connection in the following way:

“Well organized workshop, the relationship between instructions, discussing working and practical working was excellent...” (FFRC QI–23)

“Really fun and effective workshop...” (FFRC QI–16)

“Altogether it was an interesting, thoughts and ideas provoking day” (FFRC QI–2)

The participants praise the balance between different kind of tasks, the clarity of instructions, effective experiences, fun and the richness of thoughts the day had provoked. The positive comments of the integrated entity of the workshops support the idea of tailor-made creative practices being useful for futures workshops. It is more time consuming to formulate ideal creative practices for each workshop but using an overall model or good activities from another workshop with very different aims and frames do not support the particular focus and goals as well. I argue it is worth the trouble to plan the appropriate tailor-made creative activities for each workshop. Consequently, I claim that my investment in creativity support was beneficial when looking at the following impacts of the workshops.

4.4 Impacts of the workshops

To measure the impact of a futures workshops is challenging say e.g. Jungk and Müllert (1987, 108) and continue that particularly in social inventions the benefit may occur a lot later, or the intangible gains may be achieved in another kind of context than the workshop theme. In some workshops the success of the results may rather be in the effects of participants' opinions and behaviour than in catalogues of proposals state Jungk and Müllert (1987, 72). These kinds of implementations are difficult to measure but in the context of futures studies as creating preferable futures and futures making (e.g. Bell 2009a) they can be extremely valuable.

In general evaluating success in futures studies is challenging. “Did we do things right, or have we been doing the right things?” is a valuable evaluation question asked by Martijn Van der Steen and Patrick Van der Duin (2012, 491). They continue that even though there is no causality between the methodology, accuracy and impact of a study there is a correlation. Instead of concentrating on measuring or counting the accuracy of predicting a success in Futures Studies could be seen as a learning process argue Van der Steen and Van der Duin (2012). This argument parallels to the statements of Heinen and Ruotsalainen (2013) who emphasize the workshops method’s potential for education and inner-motivated peer to peer learning.

Another challenge lies in the implementation phase. Are there enough resources (time and other) to work for the implementation of the ideas constructed? Hietanen (FFRC Hietanen 2016) speaks about the problems in implementation phase, how important is to create a good implementation plan, a good exit from a futures workshop process. He continues that there should be resources for at least one thing to be realised or put in action immediately. The worst thing is to make a process and then do nothing. There are examples of good strategies, reports and operational plans, but no-one acts. (FFRC Hietanen 2016.)

Seemingly more intention is needed for the implementation plan particularly in more problem solving or strategy orientated workshops. Again being the last phase of the process it easily suffers from lack of time (e.g. Jungk and Müllert 1987, 70–71). Even with these bean workshops there has not (yet) been resources for further utilization of the material by *Kasvunpaikat*, which I really hope will happen later. As one participant states in his/her answer to open feedback: “*Taking ideas further? So it will not stay only subject of theses!!!*” (FFRC QI–1)

More importantly, as Jungk and Müllert (1987, 71) state the success of the workshop lies not solely in action plans or proposals but also in gradual changes in the minds and behaviour of the participants. They beautifully use a metaphor of making holes in a wall where at least the fresh perspectives can be seen, the alternatives to be reached. They argue that there is a great difference if the learning and new perspectives are gained via active participation in group work rather than reading a book, having a lecture or seeing a film. Jungk and Müllert (1987, 73) believe that participants of a workshop are more willing to fight for their brainchildren and struggle to make them happen even with difficulties in e.g. legislation or other power structures.

I had some intentions for impacts of the bean workshops. Materials from group work would be used somehow by *Kasvunpaikat* research network for their aims of assisting ecological and cultural sustainability. The practical experiences in cooking would promote the use of legumes as part of everyday diet. Moreover the aim was to get participants inspired to act and to make some changes in their choices or thoughts toward a

preferable future. I deliberate the participants' responses of the impacts in the next chapter.

4.4.1 *Responses of the workshop participants*

In my study I asked the participants in the second questionnaire (three months later) about the possible impacts of the workshops. The answers represent 19 participants' experiences of the impacts making the answering ratio as good as 80%. I had two questions, first requiring the utilisation of the ideas and second one about the changes in attitudes or behaviour and I asked reasoning for the answers (questionnaire 2 see appendix 5). Because the impact studies are rare I have discussed many of the answers to show the variety of the impacts reported. It is notable that one participant can have stated more than one aspect to each question.

Legumes in diet and cooking are the most reported topic among the utilised ideas, attitudes and actions. Majority of the participants (who responded to the questionnaire) have increased the legumes and other vegetables in their diet. They started to utilize the introduced legume products and discussed the topic with family, friends and colleagues. Here are a few examples of these answers below:

“Crushed pea is number one. I have it now at home in cupboard and food, as far as I can find it at shop...” (FFRC QII-7)

“I have made my own versions of couple of the recipes” (FFRC QII-9)

“I am probably more interested in legume products” (FFRC QII-10)

“I have got new perspectives, but I have not turned totally green” (FFRC QII-16)

“Not much, I have discussed with closed ones and utilised in family diet” (FFRC QII-18)

The answers show utilisations of interest for the legume ingredients and food experiments from the workshops. Interestingly, there are more than one answers where the participants kind of undervalued their actions. They noted that they had not quite utilized the ideas, and then they continued that they had just started to use the legume products more. Like apologising their incapability to totally change and do everything in a sustainable lifestyle after the workshops. There is an underrating tone of the actions made, the same actions which I find great. What is adequate can be a difficult question particularly inside a frame of sustainability and the current consumption culture in developed countries. Nevertheless, in a frame of futures thinking and futures making already the small changes such as to think and act differently, can be considered meaning-

ful. As Niiniluoto (2009, 61) maintains futures features will depend on human choices and my role as futurist is to support the choices toward preferable futures.

The increased use of legumes in diet parallels my own experiences of the workshop process. I experimented with the legume products before the workshops in order to have some kind of practical knowledge about them and the legume products have also stayed as natural and regularly utilised option in my family diet. Both of us adults buy legume products when shopping, although the products that need more than just heating among other ingredients are mainly used by me.

The easiness of cooking and availability are underlined by Ahokas et al. (2016, 54–55) for creating changes in food consumption habits. For example, domestic tempeh made from peas or lupin was a new acquaintance for most of the participants including myself. It is very similar to tofu and fairly simple to cook but unfortunately the availability is still very limited. Particularly new products need experimenting and getting to know them better maintain Ahokas et al. (2016: 55.) The cooking in the workshops created place for try outs for ingredients unfamiliar or not so easily available (as tempeh). Student participants also stressed the price issue (RD Tuittila). If something is a bit more expensive there is a threshold to experiment with product you do not know the taste or the ways of cooking it.

Additionally, like some of the participants I have spread my interest, knowledge and recipes to friends and colleagues. Seemingly having some practical knowledge and tasty self-made experiences will promote the usage of legumes in family and in personal diet plans. If the participants shared similar experiences of inspiration and enthusiasm during the workshops to myself, then I truly believe in their willingness to engage to the workshop ideas.

Even though the impacts of changes in family diets are not radical they can have small but long lasting effects by reproducing the norms and values on a micro level. The hindering aspects for new innovations in protein sources are e.g. in food culture and yet unestablished production patterns state Ahokas et al. (2016, 48). When the use of legumes has become ordinary also new sustainable food products to be developed have more potential users which in turn motivate the development processes.

There were also answers which predict undoubtedly higher impacts for future. I was particularly delighted by the answers of two home economic teachers and one communal food service personnel who had started to utilise the workshop ideas and introduced products in their work.

“I have informed my workplace of new products and they have been utilised” (FFRC QI–1)

“I have utilised a lot... I also plan to make guidance for young families...” (FFRC QII–5)

“I have created new recipes with students or students have themselves invented dishes or baking from pea products” and “...I have marketed vegetarian dishes to secondary school students and many have liked them and they have been contemplating meat consumption” (FFRC QII–19)

The participants had actively taken the legume products into their work, created new dishes with students, discussed meat consumption, planned guidance for young families and started to utilise them in the catering.

When the school students discuss the meat consumption and practice the vegetarian alternatives and dishes and get tasty liked examples it will influence their attitudes and potentially their future consumption habits. These attitudes probably travel to families and if a teenager suggests a legume product to a meal it definitely lowers a threshold to try it in family diet. These kind of ideas were also discussed during the group work (FFRC RG).

Additionally, students’ experiences in inventing own versions and recipes from the legume ingredients assist in creating trust for own creativity with cooking and new materials. This is something similar to what happened in my workshops where the participants were allowed to invent the dishes themselves and by doing so they probably gained more self-confidence with new ingredients. The practical positive experiences can be very valuable for changing consumption habits toward sustainable. The role of positive engagement, having practical new ways of doing, thinking and knowing in a more sustainable manner helps to transform consumption practices and culture is argued by Gert Spaargaren (2011, 820–821). This will be discussed more detail in the following chapter.

A communal food service makes meals for thousands of people daily even in smaller cities including e.g. day cares, schools, elderly homes, hospitals and home services. A legume dish instead of a meat dish even if it was just a couple times a month would make an impact. If this habit would spread to most of the communities in Finland it would mean considerable change in meat consumption. According to Susanna Raulio (2015) one third of the Finnish population is having one meal daily served by food services, which means approximately 1,8 million meals daily¹⁵. Consequently the food services (both communal and private) have a significant role in food culture by providing healthy meals served but also by creating a model of recommended diet which reflects to other eating is argued by the National Institute for Health and Welfare, the THL (THL 2017). Even the health issues are stressed in the THL’s website, similarly the

¹⁵ Counted with approximate number of 5,5 million as population of Finland.

model of recommended meals would serve the sustainability goals and the prevention of climate change.

The utilization of the workshop methods or ideas in participants' work or in voluntary work in different kinds of organisations is an issue I found interesting in the answers (e.g. FFRC QII-5; FFRC QII-13). For example, one participant explains that s/he has utilised general ideas of futures thinking in his/her work. S/he continues that s/he will utilise the practical ideas of starting outdoors (which created force for the whole day) and the idea of doing something practical as cooking together which create natural spaces for free discussions in workshop situation. Additionally s/he contemplated on possibilities to do some charity work in relation to sustainable food. (FFRC QII-4.) So in addition to the impacts of the workshops' theme the learning about the method itself and practices experienced in the workshop may have positive impacts on futures.

The aspect of learning was also brought up with some participants. The rich variety of issues and different kind of practitioners around the topic had enriched their personal thinking as in one example below:

“It is nice to meet people from different age groups and background who are interested in same topic, because you always gain new perspectives and stimulus. Maybe most fun was to hear that an earlier abandoned idea is new and fine in the eyes of others. We should remember that abandoned ideas may be useful in another context and time.” (FFRC QII-7)

The ideas of the workshops were also utilised in other studies (FFRC QII-8) and they were adapted in own www pages and food courses e.g. by highlighting the digestion questions of legumes which caused discussions at the workshops (FFRC QII-3).

New collaboration with a farmer was reported by one participant (FFRC QII-3) and another one had increased utilisation of ingredients directly from farmers (FFRC QII-5). Two participants' had got inspiration for trying **legume cultivation** in the becoming summer (FFRC QII-11; FFRC QII-12).

No impacts or fewer impacts were also among the reported comments of the workshops. Two participants told they had not utilised the ideas from the workshops and the other participant stated the following: *“I have not yet utilised, it needs time, too much new, too fast”* (FFRC QII-11; FFRC QII-16) The second statement though leaves possibility for later utilisation and impacts, when the person has had more time to digest the experience. S/he actually contemplates in the previous answer about inspiration to futures thinking through ecology and legumes which could be seen as processing attitudes and already a change in futures thinking.

There were several participants who are already so familiar with the subject that it was hard to separate the affect from their general interest in the topic or their work with

related issues (e.g. FFRC QII-9; FFRC QII-13). Below there is an example of statement on the question about changes in attitudes or actions:

“Well, not much, but as I said above my awareness of availability of legumes increased. Otherwise everything connected to legumes and their production was familiar, so I did not learn anything new as such unlike some others maybe. But that is not always an inherent value either”
(FFRC QII-14)

S/he tells that his/her attitude has not particularly changed because most of the information contemplated was already familiar. Nevertheless, s/he has become more aware of the availability of different kind of legume products.

My impact questions were open in such a way that it was possible to answer them more practically or more philosophically in different levels of attitudes. Some connected their answers tighter to the theme of legumes some more openly to the whole workshops. The understanding of term impact among the responses can vary; some might think it needs to be something more radical and they undervalue the small changes made in e.g. family diet or attitudes as some examples earlier stated. One more example of this is: *“I have not really utilised ideas, except I might have done more bean dishes”* (FFRC QII-12).

The workshops impacts include also acquaintance to futures thinking which may be hard to recognise or verbalise but can have been as an implemented seed of it. Two thirds of my workshops participants did not have earlier experiences of futures workshops so it can have been an eye opening experience toward futures thinking. Jokinen (FFRC Jokinen 2016) compares workshops facilitation to guerrilla action, which is never useless, thoughts and ideas born can need time to ripe.

According to the material above, practically orientated workshops have clearly potential to make changes and influence (at least) the near futures. Statements below brought up these kinds of thoughts from the participants:

“...More usage of vegetables and more sustainable use of meat is a right direction and luckily we are heading toward it and thoughts based on creative multidisciplinary experiences of these kinds of workshops can have significant role in promoting the subject” (FFRC QII-17)

“ ... I believe that doing things together and experiences of inspiration can create futures confidence and motivation” and *“ ... I believe that if a futures workshops would bring together people with shared interests these kind of creative / tangible practices could bring futures thinking and futures work well forward”*(FFRC QII-6)

The first statement reflects the topic in a slightly more theoretical way reflecting the possibilities of attitude changes via the futures workshops. The second emphasises the

meaning of experiences, inspirations and creative or tangible activities in promoting futures thinking and making. Both of the statements bring up the importance of positive experiences in the workshops, which is discussed further in the chapter below.

Reported answers of the impacts were many, most of them personal with smaller impact circle but among them were some with even larger influence. Sustainable changes in diet and cooking were stated most. The participants had started to utilise legumes and other vegetables more at home and some at work and also discussed the topic with family, colleagues and friends, which means the knowledge and practices are spreading further than just the participants. Learning, utilisation of workshop methods or corporeal practices and promotion of sustainable futures are other meaningful effects mentioned. Considering the resources for the workshops I am more than happy with the impact results.

4.4.2 *Positive engagement for supporting sustainability*

Spaargaren (2011, 818) emphasises the cultural approach to sustainability and the positive experiences as excitement and enjoyment connected to sustainable consumption being ways to easier engage people to sustainability goals. He criticizes the negative tone of sustainability discussion and policies where the emphasis is in avoidance, limitation and reduction. Instead, he argues for a practice oriented positive view on sustainable consumption where majority (not just forerunners) could connect and identify themselves (Spaargaren 2011: 820).

Spaargaren (2011: 818) presents Collins' interaction ritual theory as a tool for positive engagement, where reproduction of norms and values are produced in micro level and in everyday life and where the emphasis is on "the situational characteristics and mechanisms implied in the reproduction of culture." When people get excited and they become jointly interested, something will happen. The situation (as ritual) will produce solidarity, standards of morality, symbols of social relations and emotional energy in the persons says Spaargaren (2011: 819). He argues that citizen consumers should be regarded as emotional energy seekers and continues that this is far too little utilized in promoting sustainable consumption practices.

Are these ideas useful for futures workshops having themes of sustainability? I believe that positive engagement and cultural approach are valuable tools for promoting sustainable agriculture, food production and consumption in Finland. Changing the seemingly dominating image of sustainability as something limiting and reducing to more positive ideas of commitment, excitement and awareness, a positive emotional engagement as Spaargaren (2011: 820) suggest it can increase the enrolment of individ-

uals in sustainability strategies. Additionally, culture should be seen more as a foundation for transformation in society as Soini and Birkeland (2014) do and the methods to influence cultural changes should be utilised and developed more actively.

In the bean workshops the increased interest in new more sustainable food products and cooking is an example of a practice oriented positive view on sustainable consumption what Spaargarten (2011:818) speaks of. My favourite comment described the cooking and lunch as “*an example of living in the sustainable future*” (FFRC QI–14). It had a positive futures image (the food was tasty and atmosphere inspired) and as Slaughter (1991, 510) emphasises the visions are precursors of social and cultural innovation. Slaughter (1991, 512) also speaks of “the direct experience of intrinsic value” which promotes a social change in fundamental level and is in contrast to use-value. The positive practical and social experiences in the workshops could be paralleled to the experiences of intrinsic values. With these kinds of value experiences a change toward more sustainable life-style can be supported.

I also made an interesting observation of the positive engagement in the research material. The more enthusiastic feedback of the experiences (in the second questionnaire) correlated to the amount of impact like actions made or planned and thoughts expressed of the participants. Meaning the more positively inspired seemingly utilised and implemented the ideas more. In the couple less exited responses the reported impact was smaller. (FFRC QII –1–19.)

My interpretation of this is that the inspiration gained (or lacked) in the workshops has at least as much significance as the concrete (impact) plans made after the workshops. The comments of positive experiences as promoters of motivation also strengthen this indication. The inspired responses radiated interest and inspiration to the theme and utilisation of the ideas in varied ways, to find new ways and venues to implement and develop them even further (FFRC QII –1–19). So the core is in getting the participants inspired, positively engaged. According the research material positive and multiple experiences being intellectual, emotional and corporeal increase the attachment to the subject matter and therefore assist in implementing the ideas and knowledge gained.

4.4.3 Knowledge in futures thinking

In the analyses I faced the question of what kind knowledge is aimed and produced in the futures workshops and what kind of knowledge is perceived as relevant? My question was inspired by the contemplation of the nature of futures knowledge in the interview of Hietanen (FFRC Hietanen 2016). He was troubled by the sense that the theoretical axioms of knowledge of the futures researcher are varied. He asks what kind of

knowledge is produced by different methods and how these tools or structures influence the concept of knowledge (FFRC Hietanen 2016). The topic is wide but important, therefore, I briefly contemplate it in relation to my study below.

Malaska and Holstius (2009, 89) describe knowledge of future as “generalization of scientific knowledge of contingent, intentional and non-factual (visionary) beliefs of the future”. They emphasise the use of futures knowledge for good decision making. My interpretation of this is that intentionality and visionary thinking are seen as important as the scientific knowledge of the contingent facts of futures and the good decision making, correlating to futures making is valued.

In his PhD thesis of “Knowledge creation in foresight” Mikko Dufva (2015) looks futures knowledge creation from the systemic perspective. He builds the knowledge creation around conversation between four types of knowledge, codified (explicit and captured e.g. in databases or documents), articulated (expressed in using codes and language), embodied (expertise, skills and know-how) and out of radar (future orientated knowledge seeming irrelevant but potentially opens new directions). The conversations happen in the interaction of agents and in reframing and challenging assumptions for creating out-of radar-knowledge. This is supported by encouraging atmosphere for intensive interaction. (Dufva 2015, 28–29, 36–37.) Dufva (2015, 32) continues that the out of radar knowledge is the new futures knowledge and the three other categories are about sharing already existing knowledge between the agents. These findings are similar to the systemic view of group creativity by Poutanen (2016).

Dufva (2015, 36) parallels embodied knowledge to experience and I parallel it to silent, tacit knowledge in my study. He suggests that the embodied knowledge is in conversation with out-of-radar knowledge by broadening and associating the potentials and to the other direction the created visions can be reflected against experience. Yet these findings leave still request for deeper investigation of how different kind of structures and tools used in the futures workshops influence the kind of knowledge created.

My focus was on the concepts of silent knowledge and corporeal/tacit knowledge (e.g. Parviainen 2006; Aromaa & Tiili 2014; Pink 2015) utilised in the futures workshops. I cannot say that the utilisation of practical tools particularly supported out-of-radar knowledge to emerge, not at least in the time context of the one workshop. Anyhow, I can state that the corporeal multisensory tools provided practical knowledge to be utilised in futures making and in good decision making. I claim that corporeal and multisensory practices and silent knowledge are valuable in futures research context but how to use them in most relevant ways needs more research.

5 CONCLUSIONS

To briefly summarize, this study was examining the potential of corporeal and multisensory practices in promoting creative futures thinking in the futures workshops method and the interconnectedness of the workshop's theme and creative practices. The corporeality is less researched area in futures studies and it is linked to creativity by experiential, silent knowledge. This qualitative research was approached from phenomenological perspective which emphasises perception, experiential knowledge and corporeality. Two futures workshops with theme of legumes and sustainability formed the main source for this study together with questionnaires to the participants and six interviews of participants and personnel of FFRC.

In the analysis the material was examined with themes of creativity, futures thinking, interconnection of the theme and creative practices and impacts of the workshops. Corporeality and hindering aspects were main subthemes for deeper investigation and for avoiding personal biases. The results of a phenomenological interpretation of the material are summarised below.

Corporeal and multisensory tools used in these futures workshops supported the participants' creativity and team spirit. The outdoor practices helped in creating a comfortable atmosphere and in waking up imaginary thinking. The cooking brought in different kind of knowledge – tacit and silent knowledge – to be utilized in futures imaging and particularly in futures making. The multisensory experiences supported futures thinking by opening the time horizons and by providing a platform for learning functional practices for futures making which are possible for any individual. The utilization of different kind of knowledge can equalize the power relations between participants and reveal valuable not-so explicit perspectives for futures knowledge. Moreover, this study confirmed the already generally known aspects of creativity support in group context as comfortable and relaxed atmosphere, feeling of no strict time pressure and diversity of the participants broadening the perspectives.

The role of facilitation was experienced significantly important in the supporting of futures thinking. Nevertheless, my inexperience as a futures workshops facilitator (pushing tirelessly to further in futures thinking) together with very concrete theme frame of legumes can have influenced the pragmatic and near future orientated results of the group work. The futures images created did not include particularly wild imaginary ideas. Instead they were wide and versatile in content and perspectives providing a relevant and valuable source for further elaboration and research.

When using creative corporeal tools in workshops interconnecting them to the main theme evidently serves the goals of the workshops. In the bean workshops they led to the topic and assisted in producing embodied futures knowledge. Tailor-making the

creative practices for each workshops aids in creating a positive engagement to the topic. Positive and multiple experiences being intellectual, emotional and corporeal obviously increased the workshop participants' attachment to the subject matter and so assisted in implementing the ideas and knowledge gained. Additionally, the overall positive feedback of the bean workshops correlated with the many impacts, in actions and attitudes, reported by the participants. They included for example changes in family diet, utilisation of the information and experiences at work, spreading the information and knowledge and individual learning. The more positive and inspired the responses were the more impacts and ideas for further impacts the participants reported.

To conclude, the results evidently indicate the usefulness and potential of corporeal and multisensory activities in the futures workshops. They assist in building creative atmosphere for the group works, produce a new kind of silent knowledge and particularly inspire the participants for futures making. The importance of positive multi-layered experiences in supporting engagement to make better futures, such as in the framework of sustainability in this study, was manifested in the many impact actions reported.

The experiences of sharing, learning and the interaction of intellectual, emotional and corporeal are all valuable in creating better futures. Developing the use of phenomenological perspectives in futures research the experiential, silent, embodied knowledge can be better considered. I claim that corporeal and multisensory practices and utilisation of silent tacit knowledge are valuable but underused within the futures research context. Hence, how to use them in the most relevant ways would need more research.

My suggestions for further research themes are: To use corporeal practices in different kind of workshop themes including more open futures imaging for revealing more of the potentiality of corporeality in diverse contexts. To enrich and broaden the discussion of futures knowledge by examining the emergence, influence and relevance of silent, tacit (embodied) knowledge in the futures thinking and futures making. Additionally, studies of longer impact evaluation of futures workshops are needed. I would find particularly interesting to investigate the implications of possible attitude changes and their potential later influence to actions and habits.

REFERENCES

Research material

FFRC, Finland Futures Research Centre. University of Turku, Turku, Finland.

Hietanen, O. Head of Development at Finland Futures Research Centre. Interview 12.8.2016.

Jokinen, L. Education Manager at Finland Futures Research Centre. Interview 20.6.2016.

Kirveenummi, A. Project Manager at Finland Futures Research Centre. Interview 20.6.2016.

Siivonen, K. Adjunct professor at Finland Futures Research Centre and my master's thesis supervisor. Interview 1.12.2016.

P1 Participant in Friday 28.10.2016 Futures workshops. Interview 25.11.2016.

P2 Participant in Saturday 29.10.2016 Futures workshops. Interview 17.11.2016.

QI-1-23 (2016) Questionnaire I

QII -1-19 (2016) Questionnaire II

RG Recordings of the group work in the workshops 28.10 and 29.10.2016

WR Workshop results of the group work in the workshops 28.10 and 29.10.2016

In authors possession

RD Tuittila. Research diary of Tuittila, S. 2016

References

Adams, C. – van Manen, M. (2008) Phenomenology. In ed. Given, L.M. *The SAGE Encyclopedia of Qualitative Research Methods*. SAGE Publications. Inc. 615–619

Ahokas, I. & Ahvenainen, M. & Pohjolainen, P. & Kuhmonen, T. (2016) Proteiinikeysymys ja sen ratkaisumahdollisuudet suomessa. Systeminen tarkastelu sekä kirjallisuuskatsaus järjestelmän nykytilasta ja muutospoluista. TUTU e-julkaisuja 4/2016. Tulevaisuuden tutkimuskeskus, Turun yliopisto.

Anttila, E. (2009) Mitä tanssija tietää? Kehollinen tieto ajattelun ja oppimisen perustana. *Aikuiskasvatus*. 2, 84–92

- Aromaa, J. – Tiili, M-L. (2014) Empatia ja ruumiillinen tieto etnografisessa tutkimuksessa. In (eds.) Hämeenaho, P. – Koskinen-Koivisto, E. *Moniulotteinen etnografia*. Ethnos, Helsinki, 258–283
- Baruah, J. – Paulus, P. (2009) Enhancing group creativity : the search for synergy , in Elizabeth A. Mannix, Jack A. Goncalo, Margaret A. Neale (ed.) *Creativity in Groups (Research on Managing Groups and Teams, Volume 12)* Emerald Group Publishing Limited, 29–56
- Bell, W. (1997) *Foundations of Futures studies. Human Science for a New Era volume 2.Values, Objectivity, and the Good Society*. Transaction Publishers. 2. printing. New Brunswick, New Jersey
- Bell, W. (2009a) *Foundations of futures studies: history, purposes, and knowledge. Volume 1, Human science for a new era*. Transaction Publishers. New Brunswick.
- Bell, W. (2009b) Moral Discourse, Objectivity, and the Future. *Futura* vol. 1, 43–58
- Blom, L.A. – Chaplin, L.T. (1988) *The moment of movement. Dance improvisation*. Dance Books Ltd, London
- Bolinger, A.R. – Bonner, B.L. – Okhuysen, G.A. (2015) "Sticking together: the glue role and group creativity" In *Creativity in Groups*. Published online: 09 Mar 2015; 267-289. Retrieved 8.8. 2017
- Brinkmann, S. (2008) Interviewing. Edited by: Lisa M. Given *The SAGE Encyclopedia of Qualitative Research Methods* SAGE Publications, Inc. Print page 471-472
- Chermack, T. (2011) *Scenario Planning in Organisations*. Berrett-Koehler Publishers, Inc. San Francisco.
- Goncalo, J. (2009), Preface, in Elizabeth A. Mannix, Jack A. Goncalo, Margaret A. Neale (ed.) *Creativity in Groups (Research on Managing Groups and Teams, Volume 12)* Emerald Group Publishing Limited, pp.xi - xii
- Dator, J. (1993) From Future Workshops to Envisioning Alternative Futures. *Futures Research Quarterly*, Winter 1993.
- Dillman, D. A.– Smyth, J. D. – Christian, L. M. (2014) *Internet, phone, mail, and mixed-mode surveys: the tailored design method*. John Wiley & Sons, Incorporated, Hoboken, New Jersey
- Dufva, M. (2015) *Knowledge creation in foresight: A practice- and systems-oriented view*. Doctoral dissertations 222/2015. Helsinki: Aalto University.
- Ehn, B. (2014) Arjen yllätyksiä – Huomaamattoman etnografia ja kulttuurianalyysi. In (eds.) Hämeenaho, P. – Koskinen-Koivisto, E. *Moniulotteinen etnografia*. Ethnos, Helsinki, 59–75

- FAOSTAT (2011) Food and agriculture organization of the United Nations. Food and agriculture data, Finland. <http://www.fao.org/faostat/en/#country/67> Retrieved 2.3.2017.
- Foster, S. (ed.) 1996. *Corporealities: Dancing Knowledge, Culture and Power*. London & New York: Routledge.
- Foster, S. (2011) *Choreographing Empathy: Kinesthesia in Performance*. London & New York: Routledge
- Frykman, J. – Gilje, N. Being there. An introduction. in Frykman, J. – Gilje, N. eds. Being there. New perspectives on on phenomenology and the Analyses of culture. Lund: Nordic Academic Press. 7–51
- Gibbs, G.R. (2012) *Analyzing Qualitative Data* Sage Publications Ltd London
- Glenn, J. C. (2009a) Participatory methods. In Glenn, J.C. – Gordon T.J (eds) CD-ROM, Futures Research Methodology–V3.0. The Millennium Project.
- Glenn, J. C. (2009) The futures Wheel. In Glenn, J.C. – Gordon T.J (eds) CD-ROM, Futures Research Methodology–V3.0. The Millennium Project.
- Goncalo, J. (2009), Preface, in Elizabeth A. Mannix, Jack A. Goncalo, Margaret A. Neale (ed.) *Creativity in Groups (Research on Managing Groups and Teams, Volume 12)* Emerald Group Publishing Limited, pp.xi - xii
- Heinonen, S. (2016) Oral information 12.10.2016 Turku School of Economics, Turku.
- Heinonen, S. – Hiltunen, E. 2012. Creative Foresight Space and the Futures Window: Using visual weak signals to enhance anticipation and innovation. *Futures*, Vol. 44, 248–256
- Heinonen, S. – Ruotsalainen, J. – Kurki, S. (2012) Luova tulevaisuustila ja tulevaisuuden osaamisen ennakointi. Tutu e-julkaisuja 4/2014. Tulevaisuuden tutkimuskeskus, Turun yliopisto.
- Heinonen, S. – Ruotsalainen, J. (2013) Futures Clinique – method for promoting futures learning and provoking radical futures. *European Journal of Futures Research* Vol. 15(7) PAGES
- Helander, N. – Kirveennummi, A. – Merikanto, M. – Rubin, A. – Siivonen, K. (2005) Kulttuurin kulmakivet. TUTU-julkaisuja 3/2005 Tulevaisuuden tutkimuskeskus, Turun yliopisto.
- Hietanen, O. (2009) Varsinais-Suomen elinkeinostrategiaprosessin tulevaisuusversheet – Peste Futures Lab. TUTU-ejulkaisuja 14/2009. Tulevaisuuden tutkimuskeskus, Turun yliopisto.
- Hietanen, O. – Saarimaa, R. (2016) Voimakas – elinvoimaa puutarhasektorin uudistamiseen ja kasvuun -tulevaisuusverstaiden tulokset. Tutu e-julkaisuja 5/2016. Tulevaisuuden tutkimuskeskus, Turun yliopisto.

- Holstein, J.A. – Gubrium J.F. (1998) Active Interviewing in Silverman, E. (ed) *Qualitative Research, Theory, Method and Practice*. Sage Publications Ltd London 113–129.
- Ingold, T. (2014) The creativity of undergoing. *Pragmatics & Cognition* 22 (1) 124–139.
- Jungk, R. – Müllert, N. (1987) *Future workshops* Institute for Social Inventions, London.
- Kaivo-Oja, J. (2017). Towards better participatory processes in technology foresight: How to link participatory foresight research to the methodological machinery of qualitative research and phenomenology? *Futures* 86 94–106
- Kaplan, S. – Brooks-Shesler, L. – King, E.B. & Zaccaro, S. (2015) Thinking inside the box : how conformity promotes creativity and innovation in Mannix, E.A. – Goncalo, J.E. –Neale, M. E (eds.) *Creativity in Groups* Published online: 09 Mar 2015; 229-265. [https://doi.org/10.1108/S1534-0856\(2009\)0000012012](https://doi.org/10.1108/S1534-0856(2009)0000012012). Retrieved 24.7.2017.
- Kasvunpaikat (2016). <https://www.facebook.com/kasvunpaikat/>. Retrieved 14.9.2016
- Ketonen, O. (2009) Knowing about the future. *Futura* vol. 1,28–35
- Kuula, A. (2006) Yksityisyyden suoja tutkimuksessa in Hallamaa, J. – Launis, V.– Lötjönen, S. – Orvali, I. (eds) *Etiikkaa ihmistieteille*. Suomalaisen kirjallisuuden seura, Helsinki.
- Laine, T. (2010) Miten kokemusta voidaan tutkia? Fenomenologinen näkökulma. In Aaltola, J. & Valli, R. *Ikkunoita tutkimusmetodeihin II*. 3rd edition. PS-kustannus. Juva.
- Lauttamäki, V. (2016) ACTVOD-futures workshop – a generic structure for a one-day futures workshop. *Foresight*, Vol.18, (2), 156 – 171.
- Leminen, S. (2015) Living Labs as Open Innovation Networks - Networks, Roles and Innovation Outcomes. Doctoral theses. Department of Industrial Engineering and Management. Aalto University.
- Lepecki, A. (1997) The Liberation of space. *Ballet international*. February No 2, 14–19.
- Malaska, P. (2003) Tulevaisuustietoisuus ja tulevaisuuteen tukeutuminen. Teoksessa Vapaavuori, M. & Bruun, S. (toim.) *Miten tutkimme tulevaisuutta?*2. uudistettu painos Tulevaisuudentutkimuksen seura. 9–16
- Malaska, P. – Holstius, K. (2009) Modern Futures Approach. *Futura* vol. 1, 85–96
- Morgan, D.L. – Guevara, H. (2008) Interview Guide. Ed. by: Lisa M. Given *The SAGE Encyclopedia of Qualitative Research Methods* SAGE Publications, Inc. Print page 470

- Lombardo, T. (2006) Thinking Ahead: The Value of Future Consciousness. *Futurist* Vol. 40, (1), 45–50
- Merleau-Ponty, M. (2002) *Phenomenology of perception*. (Smith, C. Trans.) London: Routledge. Original work *Phenomenologie de la perception* published 1945.
- Mendonca S. – Pina e Cunha, M. – Kaivo-Oja, J. – Ruff, F. (2004) Wild cards, weak signals and organisational improvisation *Futures* 36, 201–218
- Niiniluoto, I. (2009) Futures studies : Science or Art ? *Futura* vol. 1, 59–64
- Nygrén, N. (2016) Järvien hoito ja kunnostus 2030. Tulevaisuusverstaiden tulokset. Tutu e-julkaisuja 2/2016. Tulevaisuuden tutkimuskeskus, Turun yliopisto.
- Osborn, A. F. (1953) *Applied Imagination: Principles and Procedures of Creative Thinking*. Charles Scribner's Sons, New York.
- Parviainen, J. (2002) Bodily knowledge. Epistemological Reflections on Dance. *Dance Research Journal* vol. 34 (1) 11–26.
- Parviainen, J. (2006) *Meduusan like. Mobiiliajan tiedonmuodostuksen filosofiaa*. Gaudamus, Helsinki.
- Pink, S. (2015) *Doing Sensory Ethnography*. 2nd ed. London: Sage
- Plucker, J.A. – Makel M.C. (2010) Assessment of Creativity in Kaufman, J. C. & Sternberg, R. J. *Cambridge Handbook of Creativity*. Cambridge University Press.
- Polak, F. L. (1973). The image of the future. (E. Boulding, Trans.). Amsterdam: Elsevier.
- Poland, B. (1999) Transcription Quality as an Aspect of Rigor in Qualitative Research in Bryman, A. – Burgess, R. (eds) *Qualitative research volume III*. London: Sage. 13–32
- Poutanen, P. (2016) Complexity and collaboration in creative group work. Doctoral theses. Department of Social Research, University of Helsinki.
- Ralston, B. – Wilson, I. (2006) *The scenario-planning handbook a practitioner's guide to developing and using scenarios to direct strategy in today's uncertain times*. Mason, Thomson South-Western 2006.
- Raulio, S. (2015) THL: Joukkoruokailu terveellisen ruokailuympäristön mahdollistajana. Terveyttä edistävät arki- ja lähiympäristöt: mahdollisuuksia liikuntaan ja terveelliseen ruokavalioon -seminaari 8.6.2015 <https://www.slideshare.net/THLfi/terveytta-edistavat-arkiymparistotraulioslideshareen>. Retrieved 12.8.2017.

- Rietzschel, E. – De Dreu C. – Nijstad, B. (2009) What are we talking about, when we talk about creativity? Group creativity as a multifaceted, multistage phenomenon in (eds) Mannix, E. A., Goncalo, J.A., Neale, M.A *Creativity in Groups (Research on Managing Groups and Teams, Volume 12)* Emerald Group Publishing Limited, 1 - 27
- Robson, C. (2011). *Real world research : a resource for users of social research methods in applied settings*. 3. ed. Chichester: Wiley.
- Rubin, A. (1998). The images of the future of young Finnish people. Turku: Publications of the Turku School of Economics and Business
- Rubin, A. (2000). Growing up in social transition: In search of late-modern identity. Doctoral dissertation. Turku: Turun Yliopisto.
- Runco, M. – Jaeger, G. (2012) The Standard Definition of Creativity. *Creativity Research Journal*, Vol. 24 (1), 92–96
- Ruotsalainen, J. – Heinonen, S. – Karjalainen, J. – Parkkinen, M. – Lauren, L-M – Salminen, H. (2016) The Fuzzy Futures of Neo-Carbon Work, Neo-Carbon Futures Clinique II. Tutu e-julkaisuja 11/2016. Tulevaisuuden tutkimuskeskus, Turun yliopisto.
- Selin, C. (2015) Merging art and design in foresight: Making sense of *Emerge*. *Futures* 70, 24–35
- Slaughter, R. (1991) Changing images of futures in the 20th century. *Futures* Vol. 23 (5), 499–515
- Siivonen, K. (2010) Taiteen särmällä nuorille hyvinvointia. TUTU-eJulkaisut 6/2010 Tulevaisuuden tutkimuskeskus, Turun yliopisto.
- Siivonen, K. – Kotilainen, S. – Suominen, A. (2011) Iloa ja voimaa elämään. Nuorten taiteen tekemisen merkitykset Myrsky-hankeessa. <http://www.nuorisotutkimusseura.fi/images/julkaisuja/myrsky2011.pdf> Retrieved 10.10.2017.
- Soini, K – Birkeland, I. (2014) Exploring the scientific discourse on cultural sustainability. *Geoforum* 51, 213–223.
- Spaargaren, Gert. 2011. Theories of practices: Agency, technology, and culture: Exploring the relevance of practice theories for the governance of sustainable consumption practices in the new world-order. *Global Environmental Change* 21. Symposium on Social Theory and the Environment in the New World (dis)Order: 813–822.
- Sternberg, R. – Lubart, T. (1999) The Concept of creativity: Prospects and Paradigms. In *Handbook of creativity*, ed. Sternberg, R. 3–14. Cambridge University Press, Cambridge.
- THL (2017) Ruokapalvelut. <https://www.thl.fi/fi/web/elintavat-ja-ravitsemus/ravitsemus/ruokapalvelut>. Retrieved 12.8.2017.

- Tufnell, M. – Crickmay, C. (1993) *Body Space Image. Notes towards improvisation and performance*. Dance Books Ltd, London.
- Tuomi, J. – Sarajärvi, A. (2004) *Laadullinen tutkimus ja sisältöanalyysi*. Gummerus kirjapaino oy, Jyväskylä.
- Van der Steen, M. – Van der Duin, P. (2012) Learning ahead of time: how evaluation of foresight may add to increased trust, organizational learning and future oriented policy and strategy. *Futures*, Vol. 44, 487–493.
- Varho, V. – Tapio, P. (2013) Combining the qualitative and quantitative with the Q2 scenario technique – The case of transport and climate. *Technological Forecasting and Social Change*, Vol. 80, (4) 611-630
- Vidal, R. (2006) The future workshop in Vidal, R. Creative and Participative Problem Solving - the Art and the Science <http://www.imm.dtu.dk/~rvvv/CPPS/> 1–21
- Vliet, V.M. – Kok, K. – Sarkki, S. (2012). Structure in creativity: An exploratory study to analyse the effects of structuring tools on scenario workshop results. *Futures*, 44, 746–760.
- WCED (1987) Report of the World Commission on Environment and Development: Our Common Future.
- Ziebro, M. – Northcraft, G. (2009) Connecting the dots: network development, information flow, and creativity in groups, in Elizabeth A. Mannix, Jack A. Goncalo, Margaret A. Neale (ed.) *Creativity in Groups (Research on Managing Groups and Teams, Volume 12)* Emerald Group Publishing Limited, 135 - 162

APPENDIX 1 KUTSUKIRJE

PAPUA PATAAN JA PELTOON? KUTSU TULEVAISUUSVERSTAASEEN

Tulevaisuusverstaassa pohdimme millaisissa tulevaisuuden maailmoissa papujen lisääntynyt käyttö on luonteva osa ruokakulttuuriamme ja etsimme keinoja kestävämmän ruokakulttuurin ja maatalouden edistämiseen.

Palkokasvit, kuten pavut ja herneet, ovat varteenotettava kotimainen vaihtoehto kasviproteiiniksi ja samalla niiden käyttö maanviljelyssä vähentää typpilannoitteiden käyttötarvetta.

Aika: pe 28.10 klo 9.00–14.00 TAI la 29.10 klo 10.00–15.00

Paikka: Aurajokisäätiön Myllärintalo, Valkkimyllynkuja 2, (Halistenkoski) 20540 Turku.

(mm. bussit 55, 55A, 56, kartta http://www.visitturku.fi/halistenkoski_fi)

Osallistujille lähetetään lyhyt taustoittava infokirje ennen verstaasta, muuta valmistautumista ei tarvita. Maittava lounas paputuotteista sekä aamukahvi tai tee kuuluvat verstaan ohjelmaan maksuttomina. Verstaita järjestetään kaksi samansisältöistä, osallistuminen jompaankumpaan.

Ilmoittautuminen ja lisätietoja:

Satu Tuittila satu.m.tuittila@utu.fi puh: 050-5466461

Tulevaisuusverstaan tuloksia hyödynnetään Kasvunpaikat tutkimusverkostossa ja Satu Tuittilan pro gradu -tutkielmassa Turun yliopiston Tulevaisuuden tutkimuskeskuksessa. Aineisto tallennetaan Tulevaisuuden tutkimuskeskukseen ja on myös kokonaisuudessaan osallistujien saatavilla. Verstaan tuloksista lähetän tiivistelmän kaikille osallistujille.

Kasvunpaikat tutkimusverkosto tavoittelee ekologisesti kestävämpää maataloutta kulttuurisesti kestäväällä tavalla. Kehitämme yhteisesti viljelijöiden, valmistajien, tutkijoiden ja kuluttajien kanssa maatilojen ja kotikeittiöiden arkeen uusia, ekologisesti kestäviä toimintamalleja. Verkostossa ovat mukana Helsingin yliopisto, Turun yliopisto ja suunnittelutoimisto Måndag.

Kiitokset tuesta: Aurajokisäätiö

lisätietoa Myllärintalosta ympäristöineen: <http://aurajoki.net/>

APPENDIX 2 TAUSTAKIRJE

Taustoittava tietopaketti verstastyöskentelyn tueksi

Kasvunpaikat tutkimusverkosto tavoittelee ekologisesti kestävämpää maataloutta kulttuurisesti kestäväällä tavalla. Verkosto haluaa edistää tyypiviisautta palkokasvien kulutusta ja viljelyä lisäämällä. Herneet, pavut, lupiinit, apilat ja soijapavut ovat kaikki kasveja, jotka sitovat maahan typpeä ja parantavat maaperää.

Verkostossa ovat mukana Helsingin yliopisto, Turun yliopisto ja suunnittelu- toimisto Måndag, joka haluaa edistää avointa ja sujuvaa tutkimusviestintää.¹⁶

Suomalainen ruokakulttuuri, proteiini ja palkokasvit

Ruoan tuotanto ja sen kulutus ovat nykyään eriytyneet ja ketjuuntuneet hyvin energia- ja pääomaintensiiviseksi globaaliksi järjestelmäksi. Viljelyn ja ruoantuotannon sekä -jalostuksen kannattavuus, EU-tason maatalouspolitiikka, Suomen heikko proteiiniomavaraisuus, ilmastonmuutos sekä maku- ja kulutustottumukset ovat esimerkkejä asioista, jotka vaikuttavat kokonaisuuteen.¹⁷

Valtaosa suomalaisten saamasta proteiinista, n. 70 % tulee eläinvalkuaisesta ja esimerkiksi lihan kulutus henkilöä kohden on kaksinkertaistunut vuosien 1961–2011 välillä¹⁸. Keskiverto-suomalainen kulutti v. 2013 lihaa peräti 77 kg vuodessa¹⁹. Tämä on sekä terveydellisesti että ympäristönäkökulmasta ongelmallista. Sen sijaan palkokasvit muodostavat proteiinin osalta vaatimattoman n. 3% osan proteiinin lähteistä. Kasviproteiinin lisäämiselle suomalaisessa ruokavaliassa on valtava potentiaali.²⁰

Kuluttajalle oleellista on ruoan riittävän edullinen hinta ja oma ruoanvalmistustaito. Etenkin uudet tuotteet vaativat kokeilua ja tutustumista. Tuotteistamisen ja markkinoinnin merkitystä kulutustapojen muutokseen ei tule unohtaa. Merkityksellisiä muutuskanavia ruokatottumuksiin ovat myös julkiset ruokapalvelut, kuten koulu- ja työpaikkaruokailut.⁶

Suomessa menestyviä palkokasveja ovat herne, härkäpapu ja makealupiini, mutta tulevaisuudessa ilmastonmuutos saattaa muuttaa tilannetta esim. soijalle suotuisaksi. Proteiinipitoisuuden lisäksi palkokasvit sitovat maahan typpeä ja sopivat lannoitekasveiksi ja maanparannukseen.⁷

¹⁶ <https://www.facebook.com/kasvunpaikat/>

¹⁷ https://www.utu.fi/fi/yksikot/ffrc/julkaisut/e-tutu/Documents/eTutu_4-2016.pdf

¹⁸ FAOSTAT 2011

¹⁹ Luke (2016) Ravintotase.

²⁰ ⁷https://www.utu.fi/fi/yksikot/ffrc/julkaisut/e-tutu/Documents/eTutu_4-2016.pdf

Tulevaisuutemme vaikuttavia muutosilmiöitä Sitran Megatrendit 2016 mukaan

Megatrendit ovat isoja ja merkittäviä muutosilmiöitä, jotka hyvin todennäköisesti vaikuttavat tulevaisuuteemme. Omilla valinnoillamme ja toiminnallamme voimme kuitenkin vaikuttaa näihin megatrendeihin, edistää positiivia ja ehkäistä negatiivisia vaikutuksia.

Sitran Megatrendilista ryhmittelee muutosilmiöt kolmeen toisiinsa kietoutuneisiin pääteemoihin: teknologiaan, globaaliin keskinäisriippuvuuteen sekä luonnonvaroihin ja ilmastonmuutokseen liittyvään kestävyyskriisiin.²¹

Teknologia etenee vauhdilla: digitalisaatio, robotisaatio, keinoälyn kehitys, nanomateriaalit, bio- ja energiateknologia, digitaaliset joukkoalustat (esim. jakamistalous, joukkorahoitus, wikipedia) ja asioiden internet ovat esimerkkejä nopeasti kehittyvistä aloista.

Tietoa on entistä enemmän ja helpommin saatavilla, arvoketjut lyhenevät ja joukkoisuus mahdollistaa uusia organisoitumisen, rahoituksen ja innovaatioiden tapoja. Demokratisoitunut media vahvistaa kansalaisaktiivisuutta, mutta altistaa myös disinformaatiolle.

Globaali keskinäisriippuvuus tiivistyy

Talousalueet ovat vahvasti kietoutuneita kaupan, investointien ja finanssijärjestelmien kautta. Arjessamme tavarat, ideat, palvelut ja me ihmiset liikumme ympäri maailmaa.

Kestävyyskriisi

Puhdas vesi ja ilma, viljelykelpoinen maa, sekä erilaiset mineraalit ja muut luonnonvarat ovat vaarassa ehtyä johtuen niiden kestäättömästä käytöstä. Fossiilisten polttoainneiden tuottamat hiilidioksidipäästöt kiihdyttävät kasvihuoneilmiötä, jonka seurauksia ovat mm. äärimmäiset sääilmiöt, jäätiköiden sulaminen ja ilmastopakolaisuus.

Yksi suurimpia haasteita on taloudellisen kasvun ja hyvinvoinnin irtikytkeä sekä toisistaan että luonnonvarojen kestäättömästä käytöstä. Haasteiden lisäksi irtikytkeä tarjoaa monia mahdollisuuksia, kuten siirtymistä uusiutuvien luonnonvarojen käyttöön, hiilineutraalia energiaa ja kiertotalouden toimintatapoja, jossa resurssit ja materiaalit kiertävät arvoaan menettämättä ja jäte on minimoitu. Yksilötasolla kansalaisen ja kuluttajan valinnat liikkumisessa, asumisessa ja syömisessä ovat merkittäviä.

²¹ Koko sivun lähde https://www.sitra.fi/julkaisut/Muut/Megatrendit_2016.pdf

APPENDIX 3 INSTRUCTION SLIDES IN THE WORKSHOPS

"Papuorientaatio"

Aivomyrsky

Täytä lehtiin palkokasvialieheisiä asioita:

- o Fakta & fiktiota
- o Syötävää & ei syötävää

Aikaa 5 min. Kaikki ideat paperille
Kiinnitetään näkyville

Tavoiteltu tulevaisuuskuva – visio 2040

Maailma, jossa palkokasvit ovat luonteva osa elämää.
Ideoi erilaisia toimijoita (kuka?), millaisia asioita / toimintoja (mitä?), paikkoja (missä?), tapoja (miten?), + jotain ihan ??

1. Aloita ideointi omasta perspektiivistäsi ja kirjaa 3-5 ideaa post it lapuille. **Kaikki ideat: tavalliset, hauskat, villit ...** ovat hyviä lähtökohtia. (n. 10 min.)
2. Kootkaa ideat yhteiselle isolle arkille ja kehitelkää näitä lähtöajatuksia eteenpäin yhdessä + hyödyntäkää edellistä papuorientaatio ideointia – yhdistelkää rohkeasti faktaa ja fiktiota. (n. 20 min.)
3. Rakentakaa "karttaa" jossa näkyy ideointianne +verkostoja ja vuorovaikutuksia (kenen kanssa) (n.30 min.)

Toteuta piirroksin/ post it lapuilla/lyhyin tekstein

Kokkailuryhmät perjantai

- o **Ryhmä a. (3 hlö) 1 x kylmä ruoka**
salaatti/alkupala/lisuke tyyppinen
(kaikille pieni annos)
- o **Ryhmä b. (5 hlö) 1-2 x lämminruoka**
hellalla paistamista/ keittämistä
(n.½ annos kaikille)
- o **Ryhmä c. (4 hlö) 1-2 x lämminruoka**
uunissa (n.½ annos kaikille)
- o **Ryhmä d. (3 hlö) Jälkiruoka + kahvi/tee**
(pikkuannos kaikille)

Reseptiosoitteita

Valitkaa nopeatekoinen ja helppo resepti (valmistusaika 20-30 min.)+ huomioi rajalliset tarvikkeet ja improvisoi... ☺

- o <http://versofood.fi/fi/reseptit>
- o <http://www.tempe.fi/reseptit>
- o <http://myssypellolta.fi/emannankeittiossa>
- o <http://www.vihreähärkä.fi/>
- o Muut netin reseptisivustot

Toimintaympäristö ja muutokset

- o Mitkä asiat tukevat ja auttavat tulevaisuuskuvan toteutumista?
- o Mitkä asiat estävät tai haittaavat tulevaisuuskuvan toteutumista?
- Täydentäkää karttaan (piirroksia/ post-it / lyhyet tekstit, tarvittaessa lisäpaperia)

- o Ideoita mitä voisi toteuttaa helposti heti?
Lisää/merkkää karttaan
(aika n. 1h)

Nimeä tulevaisuuskuva

- o Keksikää tulevaisuuskuvalle nimi
- o Vieläkö sopisi joku villi idea?
- o Viimeisteleäkää loppukatselmusta varten
(aika n. 10 min.)

Purku

- o Kierrellään ja keskustellaan vapaasti
- o Tutustutaan ryhmien tulevaisuuskuviin
- o Kokoonnutaan uudestaan
 - o Pe klo 13.45
 - o La klo 14.45

Lämmin kiitos kaikille osallistujille

- o Lähetän kaikille tiivistelmän verstaan tuloksista
- o Verstasmateriaaleja hyödynnetään Kasvunpaikat tutkimusverkostossa ja Tuittilan Tulevaisuudentutkimuksen pro gradu -työssä
- o Verstasmateriaalit arkistoidaan Turun yliopiston Tulevaisuuden tutkimuskeskukseen
- o Saatan ottaa pariin osallistujaa yhteyttä lyhyen syventävän haastattelun merkeissä
- o Lähetän lyhyen kyselylomakkeen tammi-helmikuussa, johon toivon kaikkien vastaavan.
- o Verstaisiin osallistujien nimet näkyvät tutkimuksessa ryhminä: perjantairyhmä ja lauantairyhmä, osallistujia ei yksilöidä. Saavatko kaikkien nimet olla mukana?
- o **Toivotan innostunutta jatkoa kaikille!**

APPENDIX 4 PARTICIPANTS OF THE WORKSHOPS

Friday:

Camilla Hautala
Eerika Heinonen
Leila Hiiterä
Maria Höyssä
Terhi Juva
Minna Kahala
Jessika Karvinen
Hilkka Kraama
Markku Laaksonen
Päivi Mattila
Anna Rauhansuu
Olli-Pekka Ruponen
Pasi Saario
Elina Suvanto
Irma Taka-Prami

Saturday:

Veera Alaverronen
Riikka Armanto
Eija Hagelberg
Eila Järvenpää
Nicoleta Kaitazis
Pirkko Lammi
Taina Moisio
Pauliina Ojansivu
Kaisa Riiko

APPENDIX 5 KYSELYLOMAKE VERSTAISSA

Pro gradu -työssäni tutkin uusia moniaistisia tapoja tukea osallistujien luovaa tulevaisuusajattelua tulevaisuusverstaissa. Pyydän sinua vastaamaan lyhyesti alla oleviin kysymyksiin. Kiitos!

1. Oletko aikaisemmin osallistunut tulevaisuusverstaaseen? (rasti) kyllä ___ ei ___
2. Piirrä käyrä miten koit luovuutesi verstaan aikana.

| | | | | | | | |
|---------------|------------------------|----------|-------------------|-------------------------------|-----------------|------------------------------------|---------------------|
| hyvin luova | | | | | | | |
| neutraali | | | | | | | |
| luovuus estyy | | | | | | | |
| | Virittäytyminen ulkona | alus-tus | papu-orien-taatio | Tulevaisuus-kuvan työstäminen | lounas-kokkailu | Tulevaisuus-kuvan jatkotyöstäminen | Purku & keskustelut |

3. Mikä/mitkä asiat vaikuttivat siihen, että luovuutesi lähti nousuun tai laskuun?
4. Miten aamun ulkojakso viritti päivään? Kerro esimerkillä tai parilla miksi?
5. Miten lounaskokkailu viritti iltapäivään? Kerro esimerkillä tai parilla miksi?
6. Tuleeko mieleesi muuta palautetta?

APPENDIX 6 KYSELYLOMAKE 2

Pyydän sinua vastaamaan alla oleviin kysymyksiin ja lähettämään vastausviestin pe 10.2.2017 mennessä. Iso lämmin kiitos vastauksistasi!

ystävällisin terveisin Satu Tuittila

1. Jäikö jokin verstaan työskentelystä erityisesti mieleen?
2. Tukiko tai haittasiko jokin asia *luovaa ajattelua* verstaissa? Jos tuki, niin mikä? Jos haittasi, niin mikä?
3. Inspiroiko verstaassa jokin *tulevaisuusajatteluasi*? Jos inspiroi, niin mikä? Jos ei inspiroinut, pohdi miksi?
4. Oletko hyödyntänyt verstaassa tulleita ideoita? Jos olet, niin miten? Jos ei, niin miksi?
5. Onko jokin muuttunut toiminnassasi ja/tai asenteissasi verstaan jälkeen? Jos on, niin miten? Jos ei, niin miksi?

APPENDIX 7 INTERVIEW QUESTIONS

Interview questions of the personnel of FFRC

The main questions were:

- What kinds of practices have supported creativity of the participants in your observation?
- With what kinds of practices you support futures thinking?
- How you unite these to support creative futures thinking?
- What seems to hinder or hamper creativity and/or creative futures thinking in the workshops?
- Do you have any other practical suggestions for moderating a workshop?

These questions were supported with other explicatory questions during the interview.

Interview questions of Katriina Siivonen

The main questions were:

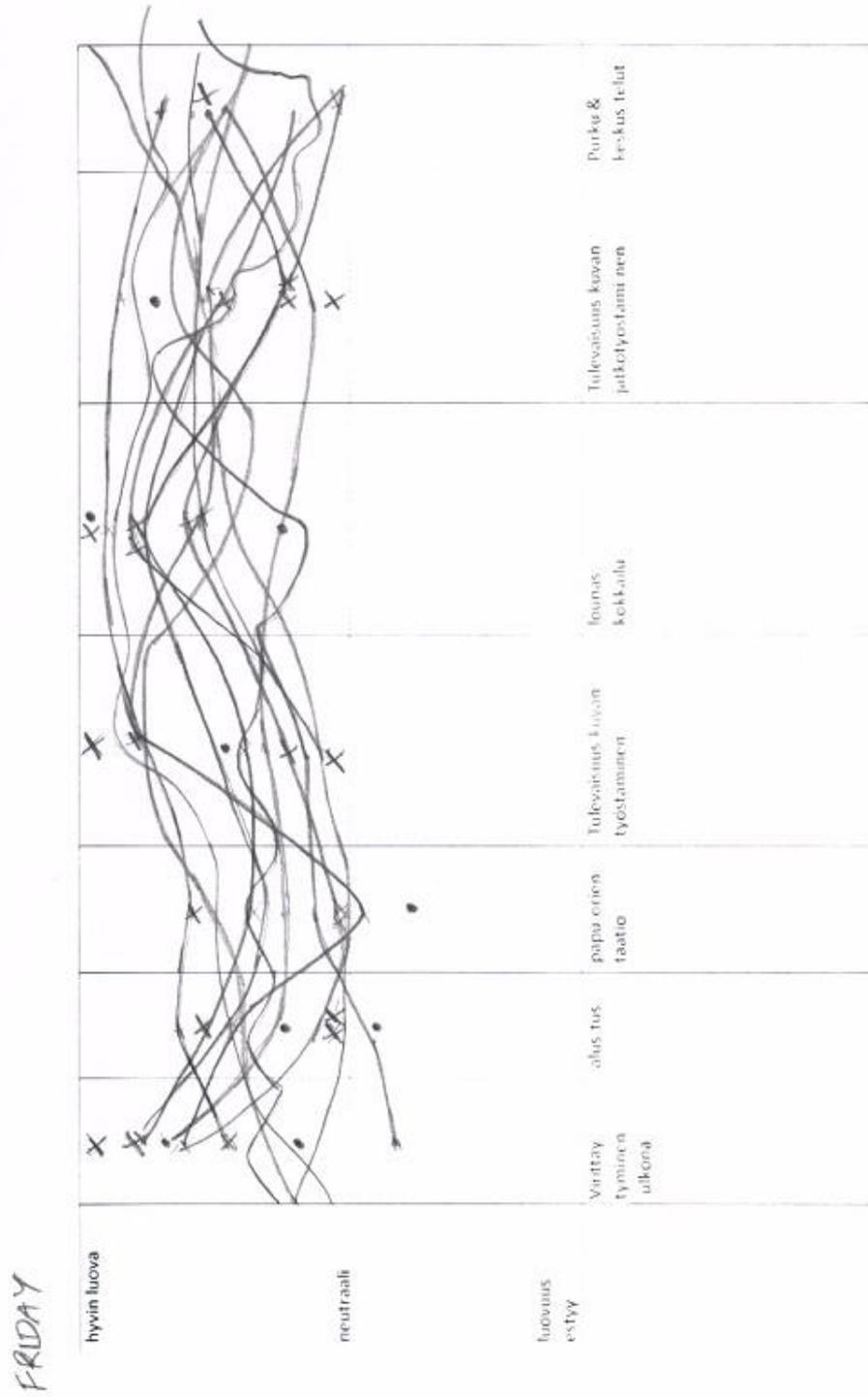
- What things were supporting creativity and futures thinking of the participants in the case workshops – and how this was shown?
- Did something particularly focus your attention?
- Did you recognise something which would have restrained or hampered the creativity or futures thinking of the participants?
- Did you recognise differences between the different workshops days, and if – why, and if – is it significant?
- What are the most important issues for supporting creativity and futures thinking? When you recall the workshops was there something specific which would be important to recognise and note?

These questions were supported with several explicatory questions during the interview.

Interview topics of the participants in workshops

- Supportive elements of creativity and futures thinking in futures workshops in general and in the *Papua pataan ja peltoon?* workshops
- Hindering elements of creativity and futures thinking in futures workshops in general and in the *Papua pataan ja peltoon?* workshops

APPENDIX 8 CREATIVITY GRAPHS FRIDAY AND SATURDAY



SATURDAY

