

RAPPORT



SERIES OF REPORTS FROM
THE CENTRE FOR HEALTH PROMOTION RESEARCH
HIST/NTNU

REPORT 2015/01

Undebakke KG, Innstrand ST, Anthun KS, Christensen M.

ARK

The ARK Intervention Programme

Who – What – How

Trondheim, January 2015



Kunnskapen
du trenger



NTNU

Kunnskap for en bedre verden

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Preface

This is an overview of ARK, the working environment and working climate intervention programme. The report describes the theoretical underpinning of ARK Intervention Programme and how it is to be used in practice. The initiative for the development of ARK Intervention Programme came from the four largest universities in Norway – the University of Oslo (UiO), the University of Bergen (UiB), the University of Tromsø/the Arctic University of Norway (UiT) and the Norwegian University of Science and Technology (NTNU). In 2010 the Norwegian Association of Higher Education Institutions (UHR) granted funding from SAK (Norwegian abbreviation for cooperation, work sharing and concentration) under the Ministry of Education for the ARK project. The funding from SAK has generally been used to finance the academic and scientific development work carried out by Professor Siw Tone Innstrand, Centre for Health Promotion Research, Department of Social Work and Health Science, NTNU, Associate Professor Marit Christensen, Centre for Health Promotion Research, Department of Psychology, NTNU and Professor Thomas Hoff, Department of Psychology, UiO. The four universities have made substantial contributions by making it possible for practitioners from HR/HES/BHT to participate. Elin Olaus Rosvold, occupational physician at UiO and professor at the Institute of Health and Society, UiO, participated, together with Elin Agathe Hult, senior engineer at the Health, Environment and Safety Department at UiO. Tone Bergan, senior advisor the Division of Human Resources, UiB and Sissel Tjosaas, senior consultant at the Department for Human Resources, UiT also participated. Kirsti Godal Undebakke, senior advisor at NTNU, participated in both groups. Anita Sandberg, director in the Department of Academic Support, UiO, headed the development activities. A broadly composed reference group contributed to bringing important and critical factors for the development work to light.

NTNU owns and manages ARK Intervention Programme. Day-to-day operations are the responsibility of the Centre for Health Promotion Research, under the Department of Social Work and Health Science, Faculty of Social Sciences and Technology Management.

ARK Intervention Programme has its own steering group, which oversees that it is being operated and managed in accordance with the intentions, and discusses questions of principle concerning further development of this tool. Moreover, the steering group will participate actively in planning and implementing annual reviews in the sector where experiences of

working with ARK Intervention Programme can be shared. The steering group has five members, whereof two are nominated by Norwegian university colleges and three by Norwegian universities.

Abstract

Background: Some of the largest universities in Norway found that they needed a tool to help them develop psychosocial working environment factors. The aim was that the tool should be adapted to the higher education sector, should be based on theory and research and should cover the most important aspects in the psychosocial working environment, both in terms of demands and resources, in a way that could generate a basis for taking action in the workplace.

Methodology: The development of the ARK Intervention Programme was based on a literature study, 50 qualitative pilot interviews, a test survey among 20 employees at four universities, a pilot test at a faculty with about 70 employees and a full-scale survey and feedback process at a university with 150 units and 5600 employees.

Results: The development of the development process resulted in a package consisting of the mapping tools Knowledge Intensive Working Environment Survey Target (KIWEST), Fact sheets I and II, templates for survey feedback meetings and a database: the ARK Research Platform.

Conclusions: The ARK Intervention Programme is a research based tool for work environment surveys and implementation of interventions, as well as a base for research.

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1. Introduction

All the four largest universities in Norway consider the working environment to be a strategic means for satisfying the goals that have been set for their primary activities (NTNU, 2011; UiB, 2011; UiO, 2010; UiT, 2014). This fact notwithstanding, in 2010 and 2011, several of the institutions were ordered by the Labour Inspection Authority to improve their systematic work with psychosocial working environment factors. Several of the institutions had carried out various types of working environment surveys, experiencing that the tools available in the market were poorly adapted to the challenges and special characteristics of the sector. The University of Oslo took the initiative to cooperation with the universities of Bergen, Tromsø and Trondheim on developing a new development tool suitable for the sector. The Norwegian Association of Higher Education Institutions granted the application for SAK funding (Norwegian: "Samarbeid, Arbeidsdeling, Konsentrasjon" – Cooperation, Work-sharing, Concentration) to finance the academic and scientific part of the development work. Moreover, the four universities contributed with a substantial amount of volunteer input. A broadly composed reference group contributed to illuminating important and critical factors.

The aim of the development project was to develop a tool for systematic mapping of psychosocial conditions which would: 1) cover the most important psychosocial working environment factors, 2) generate the basis for working environment interventions, 3) be adapted to the special characteristics of the sector and 4) satisfy the statutory requirement for systematic and documented HES activities with psychosocial factors. The development resulted in the ARK (Norwegian acronym for "Working environment and working climate surveys") Intervention Programme, which was launched for the sector's use on 13 June 2013. NTNU has now assumed ownership of and manages ARK. Sector representatives shall ensure that the sector's interests are safeguarded through a special steering group which is responsible for giving advice with respect to expertise and the principles behind the tool. The steering group also arranges regular arenas where users of the programme can share their experiences gained from working with it.

ARK Intervention Programme is a comprehensive research-based programme for carrying out working environment and working climate surveys in knowledge-intensive organisations. ARK Intervention Programme is a management tool and a cooperative arena aiming at developing the working environment and working climate. The focus is on both strains and

resources in democratic processes on several organisational levels, in the formalized cooperation between the employee and employer associations and with direct contribution from each employee. ARK Intervention Programme is also the foundation from which to build for working environment research with close interaction between practice and research.

ARK Intervention Programme consists of:

- KIWEST: Questionnaire with standardized and validated questions about the organisation's working climate, workloads and work-related resources.
- FaktaArk I (Fact Sheet I): Questionnaire for collection of facts about organisational matters impacting the working environment.
- FaktaArk II (Fact Sheet II): Questionnaire for collecting facts about the implementation process and actions completed in the ARK Intervention Programme together with a self evaluation of these.
- Survey feedback meetings: Schedule for presentation and follow-up of the report from a survey using the KIWEST questionnaire, to templates for presentations, meetings and processes.
- ARK Research Platform: Database for storing data from completed surveys.

2. Theoretical point of departure

The purpose of the Working Environment Act is to secure "*a working environment that provides a basis for a healthy and meaningful working situation*" (§ 1-1 a). One of the statutory measures for accomplishing this is systematic health, environment and safety activities (HES), which means, for example, pinpointing hazards and problems as the basis for preventive work. The HES activities must be conducted in cooperation with the employees and their representatives (ASD, 1996, 1997, 2006) . The ARK Intervention Programme aims to address both the health-promoting and preventive perspectives inherent in the provisions so that interventions and improvements will be lasting. This chapter explains the point of departure for the theory and research behind the intentions and the background for the practical methods applied. It starts with a description of the Job Demands – Resources Model, that visualizes both a health-reducing process and a health-promoting process. Moreover, the chapter examines theory that finds that learning is a necessary requirement for changes in organisations and concludes with a brief overview of the cooperation methods used in ARK

Intervention Programme. If the programme is carried out with cooperation from employees, and with regular intervals and good documentation locally, the requirement for systematic work with psychosocial factors can be complied with.

2.1. The Job Demands–Resources Model

The Job Demands–Resources Model (JD-R) is a theoretical model used in developing the practical working environment and in research (Bakker, Demerouti, & Sanz-Vergel, 2014). The JD-R Model specifies how burnout and engagement may be produced by two specific working conditions found in any organisational context: job demands and job resources, see Figure 1. Experience has shown that this model can be used no matter what demands the job poses and no matter what resources are available. The relationship between demands, resources and engagement has proved to remain essentially unchanged, even if the content of the demands and resources are changed, which means that the model can be used across different workplaces and different professions (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004).

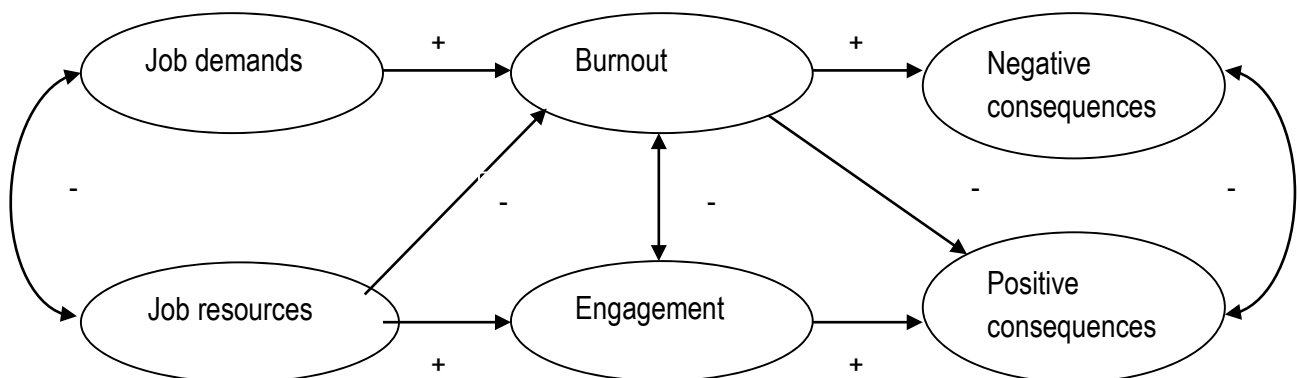


Figure 1. The Job Demands - Resource Model (JD-R)

The JD-R Model describes two parallel processes, a motivation process and a stress process. The model proposes that job resources contribute to engagement through a motivation process, while job demands contribute to burnout through a stress process.

The JD-R Model defines job demands as physical, psychosocial, social or organisational aspects of the job requiring lasting effort (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Schaufeli & Bakker, 2004). This may for example be intense time pressure, quantitative

workloads, the physical working environment or conflicts at the workplace. Job resources are characterized as physical, social or organisational aspects of the job which may (1) reduce job demands and related physical and psychological costs, (2) be aspects that may be functional in relation to satisfying work goals, or (3) be aspects which may stimulate personal growth, learning and development (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004). Examples of such resources may be emotional and instrumental support from managers and co-workers, competence development and experience of control and autonomy. Previous studies have found that job resources such as social support from managers and co-workers, feedback, variation, autonomy and learning opportunities are positively associated with work engagement (Bakker & Demerouti, 2008).

The stress process on the one hand is explained by the fact that when employees experience stress, they enter into a bartering agreement between protecting their performance goals and the mental effort they invest in achieving these goals. When the job demands then increase, there will be imbalance between effort and gain because the employee has to deal with the increased demands while also maintaining the performance level. This may in turn have physiological and psychological costs, such as fatigue and irritability. When this takes place over an extended period of time, it will impact the employee's energy level, which can undermine the employee's health and cause burnout, and in the last instance sickness absence and exclusion from working life (Clausen, Burr, & Borg, 2014; Hockey, 1997).

The motivation process on the other hand is driven by the availability of job resources, which per definition play a motivating role because they promote the personal growth, learning and development of the employees. Job resources are important for achieving work goals (Deci & Ryan, 2002). According to this approach a working environment that offers resources will create employees who are willing to go that extra mile to perform their job tasks, which in turn increases the probability of good results for both the employees and the organisation. Thus job resources will create work engagement through a motivational process, which will increase the likelihood of goal attainment for the employees. Job resources have proven to be particularly important in the encounter with high demands (Bakker & Demerouti, 2007). Hakanen, Bakker and Demerouti (2005) tested this interaction hypothesis with a sample of Finnish dentists, finding support for the idea that job resources increased the level of work engagement of the employees when the workload was high. Similar findings were also found by Bakker, Hakanen, Demerouti and Xanthopoulou (2007) in their study of Finnish teachers,

where they found that job resources functioned as buffers and reduced the negative relationship between poor behaviour among pupils and teacher work engagement. This applied in particular when the degree of bad pupil behaviour was high. Together these surveys show that job resources become more important and have more motivational power when the employees are confronted with high job demands.

In 2010, Crawford, LePine and Rich undertook a meta-analysis of the JD-R Model, where they analysed 55 articles with 64 samples that had used it. The results showed that demands and burnout had a positive relationship, while resources and burnout showed a negative relationship. The relationship between resources and work engagement was positive, while the relationship between demands and engagement depended on the type of demand used in the studies. Demands that were perceived as hindrance demands were negatively associated with work engagement, while those that were perceived as challenging demands were positively associated with engagement (Crawford, LePine, & Rich, 2010). Examples of hindrance demands may be role conflicts, ambiguous roles and conflicts. Employees often consider such demands to be limitations, barriers and unnecessary impediments to satisfying goals. Some examples of challenging demands may be high workload, time pressure and a high degree of responsibility. Challenges appear to have the potential to open for mastering, personal growth and future gain. Employees who perceive these demands as an opportunity to learn, as well as to achieve and demonstrate competence, appear to be rewarded.

2.2. Learning in organisations

Chris Argyris (2000) and Peter Senge (1990, 2006) state that organisations are products of what the people in them say, think and do. They also find that organisational learning occurs when individuals act in ways that mean new ways of thinking, acting and interplaying with others. Individual learning may also lead to organisational learning, but not automatically. Organisations can only learn when the people in the organisation learn.

The organisation psychologist Chris Argyris (2000) distinguishes between two types of organisational learning: "Single-loop learning" and "Double-loop learning". Single-loop learning occurs when an error is corrected by changing the action that caused the error, but where no questions are asked about any changes to the underlying values of the system. "System" may in this context refer to an individual, a group or an organisation. Double-loop

learning occurs when an error is corrected by examining and changing the underlying controlling variables, and then changing one's behaviour accordingly.

Senge (1990, 2006) also sees system insight and system understanding as necessary conditions for organisational learning. For him a learning organisation comprises

"...a shift of mind from seeing parts to seeing wholes, from seeing people as helpless reactors to seeing them as active participants in shaping their reality, from reacting to the present to creating the future" (Senge, 1990, 2006), p 69.

Both single-loop learning and double-loop learning are necessary in all organisations, according to Argyris (2000), but it is a greater challenge to create double-loop learning than single-loop learning. The individual learning that enables organisational changes in the form of system changes is seen, according to Argyris (2000), Senge (1990, 2006) and Schön (2000), and briefly summarized here, as a change of "reflection-in-action". Schön (2000) believes it may be possible to change ways of reflection by observing and reflecting on one's own actions and on the implicit knowledge that is part of them. In Senge's (1990, 2006) terminology a systemic change implies the use of mental models, a common vision and reflections that allow the individual access to his or her own and the organisation's underlying values and "tacit" knowledge.

2.3. Participation

According to Senge, gaining insight into the perceptions and patterns of action of other individuals and groups through participation and dialogue is the key to organisational learning (Senge, 1990, 2006).

Methods from classical organisation development have long traditions in facilitating for broad participative processes. Beckhard (1969) has defined organisational development as a planned process operated from the top of the organisation, aiming to increase efficiency and to promote better health. One of the most commonly used methods in organisational development is surveys which open for broad participation in processes where the results are worked on (Hopkins, 1982). The results from the questionnaires then function as the basis for developing actions to improve the situation that has been examined (Gravenhorst & In't Veld,

2004). Björklund, Grahn, Jensen and Bergström (2007), and Elo, Leppänen and Sillanpää (1998) have shown that well planned and conducted survey feedback processes are linked to better leadership and a sense of belonging in the organisation, as well as improvement in the work situation of employees. Nielsen, Randall, Holten and Gonzalez (2010) have shown that including employees in improvement processes also improved their health and well-being.

Randall and Nielsen (2012) argue that actions must be experienced as suitable for both the organisation and the individual to be successful. In ARK Intervention Programme the idea is that the JD-R Model will contribute a set of mental models that may help to establish common visions in a way that will give each employee access to his/her own underlying knowledge and values as well as those of others. The factors inserted into the two processes must be those that are experienced as most important in the local context. Participation and dialogue are thus necessary ingredients if the JD-R Model is to function as intended. According to WHO, the opportunity to participate and influence one's situation in itself gives better health (WHO, 1986). Broad participation is thus necessary if ARK Intervention Programme is to be successful, and if it is to contribute to a health-promoting working life and lead to lasting improvements.

3. Mapping tools

The Norwegian Labour Inspection Authority defines the organisational working environment as the sum of the mental, social and organisational working environment factors (ASD, 1997). The organisational circumstances impact the working conditions and each employee's perceptions and may lead to psychosocial problems (ASD, 1997). To get to the bottom of the mental and social consequences of a given work situation, one must start, according to the Norwegian Labour Inspection Authority (1997), with the employee's personal experiences. In ARK Intervention Programme, the individual experiences are examined by asking the employees to respond to the KIWEST (Knowledge Intensive Working Environment Survey Target) questionnaire. The organisational conditions that are common to all the employees in a unit are mapped out using Fact Sheet I, which must be answered by the unit manager in collaboration with the safety representative. In Fact Sheet II, the manager and the safety representative must answer questions relating to how the process worked and which actions have been planned and eventually carried out.

3.1. KIWEST

In choosing the dimensions in the KIWEST questionnaire the intention has been to cover the most important psychosocial working environment factors for universities and university colleges, including demands/strains and resources. Freely available standardized and validated scales from recognized Nordic and European research groups have been chosen. In the composition of the form the dimensions have been balanced between 1) the working climate level (individual's perception of the collective experience of the working environment) and the individual level (the individual's perception), 2) demands and resources and 3) focus on the individual, group, management and organisation.

The scales have been translated from Danish, Swedish, Dutch, German and English into Norwegian, followed by back translations. Figure 2 shows how the selected scales may be placed in the JD-R Model.

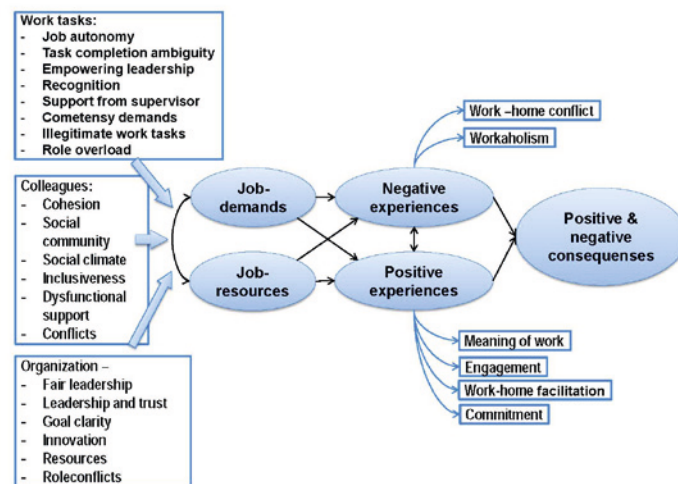


Figure 2. KIWEST and JD-R

The first stage in selecting dimensions consisted of a broad literature review and a risk analysis based on qualitative interviews with 50 employees at universities and university colleges in Norway. The dimensions to be included in KIWEST were quality assured through repeated discussions in the work group and with the reference group. It has at this point in time been determined to not include scales showing the occurrence of bullying and harassment. This is because the survey is anonymous and several circumstances around the social community are being mapped, such as the perception of whether the working climate is distrustful and suspicious and the presence of dysfunctional support.

Around 20 persons from various types of positions at the four universities reviewed the questionnaire and provided input. All in all, this resulted in KIWEST version 0.8, which was used in a test of all the employees at the Faculty of Theology at UiO in September 2012. Based on the findings from UiO, some of the scales from version 0.8 were replaced with new ones. In October 2012 the next version, KIWEST 1.0, was used in a full-scale implementation of the entire concept with 5600 employees at approximately 150 NTNU units.

Data material and experiences from NTNU were used for practical and statistical validations, see Innstrand, Christensen, Undebakke, and Svarva, (2015). These build on 3066 responses, i.e. 58.4 per cent of the employees with more than 50 per cent of a full-time position at NTNU and experiences from working with feedback processes at around 140 units. As a result of the validations, some scales have been replaced and the use of terms and response alternatives has been synchronized. KIWEST version 2.0 thus emerges as a sector-adapted, complete and comprehensive questionnaire, see Attachment 1.

In general only whole scales are used, which means that the respondents must always answer groups of statements with slightly different approaches to a theme. The advantage of this is that we may be reasonably certain that we are measuring what we want to measure. The downside is that responders may feel that there are too many questions to answer, and that the questions appear to be similar. However, it is endeavoured to keep the size of the scales as small as possible, and it is tried to reduce the size where feasible without undermining the validity. In practice this means that the scales in KIWEST has a minimum of three statements each.

The following scales are included in KIWEST 2.0:

Job autonomy (Näswall et al., 2010), high score indicates that employees feel they have autonomy and influence on how the work are to be carried out.

Task completion ambiguity (Näswall et al., 2010), high score indicates that the employees themselves can, or have to, determine when their tasks are completed.

Empowering leadership (Dallner et al., 2000), high score indicates that employees perceive management to be empowering. The concept of empowerment refers to assigning or transferring power to another person, and to enabling someone to do something (Stang, 2003).

Recognition (Pejtersen, Kristensen, Borg, & Bjorner, 2010), high score indicates that employees feel to a high degree that they are recognized and appreciated for their efforts.

Social support from supervisors (Pejtersen et al., 2010), high score indicates that the respondent feels a high degree of support from his/her closest superior.

Competency demands (Näswall et al., 2010), high score indicates that employees have the sense that their work tasks demand learning of new knowledge, and that the nature of work requires continuous training. Being in continuous development is for many a natural and welcomed part of working life. Such demands may therefore be perceived both as a positive challenge and as pressure.

Cohesion in work teams, this scale is modified from Carless and De Paola (2000) by Christensen et al. (2012). High score indicates that the respondents experience good cooperation with colleagues in their unit.

Social community at work (Pejtersen et al., 2010), high score indicates that the respondents experience a high degree of social community with colleagues in their own unit.

Inclusiveness and social responsibility (Pejtersen et al., 2010), high score indicates that inclusion and social responsibility are generally taken care of.

Social climate (Dallner et al., 2000), high score indicates a good social climate.

Goal clarity (Näswall et al., 2010), high score indicates that the respondent has a clear picture of the purpose of his or her own work.

Innovation high score indicates that the respondents experience that there is a culture for continuous improvement in the unit. This scale has been developed from Mellor, Mathieu and Swim (1994), at the University of Stockholm, from examining conditions in trade unions in order to study the improvement culture in organisations in general. So far validations of the developed version have not been published.

Fairness of the supervisor from (Dallner et al., 2000), high score indicates that the respondent experiences that management is fair.

Trust regarding management (Pejtersen et al., 2010), high score indicates a high degree of perceived trust in management.

Trust (Näswall et al., 2010), high score indicates that the respondents experience to a high degree that management is reliable and trustworthy. The same questions are used about one's own unit and the unit immediately above it.

Illegitimate tasks (Semmer, Tschan, Meier, Facchin, & Jacobshagen, 2010), high score indicates that the respondents experience that they have a low degree of illegitimate

work tasks, in other words tasks that are perceived as being outside one's area of responsibility and seen as something that should have been performed by someone else. Aronsson, Bejerot, and Härenstam (2012) have translated and used this scale in Sweden, finding a link between the perception of having many illegitimate tasks and exhaustion.

Dysfunctional support (Semmer, Amstad, & Elfering, 2006), high score indicates that the respondents experience a low degree of dysfunctional support.

Interpersonal conflicts (Näswall et al., 2010), high score indicates that the respondents to a little degree are negatively influenced by conflicts between colleagues.

Role conflict (Dallner et al., 2000), high score indicates that the respondents perceive little conflict between their different roles. Unclear roles or perceptions of conflicts between different roles a person has may be due to different expectations from different people, and conflicts between the expectations the employee has and those of others. Role conflicts may cause stress for an employee and conflicts with others.

Role overload (Näswall et al., 2010), high score indicates that the respondents to a little extent experience having too much to do in too little time.

Meaning of work (Pejtersen et al., 2010), high score indicates that the respondents experience to a high degree that their work is meaningful.

Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2003), high score indicates that the respondents experience a high degree of work engagement. Schaufeli and his co-workers have defined work engagement as a relatively positive emotional state characterized by vigour, dedication and ability to be absorbed in one's work (Schaufeli, Salanova, González-romá, & Bakker, 2002). Vigour is described as having much energy, having the will to make an effort at work and managing to show stamina when encountering difficulties. Dedication is described as strong involvement and identification in relation to the job, with a sense of inspiration, pride and a feeling that what one does is important. The final dimension, absorption in the job, is characterized by the ability to concentrate deeply and being so absorbed in one's tasks that time flies and it is difficult to detach oneself from the job (Schaufeli & Bakker, 2004). The scale consists of nine statements, and is the most widely used instrument for measuring work engagement in questionnaires. It has been validated in many countries, including Norway, (see www.schaufeli.com for more information).

Work to family conflict and Work to family facilitation (Wayne, Musisca, & Fleeson, 2004), high score indicates that the work has little negative impact on family life and

that the job has a positive impact on the home situation. The scale has been developed and adapted for use in Norway by Innstrand, Langballe, Falkum, Espnes, and Aasland (2009).

Organisational commitment Christensen et al. (2012) have developed the scale from Pejtersen et al. (2010). High score indicates that the respondents experience having positive ties to their place of work.

Dutch Workaholism Scale (DUWAS) (Schaufeli, Shimazu, & Taris, 2009). High score indicates little addiction to the work. "Workaholism" refers to having a strong inner drive to work hard. It often consists of a form of compulsory and exaggerated work effort. A number of researchers have shown that workaholism may negatively impact individual health and the relationship to friends, family and colleagues (Thomas, Sorensen, & Feldman, 2007).

Work-related Sense of Coherence - WORK-SOC (Bauer & Jenny, 2007; Vogt, Jenny, & Bauer, 2013), high score indicates that the respondents experience to a high degree that their workplace is health promoting. Aron Antonovsky (1979) studied people who appeared to cope well with major traumas. He developed a system of concepts to describe healthy people. He described health as a multidimensional continuum between sickness and health, proposing that we are always moving along this continuum. Antonovsky called what moves people toward the healthy pole of the continuum "salutogenesis". Salutogenesis is the opposite of pathogenesis, which focuses on what makes people sick. Antonovsky (1979) asserted that an important factor for determining where on the health continuum one is found is one's "sense of coherence". He saw sense of coherence (SOC) as a cognitive construct consisting of three tightly meshed themes: comprehensibility, manageability and meaningfulness. Comprehensibility refers to the extent to which one perceives internal and external stimuli as reasonably understandable. Manageability means whether you experience that there is correspondence between the resources at your disposal and the demands and stimuli encountered. Meaningfulness refers to experiencing aspects of life as interesting and important, something worth investing energy, commitment and devotion in. Bauer and Jenny (2007) have developed and validated *WORK-SOC* for surveying a work-related "sense of coherence".

Six new individual questions have been developed, four about resources connected to research and teaching, and two about the respondents' experience of how the work situation impacts

health. The response alternatives are generally the five-point Likert scale throughout the questionnaire. For an overview of scales, questions and response alternatives see Attachment 2.

3.2. Fact Sheet I

Fact Sheet I was developed to provide additional information about organisational conditions not considered necessary for all employees to answer, but still considered to be important in-depth information. Fact Sheet I maps such factors as work types and main unit activities, the number of full-time equivalents in different position types, the number of students in various categories, externally funded activity, working language and the unit's routines for staff meetings, staff seminars, meetings between the manager and safety representative, employee appraisal interviews, safety representative/HES inspection rounds, risk assessment, surveys of all employees and preparation and revision of competence plans.

3.3. Fact Sheet II

Fact Sheet II examines how the KIWEST-report was presented to each unit's employees, presentation attendance and assessment of participation and any reasons for failure to participate. It also looks at how the units have worked with the development of actions, agreement of actions and an assessment of any lack of participation. The units are also asked to describe the factors that were considered positive and important to carry forward, which factors were deemed necessary to improve and which actions the unit has chosen to implement, with the date for implementation included. Finally, in Fact Sheet II, managers and safety representatives are asked to give an assessment of how the ARK Intervention Programme has functioned at their unit and whether they have proposals for improving it.

The feedback provided in Fact Sheets I and II makes it possible to ensure the requirement for a documented systematic working environment effort as laid down in the Working Environment Act (ASD, 2006).

4. Implementation of the ARK Intervention Programme

The ARK Intervention Programme is generally designed as a developmental tool for the organisational production units. In cases where managerial groups are working closely together and the managers perceive this as an important part of their working environment, ARK Intervention Programme may also function as a tool for managerial groups.

The implementation of the ARK Intervention Programme is divided into five phases, 1) Preparation and anchoring, 2) Screening, 3) Development of actions, 4) Implementation of actions, 5) Evaluation, see Figure 3. To comply with the requirement for systematic mapping (ASD, 1996), the process should be implemented at regular intervals of two or three years.

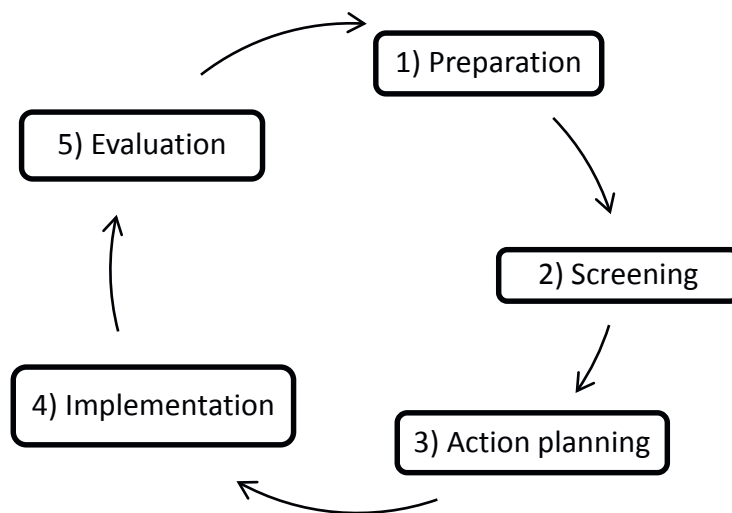


Figure 3. The five phases of an ARK process.

It is recommended that ARK Intervention Programme should be carried out in as short a period of time as possible so that the employees can have insight into the results from the mapping with the KIWEST questionnaire as quickly as possible so they can start to develop and implement actions. It should be possible to carry out phases 2-3 in approximately 11 weeks, depending on the size of the organisation, its complexity and the amount of resources assigned to the project. The schedule for phase 4 should be determined by the management in collaboration with the safety representatives.

4.1. Phase 1 – Preparation and anchoring

The initial phase may take six months and generally concerns preparing the organisation for implementing and adapting the process to pertinent needs and issues so that the organisation have as much benefit from the ARK Intervention programme as possible.

Good anchoring in management is extremely important for the success of an intervention process (Nielsen et al., 2010). Managers on all levels must therefore be familiar with the ARK Intervention Programme and the possibilities inherent in this tool. The intervention programme should be discussed in managerial meetings on all levels of the organisation where the employee representatives are involved. It must also be firmly anchored in the formalized cooperation between the employee and employee associations for the process to be successful (Nielsen et al., 2010). The Workplace Environment Committee (*Arbeidsmiljøutvalg*) must discuss and adopt in use of the ARK Intervention Programme. Information should also be given about the intervention programme in other meetings with employees, such as unit meetings or general meetings.

The purpose of using ARK Intervention Programme is to develop the working environment. Randall and Nielsen (2012) argue that ensuring that management and employees have a shared idea of what they want is an important criterion for success. Therefore, both parties should work on deciding the goals for the process. See examples of goals in Table 1.

Table 1. Examples of goals for implementation of ARK Intervention Programme.

Overriding goals:	Overview of how employees see their working environment situation. The basis for strategic working environment actions.
Process goals:	Response from a minimum of 50 per cent of the employees in the organisation. Completion of survey feedback on the results to all units with participation higher than 50 per cent of all employees. Completion of process for developing improvement actions and implementation of actions in all units.
Effect goals:	Units to report improvements in fields they have designated as areas for improvement. Measurable improvement in selected fields at the next implementation of the ARK Intervention Programme.

A project should be established for the implementation of ARK Intervention Programme. How this is to be organized will depend on the size and complexity of the organisation. In large organisations it may be best to establish a special steering group with representatives from the employer and the employees for the project (Nielsen et al., 2010). It is important that management chooses people they trust and who they can have good and open dialogues with to head the project. The project manager should have experience of planning, coordinating and implementing projects across his/her own organisation. The project manager is the contact person for the managers of ARK Intervention Programme at Centre for Health Promoting Research, Department of Social Work and Health Science, NTNU.

In addition to project management it is recommended that the institution recruit in-house employees to provide leadership support and process facilitation. In large organisations it may also be useful to have employees who can help the project manager to keep the project moving forward towards completion. Such persons should have experience of developing the working environment and process management, and must also have solid understanding of statistics and methodology so they can explain the KIWEST-report in a good way (Nadler, 1977). Being a process facilitator means support the unit management to plan the process and survey feedback meetings, interpret the results in the KIWEST-report, present the KIWEST-report to the unit's employees, manage processes where all employees are included in interpreting the report and development of actions that will maintain or improve as the case may be, or advising about actions and their processes. Project managers and process facilitators are most important at the early stages of the process (Haims & Carayon, 1998) and should gradually transmit responsibility for completion of the ARK Intervention programme to each unit manager.

To ensure good organizing and progress, a progress plan should also be prepared with defined points in time for important milestones, such as sending out KIWEST and survey feedback meetings. The time and location for the survey feedback meeting should be set before KIWEST is sent out. The survey feedback meeting should be carried out as soon as practically possible after the KIWEST questionnaire has been closed for responses. The location for the feedback meeting must be an appropriate size with flexible seating areas which make it possible to work in smaller groups.

Nielsen and her colleagues (2010) point out that having good communication with and providing information to employees are key criteria for success. To get the best possible effect out of ARK Intervention Programme it is therefore important to provide good and precise information. An information plan should be prepared with an overview of what to inform about where. It is important to communicate what the aims are and how the process with survey feedback meetings and development and implementation of actions should be carried out. It may also be useful to focus on which actions were carried out after the previous round, and what one wants to achieve by conducting the ARK Intervention Programme. It is recommended that ordinary information channels are used, such as regular meetings, general meetings, websites and an in-house newspaper. Direct communication, such as meetings, is preferable, where electronic communication can be a supplement. A few days before the KIWEST questionnaire is sent to all employees, an e-mail must be sent from the head of the organisation to all employees to inform them about the project. See Attachment no. 3 for an example of this text.

A simple risk assessment should be undertaken to determine whether there are any special challenges such as on-going or smouldering conflicts, planned or recently conducted restructurings, other relevant processes, language barriers, lack of access to a PC or holidays coming up, so that these may be considered when carrying out the project (Randall & Nielsen, 2012).

Each department must submit information about its organisation structure and own employees to NTNU. To obtain the best possible figures it is important to ensure that this information includes as few errors as possible. Employees who have had regular pay in a 20 per cent position or more during the last three months must be included. Register data with name, e-mail address, gender, position category, position percentage and time of employment must be stated as the basis for calculating the response percentage for groups of employees on the organisation level. The information must be submitted in an encrypted format to NTNU using a special registration form, see Attachment 4.

As a transition to the next phase, Fact Sheet I is sent to all unit managers who will be presenting their own results, cf. the organisation structure described in the registration form, see Attachment 4. The questionnaire must be filled in by at least the manager and the safety representative together. If a unit has more than one safety representative, the head safety

representative/local main safety representative or another safety representative nominated by the head safety representative/local main safety representative must participate. In units where it is natural that more people from management or employee representatives participate, they should participate in addition to the manager and safety representative.

4.2. Phase 2 – Screening

In the screening phase the KIWEST questionnaire is sent out to be answered by all employees, and reports are to be drawn up, presented and interpreted.

4.2.1. The KIWEST survey

NTNU sends the KIWEST questionnaire to employees in an e-mail with information about complying with the rules governing the protection of personal information, see Attachment 5, and a personal link to the questionnaire to be filled in by each employee. As long as the questionnaire is open for employees to fill in, no other information will be extracted from the data material than the response percentage. When the questionnaire has been closed so it can no longer be filled in, the link between the person and the questionnaire will be deleted. The questionnaire will be kept open for up to three weeks and during this period up to two reminders will be sent to anyone who has not responded.

Everyone must feel that responding is voluntary, while it is also important to have a good response rate. Baruch and Holtom (1999; 2008) found that the response rate for questionnaire surveys is declining, and they argue that a response rate of 50 per cent is to be considered acceptable. Several factors influence the response rate. If listings of employees and register information about position category, position size and gender are wrong, the response rate will also be incorrect. There will also always be some responses which cannot be used because of incomplete answers or other mistakes made when filling in the form. It has also been found that different position categories respond to surveys to varying degrees and that various forms of incentives may have an effect on the response rate (Baruch, 1999; Baruch & Holtom, 2008).

It may be useful that managers, safety representatives and employee representatives motivate all employees to fill in the questionnaire, by, for example, drawing attention to the development of the response rate before the questionnaire is closed. Other types of campaign may also function well.

4.2.2. Presentation of the results from the KIWEST survey

In accordance with recommendations from Nadler (1977), the results from the KIWEST survey should be presented in functional units to all employees. To ensure good survey feedback meetings and a good result of the entire process, there must be good collaborative planning with the unit management, safety representative and the process facilitator, as recommended by Björklund et al. (2007) and Elo et al. (1998). It is also recommended that the trained process facilitator should present the KIWEST-report and that this facilitator should also be trained in presenting the report in a neutral manner. See the checklist for planning feedback meetings in Attachment 6 and a proposed plan for the feedback meeting in Attachment 7.

To support a common frame of reference and mental models (Senge, 1990, 2006) it is recommended to introduce the JD-R Model and facilitate for reflection on what are perceived to be the most important demands and resources in the unit before the KIWEST-report is presented. It is also recommended that these are written on a board or flip charts. The factors on the board may then function as correction of the factors examined in the KIWEST questionnaire and may help to maintain the expectations behind the JD-R Model (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004).

Each person who has not consented to participating in the survey by pressing the "finished" button on the final page of the questionnaire, or has only answered minimum one scale, will be removed from the calculations. To be calculated as having responded to a scale, more than half of the items in a scale must have been filled in. In cases where two or more responses have been entered by the same respondent, the last completed response or alternatively the response with the most answers will be used. In cases where a personal link has been forwarded and thus answered by several individuals, all the responses will be deleted.

In the presentation of the results from the KIWEST questionnaire a set of standard analyses is calculated for each defined organisational unit (faculty, department, section), one or two of the unit's overarching levels in the organisational hierarchy (faculty, department) and the whole institution together. The response from the unit manager is always discarded from the data material. The sorting made by the scales, see Table 2, is only to be considered as a proposal. Different people and working environments will have different preferences about

what are important demands and resources (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004).

Table 2. Overview of how the scales in KIWEST are sorted for presentation of results.

Resources - In the individual's task completion	Job autonomy Task completion ambiguity Empowering leadership Recognition Social support from supervisor Competency demands
Resources -In the colleague fellowship	Cohesion in work teams Social community at work Inclusiveness, the social responsibility Social climate
Resources – In the organisational unit	Goal clarity Innovation Resources research and teaching Fairness of the supervisor Trust regarding management, own unit Trust in unit management – own unit Trust in next administrative level
Demands - In the individual's task completion	Illegitimate tasks Dysfunctional social support Interpersonal conflict Role conflicts Role overload, quantitative
Commitment to work	Meaning of work Engagement Work-home-facilitation Work-family-conflict Commitment to the workplace Workaholism

In the presentation of results for the scales, an average of what the respondents have answered for each scale is calculated. The average represents the top of the bars in the bar chart, see Figure 4. In cases where questions or statements are negatively loaded they have been re-coded for the presentation of the results. In cases where the whole scale is negatively loaded the bar expresses absence of the negative element.

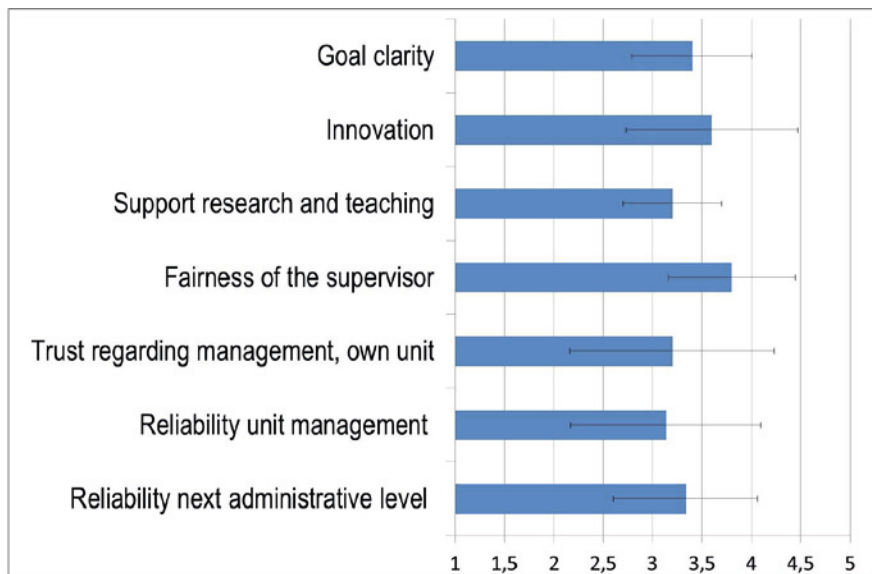


Figure 4. Example of presentation of results for resources in the organisational unit.

In the presentation of the results one standard deviation is indicated in each direction for each scale (the thin horizontal line in each bar), see Figure 4. For small units this is only an expression of whether employees have given quite similar responses (small standard deviation) or very different responses (large standard deviation). However, for units that are so large that it can be assumed that the responses are normally distributed, it can be assumed that 68.3 per cent of the respondents have given answers less than one standard deviation from the average (Ringdal, 2001).

The scale "social climate" and the four new questions that probe the respondents' perception of available support for teaching and research are presented with both a total average figure and with the average for each question, see Figure 4 (Support for research and teaching) and Figure 5. To indicate that the bars represent the average for individual questions, they have a different colour than the bars representing scales. When individual questions are presented in this way, negatively loaded questions are not turned around, see Figure 5.

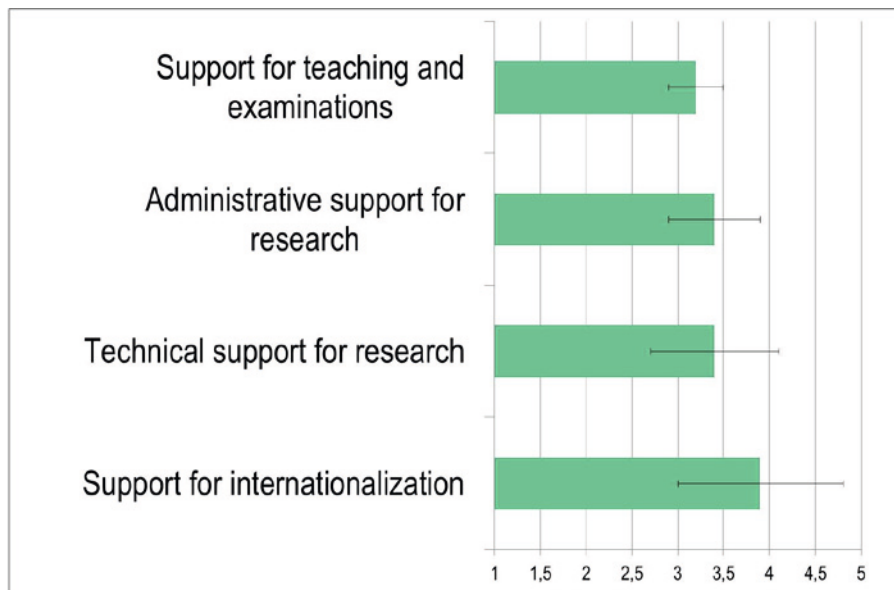


Figure 5. Example of presentation of results for individual questions.

The presentation of the results for the units also provide vertical comparisons. The scales and the four questions about support of research and teaching are collated in a sector diagram, see Figure 6.

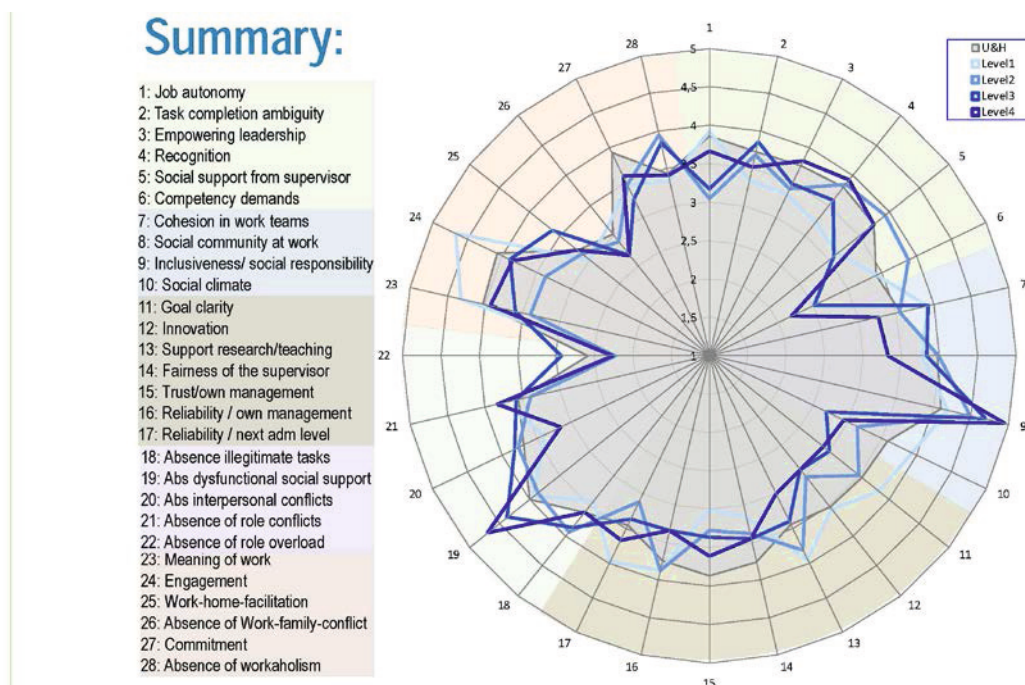


Figure 6. Example of vertical comparison of results from the KIWEST survey in an organisation with four levels.

In the sector diagram all the scales have separate numbers and are distributed around the circle. The average value for each scale is given on the scale from 1 in the middle of the circle to 5 which is the outermost position. A positive result is generally connected to graphs close to the outer edge of the circle. However the flexibility inherent in the JD-R Model, imply employees may evaluate the significance of the demands and resources in their work environment differently (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004). The organisational levels N1, N2, N3 and N4 have separate graphs. In a university, the university as a whole will be level 1, the faculty level 2, the department level 3 and the section level 4. The preceding bar diagrams each have their sectors and are given in different colours. The average for all the institutions in the sector that have used ARK Intervention Programme is marked in a grey shade.

Other individual questions in the KIWEST questionnaire are presented as average numbers or frequencies for each question with vertical comparisons for levels 1 to 4 in each bar diagram, see Figure 7.

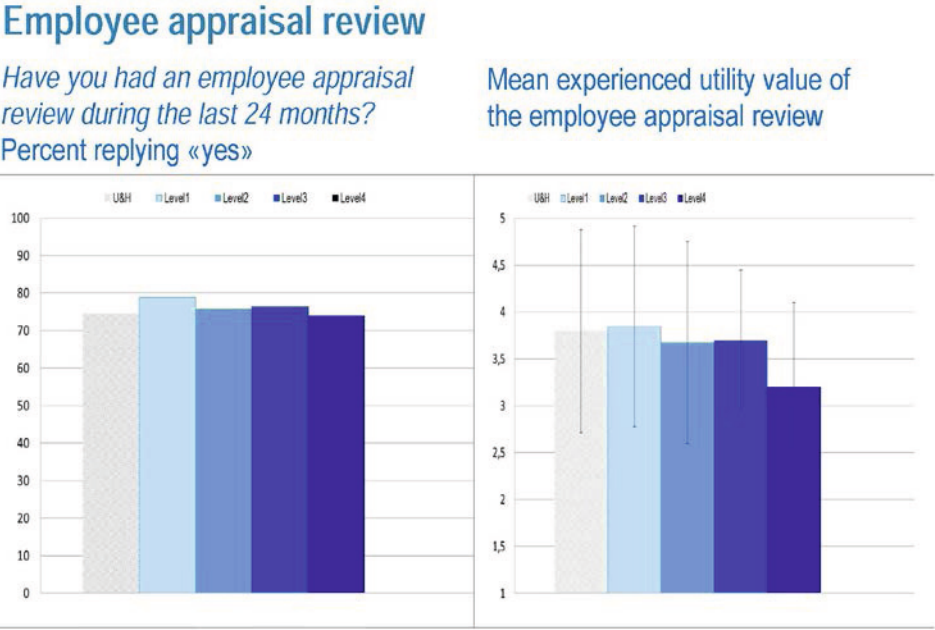


Figure 7. Example of presentation of results for individual questions about employee review.

4.2.3. Interpretation of results

As recommended by Nadler (1977), participants should reflect on the KIWEST-report, interpret it in the local context and discuss what are felt to be its most important findings. This should be done in groups after the report has been presented. To keep the group perceptions in view, it is recommended that the groups write their answers on a flip chart, which could be divided into columns with one row for each matter to be maintained/improved and two columns: one column for matters to be maintained/improved, one column for proposals for appropriate actions. All in all the flip chart will have six rows and two columns.

To gain insight into one's own perceptions and those of others and facilitate for organisational learning (Argyris, 2000; Schön, 2000; Senge, 1990, 2006) it should be arranged that the results from the group discussions are shared in a plenary session. In large units the presentation can involve all groups posting their flip chart pages on the wall so that all the groups are given time to read all the presentations. This should be organized so that a representative of each group at any time is standing by the group's presentation to answer any questions the readers might have. In smaller units each group may be asked to make a verbal presentation to the other groups about what they found as most important findings in terms of what to maintain and improve. In very small units the entire group task may be carried out in a plenary session. The screening phase may then be concluded by prioritizing the issues presented by the groups. This can be done by giving all participants three yellow notes and telling them to stick these notes on the three matters on the flip charts they mean are the most important to continue working on. To ensure that the themes that are then to be worked on are the correct ones for both individuals and the unit/department (Randall & Nielsen, 2012), management should place what has emerged through the KIWEST survey and the group work into the unit's context as a conclusion of the survey feedback meeting. Management should also outline how to continue working on the development of actions and implementation.

4.3. Phase 3 – Development of actions

According to Randall and Nielsen (2012), actions seen as relevant by managers and employees are the foundation of a process that they feel is positive, also in the longer term. Such actions contribute to developing the working environment in the desired positive direction. The point of departure for developing actions is found in the issues the majority has indicated as the most important to continue working with. These prioritized issues should help

launch discussions on how each individual wants his/her working environment to be. The person designated to work on the documentation from the feedback meeting must summarize the prioritized issues from the flip charts. In practice there will often be overlapping of themes/issues and a need to organize and combine. In most cases it will be necessary to elaborate, give more detail and concretize the themes and appropriate actions. This can be done as a continuation of the survey feedback meeting or at a later time. There is a choice between involving everybody in the development of actions or involving groups based on organisational groupings, randomly composed groups, groups based on interest and commitment or a special working group. This may also be done in the managerial group. The model chosen will determine guidelines for whether the safety representative should represent employees or not. In models with a large degree of cooperation from employees the role of the safety representative will be less important than if the managerial group or smaller groups deal with the development of actions.

There are many methods that can be used for the development of actions. Here are two examples:

1. Exploration, which may be combined with drawing mind maps: Asking What? Where? When? Why? How? Who? about the relevant matter or issue. By answering these questions or only asking five times Why? several basic factors will be brought to light about the issue in question that one might want to maintain or improve. This may be sufficient to produce good solutions.
2. Another alternative may be to work on the basis of a desired picture of the future. The tasks for the group may then be:
 - Imagine that we in year (*enter year*). Our work with is going well/is going excellently.
 - For this reason you have been talked about in a very positive light, by (*enter the most relevant person(s)*). Describe yourselves. What characterizes the culture? Enter four or five points.
 - Look back from (*the chosen time*). Which factors or events have been decisive for bringing you to where you are now, which decisions have you made (be as specific as possible)?

Relevant literature for further reading about methods look at among others Lerdahl and Finne (2007)

Examples of actions that have been developed and implemented: Improvement of meetings, frequencies, structures and content, development and improvement of routines, systems for dealing in a better way with competence raising, improved organisation of work, social events and meeting-places.

Actions may in most cases be decided and implemented at each unit. To ensure that actions are implemented and communicated adequately, each unit must have a plan for which forums should discuss and decide actions, such as general meetings, subject group meetings, managerial group meetings (Nielsen et al., 2010). Actions that have been decided should be entered into an action plan where activities, concrete actions, persons who are in charge and time for implementation are described, see the proposal for a plan in Attachment 8. It is recommended that responsibility is divided between more than one manager, preferably in accordance with interests and the wish to contribute to the various actions. On an overarching organisational level actions may be discussed in the AMU or AMU sub-committees. Decisions on the overarching level may be taken by the management after advice from the AMU. It will be a good help if the overarching board or manager groups are involved in the conducting of ARK Intervention Programme before the launch, and when actions of a comprehensive nature are to be decided and implemented.

4.4. Phase 4 - Implementation of actions

At the latest, in this phase the responsibility for further implementation of ARK Intervention Programme should be transferred from the process facilitator to the unit's management (Haims & Carayon, 1998). To ensure that actions are followed up they should be prioritized and embedded in the unit's action plan. A clear deadline should be set for when actions are to be completed. It is recommended that the action plans and the progression is communicated and discussed in relevant forums (Nielsen et al., 2010). This may be done when there are questions about the results and/or employees are made aware of actions that have been carried out. The safety representative may request that ARK Intervention Programme is followed up by the manager. A safety representative may, for example, ask a manager when information is to be provided, when a meeting is to be held or when actions are planned for implementation.

4.5. Phase 5 - Evaluation

The process itself and its effect should be evaluated. Process evaluation should be undertaken continuously throughout the process and after the project has been completed to shed light on what has functioned for whom under which circumstances (Nielsen & Abildgaard, 2013; Saksvik, Nytrø, Dahl-Jørgensen, & Mikkelsen, 2002). The goals set in the preparation phase or the anchoring phase should be the point of departure for the evaluation, including the overriding goals and process/effect goals. In addition to the process evaluation, the overarching KIWEST-report on the institutional level and activities reported in Fact Sheet II will provide information that may contribute to the evaluation. As Fact sheet I Fact Sheet II will be issued as an electronic questionnaire to all managers of units that have had their own follow-up process. The manager and safety representative must answer jointly. The on-going evaluation should be documented and take place at the project management level, all levels of the managerial line and in the AMU. At the end of the project period all documentation should be systematized and synthesized for use in the overriding project evaluation.

It may also be useful to carry out interviews with some key persons, either individually or in focus groups. Such interviews may give additional information and may bring out more detail and nuances than what can be culled from the Fact Sheets. The focus of the interviews might be how various groups (technical/administrative/ scientific employees, managers, research/teaching units, administrative units) perceived and assessed the various parts of the process, how the process has influenced the units and the organisation, or how the activities that were developed have influenced the units and the organisation.

When the questionnaire is used the next time, KIWEST may be used to measure the effect of the implemented actions. There will always be many factors that impact an organisation, and effects may be difficult to measure (Saksvik et al., 2002). If this is to be used as an evaluation approach, it is recommended that the focus is only on issues/themes that have undergone development actions.

All in all, the continuous evaluation, the Fact Sheets, interviews and effects may form a sound basis for improvements the next time ARK Intervention Programme is run. Results from the evaluation should also be conveyed to the managers of ARK Intervention Programme at

Centre for Health Promotion Research, Department of Social Work and Health Science, NTNU, if relevant improvement elements for the tool itself are found.

5. ARK Research Platform

Data from the KIWEST survey and the Fact Sheets are stored in a common database in the HUNT Databank. Over time the database will constitute a rich source of material for research on issues relating to the working environment. Moreover, the institutions may follow developments at their own institution over time by comparing new results with previous results.

The Fact Sheets form the basis for following developments in the units longitudinally and for examining links between organisational issues and the working environment. Fact Sheet I may contribute to pinpointing links between organisational issues and the working environment. Fact Sheet II may later form a rich source of experiential material for actions and provide the potential to examine links between various actions and the working environment over time.

It may also be possible to compare the results from KIWEST surveys to corresponding international data collected by using the same scales and local register data, such as sickness absence, student turnover, publications and so on.

Data in the database are available to researchers. To avoid duplication of research, one must apply for access to variables to analyse research questions described in the application. An agreement must be entered concerning exclusive rights to investigate the described issues for a limited period of time. The manuscript must be submitted before publication to see that the material has been used according to the agreement.

The database and experiences of using the ARK Intervention Programme will form the basis for further development of the intervention programme in collaboration with users of it and researchers. Meetings will be arranged for researchers and practitioners on a regular basis. The intention is that ARK Intervention Programme will function in research and practice, thus

facilitating for the development of the knowledge-based working environment in the university and university college sector.

6. Conclusion

The psychosocial factors in the workplace greatly impact our health, our well-being and our productivity. ARK Intervention Programme examines factors that research has proven to be important. We measure what we intend to measure with a positive focus, while the mapping of risk factors ensures that issues that need to be addressed are uncovered. The organisations should have their own guidelines for warning about bullying and harassment, and should inform about policy and available tools in connection with the implementation of ARK Intervention programme.

ARK Intervention Programme is both a management tool and a participation arena. If it is anchored in management and if there is broad participation there will be good processes with tailor-made solutions for the units.

The development of ARK Intervention Programme has been a cooperative process, and will also in the future depend on how the organisations that use the programme are willing to take an active part in refining it in collaboration with the researcher group at the Centre for Health Promoting Research, Department of Social Work and Health Science, NTNU.

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Vennligst velg språk:
*Please select language.**

- Norsk
 English

**KIWEST2-MAL**

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Welcome to ARK-KIWEST - Working Environment Surveys for Universities and University Colleges

Please answer all the questions in one session. If you stop before you have finished, you will have to start over. We will send two reminders before data collection ends.

You agree to participate in the survey by answering the questions and submitting the form by clicking "Done" on the last page. If you wish to withdraw from the survey after submitting your answers, please contact ark-kontakt@ntnu.no, referring to the email address to which the invitation to participate in the ARK survey was sent. Two weeks after the reply deadline, respondents' email addresses will be removed from the survey answers, after which it will no longer be possible to withdraw.

The Norwegian University of Science and Technology (NTNU) is responsible for the data collection and storage.

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Job demands

To what extent do you agree or disagree with the following statements?

	Strongly disagree 1	Dis-agree 2	Neither /nor 3	Agree 4	Strongly agree 5
I know when a task is completed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am often given assignments without adequate resources to complete them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am expected to continually develop my competence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It happens quite often that I have to work under heavy time pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I determine when my work assignments are completed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I frequently receive incompatible requests from two or more people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job involves tasks that are in conflict with my personal values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is up to me to assess when I have completed a work assignment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The nature of my work means I continually have to develop and think in new ways	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I frequently have too much to do at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have to do things that I feel should be done differently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel pressure to continually learn new things in order to manage my work tasks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have enough time to do what is expected from me at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Work organisation and job contents

To what extent do you agree or disagree with the following statements about your work situation and your unit, ?

Strongly disagree	Dis-agree	Neither /nor	Agree	Strongly agree
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	1	2	3	4	5
What is expected of me at work is clearly expressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My unit is constantly evolving to meet the employees' needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I must carry out work which I think should be done by someone else	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that the objectives of my job are diffuse and unclear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a sufficient degree of influence in my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My unit is open-minded and adapts to changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can make my own decisions on how to organize my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I must carry out work that put me into awkward positions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a clear understanding of which tasks constitute my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my unit, no one listens to new suggestions and ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I must carry out tasks that I think are unfair that I should do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My unit is flexible and continually adapts to new ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is room for me to take my own initiatives at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I must carry out work which I feel demands more of me than is reasonable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My unit strives to retain status quo rather than to change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I manage my work situation in the direction I want	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

NOTE: If research/teaching is not defined as part of your job, please select "Not applicable".

	Strongly disagree 1	Dis-agree 2	Neither /nor 3	Agree 4	Strongly agree 5	Not applic- able
I get the administrative support I need for planning and implementation of teaching and examinations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get the administrative support I need for my research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get the technical support I need for my research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get the support I need for internationalisation of my research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



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Management

To what extent do you agree or disagree with the following statements about management in your unit, ?

Strongly disagree	Dis-agree	Neither /nor	Agree	Strongly agree
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Your relationship with your job

To what extent do you agree or disagree with the following statements?

	Strongly disagree 1	Disagree 2	Neither /nor 3	Agree 4	Strongly agree 5
I am happy to tell others about my workplace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Job worries or problems distract me when I am at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel motivated and involved in my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The things I do at work help me deal with personal and practical issues at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The things I do at work make me a more interesting person at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My work is meaningful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job reduces the effort I can give to activities at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend a close friend to apply for a position at my workplace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stress at work makes me irritable at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My work has a positive influence on my health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The skills I use at work are useful for things I have to do at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My work has a negative influence on my health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having a good day at work makes me a better companion when I get home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that my workplace is of great importance to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job makes me feel too tired to do the things that need attention at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that the work I do is important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you have the following experiences?

	(Almost) never 1	Sometimes 2	Often 3	(Almost) always 4
I seem to be in a hurry and racing against the clock	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find myself continuing to work after my co-workers have called it quits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is important to me to work hard even when I do not enjoy what I am doing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I stay busy and keep many irons in the fire	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that there's something inside me that drives me to work hard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I spend more time working than on socializing with friends, on hobbies, or on leisure activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel obliged to work hard, even when it is not enjoyable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I find myself doing two or three things at one time, such as eating lunch and writing a memo, while talking on the telephone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel guilty when I take time off work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is hard for me to relax when I'm not working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Never 0	A few times a year or less 1	Once a month or less 2	A few times a month 3	Once a week 4	A few times a week 5	Every day 6
At my work, I feel bursting with energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At my job, I feel strong and vigorous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I get up in the morning, I feel like going to work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am enthusiastic about my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job inspires me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud of the work that I do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel happy when I am working intensely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am immersed in my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get carried away when I'm working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How do you feel about your present job and workplace in general?

	1	2	3	4	5	6	7	
Manageable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unmanageable
Meaningless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Meaningful
Structured	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unstructured
Easy to influence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Impossible to influence
Insignificant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Significant
Clear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unclear
Controllable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Uncontrollable
Unrewarding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Rewarding
Predictable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unpredictable

Background information

Have you had an employee appraisal interview ("medarbejdersamtale") during the last 24 months?

- Yes
- No
- Not relevant (due to leave or because I was recently employed)

If yes: On the scale from 1 to 5, how do you feel about the employee appraisal interview(s) you have had during the last 24 months?

	A waste of time 1	2	3	4	Very positive 5	Not applic- able
<i>If you have not had an employee appraisal interview during the last 24 months, please select "Not applicable".</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How many hours over and beyond your agreed working hours do you normally work per week?

- 0
- 1 - 5
- 6 - 10
- Over 10

What percentage of your position is allocated to:

	0%	Under 25%	25 to 50%	Over 50%
Research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dissemination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Artistic development work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Study work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fieldwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Laboratory work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clinical work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research support services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Administrative tasks/services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technical services (operation and maintenance)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other work tasks:

Note: Survey results will be presented in such a way that individual respondents will not be recognisable. Data will only be made available in anonymised form.

Sex:

Age:

- Under 30 years
- 30 - 39 years
- 40 - 49 years
- 50 - 59 years
- 60 years or more

Job category:

- Academic
- Technical/administrative
- Unit leader (rectorate, dean, head of dept., director, head of section etc.)

Terms of employment:

- Permanent
- Temporary

Percentage of full-time position:

- Under 25%
- 25% - 49%
- 50%
- 51% - 99%
- 100%

Time of employment at :

- Under 5 years
- 5 - 9 years
- 10 years or more

Please click "Next" in order to finish and submit your answers.



KIWEST2-MAL

For å sende inn dine svar og samtykke i å delta i undersøkelsen, vennligst klikk på «Done».

To submit your answers and agree to participate in the survey, please click "Done".

- A: Strongly disagree, disagree, neither/nor, agree, strongly agree.
 B: Never, a few times a year or less, once a month or less, a few times a month, once a week, a few times a week, every day.
 C: (Almost) never, Sometimes, Often, (almost) always.
 D: Scale between 1 and 7.

Scale	Item	Response option
Resources - In the individual's task completion	Job autonomy I have a sufficient degree of influence in my work I can make my own decisions on how to organize my work There is room for me to take my own initiatives at work I manage my work situation in the direction I want	A
Task completion ambiguity	I determine when my work assignments are completed I know when a task is completed It is up to me to assess when I have completed a work assignment	A
Empowering leadership	My immediate superior encourages me to participate in important decisions My immediate superior encourages me to speak up, when I have a different opinion My immediate superior contributes to the development of my skills	A
Recognition	My work is recognized and appreciated by my unit management I am respected by my unit management I am treated fairly by my unit management	A
Social support from supervisor	My immediate superior listens to me when I have problems at work My immediate superior gives me the help and support I need from her/him My immediate superior talks with me about how well I carry out my work	A
Competency demands	I am expected to continually develop my competence The nature of my work means I continually have to develop and think in new ways I feel pressure to continually learn new things in order to manage my work tasks ®	A
Resources -In the colleague fellowship	Cohesion in work teams At our unit we stand together in trying to reach our performance goals I'm happy with my unit's level of task commitment This unit gives me ample opportunities to improve my personal performance	A
Social community at work	There is a good atmosphere between me and my colleagues There is a good sense of fellowship between the colleagues at my unit I feel that I am a part of a community at my unit	A
		A

Inclusiveness, the social responsibility	Men and women are treated as equals in my unit In my unit, there is room for employees of a different ethnic background or religion In my unit, there is room for older employees In my unit, there is room for employees with various illnesses or disabilities	A
Social climate	The climate in my unit is competitive* The climate in my unit is encouraging and supportive The climate in my unit is distrustful and suspicious ® The climate in my unit is relaxed and comfortable The climate in my unit is rigid and rule-based*	A
Resources – In the organisational unit	Goal clarity What is expected of me at work is clearly expressed I have a clear understanding of which tasks constitute my job I feel that the objectives of my job are diffuse and unclear ®	A
Innovation	My unit is constantly evolving to meet the employees' needs In my unit, no one listens to new suggestions and ideas ® My unit is flexible and constantly adapts to new ideas My unit is open-minded and adapts to changes My unit strives to retain status quo rather than to change®	A
Resources research and teaching	I get the administrative support I need for planning and implementation of teaching and examinations* I get the administrative support I need for my research* I get the technical support I need for my research* I get the support I need for internationalization of my research*	A
Fairness of the supervisor	My immediate superior distributes work assignments fairly My immediate superior treats the employees fairly My immediate superior treats the employees impartially	A
Trust regarding management, own unit	My unit management trusts the employees to do their work well I can trust the information from my unit management My unit management withholds important information from the employees ® It is possible for the employees at my unit to express their views	A
Trust in unit management – own unit	I can expect my unit management to treat me in a consistent and predictable way My unit management is always reliable My unit management is open and honest with me I am confident that I can trust my unit management	A

	I have complete confidence in my unit management			A
Trust in next administrative level	I can expect the management of the next administrative level to treat me in a consistent and predictable way The management of the next administrative level is always reliable The management of the next administrative level is open and honest with me I am confident that I can trust the management of the next administrative I have complete confidence in the management of the next administrative level			A
Demands – In the individual's task completion	I must carry out work which I think should be done by someone else I must carry out work which I feel demands more of me than is reasonable I must carry out work that put me into awkward positions I must carry out work that I think it is unfair that I should do	Illegitimate tasks		A
Dysfunctional social support	People in my unit sometimes help me in a difficult situation, but combines this with reproaches People in my unit sometimes help me in a difficult situation, but support me reluctantly People in my unit sometimes help me in a difficult situation, but expect everlasting gratitude People in my unit sometimes help me in a difficult situation, but do not support in a way that is matter-of-factly People in my unit sometimes help me in a difficult situation, but do so with a reproachful tone or gaze People in my unit sometimes help me in a difficult situation, but indicate that I should have dealt with the problem myself			A
Interpersonal conflict	My work is hampered by power struggles and territorial thinking in my unit In my unit, intrigues impair the work climate In my unit, there is a great deal of tension due to prestige and conflicts			A
Role conflicts	I have to do things that I feel should be done differently I am often given assignments without adequate resources to complete them I frequently receive incompatible requests from two or more people My job involves tasks that are in conflict with my personal values			A
Role overload, quantitative	I have enough time to do what is expected of me in my job It happens quite often that I have to work under heavy time pressure I frequently have too much to do at work			A
Commitment to work	My work is meaningful I feel that the work I do is important I feel motivated and involved in my work	Meaning of work		A

Engagement, Vigour	<p>At my work, I feel bursting with energy At my job, I feel strong and vigorous When I get up in the morning, I feel like going to work I am enthusiastic about my job My job inspires me I am proud of the work that I do I feel happy when I am working intensely I am immersed in my work I get carried away when I'm working</p>	B
Engagement, Dedication	<p>I am proud of the work that I do I feel happy when I am working intensely I am immersed in my work I get carried away when I'm working</p>	
Engagement, Absorption	<p>I am proud of the work that I do I feel happy when I am working intensely I am immersed in my work I get carried away when I'm working</p>	
Work-home-facilitation	<p>The things I do at work help me deal with personal and practical issues at home The things I do at work make me a more interesting person at home Having a good day at work makes me a better companion when I get home The skills I use at work are useful for things I have to do at home</p>	A
Work-family-conflict	<p>My job reduces the effort I can give to activities at home ® Stress at work makes me irritable at home ® My job makes me feel too tired to do the things that need attention at home ® Job worries or problems distract me when I am at home ®</p>	A
Commitment to the workplace	<p>I am happy to tell others about my work place I would recommend a close friend to apply for a position at my workplace I feel that my workplace is of great importance to me</p>	A
Workaholism, Working excessively:	<p>I seem to be in a hurry and racing against the clock ® I find myself continuing to work after my co-workers have called it quits ® I stay busy and keep many irons in the fire ® I spend more time working than on socializing with friends, on hobbies, or on leisure activities ® I find myself doing two or three things at one time, such as eating lunch and writing a memo, while talking on the telephone ®</p>	C
Workaholism, Working compulsively	<p>It is important to me to work hard even when I do not enjoy what I am doing ® I feel that there's something inside me that drives me to work hard ® I feel obliged to work hard, even when it is not enjoyable ® I feel guilty when I take time off work ® It is hard for me to relax when I'm not working ®</p>	C
Work SOC	<p>How do you feel about your present job and workplace in general? Manageable - Unmanageable</p>	D

Work and health

Meaningless - Meaningful
Structured - Unstructured
Easy to influence - Impossible to influence
Insignificant - Significant
Clear - Unclear
Controllable - Uncontrollable
Unrewarding - Rewarding
Predictable - Unpredictable

My work has a negative influence on my health*

My work has a positive influence on my health*

A

Note: ® = reversed item, * = single item

Dear colleague!

The working environment and working climate survey (ARK Intervention programme), developed by and for the university and college sector, has a theory- and research-based underpinning. **The unit/organisation in question** wants to use ARK to determine how you experience the working environment in your section/unit. The survey will be repeated **every second year** in the future. You can read more about ARK here: www.ntnu.no/ark.

You will soon receive an e-mail with a link to a questionnaire asking you how you experience your working environment. Use this opportunity to tell us how you are doing! The goal of this working environment survey is to do even more of what we are doing well and to adjust the course where needed.

About the process

The first step with ARK Intervention Programme is to map out and survey, then we will present and reflect on the survey report, design and prioritize themes for maintenance/improvement, and finally implement and follow up actions for the coming period of time. The three process stages:

1. Survey

You will receive a questionnaire by e-mail with a stipulated time limit for responding. Participation is voluntary. All information will be treated confidentially. It will be impossible to identify individual responses. For more information see: <http://www.ntnu.no/ark/hjelp>

The questionnaire uses four terms for management:

My immediate superior, management, management of my unit and management of the unit immediately above me.

The three first terms mean the manager you have had or are to have an employee appraisal review with (your current section manager/manager), while the last term is connected to the administrative level above your unit (faculty/university management).

2. Survey feedback

When the survey has been completed, a feedback meeting will be arranged where you and your colleagues will reflect on and discuss the results and which actions may be implemented to develop the working environment. The feedback meetings will take place in _____ and be headed by a trained process manager and the manager of your section/unit.

3. Implementation and follow-up of actions

The actions proposed in the survey feedback meetings will be embedded in action plans for 20XX and will be followed up by the section manager in collaboration with you and the safety representative in the department /section/area.

Yours sincerely

..... (dean)

..... (Faculty director)

THE ORGANIZATIONAL STRUCTURE OF THE INSTITUTION

If we look at a typical university as an example, level 1 is the institution itself, level 2 is the faculty level, level 3 is the department and we may call level 4 the section. Not all institutes are organized into sections, and if this is the case this level will of course not be included. NOTE: Even if ARK is only to be used by part of the institution, such as by a faculty or section, "level 1" is always the institution itself.

Here is an example of how we would like the description of the institution's organization structure to be:

Imagine that the fictitious "University for aquaculture" is to use ARK. This university has two faculties, "Faculty for fish food" and "Faculty for marine veterinary medicine". The former has two departments, the "Department for salmon farming" and the "Department for cod farming", the latter faculty has the "Department for fish medicine" and the "Department for fish surgery". At the Department for fish surgery there are two sections, "Section for swim bladder surgery" and "Section for fish orthopaedics". Both faculties have an administrative unit, and the institution also has a central administration, which is divided into several units.

Units on level 2	Abbreviations	Units on level 3	Abbreviations	Units on level 4	Abbreviations
Faculty for fish food	FNF	Department for salmon farming	ILO		
		Department for cod farming	TLO		
		Faculty administration, FNF-fac.	FNF-FAKADM		
Faculty for marine veterinary medicine	MVM	Department for fish medicine	IFF		
		Department for fish surgery	IFK	Section for swim bladder surgery	FFS
				Section for fish orthopaedics	FFF
		Faculty administration, MNM-fac.	MNM-FAKADM		
Central administration	SADM	Student affairs department	SA	International section	INT
				Student counselling office	SVK
		IT department	FISK-IT		

Blank lines in the example above function as dividing lines between the faculties. It is optional to use such blank lines in the presentation of the organizational structure. If only part of the institution is to use ARK, it is not necessary to include other parts of the organization in the presentation of the organizational structure - but bear in mind that level 1 is always the institution itself. If there are questions about the presentation of the institution's organizational structure, please get in touch with the project manager/assistant.

When filling in the columns "Abbreviated unit level 1", "Abbreviated unit level 2", "Abbreviated unit level 3", "Abbreviated unit level 4", "Abbreviated unit level 5" and in the columns "Abbreviated own unit" and "Abbreviated unit above" names must be used that are identical with those that describe the organizational structure. This applies to filling in both the sheets "Unit managers" and "Employees".

UNIT MANAGERS:

There must be one manager for each organizational unit which is to have a result presentation. A Fact Sheet must be filled in for each of these units. We need an overview of managers to issue the Fact Sheets and because the responses of unit managers must be removed from the presentations of results for the units.

EMPLOYEES

What is to be entered in the field "Own unit" in the "Employee" sheet must be the abbreviated name of the unit where the employee is working on a day-to-day basis, and where she or he is to be seen as belonging to when presenting the results.

What is entered in the field "Unit above" in the "Employee" sheet is normally the unit above the employee's own unit in the unit hierarchy.

"Own unit" and "Unit above" from the "Employee" sheet will be merged into KIWEST when there is a question about the respondent's own unit and the unit above him or her. Questions about one's own unit concern interpersonal issues, work organization and job content and unit management.

Questions about the unit immediately above the respondent ask the following:

- 1: I can expect that the management of the unit above me treats me consistently and predictably
- 2: The management of the unit above me is always reliable
- 3: The management of the unit above me is always honest with me
- 4: I am certain I can trust the management of the unit above me
- 5: I fully trust the management of the unit above me

Submit the registration form to NTNU using <https://filesender.uninett.no/> or another encrypted transfer.

EMNEFELT: Arbeidsmiljøundersøkelse ved [INST], [ENHET] / Work Environment Survey at [INST], [UNIT].

NOTE: English text further down.

NB: It is important that you do not forward this message – all participants receive their own invitations to participate in the work environment survey. Please check that your invitation was sent by “Arbeidsmiljø- og klimaundersøkelser (ark-kontakt@ntnu.no)”. Answers received via forwarded invitations will be deleted.

Dear Colleague,

A working environment and climate survey is now being conducted at [ENHET]. [INST] has chosen to employ the work environment survey ARK. If you have not received information about this, please contact your unit management.

Survey participation is voluntary, and all information will be treated confidentially. All results will be presented as averaged values, so that no individuals may be identified. No managers or others at [INST] will have access to the individual responses. The Data Protection Official for Research has been notified of the survey.

When the survey is completed, the data will be incorporated into a research database along with data from other universities and colleges that choose to use ARK. Such a database will constitute a rich reference and research material that will enable research on work environment issues that are specific to the higher education sector. In the database, individuals may be indirectly identifiable through background information (unit affiliation, age, gender and job category), but researchers will only be given anonymized data from the database. NTNU has received concession to establish the database until 2024 from the Norwegian Data Protection Authority. It will be applied for an extension for an indefinite period after this.

The Norwegian University of Science and Technology (NTNU) is responsible for conducting the survey and storing the data.

If you have any questions about the survey or the questionnaire, please contact ark-kontakt@ntnu.no.

Deadline for responding: [DATO].

Here is the link to the questionnaire – answering takes about 20 minutes:

#SurveyLink#

Yours sincerely, Kirsti Godal Undebakke

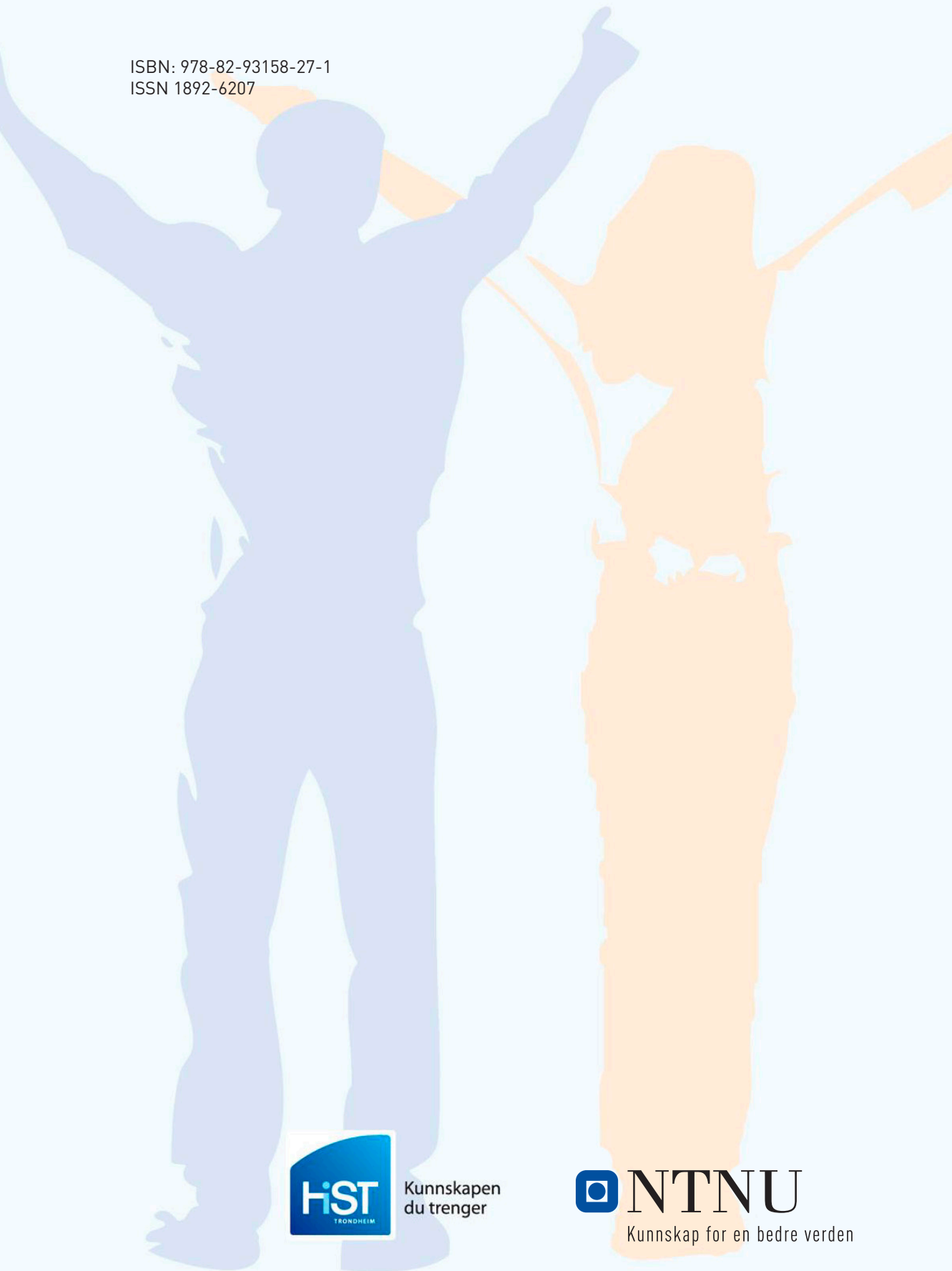
ARK, Research Centre for Health Promotion and Resources, NTNU

Checklist for planning the survey feedback meeting:

- Review Fact Sheet I and results from KIWEST
- Assess risk and discuss relevant issues
- Define roles, managers, person to give feedback and who is responsible for documenting what emerges during the meeting
- Decide on good composition of groups, random composition or composed by the manager and safety representative in advance, heterogeneous or homogeneous
- Outline schedule for development and implementation of actions
- Framework for the survey feedback meeting:
 - All employees must be invited
 - Time frame approximately three hours
 - Decide whether results are to be distributed on paper and who is responsible for the printing, or whether the results should only be distributed electronically by e-mail or posted on the web
 - Refreshments, food, yes or no

Time minutes	Theme	Responsible
10 min.	Welcome Today's goal, put in context, define roles	Unit manager
10 min.	About ARK Intervention Programme Introduction of the JD-R Model	Person to give feedback
10 min.	Buzz talk: <ul style="list-style-type: none"> Which are our most important promoters/resources and obstacles/demands/impediments? 	
15 min.	Summary in plenary session, design based on the size of the unit, so that something emerges from all the groups	
30 min.	Present the KIWEST-report Distribute on paper, encourage participants to jot down reflections	
Minimum 45 min.	Group tasks and coffee: <ul style="list-style-type: none"> What did you notice in the review (positive and negative matters)? <ul style="list-style-type: none"> – individual reflection – – group discussion – Highlight three matters that are positive and should be carried forward Highlight three aspects you wish to improve Presentation of group work in plenary session – different models for plenary sharing. All group voices to be heard, flip chart or yellow notes. Avoid repetitions	
3 min.	Summing up the most important elements, outline the road ahead Say "thank you" for your engagement and input Perhaps reflection on own perception	Unit manager

ISBN: 978-82-93158-27-1
ISSN 1892-6207



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