

The Finnish Workplace
Development Programme
as an expanding activity

Results, challenges, opportunities

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Preface

There has been programme-based workplace development in Finland since the early 1990s, in cooperation between the central government and the social partners. The National Productivity Programme started in 1993, the Finnish Workplace Development Programme (TYKE) in 1996, the National Programme for Ageing Workers in 1998 and the Wellbeing at Work Programme in 2003. The programmes continued as part of the Government Programme until the end of 2003, with the exception of the National Programme for Ageing Workers, which ended in 2002.

As of the beginning of 2004, programme-based development continued in Finland within the new Finnish Workplace Development Programme (TYKES). This new umbrella programme was set up by the Ministry of Labour and the Ministry is implementing it in cooperation with labour market and entrepreneurial organizations and certain other ministries and organizations. A project team at the Ministry of Labour is in charge of programme coordination.

The TYKES programme will continue until the end of 2009. There are also other programmes in progress in Finland during this time whose operations touch upon workplace development. This is a sign that there is widespread concern in Finland today about the quality of working life and about how Finland will be able to maintain its competitiveness in the future as the economy becomes more globalized and the population ages rapidly.

In this work, we report on the operations and results of the TYKE programme in 1996-2003, and we examine the challenges and opportunities of the new TYKES programme in the new programme period 2004-09. We have chosen to highlight in particular the ideas that guided the choices made within the programme and contributed to the development of the programme strategy. This is also what the title of this work refers to, in indicating that the Finnish Workplace Development Programme is examined as an *expanding activity*.

This work supplements the evaluation study of the TYKE programme that was performed in 2002-03 and in many instances, it is a dialogue with that study. The results of the evaluation had considerable importance for the strategic outlines set down for the new programme, as shown in this work.

This work has emerged between autumn 2003 and spring 2005 as the result of the ideas and cooperation of three members of the project team of the Finnish Workplace Development Programme. Each article has usually been written by one person, but we have commented on each others' texts and

we have also tried to ensure the best possible uniformity in terms of language.

Project coordinator Maarit Lahtonen from the TYKES project team and Maarit Pakarinen from SPSS Finland Oy have commented the texts, for which we wish to thank them. The writers also wish to thank Matti Salmenperä, chairman of the programme's management group, and the other members of the project team for their support and an inspiring working environment. Nevertheless, the responsibility for the contents of this work rests exclusively with the writers themselves.

This work has already been published in Finnish at an earlier date. The English-language version comprises some additional information and certain sections of the text have been brought up to date. There are also some differences in the bibliographical references. The English translation has been provided by The English Centre Helsinki, whom we also wish to thank.

Helsinki, June 2005

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Introduction

In recent years, Finland has gained a reputation as one of the most competitive countries in the world. Finland has also been regarded as an example of a country which has successfully integrated a technologically advanced information society and a socially responsible welfare society. The 'Finnish model' has been described in these terms *inter alia* by Manuel Castells and Pekka Himanen (2002). In a study of socio-economic development in the Scandinavian countries over the past few years, Mats Benner (2003) considers Finland the best example in the whole of Europe of a country that has succeeded in making the transition from a raw materials-based growth pattern into a knowledge-intensive pattern within a short space of time, while also retaining its existing framework as a welfare society.

Finland's good reputation in international comparisons is highlighted particularly in studies of the operating environment of companies and other institutions. However, as the focus of such studies shifts from the level of development of the operating environment to the actual standards of national performance, Finland's position in relation to others tends to decline. In fact, Finland would appear to be suffering from some sort of gap in performance and living standards in relation to the operating environment and all that has been done to improve it (Lipponen & Viitamo 2003). The technology barometer published by the Finnish Association of Graduate Engineers (TEK) and the Technical Research Centre of Finland (VTT) in 2004 (Naumanen 2004) outlines this gap as follows: Finland tends to invest a great deal in skills and learning for individuals, but on the organizational and institutional level, knowledge is managed, understood and utilized less efficiently. Sweden is more successful than Finland in this respect. According to the technology barometer, the same is true of Denmark, despite the fact that Denmark invests less than Finland in education and training, and research and development.

It is observations such as these, in combination with growing concern for the ageing population, which will alter Finland's demographic structure in the coming years, and compounded by recent news about falling production investment, factory closures, downsizing and transferring production to countries with cheaper labour costs (or 'China Syndrome') which have brought new flavours to debate in Finland. In the recent Finnish innovation policy debate, views are gaining ground which emphasize the need to boost the development of social innovations which support technological

innovations, in order to strengthen the country's competitiveness. The views on what social innovations are and what a stronger emphasis on such innovations would mean for innovation policy in general have, however, been rather vague so far (on the debate in recent years in this field, see Georghiou et al. 2003; Hautamäki 2003; Himanen 2004; Hämäläinen & Heiskala 2004; Lemola & Honkanen (eds.) 2004; Miettinen et al. 1999; Salmenperä 2002; Schienstock (ed.) 2004; Schienstock & Hämäläinen 2001; Science and Technology Policy Council of Finland 2003; Siivonen & Martikainen 2004; Stähle & Sotarauta 2003).

From a perspective which emphasizes social innovations, the modes of operation of work organizations and support institutions have considerable significance for Finland's ability to succeed in globalized competition. Companies which operate in Finland find it difficult to compete internationally with typical mass-produced products and services whose competitive edge is primarily derived from their price and low unit costs. This does not apply only to traditional industrial mass production, but to an ever increasing extent to design which can be done as mass production too. Many recent examples indicate that a high quality of products or services, reliable deliveries and the expertise needed to provide them may not be enough in themselves to create a competitive edge for Finnish companies. It seems that the Finnish companies which have the best potential for success in globalized competition are those that are able to operate with speed and flexibility, that are capable of advanced tailoring to meet the needs of their clients, that are able to offer their clients integrated service packages and – in the final analysis – those that are able to consistently develop their product and services, as well as their operations and processes. It goes without saying that this trend does not apply exclusively to Finland but also to other developed industrial nations shown by international comparison to have a high cost level, including increasingly the new EU Member States in Central and Eastern Europe also.

The trend presented above could be described from the perspective of an individual company with the picture below (Figure 1). The idea here is that new kinds of customer demands are built, at least in part, 'on top of' existing ones. This, in turn, means that companies which compete through innovativeness are required to possess a greater variety of expertise than companies whose primary competitive advantage is, say, efficiency or quality. New kinds of expertise are embodied in companies in the form of *new modes of operation*.

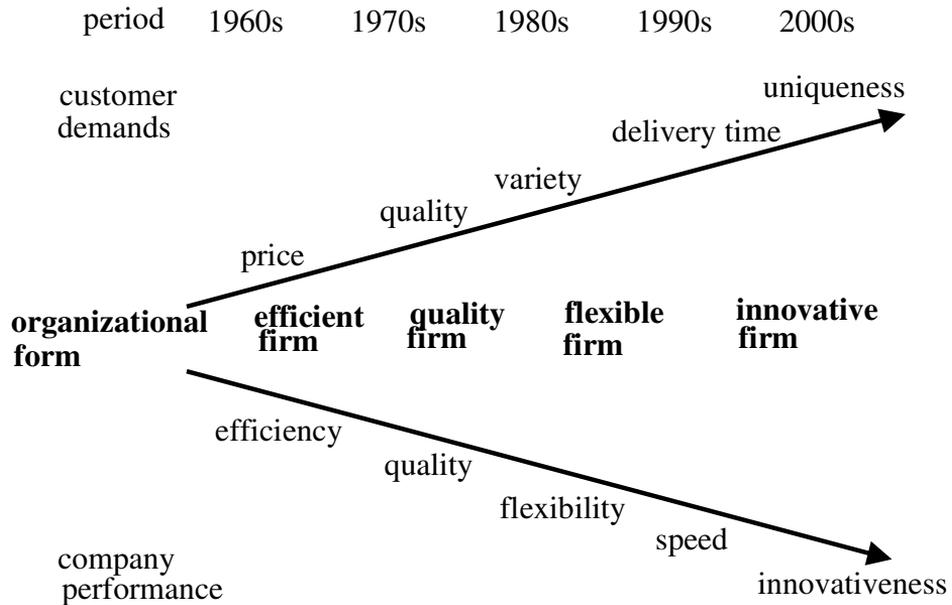


Figure 1. The evolution of market demands and required competencies of firms.

Source: Boer & Gertsen (2003, 809).

The 'China syndrome' affects all industrial countries shown by international comparison to have a high cost level. Finland will also be facing another particular challenge in the coming years in the form of a drastically changing demographic structure; in practice, the population is ageing rapidly and this is expected to cause a fall in the supply of labour. The situation in Finland will change unfavourably, not just in absolute terms, but also in relation to most other developed industrial countries. This threatens to undermine the prospects of economic growth and, consequently, the potential for developing the Finnish welfare society, and at the same time, it will also lead to a weakening of Finland's international competitiveness.

This work takes as its starting premise the view that for the above reasons it ought to be possible to boost productivity growth in Finland in order to preserve economic growth and the preconditions for a welfare society. As indicated by Figure 1, productivity growth will depend to an increasing extent on innovations in the future. However, innovation-driven productivity growth is not in itself an optimal adaptation mechanism in a

new situation; instead, *the innovation-driven productivity growth should be sustainable in the sense that it provides simultaneous support for the other key factor in economic growth – workforce numbers – by encouraging people to stay on at work for longer. The public policy challenge of the future lies in finding a way to integrate favourable productivity growth based on innovations with improvements in the quality of working life on a broad front. In this work, this is referred to as the challenge of qualitatively sustainable productivity growth, and in order to take up this challenge, we will need a broad-based public policy approach which places equal emphasis on technological and social innovations.*

At the core of this type of approach lies what is referred to as the *triple helix* model (re. concept cf. Etzkowitz & Leydesdorff 2000). It refers to the view that the most effective way of generating new innovative solutions is based on learning and the enrichment of knowledge arising from cooperation between companies, universities and policy-makers. One of the organizations which has adopted the principle of the triple helix as a guiding principle for its operations is the Swedish Agency for Innovation Systems (VINNOVA), founded in 2001 (for more detail, see VINNOVA 2002a; 2002b). In this work, the concept of parties to triple helix cooperation is broad in the sense that, in addition to companies, it comprises public and third sector workplaces. From the perspective of the competitiveness of the country as a whole, the challenge of qualitatively sustainable productivity growth in Finland does not apply solely to the private sector, but also to public service provision; the situation is particularly challenging in the public health care and social welfare services. The concept of parties to cooperation in this work is also broad in the sense that, in addition to universities and other research units, it also comprises units whose operations focus on development, and in that it includes the social partners alongside the public authorities (Figure 2). The expanded version of the triple helix model is also called as the *system of workplace development* later in this work (see Ramstad's article on learning networks in Finland).¹

¹ We are well aware of the potential problems related to the use of 'system concepts' (see Miettinen 2002; Tuunainen 2004). In this work, we do not use the 'expanded triple helix model' or the 'system of workplace development' as empirical descriptions of reality, but as normative models which help focus attention in public policy on the importance of workplace development and close interaction between workplaces, research and development (R&D) institutes, public authorities and labour market organizations.

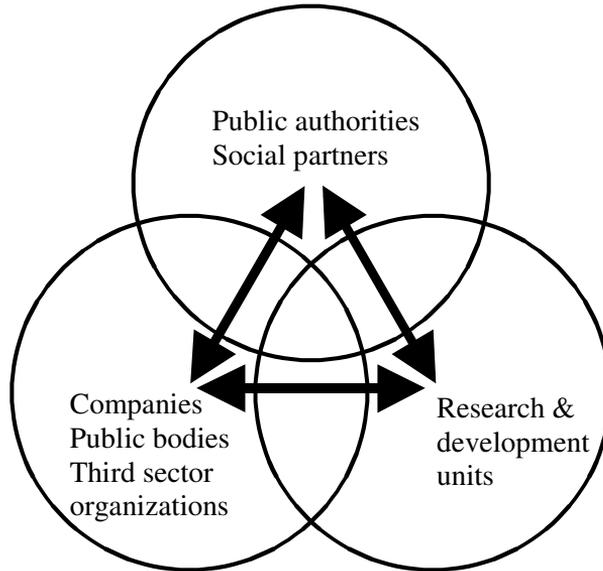


Figure 2. The expanded triple helix model.

Source: Ramstad's figure in this work (p. 173) adapted.

Another important starting point for this work is that *qualitatively sustainable productivity growth can be promoted by developing the modes of operation of companies and other workplaces*. This does not mean that workplaces should primarily be given help in finding new 'good/best practices', but rather that they should be given support for strengthening their own ability to develop their operations systematically and in a long-term perspective. Or, in more conceptual terms, the primary focus of development operations should not be the *production system* of a workplace but its *development system* (Alasoini 2000, 20-21; Colbjørnsen & Falkum 1998, 43-45).

All these viewpoints will be examined in greater detail later in this work.

The purpose of this work

This book is about development of working life undertaken in Finland between 1996 and 2003 with the help of the *Finnish Workplace Development Programme (TYKE)* and how this will continue within a new and more extensive programme set for 2004-09. The official name of the new programme is the *Development Programme for the Improvement of*

Productivity of Work and the Quality of Working Life or *TYKES* for short, and like the TYKE programme which preceded it, it is also referred here simply as the Workplace Development Programme. This work will explore the potential for applying a research-assisted and programme-based approach of workplace development to promote qualitatively sustainable productivity growth. The subject is examined both in conceptual terms and in the light of the results and experiences of the Workplace Development Programme. The purpose of this work is to boost awareness of workplace development as a way of promoting *both* the productivity of work *and* the quality of working life. Workplace development has all too often been viewed from just one of these perspectives.

Over the years, a great deal of material has been published on the Workplace Development Programme and its projects, including evaluations of them. In 2002-03, a comprehensive external evaluation study was carried out on the TYKE programme (Arnkil et al. 2003), and an evaluation based on the EU Commission's Peer Review Programme had also been carried out in 2001 (ÖSB/INBAS 2001). The Management Group of the TYKE programme has drawn up final reports on both of the programme periods (1996-99 and 2000-03), which comprise evaluation data on the programme and its projects. The project manager of the TYKE programme has also produced a summary report of the results and experiences of the first programme period (Alasoini 2000). In addition to these, dozens of other reports, working papers and articles have been published on the programme and its projects.

This work will not attempt to repeat or compile all that has been written before. The value added of the present work in comparison with previous works derives in particular from its endeavour to give an outline of the *entire development cycle* of the Workplace Development Programme, from 1996 towards 2009, viewing the programme itself as an *expanding activity*. The concept of the Workplace Development Programme as an 'expanding activity' is linked with the concept of the triple helix presented above, which was an underlying idea in planning the programme. According to it, the cooperation (within the programme) between the three parties of the helix acts as a constantly developing dynamic force that promotes mutual learning, and within which the different parties tend to partially adopt each other's roles or at least views. In this work, the TYKE programme will be examined in terms of its key results, and the TYKES programme in terms of its main challenges and opportunities. The evaluation study of the TYKE programme (Arnkil et al. 2003) is an important reference point for many of the articles in this work.

The other feature of this work that can be considered to give it added value is that all the writers have been active for a long time in the programme's project team and know the programme well 'from the inside'. The writers possess information and experiences of the programme, its forms of activity and the solutions made in relation to these that an outsider would find difficult to acquire from written or other sources (cf. particularly the articles on Learning Together forums and module seminars). From this perspective, one purpose of this book is to supplement the view of the programme given by external evaluators. Also, one motive for writing this book was the need to 'make notes', as it were, notes that might prove useful for new evaluations of the programme later on, and help in the planning of new programmes.

Innumerable books and articles on management, work organization, networks, wellbeing at work and many other themes linked with changes in working life have been published over the past few years. This work does not strive to present an overview of new 'best models' or 'best practices' for practical use in the workplace, based on the results of projects within the Workplace Development Programme. The perspective of this work is clearly socio-political and focuses above all on programme-level models and practices. These are, however, dealt with in the articles in this book through the results of the programme's project activity and individual projects.

Contents of this work

In addition to this introduction, the work contains the following nine articles:

(1) The first article of the work, written by Tuomo Alasoini, strives to give a general overview of the Workplace Development Programme and the problems of qualitatively sustainable productivity growth. The article focuses particularly on the main results and conclusions of the evaluation study of the TYKE programme and the justifications for, and challenges and forms of activity of the TYKES programme. This article also raises issues that will be dealt with in more detail in the other articles of the work.

(2) In this second article, Tuomo Alasoini examines the role of the Workplace Development Programme as an instrument of innovation policy. Inspiration for the article was provided in particular by an analysis by Piirainen and Koski (2003; 2004) that was carried out as part of the evaluation study of the programme. The article also deals in a more general

sense with the potential that workplace development has for promoting innovation in working life.

(3-4) In the two following articles, Elise Ramstad examines the results of development projects within the TYKE programme in the light of self-assessment by representatives of the management and staff at participating workplaces and the experts who were involved. The programme has gathered self-assessment information on the impact, success and methods of implementation of its projects, and on the value added given by the programme to the projects since 1996. The first of these two articles deals with the results of self-assessment generally. Comparison is made between the first and second phase of the TYKE programme, between different respondent groups (management, staff, experts), between research-assisted and other projects and to corresponding data gathered by Kalliola and Nakari (2005) on the Finnish municipal sector. The second examines the extent to which development projects can be considered to have promoted qualitatively sustainable productivity growth in the participating workplaces, according to the views of different respondent groups.

(5) Self-assessments in development projects tell mainly of the ‘first order’ results of the programme. The starting point of this article by Tuomo Alasoini is that in order to make it possible to reinforce the position of workplace development as part of the innovation policy, it must be able to produce not just ‘first order’ results but also generative (‘second order’) results which can serve working life more widely. The article sheds light on the meaning of generative results and examines different programme strategies’ potential for producing such results. The new form of project activity within the TYKES programme – learning networks – is presented as a new approach in reinforcing the programme’s role in producing generative results.

(6) This article by Elise Ramstad continues the discussion about learning networks and their role. Ramstad develops a new kind of model for triple helix, which she also calls as the system of workplace development. In the light of survey data collected in 2003, the article presents the kinds of learning networks that exist in Finland, what their forms of activity are, what role R&D institutes play in these networks and what benefits the various parties involved feel they are getting from them.

(7) In a joint article, Elise Ramstad, Nuppu Rouhiainen and Tuomo Alasoini examine and evaluate the series of Learning Together forums implemented in 2001-02 during the TYKE programme’s second period as a means to producing generative results. Eight forums were arranged, intended as meeting places for workplaces and researchers and developers.

The article gives background on how the idea of forums emerged and developed, gives overviews of the content of forums, highlights the development challenges that emerged and evaluates the learning that took place in the forums.

(8) In this article, Nuppu Rouhiainen deals with module seminars as a way of promoting cooperation between projects. The article focuses on two modules which were implemented during the TYKE programme's second period in 2000-03; the first module involved three home care projects and the second involved four meal and cleaning service projects. The article follows the progress of each module stage by stage and evaluates the benefits of module seminars for the participants, as well as their potential for producing generative effects.

(9) In the final article in this work, Tuomo Alasoini takes a summarizing look at the role of the Workplace Development Programme and its potential for promoting qualitatively sustainable productivity growth from two perspectives. The first perspective focuses on how well the objectives set for the programme counter the pressure for change on the modes of operation of workplaces. The second perspective is how advanced the programme's *own* modes of operation can be considered in relation to its objectives. The programme's own modes of operation are examined against the principles that Naschold (1994) used to characterize the 'best practices' of national workplace development strategies.

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Tuomo Alasoini

The Finnish Workplace Development Programme as an expanding activity Results, challenges, opportunities

This article gives an overview of the TYKE and TYKES programmes, i.e. the main results of the former and the challenges and opportunities facing the latter. At the same time, the article will act as an introduction to the other articles in this work. After an initial general introduction to the programmes and their background, we will give an overview of the main results of the TYKE evaluation study and the development challenges it produced. Next, there will be a look at some of the characteristics of the quality of working life in Finland and the ensuing challenges for workplace development. Finally, the article will examine the starting points of the new TYKES programme and the ways in which it strives to respond to the issues brought up by the evaluation study and the overview of characteristics of the quality of working life. In the final section, there will then be a brief look at the nature of workplace development as a networked activity.

The Workplace Development Programme in a nutshell

At the beginning of 1996, the Economic Council initiated the Workplace Development Programme (the TYKE programme) as part of the programme of Prime Minister Lipponen's Government. Initially, the programme which had been prepared by the Ministry of Labour and the labour market organizations together was set for four years, but as of the beginning of 2000, it continued for another four years as part of the programme of the second Lipponen Government. The three foremost forms of activity of the TYKE programme in both periods were the promotion of changes in modes of operation which would improve productivity and the quality of working life in Finnish workplaces, the dissemination of information on workplace development, and reinforcing expertise on workplace development in Finland.

The programme provided financial support for nearly 670 projects in 1996-2003; a total of 135,000 people in an estimated 1,600 Finnish workplaces took part in these projects. The clear majority of projects were *development projects* based on the needs of the workplaces concerned and they lasted for between one and three years. Their most typical aims were to improve work processes, the functioning of the work community, personnel management,

team-based organization of work, external networking, development expertise, and work ability and wellbeing at work. In addition to these, the programme also supported shorter and smaller-scale *basic analyses* (feasibility studies for development projects, lasting a few months) and more extensive *network projects*, which consisted of several companies and which had as their aim the creation and testing of organizational innovations that promoted change in the companies' modes of operation and supported employment.

Support from the programme focused on the work input of the experts used in the projects (researchers, consultants and internal developers at workplaces). The use of consultants accounted for about 45 per cent of the funding granted by the programme, while experts from universities, state research institutes and polytechnics accounted for a total of 35 per cent. In addition to these, developers from other educational institutions and from the workplaces themselves also took part in projects in the capacity of experts. The workplaces' own input into projects came chiefly in the form of the work input of their staff and, to some extent, participation in the funding of experts.

Workplaces of all sizes in all parts of Finland and in virtually all sectors participated in the TYKE programme. Workplaces in industry and the construction sector accounted for the highest percentage of the funding in both periods: 52 per cent in the I programme period and 39 per cent in the II programme period. The percentage of funding accounted for by workplaces in the private service sector rose from 12 per cent in the I period to 20 per cent in the II programme period. The percentage of the municipal sector was just under 30 per cent in both programme periods. In addition to these, workplaces from the state sector, the forestry and agriculture sector and the third sector all took part in the programme. In both programme periods, the metal and engineering industry and the social welfare and health care sector were the most active participants. Aside from the growth in the percentage of the service industries, another notable difference between the programme periods was the clear growth in the percentage of SMEs granted funding (companies with less than 250 employees) of all the funding granted for company development projects in the II programme period. The percentage grew from 46 per cent to 68 per cent.

At the beginning of 2004, the Ministry of Labour launched a new TYKES programme which is a continuation of TYKE and two other smaller programmes, the National Productivity Programme (1993-2003) and the Wellbeing at Work Programme (2000-03). TYKES is based on the programme of Prime Minister Vanhanen's Government, and is scheduled for the 2004-09 period. The Ministry of Labour and the labour market

organizations have proposed a total budget for the programme of EUR 87 million, financed by the State. The proposal would permit programme support for some 1,000 development projects and participation by 250,000 employees (nearly 10 per cent of the people employed in Finland). The content of TYKES has been influenced, in addition to the government programme and the experiences of the above-mentioned programmes, the results of the evaluation study of the TYKE programme which was implemented in 2002-03 and the new innovation policy strategy of the Science and Technology Policy Council of Finland (2003), which emphasizes the growing significance for national competitiveness of social innovations and of the interaction between them and technological innovations.

Table 1 contains some quantitative information concerning the I and II periods of the TYKE programme and the new TYKES programme.

Table 1. Volume of the Finnish Workplace Development Programme in different periods.

	TYKE first period	TYKE second period	TYKES (target numbers)
Time period (years)	1996-99	2000-03	2004-09
Number of project applications	491	803	2,000
Number of funded projects	284	384	1,000
Number of participating employees	45,000	90,000	250,000
Total programme funding via State budget (EUR million)	15.96	29.10	87
Average annual programme funding via State budget (EUR million)	4.0	7.3	14.4

The volume of the Workplace Development Programme has clearly grown over the years, and it is expected to grow further with the new TYKES programme. However, the figures in the table are not fully comparable in all respects. For instance, the difference in project applications and approved projects between the two programme periods of the TYKE programme was significantly influenced by effective duration of the project application period being about one year longer during the II programme period. Meanwhile, the figures for the TYKES programme are only objectives so far, based on the tripartite proposal made to the Ministry of Labour and the outline in the Government Programme, which states that the workplace development programmes will be continued and expanded. The budget for the TYKES programme in 2004 and 2005 came to about EUR 12.5 million, i.e. slightly less than the tripartite proposal.

Furthermore, a direct comparison of the total funding set up as an objective for the TYKES programme and the actual total funding of the TYKE programme in the II period produces a partially misleading impression of the growth in funding. Since TYKES is intended as an umbrella for three programmes, the correct object for comparison is the total funding of all these three programmes taken together. In 2000-03, the sum in question came to a total of EUR 43.2 million, i.e. an average EUR 10.8 million a year.

Finland: leading the pack or lagging behind?

In any case, funding for research and development (R&D) on working life in Finland is faring well. Percentage-wise, it has increased more rapidly than the overall public funding for R&D in recent years (Oksanen et al. 2003). This can be interpreted as a reflection of the increased priority of R&D on working life in Finnish public policy. In fact, Finland has obtained international recognition for its increased efforts in workplace and work organization development in recent years (Ashton & Sung 2002; Ashton et al. 2003; Brödner and Latniak 2002; Gallagher 2001; Kok 2003; Payne 2004; Payne & Keep 2003). On the other hand, the apparently large relative increases reflect the low level of input in working-life R&D in Finland only a few years ago. Programmatic workplace and work organization development was not actually a focal point of public policy in Finland until 10 or 15 years ago as a consequence of the report of the Working Conditions Committee (Committee Report 1991:37, 101-103) and the launching of the National Productivity Programme and the TYKE programme (Alasoini 2000b, 43-44 and 48-52). In this respect, Finland has lagged some 20 years behind, for example, Norway, Sweden and Germany in which corresponding programmes were started as early as in the 1960s

and 1970s (den Hertog & Schröder 1989). At least the following causes can be found for this (Alasoini 2000a, 464):

- In the 1970s, there were no serious recruitment problems in Finnish industry, nor did working conditions become the focus of employee dissatisfaction to the same extent as in many other Western industrial countries. Many Finnish workers still had a rural background and thus also previous experience of heavy work in farming or forestry. Finland actually had very little mass production with extremely highly fragmented and fast-paced production line work of the kind that was the focus of worker dissatisfaction in other countries.
- A technological bias was characteristic of Finnish management methods. Social and leadership skills played little part in the training of engineers. The trade unions also focused mainly on traditional distribution issues.
- Workplace industrial relations in Finland in the 1970s were characterized by tension due to the collision between authoritarian and technology-based management methods and the growing power of the trade union movement and subsequent improvements in the workers' bargaining position. This atmosphere of distrust was further aggravated by internal political struggles within the trade union movement. Low-trust industrial relations, together with a high level of unofficial strikes at many of the major industrial sites throughout the 1970s, did nothing to encourage cooperation between management and staff in workplace development.
- At the time, Finland did not have a strong, sociologically oriented tradition of working-life research which might have prompted general debate on workplace development issues. Discussion on the quality of working life in Finland in the 1970s was mainly confined to issues of conventional labour safety and occupational health care.

A number of intertwined factors during the first half of the 1990s were behind the beginning of programmatic workplace development in Finland (Alasoini 2000b, 43-46). One of them was long-term cooperation between labour market organizations in rationalization, productivity, and occupational health and safety issues. Cooperation in these areas strengthened and further expanded into quality issues throughout the 1980s and beyond the deep economic recession of the first half of the 1990s. Hence cooperation between the labour market organizations in Finland from the 1970s to the 1990s went in a direction opposite that of many other developed industrial countries. A second contributing factor was the 'renaissance' in Finland of research on working life, and particularly action-oriented research, that began in the second half of the 1980s. This was especially linked with three factors. First, the funding base of R&D on working life became more diversified. Second, the status of university social science research on working life strengthened. Third, new

approaches, for example developmental work research, the work conference method and process management, increased interest in cooperation in both workplaces and R&D institutes (Kauppinen & Lahtonen (eds.) 1994). The third factor was increased interest on the part of government in the quality of working life. The Ministry of Labour was founded in 1989 as part of the workplace reform carried out by the Government of Prime Minister Holkeri. Work environment and occupational health and safety issues were transferred to the Ministry. During that same year, the Ministry of Labour established a committee on working conditions, the function of which was to assess the state of working life and the work environment and to make related proposals for development. The committee proposed a development programme on the quality of working life in a report submitted in 1991, but no programme was initiated at the time. Nevertheless, the efforts of the Ministry of Labour and its work environment division contributed to the decision of the first Lipponen Government, which took office in 1995, to include launching of the Workplace Development Programme in its own programme.

The evaluation of the TYKE programme

The evaluation study of the TYKE programme was included in the Economic Council's brief to the Management Group of the II programme period. It was implemented under the leadership of Social Development Company Ltd with the participation of experts from the Work Research Centre of the University of Tampere, the Laboratory of Work Psychology and Leadership and the Innovation Management Institute at Helsinki University of Technology, and the corresponding Norwegian, Swedish and German programmes. The two main questions and the three supplementary questions of the evaluation study were the following:

Main questions:

- What are the programme's major effects on performance, the quality of working life and employment at project and workplace level?
- What is the profile of the programme in comparison with other corresponding Finnish and foreign working-life and work organization development programmes?

Supplementary questions:

- How do the premises and goals of the programme relate to Finnish innovation policy on the whole and its different domains?

- How do different stakeholder groups of the programme (especially workplaces, R&D institutes, labour market organizations and regional authorities) assess its significance, activities and success?
- What are the biggest challenges for programmatic workplace development in Finland mirrored through the experiences of the programme?

The following will focus primarily on the first question and the main results of the evaluation study. Certain other questions, notably the third question concerning the innovation policy role of the programme, are dealt with in more detail elsewhere in this work.

The evaluation group carried out a survey on the durability of the effects of projects, from the perspective of representatives of the management and staff of workplaces that took part in development projects during the I programme period. The survey focused on the development projects with the most funding which had ended an average of 2-3 years earlier, and 10 questionnaires were sent to each project that had been selected for the sample. 419 people responded to the questionnaire (response rate 39%), and they represented 91 projects (which was 87% of the sample). 74 per cent of respondents considered the significance and effects of the project still highly or fairly positive on average 2.5 years after it had ended; 17 per cent considered the significance and effects of the project *highly* positive. Four per cent considered the significance and effects negative (Rissanen et al. 2003, 4). The effects of the projects were examined in more detail on the basis of 19 variables (Table 2). In the case of 12 of the 19 variables, at least half the respondents considered that participation in a TYKE project had had a highly or fairly positive effect on developments in the subject workplace. The survey was supplemented with 14 case studies, with the aim of creating a clearer picture of the characteristics of successful projects.

Table 2. Impact of TYKE development projects in the subject organizations, %.

	Highly positive	Fairly positive	No impact	Negative
General development activeness	21	55	22	2
Cooperation & teamwork among personnel	23	52	23	2
Product and/or service quality	10	59	31	0
Work productivity	8	56	33	3
Ability to respond to customer needs flexibly	12	51	37	1
Quality of operations	11	51	36	3
Opportunity to use competence & skills	12	49	39	0
Opportunity to improve competence & skills	13	47	40	1
Access to workplace objectives and plans	13	45	41	1
Management-employee cooperation	12	45	40	3
Flexibility of operations	7	46	46	1
Management style	10	41	45	4
Social relations	8	41	49	3
Receiving superior feedback and support	6	39	52	3
Mental wellbeing	6	36	51	7
Physical working conditions and stress	3	22	72	3
Status of young employees	3	20	78	0
Status of ageing employees	2	18	76	4
Gender equality	1	12	85	1

Source: Arnkil et al. (2003, 110) and Rissanen et al. (2003, 12).

As part of the study, a survey of the programme's main stakeholder groups was also carried out (Arnkil et al. 2003). 416 people responded to the survey (response rate 38%). The biggest respondent groups in the survey were representatives of workplaces (40%), researchers and developers (24%), and local and regional authorities (19%). 92 per cent of respondents considered the programme's projects to be meaningful and productive for the development of the hosting workplaces. 83 per cent of respondents felt that the programme had enhanced significantly the production and dissemination of knowledge and competence on the development of working life in Finland, while 72 per cent estimated that the structures of the development of working life had strengthened significantly in Finland as a result of the programme. The stakeholder groups also generally felt that the objectives of the programme corresponded well or very well to the development challenges in working life in Finland. 78 per cent of respondents held this opinion.

The overall image of the programme presented by the researchers on the basis of surveys, interviews, project case studies, an analysis of existing documents and other studies was quite positive. The researchers considered the TYKE programme's strengths to be in particular the wide variety of

objectives, the broad development concept, the good contacts with different workplaces, the multifaceted concept of innovation applied, and the emphasis on the importance of basing development operation on local needs. In the study, the programme was characterized as a 'small giant', that "seems to satisfy the requirements of balanced development programme by combining elements of horizontal and targeted policies and distributing the programme support between innovative and follower enterprises and workplace on both private and public sectors" (Arnkil et al. 2003, 199). At the same time, however, the researchers said that it might prove difficult to maintain that balance in the future.

In addition to the positive overall image, the evaluation study brought out a number of critical viewpoints on the programme, particularly the following:

- *The basic unit of development activity:* Most of the programme's projects took place at individual companies or workplaces. Although the projects were quite successful on average and their results were considered positive (see above), an individual company or workplace may be too small a unit for achieving broad and lasting effects in working life.
- *The role of regional and local players:* The legitimacy of the programme is high among stakeholder groups; it has versatile cooperation networks with the various stakeholder groups; and it has shown flexibility towards the workplaces which applied for projects. However, the programme has also been rather passive in drawing on the expertise of various local and regional players and their contact networks for the benefit of starting up projects and utilizing their results.
- *The role of research:* One of the main focus areas of the programme was to reinforce the structures of workplace development in Finland. However, the participation of R&D institutes in the programme's projects has not increased in relation to the progress of the programme, but instead the growth in the percentage of expertise accounted for by consultants is striking.
- *Recognition of the programme:* There are gaps in the recognition of the programme even among key stakeholder groups such as in particular representatives of the labour market organizations, the authorities and top management at workplaces, according to the stakeholder survey (Arnkil et al. 2003, 98-100).
- *The focus of support from the programme:* The projects within the programme have generally started on initiatives from the workplaces concerned. This type of approach and a certain kind associated passivity in the programme have meant that the programme has tended to end up with participating workplaces that are active in their development operations anyway. This also means that the programme did not

necessarily reach the workplaces, e.g. among SMEs, which might have needed support from the programme the most.

- *The programme's internal development mechanism:* The programme had no institutionalized or otherwise systematic procedures for developing its own operations (programme learning) and for policy learning in a wider sense.

Many of the above critical viewpoints are linked with each other. Some of the reforms introduced in the TYKES programme that are presented below consequently address more than one of the above critical points at a time.

Features of the development of the quality of working life in Finland

In this context, the quality of working life refers in particular to employees' opportunities for developing and exerting an influence at work, to wellbeing at work and to the internal cooperation and trust within work communities. The intention is to give an overview of the *general* features of the development of the quality of working life in Finland without going into more detail in sectoral, occupational or gender distribution. The main material consists of the Quality of Work Life Surveys by Statistics Finland (1977, 1984, 1990, 1997 and 2003), in addition to which the Working Life Barometers (1992-2004) of the Ministry of Labour have also been used. The former material is based on face-to-face interviews with wage-earners while the latter are based on telephone interviews. Both sets of material produce a representative image of the situation of all wage-earners in Finland.

Development and training opportunities at work

The development opportunities that wage-earners see in their work have improved from 1977 to 2003, according to the Quality of Work Life Surveys. During the period in question, the percentage of wage-earners who felt they had good development opportunities at work had grown by more than a third, from 28 per cent to 40 per cent. The percentage of wage-earners who felt their opportunities for receiving training which would improve their professional skill were good and who had taken part in training paid for by their employer during the past year also grew steadily during the same period (Table 3).

Table 3. Wage-earners' development and training opportunities at work in Finland in 1977-2003 (percentage of 'good' or 'yes' responses).

	1977	1984	1990	1997	2003
Development opportunities at work	28	...	32	37	39
Opportunities for training to improve professional skills	24	30	31	35	40
Participation in training paid for by employer (last 12 months)	27	34	43	47	53

Source: Lehto & Sutela (1999, 20-23) and (2004, 32-35).

Opportunities for exerting an influence at work

The general trend from the early 1980s to the end of the 1990s was that people felt their opportunities for exerting an influence at work improved. The latest Quality of Work Life Survey seems to indicate, however, that this favourable trend has stopped. The perceived opportunities for exerting an influence on the pace of work took a downward turn in the early 1990s and, according to the latest survey, the percentage of people who felt they had any influence over the pace of their work has fallen even further in the past few years. The fall in the ability to exert an influence over the pace of work applied to women slightly more than to men (Table 4). The results of the Working Life Barometers support the results of the Quality of Work Life Surveys where the trend over the past few years is concerned (Ylöstalo 2003a, 130-135; data for 2003 and 2004 was received from researcher Pekka Ylöstalo).

Table 4. Wage-earners' opportunities for exerting an influence over their work in Finland in 1984-2003 (percentage of 'a lot' or 'quite a lot' responses).

	1984	1990	1997	2003
Order in which tasks are done	68	67	69	67
Working methods	58	63	65	64
Contents of tasks	25	37	40	41
Pace of work	59	64	57	55
Distribution of tasks between employees	25	29	31	31
Choice of working partners	12	18	19	18

Source: Lehto & Sutela (1999, 24-25) and (2004, 36-38).

Physical strain of work

The percentage of people who felt that their work was physically demanding has hardly changed at all in Finland between 1977-2003. The figure was 34 per cent in 1977 and it remained at 36 per cent in 1990, 1997 and 2003 (Lehto & Sutela 2004, 40). The results of the Working Life Barometers (Ylöstalo 2003b, 25; 2004, 22) and materials on wage-earners for 1988, 1994 and 2000 from the University of Tampere (Blom et al. 2001, 107) are in line with the results of the Quality of Work Life Surveys.

Psychological strain of work

By contrast, the percentage of people who feel that their work is a psychological strain has increased. In the Quality of Work Life Surveys from 1977 and 1984, the figure was 45-46 per cent, while the figure for 1990, 1997 and 2003 was 51 per cent (Lehto & Sutela 2004, 40). Meanwhile, the Working Life Barometers (Ylöstalo 2003b, 25; 2004, 22) and the material from the University of Tampere (Blom et al. 2001, 107) give slightly higher figures that seem to indicate that the percentage of people who feel their work is a psychological strain might have increased even further in the last few years.

Internal cooperation and trust within work community

Experiences of competition and conflict in Finnish workplaces became clearly more widespread from 1984 to 1997. There has been hardly any change in the last few years; in fact, experiences of competition and conflict between employee groups seem to have abated somewhat (Table 5). The results of the Working Life Barometer also seem to indicate that experiences of conflict between employee groups has fallen in recent years. From 2003 to 2004, however, there was again an increase in the level of experienced conflict (data for 2003 and 2004 was received from researcher Pekka Ylöstalo).

Table 5. Occurrences of competition and conflict in work units in Finland in 1984-2003 (percentage of respondents who said 'a lot', 'quite a lot' or 'to some extent').

	1984	1990	1997	2003
Competition	47	61	64	60
Conflict between superiors and their subordinates	56	66	69	69
Conflict between employees	54	65	68	68
Conflict between employee groups	43	52	56	54

Source: Lehto & Sutela (1999, 26-27). Data for 2003 received from researcher Juha Antila.

Finland and the other EU Member States in comparison

There are clear differences in wage-earners' experiences on the quality of working life from one country to the next. Comparisons based on the Third European Survey on Working Conditions by the European Foundation for the Improvement of Living and Working Conditions indicate that Finland represents the forefront of the EU Member States both in terms of the learning opportunities offered by work and frequency with which wage-earners feel time pressure, tight schedules and a fast pace of work. The difference is particularly clear in the case of women (Table 6).

Table 6. Learning opportunities and work pressure in wage-earners' work in Finland and the other EU Member States as a whole in 2000 (percentage of 'yes' responses).

	Finland men	Finland women	EU men	EU women
Work includes learning new things	87	89	72	71
Not enough time to do work	25	32	22	23
Work is fast-paced for at least 1/4 of the working time	71	76	59	59
Tight schedules at least 1/4 of the working time	70	70	61	53

Source: Lehto (2002, 110-113).

In more detailed analyses based on the material from the Survey on Working Conditions, researchers have divided the European respondents

into four groups on the basis of how work was organized in their workplace, according to Karasek's well-known model (Dhondt et al. 2002). 'Active' work organizations place high job demands on employees, but they also offer high job control. 'Passive' work organizations are the opposite of active ones in both respects. In 'high-strain' work organizations, the demands are high but employees have little opportunity to control them. In 'low-strain' organizations, meanwhile, the situation is the opposite. Karasek's model seems to suggest that the more and the higher level the job demands and the opportunities for control are in balance, the more favourable the simultaneous impact of the job on learning and wellbeing. Reversely, the higher the job demands in relation to control, the greater the risk of physical and psychological exhaustion.

On the basis of the analysis made by the researchers, Finland clearly has more organizations with high job demands on employees than the EU average. Only Sweden comes before Finland in this respect. In narrowing down the review to include 'active' workplaces only, the picture changes to some extent. The Netherlands and Denmark move past Finland, but Finland is still clearly above the EU average.² Finland also has more 'high-strain' work organizations than the EU average. In this, Sweden is at about the same level as Finland and the only country with a clearly higher level is Greece.

In another study based on the Third European Survey on Working Conditions, Lorenz and Valeyre (2004) have examined how actively and with what strategies the various EU countries have reformed work organizations. The researchers distinguish between two work organization modernization strategies, which they call the 'learning organization' model and the 'lean production' model. The typical features for the former model that emerge through empirical analysis are an advanced level of autonomy and task complexity, good learning opportunities offered by the work and problem-solving needed in the work. The 'lean production' model contains some of the same features, but has fewer opportunities for autonomy. According to the empirical analysis, other typical features of modernization strategies in keeping with the 'lean production' model include widespread application of teamwork and job rotation and an emphasis on precise quality norms and quality control.

² The idea that Sweden, Denmark and Finland represent the forefront among the EU Member States where the opportunities for development, participation and influence at work are concerned is also supported by a study by Gallie (2003), which was based on the Eurobarometer material for 1996. However, this study did not make any comparisons of EU Member States in terms of possible risk factors for wellbeing at work.

The analysis carried out by the researchers shows that work organizations have been reformed in Finland at a much more active rate than the EU average. Other countries more active than the EU average were Sweden, Denmark, the Netherlands, France and the UK. In the first three of these, the 'learning organization' strategy dominated clearly, while the 'lean production' strategy is far more common in the southern European countries and especially Anglo-Saxon countries. Where the weighting on modernization strategies is concerned, Finland is most similar to the central European countries that fall between these two groups. The result for Finland fits in well with the analysis presented above, which was based on the same material (Dhondt et al. 2002).

In comparison with the EU, Finland's situation seems ambivalent: there are more than the EU average of active work organizations which offer their employees opportunities for learning and development, but the same is also true of work organizations which pose a risk to wellbeing at work.

In conclusion

The conclusions about the general development features of the quality of working life in Finland over the past few years that can be drawn from the results of Quality of Work Life Surveys and Working Life Barometers have been collected in Table 7. The comparison between Finland and the other EU Member States that was presented above indicates that the features of the quality of working life that seem good in Finland by international comparison have changed for the better in recent years, at least to some extent. Meanwhile, the features for which Finland's situation looks unfavourable by international comparison have also deteriorated further over the past few years. Thus it seems that Finland's special features in the quality of working life have become even more prominent in international comparison over the past few years.

Table 7. A summary of development features in the quality of working life in Finland over the past few years.

Opportunities for development and training at work	Positive change 1977-2003
Opportunities for exerting an influence at work (excluding pace of work)	Positive change 1977-97 No clear change 1997-2003
Opportunities for exerting an influence at work (pace of work)	Positive change 1977-90 Negative change 1990-2003
Physical strain of work	No change 1977-2003
Psychological strain of work	Negative change 1977-2003
Internal cooperation and trust in the work community	Negative change 1984-97 Some signs of positive change 1997-2003

It is important to be careful, however, in drawing conclusions on the basis of time-series information based on set questionnaire and interview data and comparative cross-sectional information. On the general level, the information produced in this way gives us a perspective on what can be said about developments in the quality of working life in Finland, and what the situation looks like in Finland compared with other countries. However, the information produced in this way is difficult to use directly for the guiding of workplace development measures, since the information is not tied to any tangible, identifiable development targets.

The analysis presented above is also entirely restricted by what questions were asked and how the questions and the alternative replies were phrased. For instance, the physical and psychological strain of work are not direct measures of wellbeing at work. Furthermore, it is not justified from the point of view of wellbeing at work to examine them in isolation from the historical trends in work and, consequently, the employees' own experiences of the manageability, comprehensibility or meaningfulness of their own work (Kira 2003; Launis et al. 2004). Where the ability for exerting an influence at work is concerned, it could be asked whether these specific things are still the most important ones from the perspective of the quality of working life, and what the changes that they have undergone can actually tell us. For instance, the increased networking of the economy and the increased customer orientation of operations may in themselves limit wage-earners' opportunities for influencing the above-mentioned aspects and lead to a situation where opportunities to influence something else may take on more importance for the quality of working life.³

³ Similar time-series information on wage-earners' perceived opportunities for influencing their work is available in the UK for four points in time between 1986 and 2001. UK wage-earners feel that their influence has weakened consistently in all five areas that they were asked about during the period in question (Felstead et

TYKES: a new stage in the Workplace Development Programme

Labour input and productivity – cornerstones of the welfare society

Finns are strong supporters of a welfare society that guarantees them a comprehensive range of public or publicly supported education, social welfare, health care and other services throughout their lives at a reasonable cost. The foundation of such a welfare society rests on continued economic growth, which is in turn based on growth in labour input, capital input and total factor productivity. Over the long term, the critical factors are labour input and growth in total factor productivity. The key variable with respect to volume of labour input is the size of the workforce. The key element in total factor productivity is labour productivity.

The size of the workforce in Finland can be predicted with a rather high degree of reliability and accuracy. According to long-term analyses of workforce trends, approximately one million people will leave the workforce between 2000 and 2015; that is the equivalent of nearly half the employed people in 2000 (Ministry of Labour 2003). The size of the age group departing from the labour market will begin to exceed that entering the labour market in the middle of this decade. The annual difference in size between these two age groups will vary from then until the end of the 2020s between an estimated 10,000 and 15,000 persons. The size of the workforce available to the labour market will not, however, depend mechanically on the size of the age groups entering and leaving, but also on, for example, unemployment, the working capacity and motivation of the employed, the timing of retirement, the time spent on studies, and immigration and emigration. It is possible, however, to predict that the size of the workforce in Finland will in any case decline over the next 30 years. Here we have a fundamental, long-term turn, since from the 1940s up until the present decade the size of each age group entering the labour market has exceeded that of the departing group (Figure 3).

al. 2004), while the Finnish material only shows a weakening in the ability to influence the pace of work.

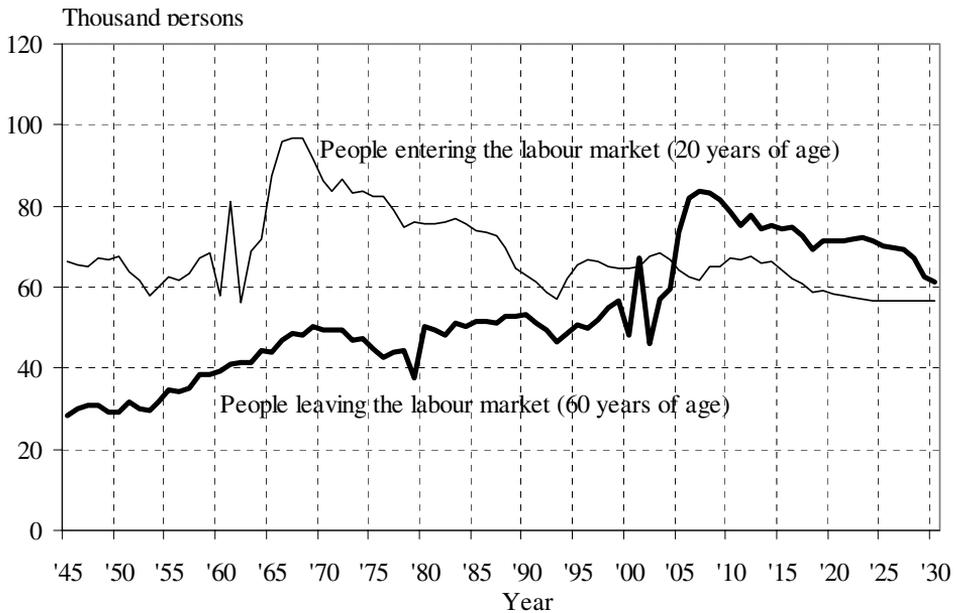


Figure 3. Changes in the potential labour supply in Finland in 1945-2030 based on demographic forecast.

Source: Ministry of Labour (2003, 7).

Similar demographic trends are expected in the other developed industrial countries. In Finland, however, the decrease in labor supply will be exceptionally large by international standards. The present dependency ratio (the ratio of 15-64 year-olds to the younger and older segments of the population), which is close to the EU average, will become considerably less favourable than the average rate for the EU countries during the next couple of decades (Ilmarinen 2002; OECD 2004, 18-21).

Accelerated growth in productivity is the key means for alleviating the problems arising from smaller labour inputs.⁴ In Finland, labour

⁴ In its report on the change in Finland's demographic structure and employment policy, the OECD (2004, 22-23) dealt with this question. It calculated that if the labour force participation rate according to age group and gender were to remain at the 2000 level until 2050, it would cause an average annual fall of 0.46 per cent in the real growth of the GDP per capita compared with 1950-2000. If we wish to preserve economic growth on the average present level under these circumstances, this fall must be compensated for either by increasing the rate of total factor productivity or by increasing capital input.

productivity, one of the key components of total factor productivity, has indeed grown satisfactorily in recent years. Annual growth in labour productivity in Finland during the 1990s was greater than that in the United States, Japan and the EU countries on average. For example from 1995 through 2000, the annual rate of growth in Finland (3.2%) was in fact second only to that of Ireland, which recorded the fastest rate in the EU (McGuckin & van Ark 2002). A more detailed examination reveals, however, that the favourable growth in productivity in Finland, especially during the second half of the 1990s, was restricted to only a few sectors. These included the electrical and electronics industry in particular, and within them the manufacture of telecommunications equipment (the 'Nokia phenomenon'), and post and telecommunications and financial services to some extent (van Ark 2003; Koski et al. 2002, 41-46). In contrast, the growth in productivity of many conventional sectors was clearly lower. According to Pohjola (2004), a long-term examination of the growth rate of the productivity of work in Finland reveals a clear downward trend, starting in the late-1960s.

It is uncertain and unlikely that the sectors which served as the engine for favourable productivity growth in Finland during the latter half of the 1990s would serve the same purpose to the same extent in the future. Sustainable development in the long term will require favourable growth in productivity on a broader front and possible the emergence of new engines for productivity growth. Certain views (e.g. Pohjola 2004; Siivonen & Martikainen 2004) particularly emphasize the potential inherent in the service sector. They justify this by saying that the service sector in Finland has accounted for a surprisingly small proportion of the whole country's productivity growth in recent years compared with many other developed industrial countries. Himanen (2004) talks about the 'creative economy' as a new potential spearhead for Finland's economic growth. The 'creative economy' would, in turn, be spearheaded by the information and communications technology (ICT) sector, the cultural sector and the wellbeing sector and their mutual interaction.

In recent years, there have been big differences in productivity growth between different countries, sectors and companies. Analyses that centre on the United States in particular seek the answer to these differences in the difference in applying ICT, differences in implementing managerial and organizational innovations which exploit the use of ICT and differences in the institutions which regulate competition and the financial markets (e.g. Boyer 2004; Brynjolfsson & Hitt 2003; Farrell 2003; Lewis et al. 2002). According to the views presented above, the main explanation for the different paths in productivity growth would be differences in the ability to adopt new ICT technologies, and managerial, organizational and various

other social innovations in working life which would support them. This view of the complementary nature of technological and other innovations is also supported by Freeman and Louçã's (2001) long-term historical analysis, which says that the conversion of various technological breakthroughs into productivity benefits has not happened automatically in emerging and existing industrial countries in the past 200 years, but it has always demanded the support of supplementary innovations. Similarly, Sanidas (2002), who has studied the growth of different industrial sectors in the USA and Japan over the past decades, has linked changes in the speed of growth of production and in total factor productivity specifically with the development of various organizational – rather than technological – innovations.

This view is critical of national competition assessments in which far-reaching conclusions are drawn mainly on the basis of factors related to a country's technological infrastructure. For example, a developed ICT infrastructure contributes to productivity only when the companies have learned by developing their management, work organization and employee qualifications to apply it with sufficient effectiveness in support of their operations. The speed of such learning processes cannot, however, be predicted directly on the basis of the extent of the development of the ICT infrastructure. Institutional structures, such as the education system, the industrial relations system or the funding system, also have an impact. History can provide numerous examples of the greatest productivity benefit from various technological breakthroughs befalling someone else than the company or nation that was a pioneer at the stage when the new technology was actually developed.⁵

The challenge of qualitatively sustainable productivity growth

The key issue in Finland's new labour market situation, in which the supply of labour and labour input are at risk of entering a downward trend that will last for many years, is how to maintain the welfare society. Measures which

⁵ From this point of view, analyses such as the technology barometer of the Finnish Association of Graduate Engineers (TEK) and VTT opens promising perspectives on the discussion about national competitiveness. The technology barometer separately examines how successful a country is as a producer of information (information society), user of information (knowledge society) and in drawing on information (knowledge-value society). According to the first technology barometer, published in 2004, Finland's relative position vis-à-vis six other countries weakens consistently in the transition from the production of information to using it and drawing on it (Naumanen 2004).

can *simultaneously* support growth in *both* of the two key factors contributing to economic growth – the size of the workforce and growth in labour productivity – are crucial. This problem-setting also represents the point of departure for the new programme. TYKES attempts to promote *workplace innovations* or solutions which simultaneously improve labour productivity and the quality of working life in a manner that also encourages workers to stay on the job for longer. Growth in productivity achieved in this way is called *qualitatively sustainable* in the new programme.

Qualitatively sustainable productivity growth, when examined at the level of the economy as a whole, means that the means that promoted productivity growth in a given year (N) are ones which can be assumed to have positive reflected effects on economic growth in coming years (N+1, N+2, N+3, etc.), too. Positive reflected effects are derived from improved quality of working life which reinforces employees' resources and improves their chances of staying on in working life in the long term. At the workplace level, qualitatively sustainable productivity growth means that in order to improve its capacity for producing value added, the workplace applies methods based on the reinforcement of employees' resources and which consequently have reflected effects on the capacity for producing value added in future, too.

Qualitatively sustainable productivity growth can be promoted with public policy measures at either the society level (system level), company and workplace level, or individual level. System-level changes that affect for example education, industrial relations, occupational health and safety, occupational health care, vocational rehabilitation, pension benefits or possibilities to retirement are, due to their comprehensive nature, important in the long term but their impact is gradual and they apply only indirectly to labour productivity and the quality of working life. In contrast, individual-level changes may be quick, but their overall impact weak. Workplace innovations that simultaneously improve productivity and the quality of working life do not primarily involve factors related to individual skills and competencies, motivation or behaviour, but rather factors related to management and supervisory work, systems of employee participation, forms of work organization, work processes and methods, machine and information system designs, pay and working-time systems, work community factors, work environments, etc. Hence, qualitatively sustainable productivity growth can be supported most effectively by promoting workplace modes of operation, so that they support the regeneration (instead of consumption) of individual and collective resources of employees. The importance of the company and workplace level has been recognized in Finland in the past few years to an increasing extent, in

connection with research into factors which affect employees' work ability and their tendency to seek retirement (e.g. Antila & Ylöstalo 2002; Forma & Väänänen (eds.) 2004; Forss et al. 2001; Ilmarinen 2002; Tuomi & Vanhala (eds.) 2002; Vahtera et al. (ed.) 2002). However, views on the means which should be applied in order to influence the company and workplace level may differ.

The challenge of qualitatively sustainable productivity growth does not apply just to companies, but also very definitely to the public sector and to public organizations. The higher the efficiency and quality of public sector operations, the better it is able, through various training and welfare services, to support the workforce in entering working life, staying at work or going back to work; the better it is able to support the competitiveness of the companies that are its clients in various ways; the less it ties up workforce and resources in relative terms; the easier it becomes to create various cross-sectoral service production models (private – public – third sector); and the better it is able to attract skilled employees and consequently reinforce its own legitimacy and competitiveness as a service producer. Where individual sectors are concerned, the challenge of qualitatively sustainable productivity growth will particularly face the health care and social welfare sector, which consists largely of public service production in Finland. According to a Ministry of Labour forecast, the need for new employees in this sector in 2000-15 could come to as much as 70 per cent of the total number of employed in 2000, compared with a calculated figure of 43 per cent on average for all occupational groups (The Labour Force 2020 working group 2003). The situation is particularly challenging in the health care and social welfare services because it involves great labour force volumes and the sector's potential for competing for labour with economic incentives are weak, since it consists mainly of public service production. Something which further adds to the challenge is the fact that the calculated productivity growth in these services has been slow in recent years (Parkkinen 2004)⁶, the means available for boosting productivity are not necessarily similar to those used in industrial production (e.g. Jääskeläinen 2004; Lillrank et al. 2004) and there are numerous problems in the quality of working life, especially in the public health care services, but also in social welfare, as demonstrated by various studies (e.g. Nakari 2000; Vahtera et al. (ed.) 2002; Ylöstalo et al. 2005).

⁶ Parkkinen (2004) has performed alternative calculations of the workforce needed in the health care and social welfare services by using different variables for the projected need for these services and productivity growth. Where productivity growth is concerned, the calculations show that even small boosts in the growth rate of productivity have significant impact in the long term on the workforce needed in these services.

It was stated above that positive productivity growth is needed on a broader front in Finland in future. However, in the long term, this alone will not be enough to ensure continued economic growth and, consequently, the conditions for a welfare society; productivity growth must also be qualitatively sustainable as described above. In the above, we have examined some of the development trends of the quality of working life in Finland in recent years. It showed that Finland's situation is ambivalent in a comparison with the EU: active work organizations which offer employees opportunities for learning and development are more in number than the EU average, but the same is also true concerning work organizations which pose a risk to wellbeing at work. What makes Finland's situation a cause for concern, however, is the ageing population and the economic dependency ratio which is becoming more unfavourable (both in absolute terms and in relative terms in international comparison). In order to make it possible to compensate for the demographic threats to Finland's competitiveness through a high quality of working life (and by supporting employees in staying on at work), the percentage of active work organizations which produce effects for learning and wellbeing simultaneously would have to be on the top EU level in the coming years. However, the research results reported above do not indicate that the trend in recent years has been in this direction.

Goals of the TYKES programme

The goals of the programme can be structured in the following four levels:

PUBLIC POLICY LEVEL Qualitatively sustainable productivity growth in Finland
PROGRAMME LEVEL How can the programme and its measures promote qualitatively sustainable productivity growth in Finland and develop an innovation environment which supports it?
GENERATIVE LEVEL How can the project results act as a source of learning and inspiration for other workplaces and the various stakeholder groups?
WORKPLACE LEVEL How can the projects help reinforce a mode of operation which supports qualitatively sustainable productivity growth in the participating workplaces?

Figure 4. Goals of the TYKES programme.

(1) The goal of the *public policy level* is to achieve qualitatively sustainable productivity growth (see above) in Finland. Here the degree of development of the innovation environment of workplaces will affect success. The degree of development of the innovation environment is indicated in particular by the diversity of expertise possessed by ‘innovative centres’ (for example R&D institutes, consultants, labour market organizations, public authorities and workplaces) and by the diversity of their cooperation. The vision of the programme is that by 2009 “Finland will have a network of expertise⁷ for work organization development which creates national competitive edge and which effectively promotes qualitatively sustainable productivity growth”.

(2) The goals of the *programme level* reflect the goals of the public policy level. They are related to how the programme is able, via its own measures, to realize the TYKES vision. The goals concern the extent to which the programme’s project and other operations generate qualitatively sustainable productivity growth and enhance the workplace innovation environment. The forms of the programme’s project activity are (a) development projects and (b) basic analyses at workplaces as in the TYKE programme, and, as new forms of project activity, (c) method development projects and (d) learning network projects (explained in more detail below). One of the goals regarding enhancement of the workplace innovation environment is the number of completed doctoral dissertations and licentiate theses via the project activity.

(3) The aim of the *generative level* is to disseminate new work, organizational and managerial practices and development methods, models and tools created and tested in projects as sources of learning and inspiration (generative ideas) for other workplaces and stakeholder groups. This does not mean that other workplaces would in most cases adopt them as such, but rather that they would give rise to new ideas and encourage development activity. Success in turning new solutions as generative ideas requires information on the solutions to be disseminated outside the project and also that the solutions in questions have innovation value, relevance or that they are otherwise of interest for parties outside the project.

(4) The aim of the *workplace level* is to strengthen, via development projects, a mode of operation that will help workplaces to develop their operations in a manner supportive of qualitatively sustainable productivity

⁷ A network of expertise could be characterized here as a national-level ‘community of practice’. According to one definition, ‘community of practice’ means a group of people “who share a concern, a set of problems, or a passion about topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (Wenger et al. 2002, 4).

growth. This will require enhancement of workplaces' development expertise, close cooperation between management and employees, and the ability to make skilful use of expert networks in support of development.

TYKES and the critical views of the evaluation study on the TYKE programme

Although TYKES is mainly a continuation of the TYKE and the National Productivity Programme, it does contain a number of new features. The brief summary below also reflects how the new programme has responded to the critical views brought to the fore by the evaluation study of the TYKE programme:

- *Goals and indicators on various levels:* TYKES makes a clear distinction between the aims of different conceptual levels and hence builds up a comprehensive set of indicators for measuring programme success at the four levels mentioned above. Monitoring and analysing development with these indicators will serve as a mechanism for programme and policy learning.
- *Method development:* TYKES is increasingly oriented towards anticipation of future challenges to working life with method development projects, where priority is on methods, practices and solutions directed at the conditions of a knowledge-intensive, networked economy. The method development projects are based on the premises of 'interactive research' (Svensson et al. (eds.) 2002) and 'constructive research' (Fricke 1994), according to which R&D institutes and workplaces are committed to cooperation in research and development that benefit both parties. Method development will focus on objects and themes with novelty and wide potential applicability at workplaces. These may include, for example, utilization of ICT in the development of new forms of work organization, new earnings logics of companies, co-configurative work and production models, production cooperation and networks between companies, and cross-sectoral (private – public – third sector) service provision.
- *Learning networks:* Learning networks represent a new form of project activity. They are joint learning forums of R&D institutes (such as universities, state research institutes, polytechnics or other educational institutions) and workplaces. The purpose of the learning networks is to increase the development of expertise of the participants, to create and experiment with new forms of long-term (3-5 years) development cooperation between R&D institutes and workplaces, and to generate new, innovative solutions for Finnish working life. The participants must share a common object of interest. In addition to common interest, the

participants may be united by, for example, a geographical area, sector of industrial cluster, a position in the same value chain, or a similar position in the value chain.

- *Scientific expert forum:* TYKES has established a special forum of scientific experts from about 30 Finnish universities, state research institutes and polytechnics as an advisory body for the management group. The forum will monitor the advance of the programme, help ensure scientific input in the programme activities and make proposals concerning e.g. new forms of programme activity and development of the programme design.
- *The role of polytechnics:* TYKES is attempting to strengthen workplace innovation environments with respect to expertise concerning work organization development and cooperation between workplaces and R&D institutes. In the near future, the most opportunities for activity of this kind will be found at the polytechnics. The new act on polytechnics that took effect on 1st August 2003 added applied research and development serving education, working life and regional development to the statutory tasks of Finnish polytechnics. In addition to this, the Government policy outline designates it as a special assignment for the polytechnics to support the development of SMEs and work organizations which produce welfare services (Ministry of Education 2004); both of these groups are also the focus of special attention in the TYKES programme. There are already more workplace R&D staff at polytechnics than at universities or state research institutes. However, many polytechnics are only beginning to discover their own role in R&D operations. For instance, a survey conducted by the TYKE programme in 2001 showed that only 40 per cent of the 31 polytechnics in Finland were actively involved in workplace development or research, according to information supplied by the polytechnics themselves (Ramstad 2002, 18 and 22). TYKES strives to promote the reinforcement of the polytechnics' position in national and regional innovation activity alongside other R&D institutes.
- *Regional cooperation:* TYKES attempts to network together with the principal actors in research and development on working life and innovation policy at both the national and regional level. The problems of qualitatively sustainable productivity growth are linked to many sectors of public policy and therefore to regional growth and innovation strategies as well. In the field of work organization development, however, the differences between regions in Finland as to the degree of development of the innovation environment are surprisingly large (Ramstad & Alasoini 2003). The goal of closer regional cooperation is primarily to increase the number of workplaces actively developing their operations and to strengthen regional expertise and cooperation in the development of work organizations. The principal partners in the

programme at the regional level are the Employment and Economic Development Centres, the labour protection districts, regional universities and other research and educational institutes, and the regional labour market and entrepreneur organizations.

In conclusion – workplace development as a networked activity

The aim of this article was to present a general overview of the main aims and results of the TYKE programme, implemented in 1996-2003, and the starting points of the new TYKES programme (2004-09). TYKES is, in many ways, a continuation of the TYKE programme and the National Productivity Programme, but it also contains some new initiatives. Many of these are based on critical viewpoints highlighted in the evaluation report of the TYKE programme.

Although the theme of this article was specifically the problems involved in workplace development, many of the issues dealt with in this article also have connections with other sectors of public policy. Programme-based workplace development calls for a networked approach, so that an attempt can be made to ensure that the key objectives are taken into account in decision-making in other areas of public policy, too, rather than considering workplace development to be a separate, self-sufficient and strongly delineated sector of public policy. The key objectives of the TYKES programme, for instance, which are concerned with qualitatively sustainable productivity growth and the advancement of the innovation environment at workplaces, are extensive issues which cut across the entire field of public policy in practice. Broad-based and diversified cooperation with a great variety of different players will be needed in order to attain these aims.

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Workplace innovations as a focus of research-assisted and programme-based development

On the dual role of the Finnish Workplace Development Programme

The evaluation report on the TYKE programme draws attention to the tension between the two different roles of the programme. The first of these roles concerns the programme as a tool for workplace development which answers workplace needs and boosts local initiative, while the second role is as a tool of research and innovation policy (Pirainen & Koski 2003; see also 2004). In the light of the evaluation study, the latter role appears to be more unclear and controversial to stakeholder groups. Inspired by the evaluation study, this article continues the discussion of the tension between the programme's two roles, striving at the same time to answer some questions which emerged in connection with the evaluation study.

This article starts with an outline of research-assisted and programme-based approach to workplace development and an overview of some previously expressed viewpoints on the role of the TYKE programme as an innovation policy tool. After that, the article proceeds to examine various views of the concept of innovation, and organizational innovation in particular. Finally, the writer explains his own view of the role of the TYKE programme and its successor, the TYKES programme, for innovation policy.

The key idea of this article is that the role of the TYKE/TYKES programme is to promote *workplace innovation*. The article strives to clarify the concept of workplace innovation and, consequently, the programme's position on the innovation policy map, so to speak. One of the conclusions reached from the perspective that this article represents is that the above view of the dual and conflicting role of the programme is partially artificial.

Research-assisted and programme-based approach to workplace development

The group consisting of representatives of the Ministry of Labour and the social partners which prepared the Workplace Development Programme in 1995 built up its proposal on the view that the development of workplace performance in an increasingly knowledge-intensive economy is based above all on the *aggregate* effect of the adoption of new technologies,

improvement in the level of workforce skills and competencies, and development of modes of operation (National Workplace Development Programme 1996). The need for the programme was justified in the proposal specifically with the need to find new ways of boosting the modernization of workplaces' modes of operation, alongside the more traditional – and more indirect and unilateral – methods such as legislation, collective agreements, the setting of standards, advisory services, training, research or information dissemination (the birth of the programme and its starting premises, see Alasoini 2000, 48-55). The programme lies somewhere in the top right-hand section of the chart in Figure 5, where the concept 'practitioner knowledge' refers to the knowledge possessed by management and staff at individual workplaces.

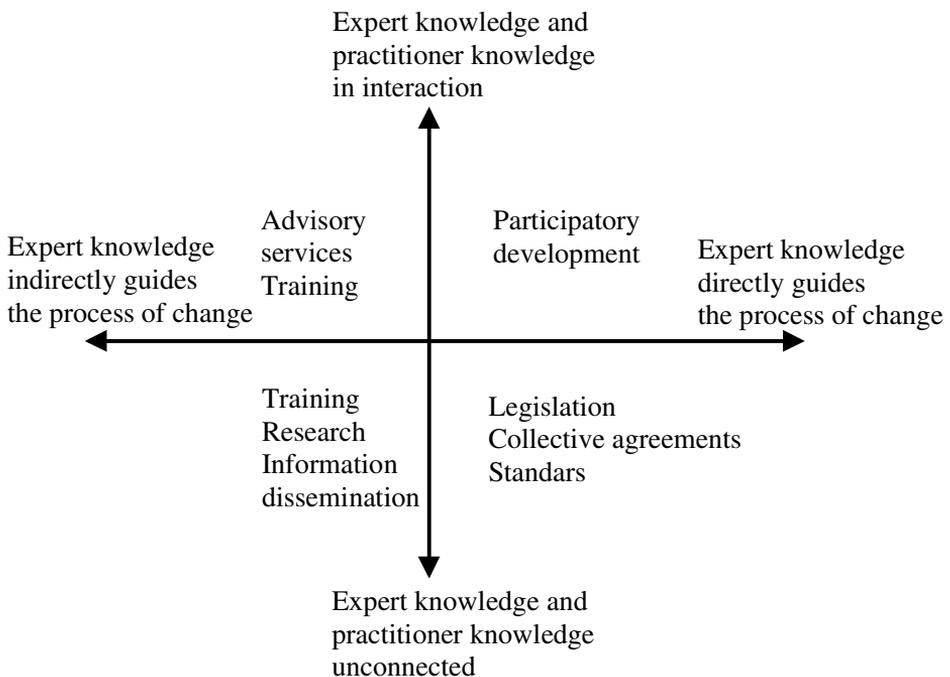


Figure 5. Different roles of expert knowledge in workplace development.

The development concept that resulted from the proposal put forward by the above-mentioned group has been described in various contexts as *research-assisted* and *programme-based*. A research-assisted development programme can be depicted by the following general characteristics, for example:

- Development activity draws on conceptual models which are based on existing research or experience and which make it possible to describe objects relevant for the starting set-up of development and their interrelations.
- Research questions are posed on the basis of these models, with hypotheses, which then undergo a critical examination (are tested) in connection with a change process which is subjected to a development intervention by the researcher. The hypotheses may 'adapt' and be more closely defined during the change process and the development intervention.
- On the basis of the critical examination conclusions are then drawn, which elaborate the conceptual models mentioned above or the reasoning behind them.

At its best, research-assisted approach produces new, generally applicable and useful information which can be applied in support of development activity. The information in question typically concerns design solutions (e.g. solutions concerning forms of work organization, work processes, systems for working time, pay, management or participation, ergonomics, the work environment and so forth) or the implementation of change processes (e.g. the cooperation relations needed for development operations, forms of interaction, methods, models, tools, etc.). In addition to these, the information generated by research-assisted approach can – specifically in the case of development activity such as the TYKE/TYKES programme, which aim for changes at the level of the modes of operation (cf. below) – create more favourable conditions for innovative solutions than pure consulting services, which do not usually include a similar critical, experimental testing of hypotheses and the posing of questions which goes with it (cf. also Lantz & Totterdill 2004).

There are in fact many different research-assisted approaches (e.g. Argyris 2002; van Eijnatten 1993; Engeström 2005; Greenwood & Levin 1998; Svensson et al. (eds.) 2002) and the Workplace Development Programme is not committed to any particular approach. Furthermore, a research-assisted approach has never been an unconditional criterion for all projects within the programme. In development projects under the TYKE programme, for instance, research-assisted approach was applied in about one in three. By contrast, almost all network projects within the programme were, in fact, research-assisted.

Meanwhile, the concept of programme-based development means that development is guided by a shared framework which applies to several workplaces at the same time, that the content of the framework has been agreed by the management and staff at the workplaces in question together

with the main stakeholder groups (mainly the central government, the social partners, and researchers and developers) and that the workplaces involved engage in close exchange of information, interaction and cooperation. The value added by a programme-based approach to workplace development has been justified in the TYKE/TYKES programme with the following arguments in particular (Alasoini 2002):

- It helps lower the threshold for launching development activities in workplaces.
- It helps influence the objectives, methods of implementation and speed of development activities in workplaces.
- It helps create and identify good practices and disseminate them as generative ideas.
- It helps promote dialogue and learning between management, staff and researchers and other experts.
- It helps improve the competence of research and other experts.
- It helps create new forms of dialogue between different stakeholder groups (e.g. labour market organization).
- It helps bring workplace issues to public attention and encourage debate on them.

Views on the TYKE programme as an innovation policy tool

The generation of innovations was one of the TYKE programme's key objectives and themes from the outset. The objective of the programme's innovation activity has been variously described with concepts such as workplace innovations, social innovations, work-oriented innovations, organizational process innovations or – simply – organizational innovations (e.g. Alasoini 2000; 2001a; Alasoini & Halme (eds.) 1999; Alasoini & Kyllönen (eds.) 1998; Alasoini et al. (eds.) 1997; Alasoini et al. 2002). In an evaluation study headed by Social Development Company Ltd, the TYKE programme concept was characterized as being unique and divergent in many ways from the mainstream of Finnish innovation policy (Piiirainen & Koski 2003). The evaluation study made a distinction between three different innovation policy approaches (Table 8): The aim of 'traditional innovation policy' is to generate economic growth by promoting technological advances, chiefly through technological innovations alone. This approach is based on 'science push' according to a concept of a linear model for innovation. The aim of 'narrow systemic innovation policy' is broader in the sense that it also comprises promoting the diffusion of technology and that the concept of innovation behind it is more interactive and systemic. The third approach, 'broad systemic innovation policy', takes as its aim the promotion of innovations and growth, social cohesion and

wellbeing in a balanced way. It bases its legitimacy not so much on market failures, or weaknesses in the research and development (R&D) system, but weaknesses and poor performance in the innovation system in a broader sense. According to the researchers, the approach of the TYKE programme was in many ways representative of 'broad systemic innovation policy', while the mainstream of innovation policy in Finland has so far followed the 'narrow systemic innovation policy' approach.

Table 8. 'Traditional innovation policy', 'narrow systemic innovation policy' and 'broad systemic innovation policy'.

Policy aspects	Traditional innovation policy	Narrow systemic innovation policy	Broad systemic innovation policy
Policy aim	to produce economic growth through fostering technological development	to produce economic growth through fostering technological development and diffusion of technology	to promote innovation and growth without undermining social cohesion and wellbeing of people
Base of national competitiveness	<ul style="list-style-type: none"> • certain key technologies or branches • certain highly intelligent R&D experts or isolated top R&D units 	<ul style="list-style-type: none"> • certain key technologies or branches • national R&D system • R&D expert networks (including top firms and top R&D organizations) 	<ul style="list-style-type: none"> • the strength and learning ability of the whole economy • the structure of the production system • institutional set-up
Pursued innovations	technological innovation	<ul style="list-style-type: none"> • technological innovation • network innovation in relation to R&D system 	<ul style="list-style-type: none"> • social innovation (e.g. organizational innovation connected with production, service and R&D system) • technological innovation
Legitimacy of innovation policy	market failures	market failures and system failures in R&D system	system failures in the broad innovation system
Activities associated with innovation	R&D activities	R&D activities	R&D activities and routine activities in production, distribution and consumption

Source: Piirainen & Koski (2004, 321).

In the opinion of Piirainen and Koski (2003; 2004), the special nature of the TYKE programme concept has been something of a double-edged sword in terms of its social legitimacy. On the one hand, legitimacy has been reinforced among the programme's key stakeholder groups, such as workplaces, R&D institutes and the social partners, by the fact that the programme emphasized that project activity should be based on workplace needs, that the programme tried to ensure pluralism in the approaches applied within projects, and that the programme emphasized the significance of the cooperation and learning networks which united the

various players for attaining a more extensive ‘wave of change’. On the other hand, the programme’s divergence from the mainstream of innovation policy by means described above, and also by focusing on other than ‘tangible’ technological innovations, may have undermined the programme’s status as a generally recognized and respected player in innovation policy.⁸

Against this background, it is interesting to note that reorientation is clearly taking place at present in the debate on innovation policy in Finland. As an example, the new review of the Science and Technology Policy Council (2003) emphasizes the need for balanced development of technological and social innovations and, in particular, the need to accelerate development of social innovations. Thus far, the strategy proposed is identical with the proposal which led to the creation of the TYKE programme (National Workplace Development Programme 1996). However, the outline of the Council more or less leaves it open to interpretation what social innovations might comprise in practice, although there are references to workplace development (Science and Technology Policy Council of Finland 2003, 21). The Council’s outlines concerning the ‘third task’ of universities and polytechnics go well with the TYKE/TYKES programme concept, too.

Antti Hautamäki, Director of Research at the Finnish National Fund for Research and Development Sitra (2003), has also emphasized the need to shift the focus of innovation activity towards knowledge generation where the starting point and the criterion for the ‘truth’ of knowledge are specifically formed by practical problems (‘mode II’). He also considers the dichotomy into technological and social innovations partially artificial, because “innovations are, fundamentally, changes in social practices” (ibid., 69). Hautamäki is dealing with the general level here, but the TYKE/TYKES programme concept, which has emphasized the importance of basing action on workplace needs, employee participation, developing the modes of operation of workplaces and the importance of learning networks, fits in well with the concept he sketches for new methods of generating knowledge.

⁸ For instance, in the OECD’s ‘Oslo Manual’ from 1997, which has been applied in evaluations of national innovation activity, innovation is used mainly in the sense of technological product innovations (Palmgren & the Sfinno-Team 2003). As will become evident from the various distinctions made within the concept of innovation examined later in this article, that only covers a small portion of all that can be understood by innovation: the most ‘tangible’ and easily measured portion. The European Commission has carried out studies to discover the feasibility of collecting similar, comparable data by country on other types of innovation, too, including organizational innovations (e.g. Stoneman 2000; Wengel et al. 1999).

As a third reference to the reorientation that has been taking place in the debate on innovation policy in Finland, it is worth mentioning the conclusions of Sitra's research programme on the Finnish Innovation System. In a summary report on the research programme, Schienstock and Hämäläinen (2001) outline a new innovation policy concept for Finland, the concept of 'network-facilitating innovation policy'. This new concept is also well suited to describing the Workplace Development Programme – indeed this is something that they point out in their work.

Meanwhile, Honkanen and Lemola (2004, 9) give a definition where innovation policy comprises all the policy areas which have an impact on the preconditions for and direction of innovation activity through either promoting them or limiting them. The TYKE/TYKES programme is easy to fit into such a general definition, but at the same time, it could fit the fundamental premises of almost any other kind of public policy activity. On the other hand, the discussion they engage in on whether providing funding for technology development is the most rational and effective form of innovation policy or whether the available resources could be channelled into the development of other types of innovation (ibid., 17) is a sign of the reorientation which is taking place in the debate on innovation policy in Finland.

The views expressed by Himanen (2004) in a report to the Committee for the Future at the Finnish Parliament, which are designed to respond to the 'deeply ingrained challenges' in the Finnish information society, are surprisingly similar to the innovation policy premises in the TYKE/TYKES programme. Among other things, Himanen highlights the importance of productivity growth based on innovations as a precondition for maintaining a welfare society, of shifting the focus from technology development to development of modes of operation, and the importance of combining product and process innovations.

The innovation policy perspective adopted by the Workplace Development Programme was influenced at the time by various debates which were in progress on economics, social sciences and organizational and management studies. Some of the most important are described in the list below:

- *the national innovation system approach* as a perspective on the competitive advantages and weaknesses of different countries (Lundvall (ed.) 1992) and, consequently, the focusing of attention on interaction between different parts of the innovation system rather than searching for individual 'best policy practices'

- *polycentricity* as a perspective on the distribution of expertise and innovation potential in developed industrial societies (Fricke 1994); polycentricity implies that new useful knowledge is generated through interaction and dialogue between various ‘innovation centres’ in society rather than by ‘trickling’ information from ‘the top down’ or from ‘the core’ to ‘the periphery’ in a hierarchical manner
- *the principle of holonic organizational architecture – or structural correspondence* – in a system (Mathews 1996; Riegler 1998), i.e. a concept whereby learning needs to be supported by organizational architectures which are similar in principle on different levels of the system (e.g. the team, company, business-to-business network, social macro-level structures)
- *the principle of balance between process and product innovations* (Brödner et al. 1998; Edquist 1996; Edquist et al. 2001; European Work & Technology Consortium 1998), i.e. a concept according to which sustainable competitive edge, the enhancement of workforce skills and competencies and employment growth in individual enterprises calls for balanced focusing on process *and* product innovations
- *process management* and especially the most democratic interpretations of the ‘lean production’ model (Adler & Cole 1995; Braczyk & Schienstock 1996; Roth 1992), and especially the applications of it adapted to Finnish conditions (Alasoini et al. 1994; 1995; Eloranta et al. (eds.) 1994) as a key method for improving the performance of enterprises in a way which promotes employees’ opportunities for development and influence at work
- *the principle of the interdependence of operating practices*, based on theoretical ideas of ‘activity systems’ (Engeström 2005), ‘internal fit’ (Huselid 1995) and ‘complementaries’ (Pettigrew et al. (eds.) 2003), and the consequent idea that the focus for development in a company should be the entire mode of operation in a varied and comprehensive way
- *the principle of concept-driven development* (Gustavsen et al. 1996), i.e. the idea that the force behind development activity in highly developed companies is a clearly stated operating policy to which employees are mobilized on a broad front and which enables development operations to be pursued in an intensive and flexible manner

Of the seven key concepts or principles, the first two concern macro-level prerequisites for innovation activity, while the last four concern micro-level prerequisites. One of these (the principle of holonic organizational architecture) permeates all levels.

The role of the TYKE programme and its success in innovation activity have been examined in particular in two studies that evaluated the programme and its project operations. Vartiainen et al. (2000) evaluated the

effects and success of 59 teamwork projects. According to their study, the vast majority of projects (95%) had achieved improvements in work operations and in the organization. About half of the projects (49%) showed clear improvements in the quality of working life and slightly less than half (40%) in the profitability of operations. The study showed that one in five projects had resulted in actual organizational process innovations, and in addition to that, a couple of projects had produced technological innovations. According to the study, most of the innovations were only locally significant changes to the procedures and rules applied by those at work (Pirskanen 2000, 46). This observation was not conceptualized further. Meanwhile, according to the overall evaluation study of the TYKE programme, “the overall impression is that projects /.../ have been productive, resulting in sustainable outcomes which closely correspond with the aims of the programme. Projects have also had innovative elements. From the perspective of some individual firms the innovative impact might even have been ‘revolutionising’ “ (Arnkil et al. 2003, 197). The empirical result of the two studies in question is largely parallel. However, the results are interpreted differently in the two studies; one of them talks about significance ‘only’ locally, while the other characterizes even local results as ‘revolutionising’, to some extent at least.

This article will proceed below to present one possible perspective on the role and potential of the TYKE/TYKES programme and its significance for the promotion of innovations. Another question related to this is what the results presented above can tell us about the programme’s success in its mission from this particular perspective.

Perspectives on the concept of innovation and organizational innovation

The concept of innovation has been approached and used in many ways in the literature. Kivimäki et al. (1998) have gone through studies on work and organizational psychology and identified three common features in definitions of innovation: innovation is a consequence of goal-oriented activity, innovation is about creating something new and innovation produces benefit. However, the different definitions often placed very different degrees of emphasis on these characteristics. The following will shed some light on this discussion without purporting to give a systematic overview of the discussion on innovation and, particularly, organizational innovation.

Tidd, Bessant and Pavitt (2001, 6-13) make a distinction in the typology of innovation between two main dimensions: the perceived extent of the

change linked with the innovation and the focus of the change. In the first dimension, innovations can be divided into incremental, radical and transformative innovations. Where the focus of change is concerned, innovation can be divided into product, service and process innovations.⁹ Their divisions in these two dimensions must be construed as ideal types, and they also propose other ways of typifying innovations.

Other researchers have made a distinction at the very outset between technological and organizational process innovations, at the level of the dimension dealing with the focus of change. Edquist, Hommen and McKelvey (2001, 10-21) consider a division into product and process innovations to be a fundamental distinction. They then divide product innovations into those focusing on (material) goods and (immaterial) services, while process innovations are divided into technological and organizational innovations. According to their view, organizational process innovations are “new ways to organize business activities such as production or R&D and have no technological elements as such” (ibid., 15). The researchers concede, however, that technological and organizational process innovations are often intertwined. This is firstly due to the fact that organizational change may be a condition for the successful implementation of a technological process innovation. Another reason is that technologies are born in a framework defined by a specific organizational form: technologies are ‘socially shaped’ by organizational forms. Edquist et al. consider organizational innovations to be important from the perspective of the innovation system approach, both as such and because they sometimes smooth the way for the development and adoption of technological innovations. At the same time, however, they state that the importance of organizational process innovations has thus far been far more difficult to quantify and analyse with the available methods of economic science than that of technological innovations (ibid., 172-178).

In relation to their views on the division into technological and organizational process innovations, many other researchers have also emphasized the interdependence between the two. By organizational innovations Coriat (1995, 24) refers to “any new technique of division of labour at intra- or inter-firm level which enables savings to be made in the use of resources, or better adaptation of products to consumer needs and market variations”. In his view, organizational and technological process

⁹ In later works, Bessant (2003, 4-5) has also applied a different division according to the focus of change. In it, product and service innovations have been merged and the new foci are ‘position innovations’, which concern changes in the application context of the product, service or process, and ‘paradigm innovations’, which concern changes in the underlying mental models surrounding business activities.

innovations can have three types of connections. Organizational innovations can sometimes be substitutes for technological innovations. Then again, they may supplement each other. Finally, in some cases organizational innovations may create the conditions for technological innovations.

Schienstock and Hämäläinen (2001, 55-57) use a basic division similar to that of Edquist, Hommen and McKelvey in dividing innovations into different categories. However, Schienstock and Hämäläinen go further than they, particularly in two important respects. First of all, they say that due to the advances in information and communications technology, the division into new products and services (i.e. material and immaterial product innovations) is becoming increasingly difficult. Secondly, they state that there are grounds for assigning more importance specifically to organizational innovations. They justify this with three arguments: Firstly, they say that recent empirical research has shown that new forms of organization can play a key role as a source of productivity growth and innovation activity. Their second argument is the same as that presented by Edquist et al. above concerning the interdependence between technological and organizational innovations. The third argument they put forward is that, as the economy and business operations become more networked, the importance of efficient forms of coordination between companies takes on added importance for innovation activities. Companies' ability to consistently produce innovations becomes more important than any individual product or technological process innovation. According to Schienstock and Hämäläinen, this ability is linked with companies' organizational forms, human capital, social practices, business culture and other tacit knowledge, which are difficult to codify and duplicate.

The discussion about organizational innovations and their significance is made more difficult by the fact that researchers do not always define precisely what they mean by these concepts. The common practice is to mention some management or organizational principles or practices as examples of organizational innovations. For example, Boer and During (2001) consider Total Quality Management (TQM) such an example. They also draw some more general conclusions on the nature of organizational innovations on the basis of experiences of TQM, without producing any particular justification for doing so. Similarly, Baer and Frese (2003) used 12 different principles and practices (including TQM) in their empirical study as examples of process innovations in general. Stoneman (2000) and his research team (Wengel et al. 1999) applied a similar logic in their approach to organizational innovations, but they proceeded to divide them into two dimensions according to their level of application (level of organizational sub-unit, level of the organization, supra-organizational level) and their character (structural, managerial). TQM for instance is a

managerial innovation which is on the level of the organization, JIT (just in time) is managerial and supra-organizational, cellular manufacturing is structural and on the level of the organization, while teamwork is structural and on the level of organizational sub-units. Edquist et al. (2001, 35-38), meanwhile, divide organizational process innovations into labour-saving and capital-saving innovations. Of these, the former are close as a concept to the structural organizational innovations identified by Stoneman's research team, while the latter are close to the managerial organizational innovations. Within the international INNFORM research project, organizational innovations have been divided into three categories: those applying to the company's structure, processes and boundaries (Pettigrew et al. (eds.) 2003). The researchers' way of viewing organizational innovations within the INNFORM project focuses on certain general principles or trends, while Stoneman's research team works on the level of more tangible practices.

In other approaches, organizational innovation has been defined more in terms of consequences than the content of the principle or the practice in question; in other words, a specific change or new adopted principle or practice has not been considered an innovation unless it produces actual demonstrable benefits. Examples of this approach to organizational innovation include Coriat's (1995) definition, already mentioned above, and Alasoini's (1998; 2001b) definition, which – like Stoneman and his team – makes a distinction between three levels of organizational innovation. The three levels used by Alasoini are the level of individual functions, relationships between functions and relationships between companies. Schienstock (2004b) has also emphasized benefit as a criterion for organizational innovation. In his view, however, benefit may take different forms. It may be linked with a more efficient way of utilizing existing resources (as with Edquist, Hommen and McKelvey) or both with that and with a better ability to adapt (as with Alasoini and Coriat). In addition to these, according to Schienstock, it may also be linked with a better balance between the interests of different stakeholder groups, or a better ability to meet the requirements set by various social institutions. On the basis of the division proposed by Schienstock, benefit can emerge as a result of four levels of change affecting the organizational structure and its core components. In incremental organizational innovations, benefit emerges as a result of only slight internal changes in the core components; in modular organizational innovations, there are significant changes in the core components; in architectural organizational innovations, the relationships between the core components change; and in radical organizational innovations, it is a question of changes which alter both the core components and their mutual relationships.

Vartiainen (2000, 9-10), has questioned both the above-mentioned perspectives on the concept of organizational innovation. In his view, the relevant feature of organizational innovation is the crossing of boundaries, both of the activity system itself and its environment and boundaries between sub-units of the activity system in a specific, clearly defined context. For instance, in developmental work research, the concept of innovation has been used in this way. According to a characterization by Engeström (1995, 66), innovations are more or less deliberate initiatives to exceed the boundaries of the 'script' in order to produce a new idea or solution. This type of approach lends the concept of innovation a very specific content. It means that dealing with innovations will demand a good knowledge of whatever the context may be. Vartiainen also questions to what extent it is necessary to keep strictly to *economic* benefit as a criterion for benefit when talking about organizational innovations, and what the weighting is of the criterion of benefit of an innovation in relation to the criterion of newness. He further questions the importance of 'objective' versus 'subjective' criteria in assessing both benefit and newness.

On the basis of what has been said above, it is hard to believe that it would be possible or, indeed, sensible to strive to create a generally accepted perspective on the concept of innovation, and organizational innovation in particular. The choice of perspective will have to depend on that purpose for which the concept is used. In the TYKE/TYKES programme, innovation – and organizational innovation in particular – is viewed in terms of consequences. Another characteristic feature of the programme's idea of innovation has been that the division into organizational and other process innovations has been considered artificial to some extent. Where this latter view is concerned, the programme's idea of innovations is largely in line with that of Schienstock and Hämäläinen (2001, 57) and Hautamäki (2003, 70), all of whom emphasize the importance of the interaction between the technological and social dimensions of innovation processes and their intertwining (see also Hämäläinen & Heiskala 2004; Joutsenoja & Lindh 2004; Ruuskanen 2004). A third important viewpoint concerning the innovation concept of the TYKE/TYKES programme concerns the perspective that the benefits of innovation are evaluated from. In workplace development – and in innovation policy generally – one is forced to deal with values. The innovation concept applied by the TYKE/TYKES programme contains a very particular view of how the benefit perspective on innovation should be approached. We will examine this view in more detail in the following section.

Workplaces' strategy choices, modes of operation and innovation behaviour

One of the starting premises of the TYKE/TYKES programme is the idea that workplaces' ability to generate innovations can be deliberately developed in the long term. There are numerous models described in the literature which enable a workplace to assess its own ability to generate innovations and chart the measures to develop it (e.g. Bessant 2003, 207-210; Ruohomäki et al. 2003, 65-67; Shapiro 2002, 265-271). The key concept in examining the programme's view of innovations is *mode of operation*. This can be defined as the entity made up of interrelated practices applied in the workplace, based on a certain rationale which guides the development of production (and other operations) as well as the use of methods, tools and information in production (Alasoini 1997, 56). This concept thus consists of two parts: The 'visible' part is made up of various practices applied in the workplace, which are in a systemic relationship of interdependence with each other. The 'hidden' part – the rationale behind the application of the aforementioned practices – can be referred to as a 'production paradigm' (cf. Ranta 1993, 1-4; Räsänen 1998, 40-42).

Comprehensive changes in the mode of operation are typically time-consuming and labourious processes which often also demand new kinds of expertise. This is due to two reasons, on the basis of the definition of mode of operation: Firstly, the mode of operation is an *entity* made up of many different practices. A change in the mode of operation is a systemic change which applies to many practices and which consequently has an effect on a great number of different functions, operating processes and work units in the workplace which are interrelated with each other. From this point of view, the problems of changing the mode of operation can be examined in particular from the above-mentioned principles of the interdependence of operating practices and of concept-driven development, and the theoretical approaches behind them. Secondly, the mode of operation reflects the *rationale* which guides production and its development and, consequently, the beliefs, values and attitudes of the management, owners and often also many of the staff of the workplace in question. Particularly deeply ingrained beliefs may give rise to path dependence and even cognitive lock-ins against alternative solutions or ways of thinking (Schienstock 2004a, 4-6). A change in the mode of operation requires a change in the mental models which guide the thinking and actions of the management, owners and staff of the workplace concerned. Seen from this perspective, a change in the mode of operation begins to resemble the concept of 'paradigm innovation' used by Bessant (2003, 4-5).

The difficulties involved in a comprehensive change of the mode of operation should not be taken to mean that it is not possible to constantly develop it. In fact, constant development of the mode of operation creates more potential for implementing more comprehensive changes, too. Development of the mode of operation is realized through reforms to various work, organizational, managerial and other practices in the workplace. What was discussed in the previous section as organizational process innovations, takes the form in this perspective of reforms in the mode of operation and its various factors. Seen from this point of view, the division into organizational and technological process innovations is partly artificial, since both mean reforming of practices with a view to developing the mode of operation.

In the case of companies, modes of operation and the rationales behind them are linked with their competitive strategies. According to Porter (1989; 1996), a company's basic strategy choice is between cost leadership or differentiation. In the former, the company competes with other companies by having lower costs for products which are, in principle, similar to those of others. In differentiation, meanwhile, the company seeks a competitive edge by standing out from other companies in some way. In a more detailed classification (Portales 2001; Ricart & Portales 2001), companies have been divided by two further criteria within the differentiation strategy. The first criterion concerns whether companies compete primarily through product quality, auxiliary services and image (vertical differentiation) or through a highly adaptable product range and great speed and flexibility of operations (horizontal differentiation). The second criterion within the differentiation strategy is how actively companies seek new strategic positions. Companies which strive for static efficiency strive primarily to reinforce their competitive edge in their existing strategic position, while companies seeking dynamic efficiency actively seek new visions of how to compete. This allows us to distinguish between five fundamental types of competitive strategy as shown in Table 9.

Table 9. Classification of competitive strategies.

Cost leadership (combined with static efficiency)	Vertical differentiation combined with static efficiency	Horizontal differentiation combined with static efficiency
	Vertical differentiation combined with dynamic efficiency	Horizontal differentiation combined with dynamic efficiency

It seems reasonable to assume that the strategy choices of companies are linked with both the level of their innovation activity and with the emphasis they lay on different types of innovation (radical vs. incremental innovation, product vs. process innovation). In the case of companies striving for cost leadership or for static efficiency within the differentiation strategy, the importance of incremental innovations is likely to be emphasized in their operations. By contrast, companies in pursuit of dynamic efficiency are likely to be more active in seeking radical innovation. Where companies striving for cost leadership are concerned, process innovations take on added importance, whereas other kinds of companies are likely to strive for both process and product innovations in a more balanced manner (process innovations here are a question of various combinations of technological and organizational process innovations). It is conceivable that the general level of innovation activity rises with the transition from a cost leadership-oriented strategy towards a differentiation strategy seeking static efficiency and further towards dynamic efficiency. However, the lowest pressure from the product market on innovation activity occurs in companies and workplaces which hold a monopoly position. The pressure for product and process innovations in many public sector workplaces, for example, may come from an entirely different direction: from the policy-makers who determine the conditions for funding public services.¹⁰

On the basis of what has been said above, we can assume that:

- there is a mutual dependence between workplace strategy choices and modes of operation. Strategy choices are reflected in modes of operation, but also vice versa.¹¹ Furthermore, both strategy choices and modes of operation are influenced by various factors outside the

¹⁰ In the coming years, the pressure on innovations in public sector workplaces may well be comparable to that in private sector workplaces, at least in Finland. The development of the welfare society demands a well-functioning public sector that is capable of supporting economic growth through its own measures. According to Virtanen (2003), public sector organizations will flourish or founder – or in any case they will all become differentiated – on the basis of their responses to the changes in their operating environment and their ability to anticipate needs for change.

¹¹ On the basis of the contingency, configuration and complementarity approaches applied in management and organizational studies, it could be conjectured that a mismatching between strategy choices and modes of operation causes various types of disturbance and states of disequilibrium that make operative management and operations at workplaces more difficult. However, at the same time, various types of disturbance and states of disequilibrium can at best be important factors in promoting the development of strategies and modes of operation, and learning within the organization (Pettigrew et al. (eds.) 2003).

workplace, e.g. characteristics and regulations pertaining to the product and labour market.

- comprehensive changes seldom take place in the modes of operation at workplaces. Changes are also typically long-term and labourious, and they often also require new types of expertise.
- the different strategy choices of workplaces lead to different models of innovation behaviour. The models are different at least in terms of the general activity of innovation, the mutual weighting of radical and incremental innovations and the mutual weighting of process and product innovations.
- the different models of innovation behaviour at workplaces also lead to different ways of boosting productivity (the value added per work input). In models focusing on process innovations, productivity growth derives primarily from more effective use of the various production factors. In models focusing on product innovations, a greater part of productivity growth than in the previous case comes from the ability to produce products and services with more value added by means of the existing production factors. The higher value added derives from the fact that the workplace's scope for monopolistic pricing is augmented and the quality of the product or service improves (Edquist et al. 2001, 57-61).

The aim: workplace innovations

Workplace development at large and, as a consequence, the TYKE/TYKES programme contain certain special fundamental values which may not be highlighted in quite the same way in traditional technology-based innovation policy. These values focus in particular on the objectives, implementation methods and publicity of the results of measures:

- *Objectives:* A simultaneous improvement in productivity¹² and the quality of working life is one of the fundamental premises of workplace development (i.e. the fact that the development objectives take the interests of staff and management into account in equal measures). This is not as important a premise in traditional technology-based innovation policy.

¹² In the TYKE/TYKES programme, the terms 'productivity' or 'performance' have both been used, depending on the context. Productivity has usually been used when referring to the macro-level objectives of operations or specifically to the productivity of the workplace (value added per work input). Performance has usually been used in referring to the operative performance of the workplace in a more general sense.

- *Method of implementation:* Another fundamental premise of workplace development is that the staff at workplaces should have opportunities to participate in the planning of development measures and their implementation on an equal footing with the management. This is important for two reasons: Firstly, in this way it is possible for the staff to have an influence on the development objectives (see above). The second reason is that many change processes in working life are not in reality anticipated but emergent, i.e. they arise more or less spontaneously from local innovations within work communities. This, too, is not as important a premise in traditional technology-based innovation policy.
- *Publication of results:* In workplace development, the results of measures are expected to be openly available. Project results and the new practices they have generated are not typically transferable from one workplace to another or immediately available for use by competitors because of their high dependency on context. The knowledge required in order to apply them successfully cannot be formalized to the same extent as, for instance, new product or production technologies; it relies more on experience-based tacit knowledge. In traditional technology-based innovation policy, the results of measures which are connected with product and production technology solutions at individual companies often tend to fall within the sphere of business secrets, and cannot, as a consequence, be published without risking damage to a company's competitive position.

Seen in this light, workplace development cannot be equated with an area of its own in innovation policy which focuses on organizational or social innovations in the workplace. Instead, it seems to be a special feature of workplace development as a component of innovation policy that it strives for simultaneous, balanced and mutually supportive improvement of productivity and the quality of working life. This fundamental objective may, however, be emphasized in different ways in different programmes, be expressed in different concepts, and there may be different justifications for it. For instance, the foremost public policy challenge of the TYKES programme has been identified as the need to respond to the challenge of *qualitatively sustainable productivity growth*. This means speeding up the growth in productivity through methods which will also improve the quality of working life (such as employees' opportunities for development and exerting an influence at work, wellbeing at work, and the internal cooperation and trust within work communities) and, as a consequence, the conditions for employees to stay on at work. Behind this aim, there is the view that in order to secure the fundamental requirements for a welfare society, workplaces in Finland will have to develop their modes of

operation over the coming years so as to produce qualitatively sustainable productivity growth (cf. previous article).

The role of the TYKE/TYKES programme for innovation policy is connected with solutions which make it possible to combine the improvement both in productivity and the quality of working life in the Finnish workplace. Such solutions could be called *workplace innovations*; in other words, the role of the programme in innovation policy is to promote workplace innovations. Workplace innovations are based on reforms carried out in the work, organizational and managerial practices at a workplace, and they may also entail reforms to production technology. Organizational and technological reforms (process innovations) are, according to this view, preconditions for workplace innovations, but they are not necessarily workplace innovations in themselves. Some of the ways in which this connection (i.e. the fact that organizational and technological reforms lead to simultaneous improvement of productivity and the quality of working life) can be reinforced include intensifying the cooperation between management and staff, interaction between different companies and workplaces, and the use of a research-assisted approach (and the expertise of the researchers and consultants who carry it out) in connection with organizational and technological reforms. All these have also featured prominently in the TYKE/TYKES programme.

Workplace innovations are a question of development of the workplaces' modes of operation. As stated above, workplaces' modes of operation and their strategy choices are mutually dependent, and different strategy choices can be assumed to lead to different innovation behaviour. Workplace innovations and qualitatively sustainable productivity growth are an important *public policy* goal, but this is not necessarily something that individual workplaces are aiming at. The generation of workplace innovations could be considered to depend in particular on two features of the innovation behaviour of workplaces: the general level of their innovation activity and the mutual weighting of process and product innovations. The importance of the first of these features is easy to grasp, as it describes the interest of a given workplace in improving its operations in general. Concerning the second feature, process innovations (both technological and organizational) mean exploiting the various production factors with increasing efficiency. The experiences of process management, especially in the 1980s and 1990s, showed that by radical rethinking of their processes, companies were able to attain considerable improvements in both the productivity and quality of their operations (e.g. Hammer & Champy 1993; Jahnukainen & Vepsäläinen (eds.) 1998; Womack et al. 1990). Although the Internet, and related phenomena such as e-business and virtual work organizations, for instance, open up amazing new opportunities

for improving the productivity of processes, the productivity potential of a development strategy which relies exclusively on process innovation is always inevitably exhausted at some point, and the marginal benefit of new inputs begins to fall – to the point where it may even turn negative at some stage (e.g. Jacobs & Yudken 2003; Porter 2001). Such a strategy is also, understandably, problematic in terms of the quality of working life and employment (Alasoini 2000, 8-17; Brödner et al. 1998; Edquist 1996; Edquist et al. 2001; European Work & Technology Consortium 1998). Workplace innovations require an environment where development strategies focus in a more balanced way on both process *and* product innovations.

The potential of workplace development depends greatly on the strategy choices of the workplaces involved. This means that either (1) workplace development activity should be able to influence strategy choices or (2) the other areas of innovation policy should support workplace development in this respect. These two alternatives are not mutually exclusive:

(1) Workplace development could strive to influence strategy choices both directly and indirectly. It could be an integral part of workplace development to create forums for discussion of workplace strategy choices, either between the management and staff of an individual workplace, or several workplaces together, with support from external experts (direct influence). Even development of modes of operation, as such, could serve the same purpose (indirect influence). As stated above, workplaces' strategy choices and modes of operation are mutually dependent. Alongside the development of workplace modes of operation, skills and competencies in innovation activity at workplaces can be improved. Improved skills and competencies in this area would give the workplace concerned more latitude in its strategy choices. The fundamental premise in this article is that the choices that companies make in terms of competitive strategies are not the result of autonomous decisions by the management or owners, but that they also reflect those companies' skills and competencies in innovation activity. It could be conjectured that workplace development has the best opportunities for influencing strategy choices by enhancing modes of operation in sectors, companies and workplaces where highly advanced modes of operation constitute a key competitive factor. This would apply particularly to SMEs and labour-intensive or service-based operations (cf. Antila & Ylöstalo 1999, 21-24; Datta et al. 2005; Sjögren et al. 2001, 51-52).

(2) Mutual integration of the various sub-sectors of innovation policy is important for a number of reasons. In Finland, for instance, the role of the Science and Technology Policy Council as the body which gives general

strategy guidelines on innovation policy is a good example of one method for promoting common direction within the various sub-sectors (see also Edler et al. 2003).

In conclusion

According to this article, then, the role of the TYKE/TYKES programme for innovation policy is to promote workplace innovations. The programme's special character as a part of the field of innovation policy is connected with its striving for simultaneous, balanced and mutually supportive development of productivity and the quality of working life, rather than a focus on organizational or other social innovations in the workplace. In my opinion, Piirainen and Koski's (2003; 2004) study of the TYKE programme's innovation policy role, in itself a thorough and systematic analysis, tends to emphasize the latter aspect too much at the expense of the former. Furthermore, if we regard the concurrent improvement of productivity and the quality of working life as the special feature of the programme's innovation policy role, that also means that the view quoted at the beginning of this article concerning the programme's dual role and the tension inherent in it becomes artificial to some extent: the criteria for project operations within the TYKE/TYKES programme require at the outset that projects that receive support have workplace innovations as their objective. The programme's success in achieving this can be assessed by analysing project results. One of the problems in the evaluation study of the effects of the teamwork projects in the TYKE programme made by Vartiainen et al. (2000) and referred to above, is that the researchers do not define unambiguously what they used as the criteria for organizational and technological innovations.

In the view of this article, workplace innovations are local and strongly context-bound and they cannot be transferred as such from one workplace to another. The innovation policy role of workplace development cannot, however, be limited to generating workplace innovations in individual workplaces. Consequently, it also comprises the means to disseminate workplace innovations so that they become the kind of generative ideas which can act as a source of learning and inspiration for other workplaces too. Experiences from many R&D programmes – including TYKE – show that it has been difficult to disseminate the results of projects from *individual* workplaces to other workplaces *later on* through traditional methods such as seminars, publications or information registers (Alasoini 2003; Arnkil et al. 2003). As a result, the creation and support of learning networks has been included in the TYKES programme as a new form of project activity. In addition to that, the programme will also strive to boost

the interaction and cooperation between workplaces through many other methods in the course of their projects.

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Self-assessment results of the TYKE programme's development projects (1996-2003) in examination

The TYKE programme supported projects of three kinds in its I and II programme period (1996-99 and 2000-03 respectively): basic analyses, development projects and network projects. Most of these were development projects, and their objective was to promote change in the modes of operation of work organizations with the aim of simultaneously improving productivity and the quality of working life. From the outset, the programme had a self-assessment system in place for the evaluation of the results of development projects: management and staff at workplaces which participated in projects and the experts involved gave their own assessment of the effects and implementation of the project. This article makes a comparison of the results for the programme periods and examines the self-assessment results for the II programme period in more detail. The programme's objectives, forms of activity and project criteria were very similar in both programme periods. The main emphasis in the examination of the results for the II programme period lies in the responses from different groups and in explaining their differences, and in studying the connection between the implementation of a project and its effects. Furthermore, the article examines ways in which development projects based on cooperation between management and staff and designed to lead to the simultaneous improvement of performance and the quality of working life can be promoted more effectively than hitherto.

Development projects in the TYKE programme's I and II period

The first period of the TYKE programme took place in 1996-99 and the second in 2000-03. The programme's objectives and forms of activity did not change much during this time. The task of the programme has been to promote changes in the mode of operation at workplaces with the aim of simultaneously improving productivity and the quality of working life. The objective also included improvement of the employment potential of the workforce and strengthening expertise in workplace development (Management Group of the Finnish Workplace Development Programme 1999). In the II programme period the objective was adjusted by making the idea of supporting modes of operation that promote innovation and skills and competencies of the personnel more explicit.

The programme had three kinds of project activity: basic analyses, development projects and network projects, of which development projects were the biggest group. The absolute criteria for development projects were more or less the same in both programme periods. They were the following:

1. The project must promote changes in the mode of operation of work organizations with the aim of simultaneously improving productivity and the quality of working life.
2. The project must focus on one of the programme's focus areas.
3. The project must be feasible.
4. The management and the staff must commit themselves to the objectives of the project and to implementing it in cooperation.
5. The workplace and the experts used by it must accept the procedures applied by the programme.
6. The programme will not participate in the financing of product development, investment in machinery and equipment, or information and training activities only.

The focus areas referred to in criterion 2 included the development of new forms of work organization in support of learning, development of personnel management and cooperation between management and staff, the promotion of staff expertise and innovativeness, the improvement of the position of ageing workers, and the provision of support for equal work communities. In the II programme period, the promotion of working based on innovative use of new technologies also became a focus area. In addition to the absolute criteria, approval of projects also depended on the project's overall degree of innovation, its strategic importance for the workplace, its sectoral, regional or national importance, its networking and its impact on employment and quality of the labour force over the long term.

The funding allocation for the programme increased in the II period, and as a result, it was possible to start more projects. In the I period the total funding for the programme came to about EUR 16 million and in the II period to about EUR 29 million; of these sums, about half were used for funding development projects. The number of development projects grew correspondingly from 210 to 310. Table 10 shows key indicators for development projects in the I and II programme periods.

Table 10. Development projects of the TYKE programme in the I and II periods.

	I period (1996-99)	II period (2000-03)
Number of applications	398	658
Number of projects	210 (204 were completed)	310
Approved applications, per cent	53%	47%
Average duration of projects	15.8 months	20.5 months
Number of employees who participated in projects	41,000	69,150
Total project funding	EUR 8.1 million (FIM 48 million)	EUR 15.2 million
Average project funding	EUR 39,500 (FIM 235,000)	EUR 49,000
Sectoral distribution of funding:		
- agriculture and forestry	1%	1%
- industry	34%	27%
- private services	15%	18%
- municipal sector	36%	33%
- central government sector	9%	6%
- third sector	3%	7%
- multiple sectors	3%	8%
Distribution of funding according to type of experts involved		
- universities	22%	13%
- state research institutes	10%	6%
- consulting companies	37%	59%
- polytechnics and vocational education institutions	4%	12%
- internal developers	18%	6%
- others	10%	4%
The most common objectives	improvement in on-the-job learning, the organization of work, the functioning of the work community and social relations, internal networking, customer service and personnel management	improvement in work processes, the functioning of the work community, personnel management, teamwork, external networking, development expertise, work ability and coping at the work
Academic dissertations (master, licentiate, doctoral)	29	39
Research assistance	66 projects (32%), in which	96 projects (31%), in which
- development of new development methods, organizational models, etc.	58%	48%
- action research	27%	49%
- scientific evaluation	14%	31%

In the II programme period, the number of applications and projects increased, average project funding increased and the duration lengthened, there were more participants and also more academic dissertations were completed in connection with the projects. In the II period, the number of projects in the private service sector, multiple sectors and third sector also increased. The distribution of funding according to the type of expert organizations is not entirely comparable.¹³ However, it seems that the share of consulting companies and polytechnics increased in the II period while that of universities, state research institutes and internal developers became smaller. Where the objectives are concerned, a direct comparison cannot be made either, since the grounds for classification have been changed. The number of research-assisted projects was about a third in both programme periods. A development project was defined as research-assisted if a) the project produced models, methods or tools which have a wider application, b) the project was carried out in the form of action research, or c) a scientific evaluation formed an integral part of the project. In the II period, about one in five of the research-assisted projects fulfilled more than one of these criteria.

The self-assessment method

TYKE has systematically evaluated development projects since 1996 with the help of the self-assessment method. Data from self-assessment has been collected after completion of a project separately from the management, staff and experts involved in the project. Its primary purpose has been to produce *information about the effects of the programme on working life in Finland and to support constant development of the programme*. Self-assessment has helped produce information about how well the objectives set for the projects have been realized, what the effects of projects have been, how successful projects are perceived to have been, how the various parties involved have influenced the implementation of a project, and what funding and other support from the programme has meant for project implementation. The self-assessment form was renewed and adjusted to some extent in the II programme period; the comparability of results was preserved however. In the II period, questions on issues such as the main initiator of the project and experiences of the seminars arranged by the programme, the programme's publications and website were added to the form.

¹³ In the I period, only the most important expert organizations involved in the project was taken into account, and the project's entire funding for expert contribution was entered in the statistics for that body; meanwhile, in the II period, the funding was itemized within each project according to the portion for each expert organization involved for statistical purposes.

The results of self-assessment have been examined in the programme at regular intervals from different perspectives (Alasoini 2000; Alasoini & Heikkilä 1999; Ramstad 2001). It is estimated that the self-assessment results give a good picture of the longer-term effects of projects, too. A study (Rissanen et al. 2002) that formed part of the evaluation of the TYKE programme and focused on 91 projects from the I programme period is also indicative of this. The results of this study indicate that self-assessment data collected immediately upon the conclusion of a project has high accuracy as a prognosis, because the results of the programme evaluation study were surprisingly similar, even though an average of two and a half years had passed since the projects concerned had ended.

The purpose of this article

The purpose of this article is to compare the results for the I and II programme periods and to take a closer look at the results for the II period from the perspective of different respondent groups. This article also examines the connection between participation, cooperation and project effects. There are four research topics:

1. Are there differences between the self-assessment results of the I and II programme period? If so, what causes those differences?
2. Are there differences between the self-assessment results of different respondent groups? If so, what factors can explain these?
3. What kind of association do participation and cooperation have with project effects?
4. How can projects based on cooperation between management and staff and designed to simultaneously improve performance and the quality of working life be promoted?

The initial hypothesis is that the results for the both periods are largely parallel, since there was no great difference in the content of project operations between the periods. In the II period, the programme implemented the 8-part seminar series Learning Together in which representatives of the workplaces and experts involved in the projects took part. Its objective was to strengthen cooperation and learning between the projects and the development expertise of the various parties involved. Nearly a thousand people participated in the seminars in 2001-02. The programme also arranged regional events and module seminars that centred

on different themes. From this perspective, it is *interesting to find out whether all this is evident in the respondents' experiences of whether participation in the programme produced value added for project implementation.*

In earlier self-assessment studies, differences have been perceived between different respondent groups in how they evaluate project results (Alasoini 2000; Ramstad 2001; Rissanen et al. 2002). The trend is that management tends to give a more positive assessment of project results than the staff that participated in the project. Explanations that have been put forward for the differences in the views of management and staff include the theory that those people who participated most actively in the project were also likely to give the most positive assessment of the project (Juuti & Varjoranta 1993). According to a study by Alasoini (2000), management and experts may have had a more prominent role in development projects than staff, which may have led to an exaggeration of the effects. Respondents may also have thought that favourable assessment could have an impact on the chances of getting more funding later. A third explanatory factor may be the staff's lack of information about the indicators and results of the project. In many cases, the results may have been measured but the information concerning them was never passed on to the staff. *This article strives to explain the differences between respondent groups and the reasons for them. An attempt is made to search for the answer to the differences from, for instance, the development method used, in other words to what extent the project was implemented in a research-assisted way, or using a participatory development method.*

The starting point for the programme was that broad-based participation improves the feasibility of a project and, consequently, the opportunities to achieve the intended changes at the workplace. The criteria for development projects within the TYKE programme required the management and staff to commit themselves to the objectives of the project and to implementing it in cooperation. Earlier self-assessment data showed that management had a bigger effect than staff at the planning stage, but that the situation was the reverse during the implementation stage. It has been estimated that the planning stage is strategically more important than participation in the implementation of the project (Alasoini & Heikkilä 1999). In a study on teamwork projects within the programme (Vartiainen et al. 2000, 57), one of the factors which prevented a project from succeeding was the exclusion of staff in planning it. In turn, the inclusion of staff in planning was one of the factors which promoted project success. *The third task of this article is to study the connection between the participation of the various parties and their cooperation and the project effects.*

In connection with the questions that have been asked above, the final research task of this article is to look for the answer to *how to promote successful projects which are based on cooperation between management and staff*. The objective of the programme is to attain positive effects in both performance and the quality of working life from the perspective of both management and staff as a result of development work. From the point of view of the programme's operations, it is important to find out how to support such activity as effectively as possible.

Self-assessment responses

A total of 1,038 self-assessment responses had been received by October 2004; 529 from 191 projects during the I programme period and 509 of them from 190 projects in the II programme period (Table 11). At the time of writing, only about 2/3 of the projects of the II programme period had been completed. The number of answers from different respondent groups is evenly split. Answers from all three groups involved have been received from a total of 299 projects. In the II programme period, nearly half of the answers reflect the views of more than one person compared with one in three answers in the I programme period. In particular staff representatives have tended to answer the survey as a group. The sectoral distribution of answers corresponds well to the sectoral distribution of projects.

Table 11. Self-assessment responses according to respondent group and sector in the I and II period of the TYKE programme (N and %).

	I programme period		II programme period	
	N	%	N	%
RESPONDENT GROUP				
Management	177	34	171	34
Staff	175	33	166	33
Experts	177	34	172	34
<i>Total</i>	<i>529</i>	<i>100</i>	<i>509</i>	<i>100</i>
SECTOR				
Agriculture and forestry	3	0	8	2
Industry	168	32	123	24
Private services	83	16	89	18
Municipal	184	35	172	34
Central government	53	10	28	5
Third sector	23	4	47	9
Multiple sectors	15	3	42	8
<i>Total</i>	<i>529</i>	<i>100</i>	<i>509</i>	<i>100</i>

The self-assessment results have been examined in the following by comparing the results for the I and II programme period. The significance of the differences has been tested using the Pearson Chi Square test. .05 was chosen as the limit of the statistical significance, in other words if the significance was equal to or smaller than .05, the difference is almost significant. In the text the significance (p) has been given in brackets for every cross-tabulation that fulfils the conditions set for the use of the chi test.¹⁴

Effects of development projects on the performance of the workplace and on the quality of working life

The effects of development projects were investigated with the help of 15 multiple choice questions. The results for the different programme periods seem to be largely parallel (Figure 6-8). The projects have had most effect on team-based working, development activity, on the cooperation between management and staff and on the quality of products and services. The only statistical difference between the I and II programme periods is in development activity. In the II programme period, projects were estimated

¹⁴ The test cannot be applied if the expected frequency of a cell is smaller than 1 or, if the expected frequency of at least 20% of the cells is under 5 (Bryman & Cramer 1997, 124).

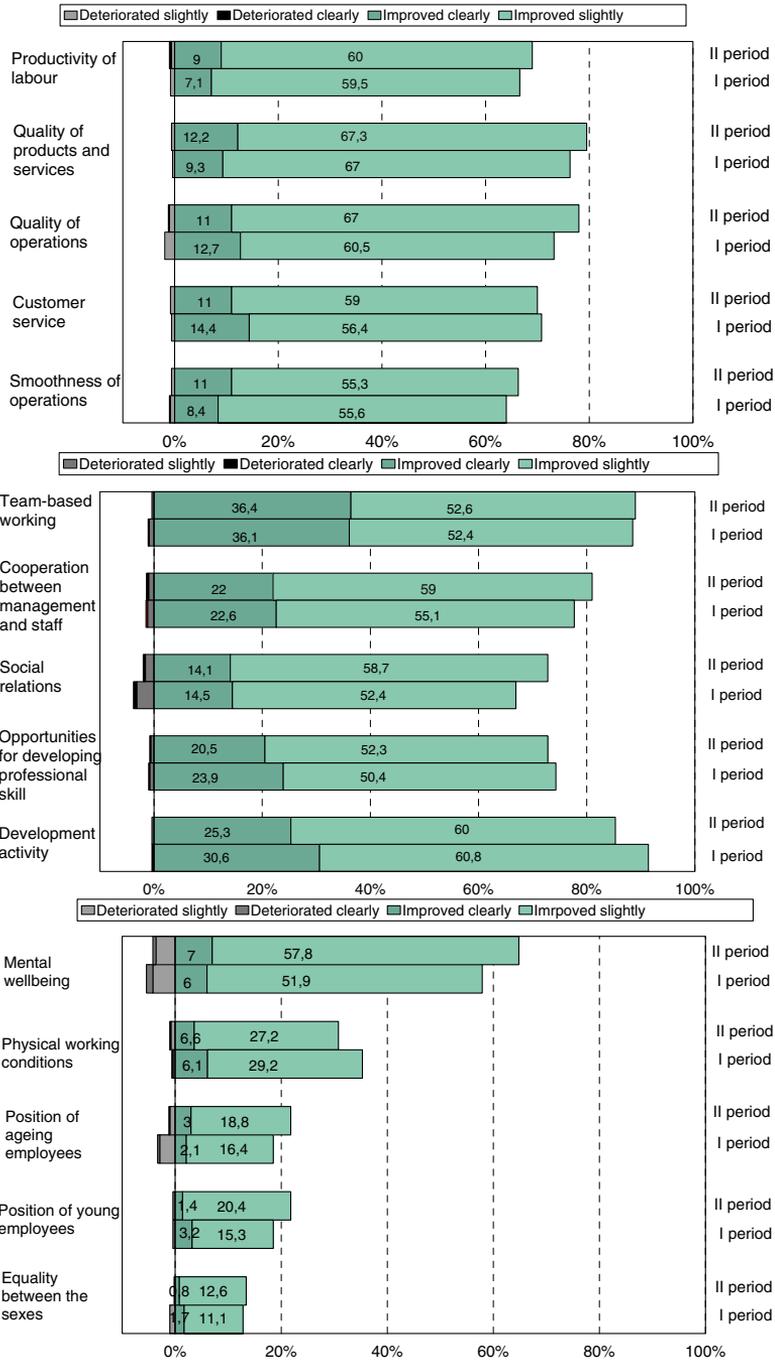
to have slightly less effect on development activity than in the I programme period ($p=.014$). 85 per cent of respondents in the II period estimated that there had been clear or slight improvement in development activity compared with 91 per cent in the I period. On the whole, the question on development activity is somewhat trivial, since development is a key part of the project in any case. The difference is explained to some extent by the more critical responses by management and experts in the II period ($p<.05$).

Even though there are no other statistical differences between the programme periods, the distributions indicate that the results are slightly more positive in the II programme period for eleven different factors. The results apply both to the performance and the quality of working life (cf. the following article). The projects are estimated to have had the least effect during both programme periods on equality factors. In fact, very few projects mentioned promoting equality as an explicit objective.

Project effects during the II programme period in the order of importance (clear/slight improvement):

- team-based working	89%
- development activity	85%
- cooperation between management and staff	81%
- quality of products and services	80%
- quality of operations	78%
- social relations	73%
- opportunities for developing professional skill	73%
- flexible customer service	70%
- productivity of labour	69%
- smoothness of operations	66%
- mental wellbeing	65%
- physical working conditions	31%
- position of ageing employees	22%
- position of young employees	22%
- equality between the sexes	13%

Effects of development projects (%)



Development activity $p=0.014$, otherwise $p>0.05$

II period N= 500-503, I period N= 520-524

Figure 6-8. Effects of development projects on performance and on the quality of working life in the I and II programme periods.

In both programme periods, the management gave the most positive estimates of effects while staff were the most critical. The differences are significant statistically for all aspects, except the quality of products and services, physical working conditions, the position of ageing employees and the position of young employees. The most significant differences between respondent groups in the II programme period appear in the following aspects (Kruskal-Wallis test):

- the management gave more positive estimates of the effects of the project on the productivity of labour than staff and experts ($p < .002$)
- the staff gave more critical estimates of the effects of the project on the quality of operations, team-based working and cooperation between management and staff than management and experts ($p < .003$)
- the management gave more positive estimates of the effects of the project on customer service, social relations, opportunities to develop professional skill, development activity, mental wellbeing, physical working conditions, the position of ageing employees and the position of young employees than staff ($p < .05$)
- experts gave more critical estimates of the effects of the project on equality than management and staff ($p = .000$)

The results can be compared with the action research development projects of the municipalities carried out by researchers and consultants of the Finnish Municipal Quality Network (Kalliola & Nakari 2005), in which a similar self-assessment form as in the TYKE programme was used. On the basis of results, the effects in the TYKE programme's II period (excluding three questions concerning equality¹⁵) were 13 percentage points better on average for all variables than in the Municipal Quality Network. The biggest differences are in the productivity of labour, the smoothness of the operations, the cooperation between management and staff and in the opportunities to develop professional skill. One factor which explains differences could be a different respondent group, since the biggest respondent group in the municipal projects of the Municipal Quality Network was the staff (staff 87 (53%), supervisors 66 (38%) and experts 20 (10%)). A comparison of the answers of staff in the TYKE programme with all the answers of staff in the Municipal Quality Network produces more parallel results. In the TYKE programme, however, the results are a little better for the staff, too, except where team-based working, cooperation between management and staff and customer service/flexibility are concerned.

¹⁵ Three questions concerning equality were omitted from the survey of the Municipal Quality Network.

According to Kalliola and Nakari (2005), it was not possible to perceive statistical differences between different respondent groups in the municipal projects of the Municipal Quality Network even though the experts gave a more positive estimate of the effects on social functioning, in particular, than other groups. The researchers justify the result with the fact that the municipal projects of the Municipal Quality Network have been carried out in accordance with *participatory action research, which facilitates the forming of a common view*. Based on this view, the self-assessment results of the TYKE programme were also compared between research-assisted and non-research-assisted projects. Research-assisted methods are characterized by a theoretical approach and development work in them is often expressly based on cooperative development (e.g. Engeström 1998; Heikkinen & Jyrkämä 1999).¹⁶ Whether statistical differences can be perceived between the responses from management, staff and experts in research-assisted project was also looked into.

Comparison of the estimates given by respondents who had participated in research-assisted projects (N=145) and non-research-assisted projects (N=355) in the II period of the TYKE programme produced the following statistical differences:

- respondents in research-assisted projects gave more positive estimates of the effects of projects on the quality of products or services ($p=.034$), on the quality of operations ($p=.001$), on customer service ($p=.010$), on social relations ($p=.018$), on opportunities for developing professional skill ($p=.003$), on development activity ($p=.083$) and on equality between the sexes ($p=.028$) than respondents in non-research-assisted projects

After this, a comparison was made of differences between respondent groups in research-assisted and non-research-assisted projects. On the basis of the results, the different groups answer more uniformly in research-assisted projects than in non-research-assisted ones. In research-assisted projects the only statistical differences between the groups (management N=47, staff N=47, experts N=51) were the following (Kruskal-Wallis test):

¹⁶ In the TYKE projects, these included, among others, developmental work research (Change Laboratory), experimental development research (development cycle), action research (work conference and democratic dialogue) and methods based on the theories of the learning organization. Non-research-assisted methods included, for instance, education, pilot studies, work instruction and group discussions (cf. Vartiainen et al. 2000, 80- 91).

- in research-assisted projects the staff gave a more critical estimate of the effects of the project on cooperation between management and staff than management and experts ($p < .012$)
- in research-assisted projects the management gave a more positive estimate of the effects of the project on team-based working than staff ($p = .045$)
- in research-assisted projects the staff gave a more positive estimate of the effects of the project on the position of young employees than experts ($p < .007$)

In non-research-assisted projects, the estimates given by different respondent groups (management $N=123$, staff $N=116$, experts $N=116$) of the effects of projects differed more often from each other than in the research-assisted ones. The results in non-research-assisted projects were largely parallel with the material as a whole ($p > .050$) (Kruskal-Wallis test).

The results for the II period of the TYKE programme support the view of Kalliola and Nakari (2005) that respondent groups in research-assisted projects which have a strong cooperative approach give more uniform estimates of project effects. It seems likely that *there is more common discussion of the objectives and results of development work in research-assisted projects, which helps form a common idea of the project effects*. The results also show that in the research-assisted development projects of the TYKE programme, the effects are estimated to be better on average than in the municipal projects of the Municipal Quality Network (Table 12). There could be several reasons for this. One of the factors could be the source of the questions. It is possible that respondents tend to give more positive estimates of project effects in a survey conducted by a funding body than by an expert organization. Another factor could be the number of respondents among the staff. The results of the TYKE programme indicate that the staff give more conservative estimates of project effects. In the TYKE programme there is an even distribution of answers from different respondent groups whereas the views of the staff are emphasized in the survey of the Municipal Quality Network. It appears that the sector concerned cannot be used as an explanation of the differences, since the results of TYKE projects were also better than average in the municipalities compared with the projects of the Municipal Quality Network. On the whole, the effects of municipal projects in the TYKE programme were better than those in other sectors, especially where the quality of working life was concerned (Alasoini 2000; cf. the following article).

Table 12. Comparison of the effects of research-assisted development projects in the II period of the TYKE programme and municipal projects in the Municipal Quality Network (percentage of responses saying 'clear improvement' or 'slight improvement').

	TYKE total (N=145-148)	TYKE municipal projects (N=69-70)	Municipal Quality Network (N=173)
Productivity of labour	68	60	51
Quality of products and services	84	83	64
Quality of operations	79	75	63
Customer service/flexibility	75	84	67
Smoothness of the operations	70	68	48
Team-based working	90	93	81
Cooperation between management and staff	83	81	65
Social relations	81	80	65
Opportunities for developing professional skill	85	89	57
Development activity	91	93	77
Mental wellbeing	71	70	56

Source: For projects of the Municipal Quality Network, Kalliola & Nakari (2005).

Effects of development projects on employment

One purpose of the programme is to try to promote positive employment trends with the help of project activity. By developing and adopting new modes of operation, workplaces are able to cope better with the demands of their operating environment, promote innovation and create better preconditions for sustainable employment trends.

Self-assessment data was used in order to investigate the effects of projects on employment in the short and long term. The results for each period look parallel but there is still a statistically significant difference between them (Figure 9). The majority of respondents said that the project did not have a direct effect on staff numbers. It was estimated that staff numbers had increased in 67 projects in the II programme period and fallen in 10 projects. The corresponding figures in the I programme period were an increase in staff numbers in 69 projects and a fall in 27 projects.

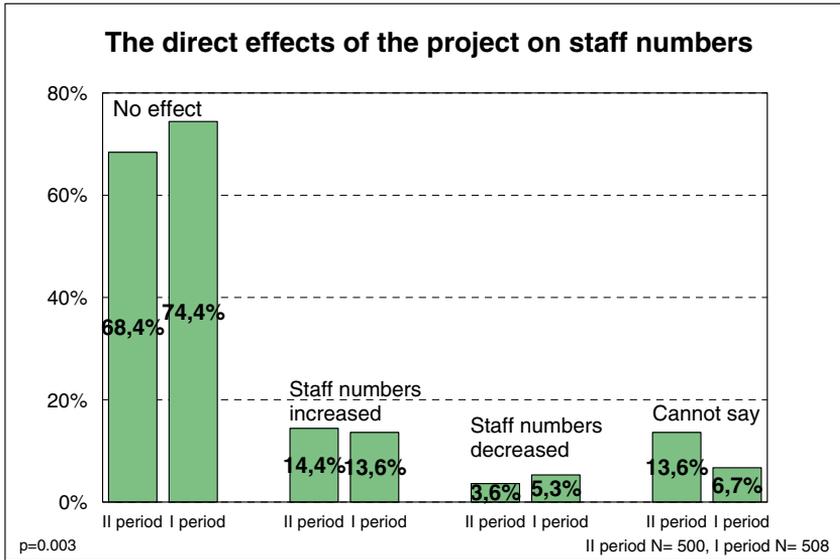


Figure 9. Direct effects of development projects on staff numbers in the I and II programme period.

The results indicate that employment effects are often evident only in the long term (Figure 10). The result is even clearer in the II programme period. The respondents in the II period give a more positive estimate of the long-term effects of projects on employment than those in the I period ($p=.007$). Just under one in three of the former estimated that staff numbers would increase while only five per cent estimated that it would decrease. The estimates by all the respondent groups of long-term project effects on staff numbers were more positive than in the I programme period.

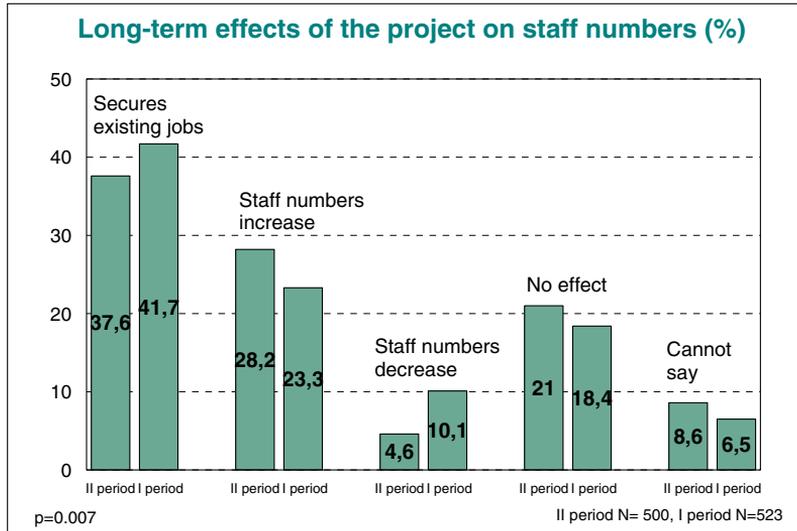


Figure 10. Long-term effects of development projects on staff numbers in the I and II programme period.

In the II programme period, management and experts gave more positive estimates than staff of the employment effects of projects in the long term (Table 13). A balance figure obtained by calculating the difference between the responses saying staff numbers will increase and saying they will fall has been used in the comparison. The balance figure is positive for all groups. The balance figure for management and experts is nearly the same. The results are similar to those in the I programme period, although the balance figures for all respondent groups are better in the II period (cf. Ramstad 2001, 36).

Table 13. Long-term effects of development projects on staff numbers in the II programme period (N=500) (%).

	Management	Staff	Experts
Will increase distinctly or slightly	32.2	19.6	32.5
Will fall distinctly or slightly	-4.1	-5.5	-4.2
Balance	28.1	14.1	28.3

It was not possible to perceive statistical differences between research-assisted and non-research-assisted projects where the long or short-term employment effects of the projects are concerned ($p > .05$).

Success of development projects

In the light of the self-assessment results, development projects were slightly more successful in the II programme period than in the I period (Figure 11). The results are better especially where achieving objectives is concerned ($p=.000$) and where staying on schedule is concerned ($p=.007$). In the II period about 90 per cent of respondents estimated that the objectives of the project were achieved and that the project stayed on schedule very or fairly well. In the II period the average duration of projects was longer, something which may well have helped them in staying on schedule and achieving their objectives. In fact, it was possible to discern a slight statistical connection between the duration of a project and its success in staying on schedule in the material as a whole ($r=.064$, $p=.04$, $N=1,029$). The estimates given by staff and experts in particular were more positive in the II programme period regarding projects' success in staying on schedule. Most respondents were also satisfied with the experts used and the methods applied in development work. 90 per cent of respondents in the II programme period gave the estimate very good or fairly good for the work done by experts, while 84 per cent gave the same estimate of the success of the methods used.

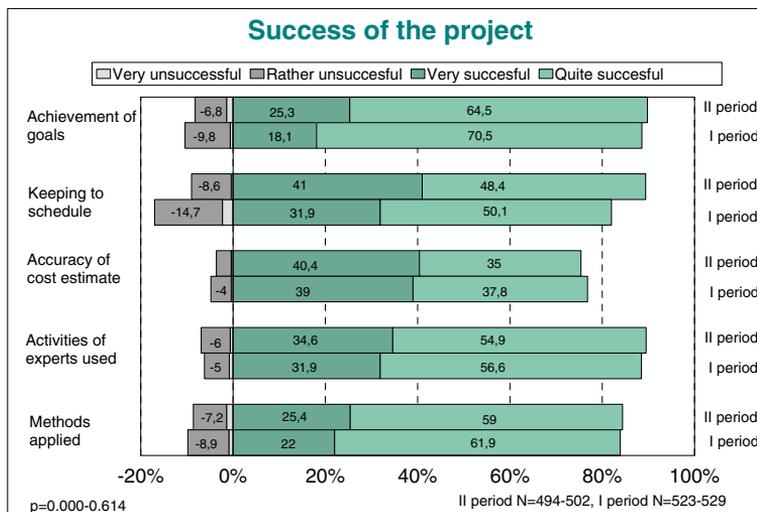


Figure 11. Success of development projects in the I and II programme period.

Staff gave more critical estimates of project success than management and experts. This applies especially to the achieving of objectives, staying on

schedule and accuracy of the cost estimate ($p < .05$). The differences between respondent groups are big, especially where the accuracy of the cost estimate was concerned. Only 44 per cent of the staff estimated that the cost estimate had been accurate, compared with 90 per cent in the other respondent groups (Figure 12). It seems probable that staff do not always possess exact information about the financing of a project. In fact, staff are more likely than other respondent groups to reply 'cannot say'.

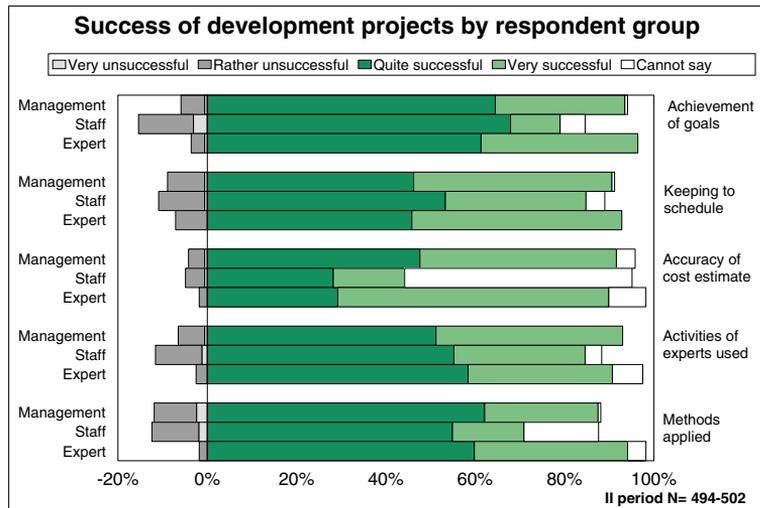


Figure 12. Success of development projects in the II programme period by respondent group.

In research-assisted projects the respondents' estimates were statistically significantly more positive than in non-research-assisted projects where the achieving of objectives ($p = .048$), staying on schedule ($p = .031$) and the methods applied ($p = .020$) were concerned.¹⁷ The answers of different groups were largely in line with the overall distribution of respondents.

The self-assessment of the municipal projects of the Municipal Quality Network also focused on the achieving of objectives, staying on schedule and the methods applied (Kalliola & Nakari 2005, 77-78). The results for

¹⁷ 91% of respondents in research-assisted development projects gave the rating very or quite successful to the achievement of objectives, 96% gave it to staying on schedule, 75% to the accuracy of cost estimate, 92% to the experts used and 88% to the research, training and development methods used. The corresponding figures for non-research-assisted projects were: achievement of objectives 89%, staying on schedule 87%, accuracy of cost estimate 76%, experts used 89%, and research, training and development methods used 83%.

the TYKE programme are slightly better for all the questions. The biggest difference occurred in the methods applied. 56 per cent of respondents in the Municipal Quality Network and 84 per cent of respondents in the TYKE programme said that the methods applied had been very or quite successful. The Municipal Quality Network applied mainly cooperative action research methods, whereas a greater variety of methods was used in the TYKE programme.

Initiator of development projects and the influence of the parties involved at the planning stage and the implementation stage of projects

TYKE required representatives of both the management of the workplace and its staff to participate in the planning and implementation of a project. The self-assessment survey was conducted in order to discover which party had acted as the main initiator of a project and what influence the other parties involved had had at the planning stage and implementation stage. The results have been examined only for the II programme period.¹⁸ Generally speaking, it can be said that the importance of top management is emphasized especially at the initial stage of the project, while the importance of staff and experts grows at the planning stage and implementation stage of the project.

In the vast majority of cases, the initiator of a project was a member of the top management (59%) and middle management or work supervision (15%) (Figure 13). The difference between these and other parties is considerable. It seems that experts have played a minor role at the stage when ideas for a project are first discussed. 13 per cent of respondents said that the project did not have only one initiator but that the initiative was the result of cooperation between different parties. The experts were more likely than other respondent groups to answer that the initiator of a project was an expert and less likely to answer that it was a member of top management. Staff was more likely than others to say that the initiative came from a representative of the staff.

¹⁸ The main initiator of a project has been studied only in the II period. In the II period, changes were also made to the contents of the questions concerning the influence of the various parties on the project at the planning and implementation stage, so a comparison with the results for the I period is not possible.

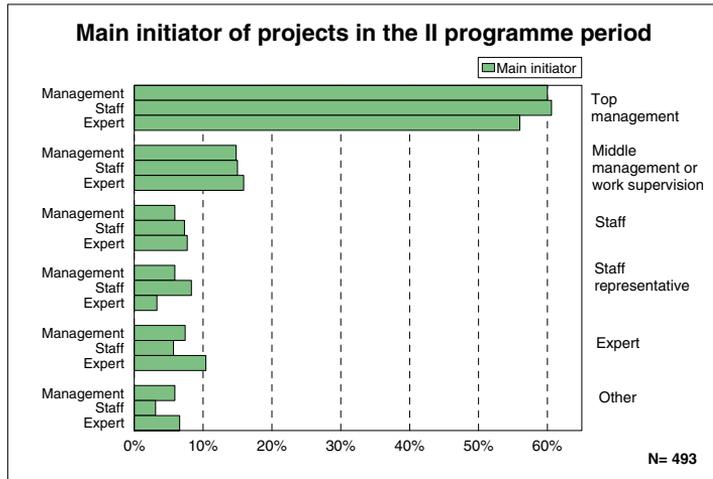


Figure 13. Main initiator of development projects in the II programme period.

At the planning stage especially, the importance of experts increased. At the stage in question, content is most often influenced by experts (88%), top management (80%) and middle management (70%) according to the estimates of all respondent groups (Figure 14). The contribution of staff to the planning stage is smaller than that of others (41%). There are statistical differences between respondents in that staff are more likely than other respondents to estimate that except for middle management and work supervision ($p=.154$), the various parties have been less involved ($p<.001$) in the planning stage of the project.

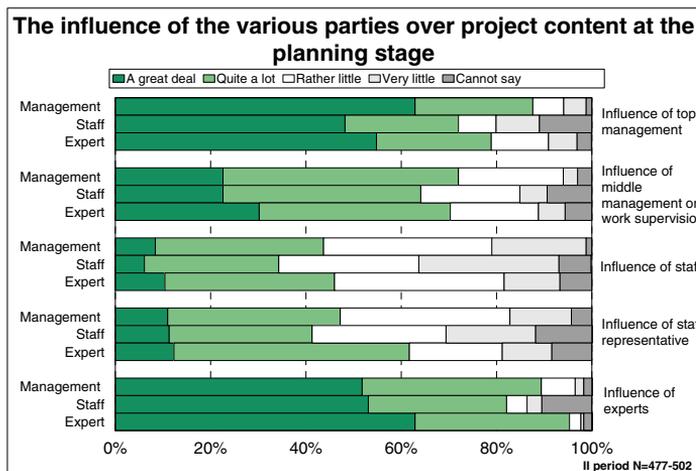


Figure 14. The influence of the various parties over the content of development projects at the planning stage, by respondent group in the II programme period.

At the implementation stage of the project, the different parties participate more equally. Project implementation was usually influenced by middle management or work supervision (86%) and staff (77%) alongside experts (91%) (Figure 15). Top management and staff representatives influenced project implementation slightly less often than the others. Staff are more likely than other respondent groups to estimate that the various parties had an influence on project implementation ($p < .05$).

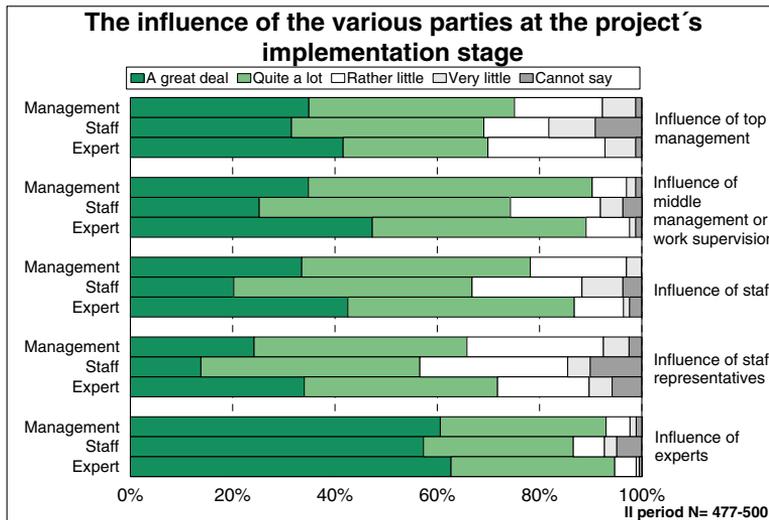


Figure 15. The influence of the various parties involved in the implementation of development projects in the II programme period, by respondent group.

The influence of staff representatives at the planning stage has been statistically more significant in research-assisted development projects than in non-research-assisted projects ($p = .005$).¹⁹ The influence of staff ($p = .011$) and staff representatives ($p = .007$) at the implementation stage was also stronger in research-assisted projects.²⁰ Experts also exercised much more

¹⁹ In research-assisted development projects in the II programme period the following had a great deal or quite a lot of influence at the planning stage: top management 76%, middle management or work supervision 73%, staff 46%, staff representative 56% and experts 92%. The corresponding figures for non-research-assisted projects were: top management 81%, middle management or work supervision 67%, staff 40%, staff representative 48% and experts 88%.

²⁰ The following had a great deal or quite a lot of influence at the implementation stage of research-assisted projects: top management 68%, middle management or work supervision 87%, staff 86%, staff representative 73% and experts 98%. The corresponding figures for non-research-assisted projects were: top management 73%,

influence over project implementation in research-assisted projects ($p=.033$). In addition to direct distributions, it seems that the influence of top management was stronger at both planning stage and implementation stage in non-research-assisted projects. The various respondent groups answer more uniformly in research-assisted projects than in non-research-assisted ones. On the basis of this, the research-assisted projects were often implemented using a participatory method.

The survey by the Municipal Quality Network (Kalliola & Nakari 2005) also studied the participants' influence on the contents of the project at the planning stage and implementation stage. In these projects, project content was influenced most by experts (74%), superiors (59%), staff (52%), sectoral management (50%) and the officials in charge of planning and development in the central administration (50%). At the implementation stage, the most important parties that influenced the implementation of the project were the staff, superiors, experts and sectoral management in that order.

A comparison shows that at the planning stage of the TYKE programme, it was the experts and management that showed above-average activeness out of the whole respondent group, while experts alone held a strong position in the projects of the Municipal Quality Network. When the strong role of the management as initiator is also taken into account, it can be concluded that the projects in the TYKE programme were more often based on the needs of the workplace itself, in other words that a representative of the management took part in the planning of projects more often, while the emphasis in the projects of the Municipal Quality Network was on development based on the work of the experts involved. However, staff participation in project planning was stronger in the Municipal Quality Network. Where the implementation stage is concerned, the results for projects in the Municipal Quality Network and, especially, research-assisted projects in the TYKE programme are similar in the sense that staff participation is stronger at the implementation stage.

Cooperation between the various parties during development projects

One of the selection criteria of the programme is that development work must be cooperative, in other words that management and staff must cooperate on the implementation of the project. The self-assessment survey

middle management or work supervision 84%, staff 74%, staff representative 62% and experts 89%.

examined cooperation between management, staff and experts during the project.

Cooperation is strongest between management and experts and between experts and staff. There seems to be no great difference in the results for the I and II programme period. However, management and experts in particular estimate that there was more cooperation between management and experts in the II period ($p=.002$) (Figures 16 and 17).

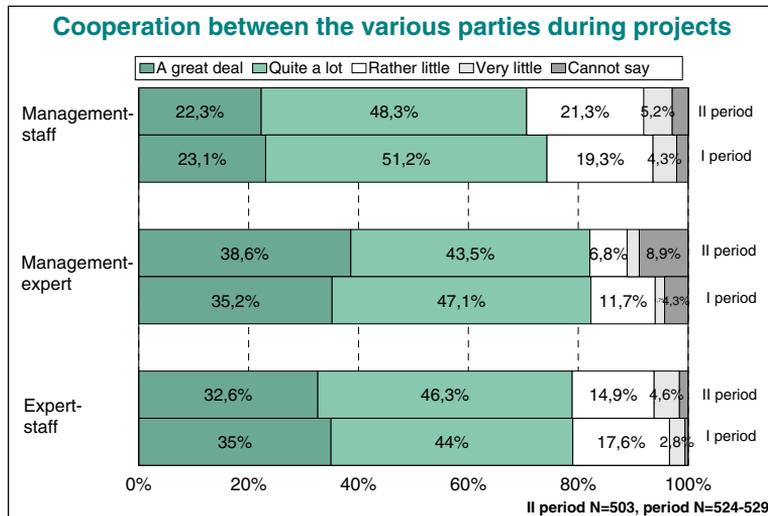


Figure 16. Cooperation between the various parties during development projects in the I and II programme periods.

The staff estimated that there had been less cooperation than the management and experts ($p=.000$). The differences between the answers from management and staff are clearest in this section of the survey. The results concerning cooperation between management and staff are contradictory to some extent. Management feels that it has cooperated with the staff more often than the staff does.

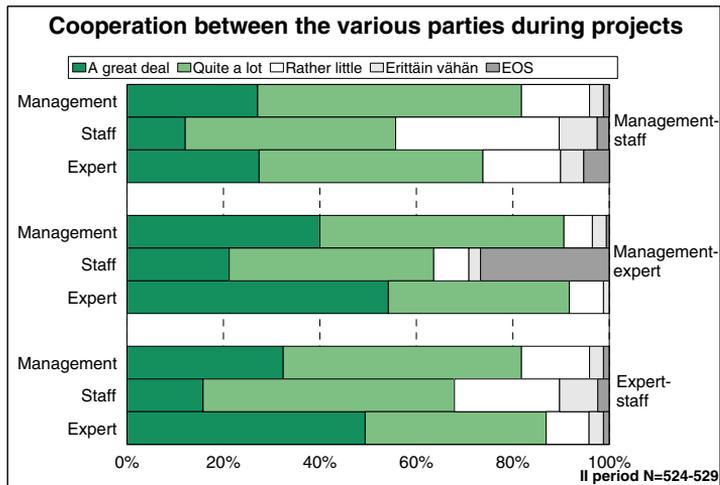


Figure 17. Cooperation between the various parties during development projects in the II programme period, by respondent group.

In the II programme period, there was more cooperation between staff and experts in research-assisted projects than in non-research-assisted ones ($p=.001$). 89 per cent of respondents in research-assisted projects estimated that there was a great deal or quite a lot of cooperation between experts and staff. The corresponding figure for non-research-assisted projects was 75 per cent. There are statistically significant differences between the various respondent groups' estimates of cooperation both in research-assisted and non-research-assisted projects ($p<.05$).

Cooperation in projects can be compared with the results for the Municipal Quality Network (Kalliola & Nakari 2005) where cooperation between management and experts and between staff and experts is concerned. In both cases, cooperation was more common in the TYKE projects. 82 per cent of respondents in the TYKE programme and 60 per cent in the Municipal Quality Network said there was a great deal or quite a lot of cooperation between management and experts. Where cooperation between staff and experts was concerned, the corresponding figures are 79 and 69 per cent. Meanwhile, a comparison of cooperation between management and staff cannot be made since the Municipal Quality Network survey featured a separate question concerning cooperation between sectoral management and supervisors of the area that development activity focused on and staff. An estimated²¹ 53 per cent of respondents in the Municipal Quality Network say that there was a lot of cooperation between the

²¹ This figure is an estimate based on a diagram of cooperation between the various parties during the project that was presented in the study by Kalliola & Nakari (2005).

sectoral management and staff, while an estimated 78 per cent say there was a lot of cooperation between supervisors and staff. In the TYKE programme, 71 per cent of respondents estimate that there was a lot of cooperation between management and staff.

Significance of financial and other support from the TYKE programme

The programme's financial support for project operations is mainly used for experts' salaries or fees. Other support from the programme consists of help and expertise of the project team, opportunities for contact with other projects and experts, seminars, the website and the publications of the programme.

According to the estimates, financial support had great significance for the planning of projects (Figure 18). In the II programme period, 71 per cent of respondents felt that financial support had had significance for the schedule of the project and the speed of the start-up, 70 per cent estimated that support had had an effect on the implementation method of the project and 62 per cent felt it had influenced the setting of objectives a great deal or quite a lot. The estimates are similar but slightly weaker for all respondents than in the I period ($p < .007$). The difference is explained by the responses from staff. Staff estimated that financial support had less significance for all questions at the project planning stage in the II period ($p < .003$). On the whole, staff were less likely to consider the significance of financial support to be great than were management and experts ($p = .000$).

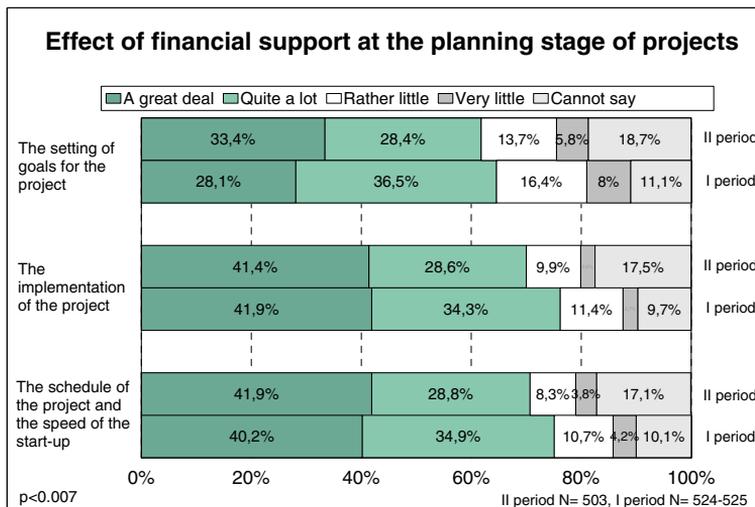


Figure 18. Effect of financial support at the planning stage of development projects in the I and II programme period.

As a consequence of these results, support from the TYKE project team at the planning and implementation stage has increased in the II programme period ($p=.000$) (Figure 19). 60 per cent of respondents felt the support of the project team was of great or fair importance at the planning stage of the project while 51 per cent gave the same ratings for the implementation stage. All respondent groups gave more positive estimates for the II period ($p<.05$). However, it was felt that interaction with other projects within the programme had been important less often than in the I period ($p=.000$). This change is difficult to explain. The programme has arranged several different events where the projects had opportunities to meet with each other. However, there were more projects in the II period and it could be that it was felt that the events arranged were inadequate. There was a maximum limit set for the number of participants at seminars, and there was not always room to accommodate all interested parties (cf. the article which deals with the Learning Together forums).

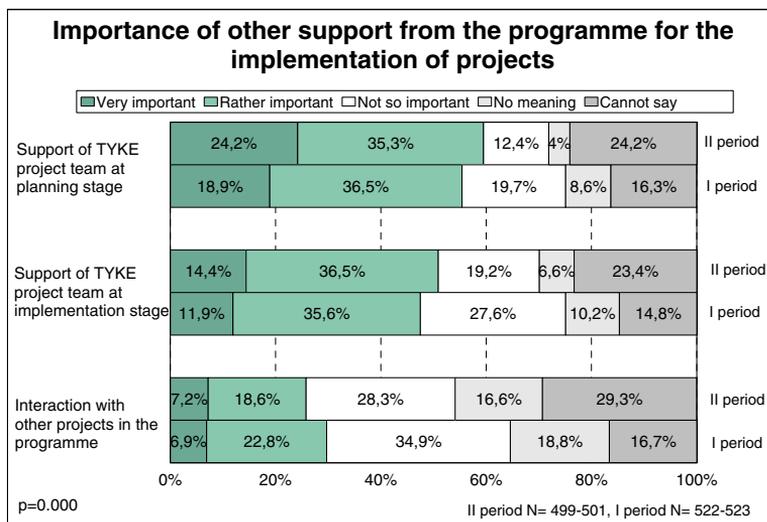


Figure 19. Significance of support from the programme for the implementation of development projects in the I and II programme period.

Contacts with other experts are considered important almost to the same extent in the I and II programme period (Figure 20). By contrast, the results for a more favourable attitude to development and for a positive image are weaker in the II period. In the II period, 40 per cent of respondents consider contacts with other experts to be very or fairly important, while 80 per cent give the same rating to a more favourable attitude to development and 60 per cent to an improved positive image as a result of support from the

programme. In particular the staff were less likely to say that support from the programme had given the project a positive image ($p=.016$) in the II period than in the I. Staff were, however, more critical ($p<.08$) in its estimates for all questions than management and experts.

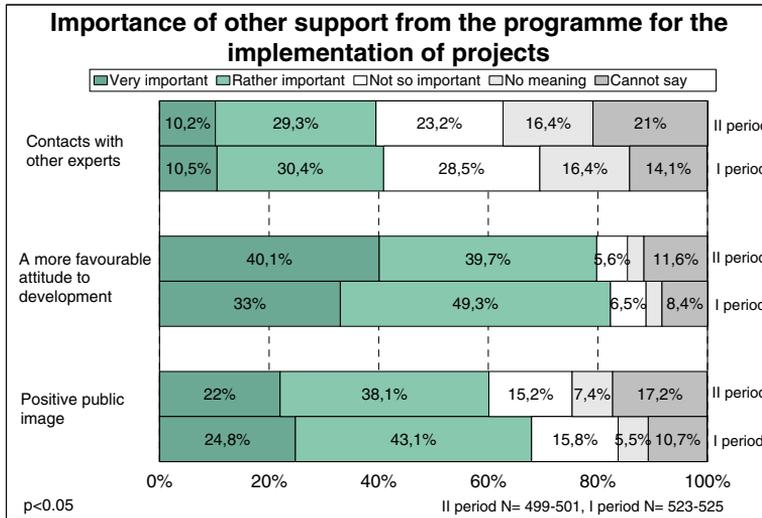


Figure 20. Significance of other support from the programme for the implementation of development projects in the I and II programme period.

Respondents' experiences of the seminars, publications and website of the programme were explored in new questions in the self-assessment questionnaire in the II period. About half of the respondents rated the seminars of the programme as very or fairly important (Figure 21). 43 per cent considered the programme's publications very or fairly important. So far, the programme has published 41 reports, 17 working papers and 13 other publications in its publication series. 37 per cent consider the programme's website important. The website has been available right from the start of the programme.

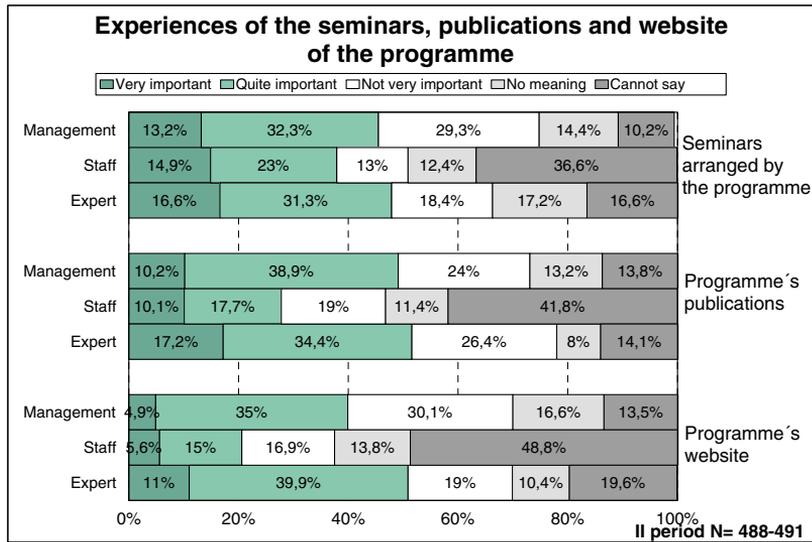


Figure 21. Experiences of the seminars, publications and website of the programme in the II programme period, by respondent group.

For all three questions the staff were less likely than management and experts to estimate that other support from the programme had been important in the II period ($p=.000$).

The results of research-assisted and non-research-assisted projects do not differ from each other where the significance of funding and other support from the programme is concerned ($p>.05$). Different respondent groups also give similar answers in research-assisted and non-research-assisted projects ($p>.05$).

What is the association between participation, cooperation and the effects?

The self-assessment results of development projects and changes in them in the II programme period have been examined above. In this section, the analysis will go deeper by examining what kind of associations can be found between participation, cooperation and the effects. This is a key question because the objective of development projects was specifically to support development of a company's mode of operation which is based on cooperation between management and staff. The associations are analysed with the help of a correlation analysis. It examines the association between all 15 factors which measure effects and the participation of the various parties involved (top management, middle management, staff, staff

representatives, experts) in the planning stage and implementation stage of the project, and also the cooperation between the various parties (management and staff, management and experts, staff and experts). The correlation analysis is based on the results for the II programme period. Only the most important correlations have been marked in Table 14. In addition to statistical significance, the correlation coefficient must have an absolute value of more than .30 in order for a correlation to have practical significance.

Table 14. Correlations of the factors which describe the effects of development projects with variables which describe the various parties' participation and cooperation.

	Quality of operations	Team-based working	Cooperation between management and staff	Social relations in the workplace	Opportunities to develop professional skill	Development activity
PARTICIPATION						
Influence of staff at the planning stage					.28	
Influence of middle management or work supervision on implementation			.30			
Influence of staff on implementation	.26				.26	.29
COOPERATION						
Cooperation between management and staff		.27	.38*		.29	.29
Cooperation between management and experts			.34			
Cooperation between experts and staff		.32	.28	.27		.27

p=.000, extremely significant statistically

* This correlation is logical. It follows that cooperation between management and staff in the implementation of a development project is reflected as a view according to which the project has had a positive effect on the cooperation between management and staff.

Among the variables which describe participation, the influence of staff at the planning and implementation stage and the influence of middle management on implementation show a clear association with some of the factors which describe effects. The influence of the staff is positively associated with opportunities for developing professional skill,

development activity and the quality of operations. The participation of middle management has an association with an improvement in the cooperation between management and staff ($p=.000$). By contrast, the participation of top management, experts and staff representatives did not have an association with the factors which describe effects. This result is also parallel with the evaluation of the municipal projects of the Municipal Quality Network (Kalliola & Nakari 2005), where staff participation had a stronger association than the participation of other parties with the sum variables for performance and service capacity. The result is also supported by Antila and Ylöstalo's (2002) study on proactive and traditional enterprises, which showed that staff participation in decision-making over their own work improves the quality of working life.

The variables which are concerned with cooperation have slightly more positive correlations with the different factors which describe effects. Cooperation between management and staff is associated with improvements in team-based working, cooperation between management and staff, opportunities to develop professional skill and development activity. Cooperation between experts and staff has a positive association with team-based working, cooperation between management and staff, social relations at the workplace and to development activity. Cooperation between management and experts during a project also has a positive association with cooperation between management and staff.

Staff participation at the planning stage and implementation stage and cooperation between the various parties would thus seem to have an association with the effects of projects, especially where the quality of working life is concerned (cf. the following article).

Summary: main differences between the I and II programme period

A comparison of the self-assessment results from the I and II programme period shows that the respondents' estimates of the effects and success of projects are largely similar during both periods. As a result of development work, changes have taken place at the workplaces and resulted in improvements in performance and in the quality of working life. Where the increase in development activity is concerned, the result has weakened somewhat in the II period. The estimates given by management and experts were not as positive in the II period. However, respondents' estimates of the effect of projects on the staff numbers in the long term are slightly more positive in the II period than in the I period (Table 15).

It seems that the projects have succeeded slightly better in the II programme period. Especially aspects such as staying on schedule and achieving objectives have succeeded better than in the I programme period. This result is probably explained by the fact that the duration of projects increased on average.

The significance of funding support from the programme for the setting of objectives for projects, the choice of implementation method and the setting of schedules is felt to be slightly less important in the II period. By contrast, support from the TYKE project team was felt to be more important than before in the II period, both at the planning and implementation stages.

Table 15. Main changes in the self-assessment results for the II programme period compared with the I period.

	II programme period compared with I
EFFECTS	
development activity	effect a little weaker
employment effects in long run	estimate more positive
COOPERATION	
cooperation between management and experts	a little stronger
FUNDING SUPPORT	
effect of funding support for the setting of objectives	significance slightly smaller
effect of funding support on the implementation method of the project	significance slightly smaller
effect of funding support on the setting of the schedule of the project and on the speed of start-up	significance slightly smaller
OTHER SUPPORT FROM THE PROGRAMME	
support from the TYKE team at the planning stage of the project	more important
support from the TYKE team at the implementation stage of the project	more important
interaction with other projects in the programme	slightly less important
improvement in positive attitude to development	slightly less important
positive image	slightly less important

Summary: main differences between respondent groups

Even though the results of the development projects of the TYKE programme look positive, generally speaking, there are clear differences between different respondent groups in how they see the results of the

projects. Different respondent groups have systematically given different estimates of the results of projects in the I and II programme period (Ramstad 2001; Rissanen et al. 2002, 31). The trend is that management at work organizations tends to give more positive estimates of the effects of projects than staff. In this section, we will take a closer look at the differences in the responses from management, staff and experts and the possible reasons for them.

To identify the differences, the quantitative results of the self-assessment survey have been examined by respondent group, and the open answers in the survey were also studied. On the basis of the examination, the following factors seem to be involved in the explanations for the differences in views between the groups:

1. Initial expectations of the project
2. Awareness of the results of the project
3. Development method: research-assisted and participatory method
4. The validity of the contents of the survey and the change experienced
5. The material and the implementation of the survey in the work organization

Initial expectations of the project refer to the expectations that different respondent groups had concerning the project's aims. The idea of starting a development project in the workplace is usually an initiative from management or experts. Even though the programme requires representatives of management and staff to participate in the planning of the project and jointly approve the project implementation plan, in practice, plans for a project application are usually at quite an advanced stage before it is presented to the staff. In fact, projects are likely to start earlier where the management is concerned, since the management has usually thought about the issues involved and worked on them for longer. It was generally felt among staff that approving this kind of plan that was already 'too complete' was frustrating. Some of the staff also felt that project applications *promised more than they could deliver, and that this caused disappointment*. It was felt that there was some level of conflict between project plans and practical work and implementation.

"Re-processing a plan that was too ready as a group work by the staff 'just for show' caused frustration with the whole programme." (staff)

"Initially, management produced some slightly over-ambitious ideas for the project, such as the use of information technology in

home care. Eventually, however, we were allowed to decide on our own development idea as a team." (staff)

"Among the staff we were taken completely by surprise when we heard about the project in question. At first there was great enthusiasm and high hopes, but that soon passed when the improvements we had been promised did not materialize immediately. However, gradually we came to understand that Rome was not built in a day either and since then we have participated in the corrections and reforms ourselves." (staff)

One of the motives for constructing a project plan that is more ambitious than what is feasible in reality is that an application for external funding will be submitted for the project and the application must convince the potential funding body of the excellence of the project. It is important, however, to strive for realistic objectives in the applications and not promise too much in the hope of more funding, and it is also important that objectives are drawn up in cooperation with the staff.

Mathews (1994) talks about *negotiated change* in the implementation of organizational changes. That means that all the parties concerned are involved in the planning of the objectives and implementation method right at the beginning of the process, and that their agreement is also sought on them. The information about the initial expectations of the various parties is important because they are likely to influence the participants' wishes, actions and evaluation of project results later on.

TYKE required that the effects of the project on performance and the quality of working life should be measured and evaluated. However, the results of the project are not always disseminated to everyone in the work organization. In fact, staff are more likely than other respondent groups to respond to the survey with 'cannot say'. *On the basis of the results, the staff did not always possess information about how project results were measured and what the effects of the project were in the work organization.* According to Jutila et al. (1997, 119), various indicators are traditionally tools used by the management to monitor and control the results of the work.

A third factor explaining the differences between the different respondent groups is the development method. On the basis of a statistical analysis, *the differences in effects were smaller between different respondent groups in research-assisted projects.* The research-assisted projects (including the action research projects) are often based on development, where the participation of the staff at different stages of the project is already a central

fundamental value (Gustavsen 1992; Lehtonen (ed.) 2004; Pålshaugen 2000). In the research-assisted projects of the TYKE programme the various parties participated more equally at the planning and implementation stage of the project than in other projects, and the evaluation of the effects of projects was also more uniform between different respondent groups. This result is also supported by the survey of Kalliola and Nakari (2005), which showed that municipal projects that were carried out using participatory action research showed only small differences between different respondent groups in their estimates of the effects of projects.

The respondents deal with the commitment and participation of management and staff in the project in many of the open answers. The respondents often felt that the staff were not sufficiently involved in the project or that the commitment of the management to the project was low. The staff had either not been successfully enlisted for the project (the staff did not want to, were not motivated or did not have opportunities to be involved because of, for example, shift work or time pressures) or the staff had not been admitted to the project (the project was managed more on the management level). Similarly, it was often stated about management that the management was not sufficiently committed and that management should have participated in the project more strongly. These results give rise to the question of how development motivation can be built in a positive way. The various parties' participation in and commitment to the project vary, and this requires new approaches to development and motivation from the management and experts. The participation of staff and management must be supported but, on the other hand, it must also be a requirement.

The validity of a survey refers to the extent to which its results measure what they were intended to measure (Hair et al. 1998). *Some of the respondents considered the factors which measure effects on the questionnaire to be too narrow, which made it difficult to answer.* The respondents also saw the effects of development projects in many factors that were not included in the questions. For instance, open answers from staff often include such matters on which the project had a positive effect. The ones which are mentioned most often are an improvement in discussion, interaction and openness. Thanks to the project, more is known about the operations of the work organization and more information is made available about it. There has also been an increase in the staff's participation, opportunities for exerting an influence and, consequently, their responsibility. The self-management of teams has improved and the teams are now responsible for broader areas and for developing their own work. During the project, the atmosphere and work motivation also

improved and cooperation among the staff improved. Work has also become more focused, the strategy and assignments have become clearer, the monitoring of operations has improved and shared fundamental values have been created. Cooperation is not always restricted only to that between management and staff; during the project there may have been cooperation on a wider front with players outside the organisation. Development work has also been better organized, development organizations have been created and suggestion schemes have been introduced. There had also been a reduction in the amount of sick leave. In short, the effects of a project are often seen in areas other than those covered by the survey's multiple choice questions. The results indicate that *the effect factors have not been covered with sufficient variety in the self-assessment survey* of TYKE. This result is further reinforced by the study of Vartiainen et al. (2000) on the teamwork projects in the TYKE programme. In addition to the survey, the study in question examined the effects of projects with the help of the final reports and interviews. According to the researchers, the effects of projects were evident in more factors than the survey could cover. Antila and Ylöstalo's (2002 135-136) study of proactive and traditional enterprises also indicates that the management and the staff experience development work differently. In the study in question, the management and the staff saw the focus of the development work conflictingly in different matters. It is possible that the management and staff saw the needs for and results of development work from different perspectives. Changes in the day-to-day work can be important to the employees whereas the management evaluates development more on the basis of the corporate strategy and financial factors. This can take on added emphasis especially in projects where the objectives and results of development are not discussed or evaluated together.

The material produced by the survey and implementation of the survey form the foundation for the self-assessment result. The self-assessment questionnaire was sent by post to the person in charge of the project who passed it on to representatives of management and staff, and to the experts involved in projects, who filled it in. However, the questionnaire did not always reach a suitable staff representative. Suitable here refers to a person who had participated in the project and knew that they were involved in the TYKE programme. There were mentions in answers from staff that *the respondent is not aware of the programme or of the project results*, or that the respondent is a new employee who has just joined the organization. Extensive projects which had been implemented in several units or organizations were also considered problematic from the point of view of evaluation. It should also be asked whether it is possible to obtain a sufficiently comprehensive picture of the effects of a project by asking only one staff representative for the results, or whether questionnaires should be

sent to more people. It should also be considered whether more exact instructions could be given concerning who should answer the questionnaire and how answering it should be carried out so as to produce the most reliable results possible concerning the project.

In conclusion

This article has examined the self-assessment results of the TYKE programme in the I and II period. As expected, the results for the two programme periods were similar. The result was to be expected since there had not been any significant changes in the programme's objectives and forms of activity between the programme periods, with the exception of a longer duration for development projects and an increase in the average amount of support directed to individual projects. The value added brought by the seminars held in the II period were not clearly evident in the results either. Respondents feel that the support of the project team is more important at the implementation stage, but the cooperation between projects has not increased. In fact, it can be estimated that the seminars only reached a reasonably small number of the projects in the programme.

The differences between respondent groups are clear in both programme periods. Factors which affect this could include that different respondent groups had different initial expectations of the project, the inadequate dissemination of information on project results, a method of implementation which was based on inadequate participation and cooperation, validity problems with the survey questionnaire itself and the selection of respondents. Research-assisted projects were more likely to reach their objectives, their effects were more positive, their staff influenced the planning and implementation of the project more and the different respondent groups answered more uniformly. The applied development method was also viewed more positively than in other projects. The value added of the research-assisted approach is also evident in the evaluation study performed by Kalliola and Nakari (2005). In fact, research-assisted development appears to be a successful method for developing work organizations in a way where both the management and staff can participate in development in more balanced cooperation and reach positive results from the perspective of both parties.

In the evaluation study of the TYKE programme (Arnkil et al. 2003), one of the criticisms brought up focused on the low research involvement of projects. The researchers estimated that research and development were not very strongly combined in the TYKE programme compared with the similar programmes in many other countries. The evaluators justify their view of

the low level of research with the high percentage of consultants in the TYKE programme (ibid., 194). However, this is not, as such, any indication of whether research is utilised in a project or not. Research-assisted development is practised in different organizations (Ramstad 2002, 23). An examination of the distribution of expert organizations in the TYKE programme's research-assisted and non-research-assisted projects, it becomes apparent that the experts in the research-assisted projects consist of a fairly even distribution of consulting companies, universities, polytechnics, research institutes and even internal developers.²² Users of the research-assisted method are found in all kinds of expert organizations in Finland. Research indicates that instead of comparing expert organizations (see Ramstad 2001), it would be more interesting to examine similarities and differences of the development methods used by the expert organizations.

The results generate several ideas for research and development concerning project implementation and the self-assessment method of the programme. The research seems to indicate that the research-assisted development method and cooperation between the various parties involved seems to have considerable importance for the projects' effects on performance and the quality of working life. This is something that must be taken into account in developing project operations. It is also important to develop the validity of the contents of the self-assessment questionnaire and the implementation of the survey so that they measure real effects in the work organization from the perspective of both management and staff. It would also make an interesting research project to investigate the success and implementation of research-assisted projects in more detail, statistically as well as qualitatively.

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²² The funding in research-assisted development projects in the II period of the TYKE programme was distributed according to type of expertise as follows: consultants 38%, universities 20%, state research institutes 13%, polytechnics, adult education centres and vocational education institutions 13%, internal developers 7% and other 3%. The corresponding figures for non-research-assisted projects were: consultants 70%, universities 10%, state research institutes 2%, polytechnics, adult education centres and vocational education institutions 8%, internal developers 5% and other 5%.

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Elise Ramstad

Simultaneous improvement in performance and the quality of working life through developing the work organization

Development of the modes of operation of the work organization aims at many kinds of improvements in companies and in public bodies. The traditional way of examining the results of development work is to make a distinction between performance or productivity and the quality of working life (QWL). Performance is linked with issues such as the turnover of a company, labour productivity, the quality of products and services, the quality of operations and speed of delivery (Aaltonen et al. 1996; Uusi-Rauva (ed.) 1996). Meanwhile, the factors of a good QWL include wellbeing at work, employees' opportunities for exerting an influence and the internal cooperation among the work community (Davis & Cherns 1975; Riikonen et al. 2003). Comprehensive development activity tends increasingly to strive for results in both areas.

Performance and the QWL are central objectives in terms of the various groups of players within the work organization, and as a consequence, they have long been a subject of interest for the work organizations and researchers alike. Researchers from different disciplines have created different definitions for these concepts and studied their relationship. The discussion has varied considerably depending on the background organization of speakers, and whether they were engineers, economists, sociologists, government officials or representatives of employer or employee organizations. The emphasis of development work has also varied according to the needs of the time period, social context and sector concerned. For instance, after the Second World War, the main emphasis was on rationalisation and raising productivity, but then in the 1970s, the focus of social discussion in many countries shifted towards making working life more humane, and to improving occupational safety and health and the physical working conditions. A conscious effort to simultaneously develop productivity and the QWL has been made only since the 1980s. Although many still feel that there is a conflict of values between these objectives, the idea is becoming stronger that an improvement in employee welfare and productivity is not necessarily contradictory. For example Docherty et al. (eds.) (2002) have used the concept of 'sustainable work systems' to refer to work systems in which the performance of work organizations and sustainable use of the employees' resources is promoted by adopting new types of organizational practices.

There are relatively few studies which examine a simultaneous improvement in performance and the QWL as the result of development work. The focus of interest has often been on performance alone or an attempt has been made to explain performance through certain quality factors in working life (Alasoini 2001; MacDuffie 1995; Niemelä 2003). The connection has also been explained the other way round, i.e. improved productivity improves the QWL. However, studies in which performance and the QWL have been examined side by side suggest that performance and the QWL are dependent on each other. The results apply both to companies in industry and the service sector (Appelbaum et al. 2000; Cully et al. 1999; Teikari & Väyrynen 1992; Tuomi & Vanhala (eds.) 2002) and to public sector organizations (Kasvio et al. 1994). In the conclusions of the Municipal Quality Project, for instance, the researchers assessed that profitability and the QWL could be sensibly reconciled and that the municipalities would be able to reach cost savings without sacrificing the QWL (Kasvio et al. 1994, 210). This could be referred to as the 'upward spiral' of workplace development, in which productivity supports the QWL and vice versa. In the long run, it can be difficult to maintain good productivity growth without a favourable development in the QWL – and the other way around.

Work organizations and researchers have developed different ways of measuring changes in performance and the QWL. The traditional approach has been to divide the indicators under the headings subjective and objective. The difference between a subjective and an objective indicator is linked with whether it is based on numerical information about the operations of the company, e.g. information that can be measured in terms of money, or on beliefs, ideas or opinions (Aaltonen et al. 1996; Kempplä & Lönnqvist 2003.) Objective indicators have been used more often in measuring productivity or performance, while subjective indicators have been used for measuring the QWL. Exact measurement is often quite difficult and even impossible, something which in turn makes comparison of different organizations more difficult. There has been talk recently about method called a subjective productivity measurement (Kempplä & Lönnqvist 2003, 3), which would produce information about productivity by collecting and analysing the direct or indirect data of the productivity of the relevant parties. Direct subjective productivity measuring produces information directly about productivity and changes in it. An indirect productivity measurement comprises respondents' estimates of, for instance, the length of waiting times and unused capacity. According to the researchers, a subjective indicator of productivity may even be more suitable for measuring productivity because it makes it possible to ask tailored questions, compare different organizations and it produces results with a better general applicability. It can be used to gather information on

productivity from, for example, sectors where quantitative information about outputs and inputs is not readily available, such as the public sector or knowledge-intensive expert organizations. In these cases, the subjective productivity measurement can be a source of valuable information.

In 1996-2003, the Workplace Development Programme (TYKE) started development projects with the aim of reforming modes of operation and at the same time improving in performance and the QWL through strengthening employee skills and, consequently, increasing employment at workplaces. Workplaces of different sizes, from different sectors and with different forms of work operations (e.g. specialist work, process work, nursing) took part in the programme's project activity. As a consequence, it was difficult to find a commensurable objective measurement that could cover the wide variety of workplaces that participated in the programme. The effects of reformed modes of operation on the workplace performance and the QWL have been investigated in the programme mainly with the help of self-assessment of projects where representatives of management and staff and the experts used in the project have acted as evaluators. In addition to this, individual workplaces have used different subjective and objective indicators suitable to their own work community to evaluate changes in productivity and the QWL during the project. There was, however, quite a variety of these workplace-level indicators and they could not be used directly for the evaluation of projects; the main emphasis was on self-assessment.

When the objective is to produce lasting improvements in productivity and the QWL, it is important that the effects of development work are experienced by the work community in a similar way, at least to some extent. On the basis of recent research, it seems, however, that different respondent groups tend to give different estimates both of the content of development (Tuomi et al. 2002), the results of development work (Cully et al. 1999; Ramstad 2001; Rissanen et al. 2002) and the factors which affect the success of the development (Salminen et al. 1999; Tuomi et al. 2002). The differences in views between management and staff have been attributed, among others, to their different positions in the organization (cf. the previous article; Salminen et al. 2000). Employees look at the matter from the point of view of their own everyday work whereas management may perceive development more through the strategy, finances and formal organization of the workplace. The starting point of this article is that it can be assumed that the development projects in which *both* management *and* staff estimated that performance and the QWL had simultaneously improved have had the best potential for qualitatively sustainable productivity growth.

Objective and methods

Earlier self-assessment studies indicate that the development projects of the TYKE programme had positive effects on profitability and the QWL (Ramstad 2001; Vartiainen et al. 2000). Also in the follow-up study of the projects, which was carried out 2-3 years after completion of the projects, about three out of four respondents considered the significance and effects of the project as a whole to be very or fairly positive (Rissanen et al. 2002). The difference between this article with the earlier studies is that the objective here is to discover to what extent it is possible to *simultaneously* improve performance and the QWL – and, consequently, employment – by developing work and organizational practices. There are three research topics:

1. How have the projects been able to simultaneously improve performance and the QWL by developing organization's modes of operation?
2. What factors related to the implementation of the project can predict a simultaneous improvement in performance and the QWL?
3. How is the positive development of performance and the QWL connected with assessments of employment trends at workplaces?

For the purposes of this article, the various parties involved in a project are required to give similar estimates of effects in order for a project to be assessed as having simultaneously improved performance and the QWL. The views of management, staff and experts are used as the basis of the evaluation. The first stage investigates the effects of the project on the simultaneous improvement in performance and the QWL in different respondent groups and according to sector. A set of measures of performance and the QWL is defined and constructed for this purpose. The sum variables are generated with the help of factor analysis and reliability analysis. Non-parametric variance and correlation analysis are then used in order to study the relationship between performance and the QWL in different respondent groups and according to sector.²³

Secondly, the connections between the factors related to project implementation (e.g. the influence of the various parties on planning and implementation, cooperation during the project, and the significance of

²³ Non-parametric tests were used in the report, because the majority of the distributions are not normally distributed. (The variables for performance and the QWL are linear in the whole material.) The purpose of statistical tests is to try to perceive and to describe the direction of changes.

funding support) and the assessments given of the project's effects on performance and the QWL are studied. Salminen et al. (1999; 2000) have studied development projects implemented in Finland and their most typical success factors. According to the researchers (Salminen et al. 2000, 35-44), the features typical of successful projects include a clear need for change, commitment from the management, staff motivation and commitment, good planning and organization and skilled and experienced staff. The assumption is also that the assessments of the various parties are also affected by how the implementation of the development project is perceived by different staff groups. In the study by Salminen et al. (2000), statistical differences were found in how the different staff groups assessed the success factors of the project. Representatives of the personnel department were more likely than others to mention staff motivation and commitment as a success factor, while chief executives considered this to be less important than others. In this article, sum variables are formed from the predictor factors and the associations are examined by respondent group. Non-parametric variance analysis and regression analysis are used in examining the relationships.

Finally, the effects of the projects on employment will be examined. The association between the projects' long-term employment effects and their ability to simultaneously promote performance and the QWL is analysed with the help of cross-tabulation. The association between employment effects and new forms of work organization is not clear on the basis of the research. It has been suggested that the relationship may vary according to the strategy of the workplace in question, its sector, or the focus of development (Alasoini 1998; 2004; Ramstad 2001). The assumption here is that if it has been possible to promote both performance and the QWL as a result of development work, this may improve the workplace's potential for taking on more staff. Balanced development combining both production factors and factors related to staff expertise and wellbeing can support the innovative ability and competitiveness of a workplace and can thus produce positive employment effects.

Material

Several summaries have been made of the self-assessment results of the TYKE development projects during the programme. The results have been largely similar in the I (1996-99) and II (2000-03) programme periods. For this article, the self-assessment data for the I and II period were merged. The bulk of the answers represents projects from the I period, because only about a third of the projects of the II period had ended at the time when this information was collected. By the middle of January 2004, the programme

had received 842 answers from 312 development projects. This represented 91 per cent of the completed projects (Table 16). The response rate is 86 per cent for the I programme period and 75 per cent for the II programme period.

Table 16. Number of self-assessment responses from projects in the I and II periods of the TYKE programme (situation on January, 2004).

	Self-assessment responses	Projects from which a response was received N
I period	529	191 (total completed projects 204)
II period	313	121 (total completed projects 140)
Total	842	312 (total completed projects 344)

Numbers of answers were obtained evenly from the different groups. However, the number of respondents is bigger than the number of answers because 36 per cent say that they have answered the questionnaire together with other representatives of their own group. The answers from all three groups were obtained from a total of 240 projects. The majority of answers represent development projects in the municipalities and industry. The sectoral distribution is largely similar to the overall distribution of projects in the programme (Table 17).

Table 17. Answers of different groups according to sector.

	Management	Staff	Experts	Total N	Total %
Agriculture and forestry	4	3	4	11	1
Industry	86	86	86	258	31
Service	47	44	50	141	17
Municipal	97	99	97	293	35
Central government	19	22	21	62	7
Third sector	15	12	11	38	4
Multiple sectors	13	12	14	39	5
Total	281	278	283	842	100

Measurements of performance and QWL

For the construction of measurements, the dimensions of performance and the QWL were examined by grouping variables and looking for associations between them by means of factor analysis. The self-assessment questionnaire contains 15 questions, with the help of which the effects of a

project are investigated through five reply options (improved clearly – deteriorated clearly).²⁴ The result of the factor analysis was that the variables loaded on three factors.²⁵ The factors are named here as QWL (F1), performance (F2), and equality (F3). Two of the variables (opportunities for staff to develop professional skill in the workplace and development activity) had a positive loading both with performance and the QWL. The other variables loaded more distinctly on only one factor (Table 18).

Table 18. Variables loaded on factors and their names (Varimax-rotated factor matrix).²⁶

Effect of development projects on...	F1 (QWL)	F2 (performance)	F3 (equality)
social relations in workplace	0.783	0.076	0.153
mental wellbeing	0.631	0.177	0.312
cooperation between management and staff	0.631	0.234	0.116
team-based working and similar cooperation among staff	0.525	0.331	0.110
development activity	0.446	0.354	0.080
smoothness of operations (delivery times of products, processing times for customer problems or other issues, etc.)	0.135	0.631	0.175
quality of products or services	0.207	0.568	0.122
flexible customer service	0.132	0.538	0.112
labour productivity	0.126	0.526	0.167
quality of operations (disturbances and faults in processes, subsequent correction, unnecessary work, etc.)	0.283	0.489	0.050
opportunities for developing professional skill	0.347	0.357	0.231
position of ageing employees	0.203	0.082	0.703
position of young employees	0.084	0.178	0.629
equality between the sexes	0.140	0.101	0.587
physical working conditions	0.114	0.308	0.396

In order to form measurements for performance and the QWL, the five variables which loaded most strongly were chosen for both. Even though

²⁴ The appendix at the end of the article gives the direct distributions and averages of effect factors.

²⁵ Before the analysis, the correlation matrixes between the variables were adjusted, and, as a result, it was possible to perceive genuine correlations between certain variables ($r > .30$) ($p < .0001$). The correlations between all variables deviated clearly from zero. The Kaiser test, which gave a value of .872, and Bartlett's test of sphericity ($p < .0001$) showed that the correlation matrix is suitable for factor analysis.

²⁶ In the search for loadings, the Maximum Likelihood method was used. The communalities of variables were moderately high, which tends to indicate that the created factor model explains their variation fairly reliably (range 0.264-0.642.) Three factors had an eigenvalue over 1.0. These three factors explained 40.2% (28 + 6.2 + 6.0) of the variance of variables.

development activity loaded on the factors both of performance and the QWL, it was left outside the indicators altogether. It was felt that development activity increased in development projects in any case and that it does not reflect the performance of the organization as such or the QWL. The equality indicator was also left outside the scope of this report.

The *performance measurement* was made up of the following variables: a) quality of products and services, b) flexible customer service, c) labour productivity, d) smoothness of operations, and e) quality of operations. The range was 1-5 and the coefficient of reliability, i.e. Cronbach's alpha, was .7206.

The performance measurement is corroborated by earlier studies (Laitinen et al. 1999; Rissanen et al. 2002; Vartiainen et al. 2000.) The study by Laitinen et al. (1999) examined the relationship between the working environment and the labour productivity in 54 Finnish companies. An indicator was constructed for the labour productivity which contained questions on changes in a) the labour productivity, b) the quality of products and work, and c) the smoothness of work and in disturbance factors. The scale of the questions was 1-5 (deteriorated vs. improved considerably) and the value obtained for Cronbach's alpha was .716. Questions which measure performance are thought to have relatively good reliability, i.e. they measure what they are intended to measure.

The *QWL measurement* was formed by the following variables: a) cooperation between management and staff, b) team-based working, c) social relations, d) mental wellbeing, and e) development of professional skill. The range was 1-5 and Cronbach's alpha was .7768.

The reliability is higher for the QWL than for performance. Corroboration from factor analysis was needed especially for the construction of the QWL measurement, because it is very multifaceted as a concept and it has been taken to mean different things in different research projects. The QWL reflect welfare on the level of the work community, but it can also be understood from the individual employee's point of view. It came as something of a surprise that the physical working conditions were not charged to the QWL factor, even if they are usually seen as a part of the QWL. One possible explanation is that they were only seldom included as an objective of the projects in the programme.

Effects of development projects on performance and QWL

The results indicate that the projects had a positive effect on performance and the QWL. It is assessed that improvement was slightly more frequent in the QWL. The mean of the performance measurement was 3.87 (on the range 2.6-5, Std=0.42, N=715) and of the QWL 3.95 (on the range 1.6-5, Std=0.51, N=744)²⁷.

Both management and experts saw effects more often in the QWL than in performance (Wilcoxon two related samples test $p=.000$). In contrast, the staff assessed that they had improved by about the same amount ($p=.503$). A test of means also tells that the staff were generally more critical to the effects of the project on performance and the QWL than management and experts. The result is statistically extremely significant (Table 19).

Table 19. The means of performance and the QWL by respondent group (non-parametric mean test of several groups).

	Performance	QWL
Management	3.92	4.06
Staff	3.72	3.70
Expert	3.97	4.13
Total	3.87	3.95
χ^2	46.913***	96.566***

***= $p<.001$, Kruskal-Wallis test

After this, Tamhane's test was performed as a Post Hoc test; the test in question can be used to find differences between individual respondent groups. The assessments of the staff deviated from the others for both performance and the QWL in a way which was statistically extremely significant ($p<.001$). A more exact study showed that the answers of the staff deviated significantly in statistical terms from those of the

²⁷ In the calculation of the means for performance and the QWL, only assessments from respondents who answered all five questions which measure performance and all five questions which measure the QWL were taken into account. However, no great differences can be perceived in the results obtained if the criterion for calculating the average were set at, for instance, three answers/indicator. In that case, the average for performance would be 3.87 (N=802) and that for the QWL 3.96 (N=824).

management and the experts for every variables of the performance and the QWL. Staff were more cautious in their assessments of the effects of projects than others. Only for social relations experts assessed that the effects had been better than management and staff ($p < .05$).

A sectoral examination excluded projects in agriculture and forestry because of their small share. First a study was carried on whether the means of different sectors differ for performance and the QWL. The mean test showed that the assessments of performance and the QWL in the municipalities (Wilcoxon $p < .001$) and the private service sector ($p < .05$) differed from the other sectors in that they assess that the project has had a more positive effect on the QWL than on performance. In other sectors there was not any statistical differences.

It was not possible to perceive statistical differences between sectors where performance was concerned. Where the QWL was concerned, however, the differences between sectors were statistically extremely significant. Projects are most often assessed to have had an effect on the QWL in the municipal sector and less often than the average in industry ($p < .001$) (Table 20).

Table 20. Means for the performance and QWL according to sector (non-parametric mean test of several groups).

	Performance	QWL
Industry	3.88	3.83
Service sector	3.87	4.00
Municipal	3.91	4.06
Central government	3.73	3.86
Others	3.80	3.93
Multiple sectors	3.82	3.90
Total	3.87	3.95
χ^2	8.585	26.195***

***= $p < .001$, Kruskal-Wallis test

On the basis of Tamhane's test, the effects on the QWL are viewed more positively in the projects of municipalities than in other projects ($p < .001$). A more in-depth examination shows that the effects of projects are also more positive in the municipalities where individual variables are concerned. Team-based working has improved most in the municipalities and least in industry ($p < .001$). The best results in the quality of products

and services, social relations and opportunities for developing professional skill ($p<.01$) and in customer service and mental wellbeing ($p<.05$) were obtained in the municipalities. Only labour productivity is thought to have improved slightly more often in industry than in other sectors ($p<.05$). The differences between sectors were not statistically significant when it came to improving the quality of operations, smoothness of operations and cooperation between management and staff.

Relationship between performance and the QWL

The relationship between performance and the QWL was measured with the help of correlation analysis. The analysis shows that there is a positive association between them (Pearson $r=.501$, Spearman $\rho=.473$). The relationship between performance and the QWL is the most clearly evident in the answers of the staff ($\rho=.473$). Management and the experts experience the relationship as slightly less solid (management $\rho=.41$ and experts $\rho=.403$). Figure 22 illustrates the association between performance and the QWL in the various respondent groups and presents the linear distribution of the whole material. This result makes it highly probable that if it estimated that the QWL has improved as a result of a project, then it is also likely that an improvement will be seen in performance and vice versa.

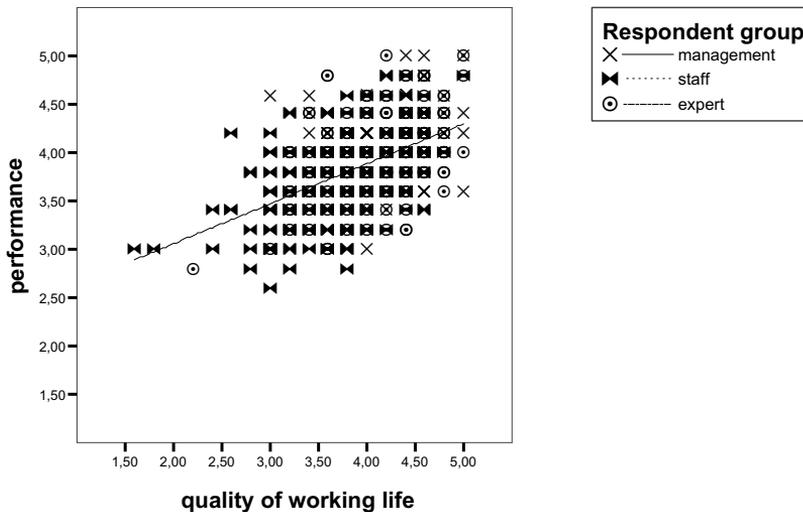


Figure 22. Assessments of various respondent groups on the axes of performance and QWL.

When examined according to sector, the relationship between performance and the QWL is strongest in the third sector, the municipal sector and in multi-sectoral projects. In industry and the private service sector the relationship is weaker than average. The results of the correlation test were distributed by sector as follows: the third sector (=others) $\rho=0.657$, municipalities $\rho=0.576$, multi-sectoral $\rho=0.534$, central government $\rho=0.476$, private service sector $\rho=0.425$ and industry $\rho=0.363$. The result was statistically significant (Figure 23).

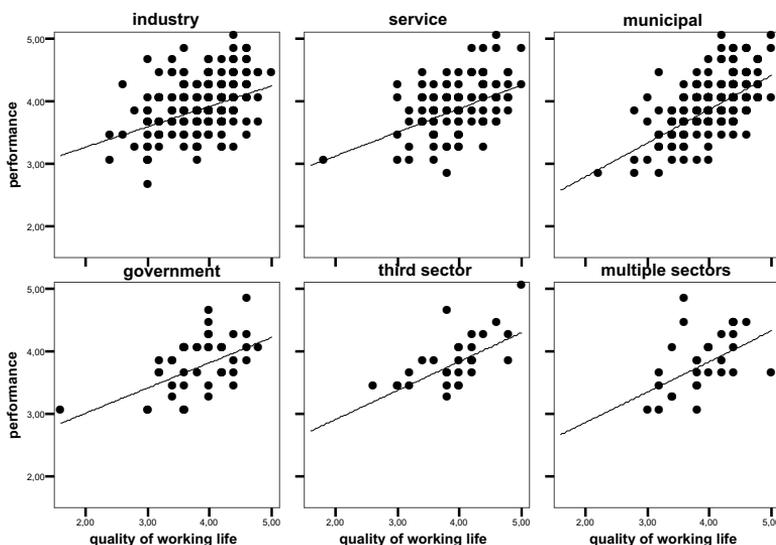


Figure 23. Relationship between performance and QWL according to sector: industry, service sector, municipality, government, others and multiple sectors.

Simultaneous improvement in performance and QWL

The answers were divided in two according to how the project was considered to have promoted a simultaneous improvement in performance and the QWL. The groups were established so that the mean value had to be at least 3.5 for both performance and the QWL, that you could say there had been simultaneous improvement in both. The percentage of these answers has been marked in Figure 24 in bold.

Results showed that nearly three out of four respondents (72.3%, N=483) assessed that both performance and the QWL had improved distinctly or to some extent (performance ≥ 3.5 and the QWL ≥ 3.5).²⁸ For these

²⁸ The examination focused only on respondents who had answered all the questions which measure performance and the QWL, something which produced

respondents, the average for performance was 4.02 (variation=3.6-5, Std=0.317) and for the QWL 4.16 (variation=3.6-5, Std=0.352). There is a clear difference between respondent groups in how they assess the effects of a project. 85 per cent of management, 81 per cent of experts and 52 per cent of staff estimate that performance and the QWL had improved simultaneously. Viewed according to sector, the answers largely follow the distribution of all respondents (cf. Table 17), although there are a few percentage points more of answers saying the projects had succeeded from the municipal sector.

Performance

5	n=0	n=0	0.3% n=2 (m=2)	3.3% n=22 (m=6, s=7, e=9)	2.5% n=17 (m=6, s=2, e=9)
4.5	n=0	n=0	9.6% n=64 (m=12, s=37, e=15)	56% n=374 (m=162, s=104, e=108)	10.5% n=70 (m=28, s=7, e=35)
3.5	n=0	0.7% n=5 (s=4, e=1)	7.2% n=48 (m=9, s=33, e=6)	9.6% n=64 (m=12, s=37, e=15)	0.3% n=2 (m=1, s=1)
2.5	n=0	n=0	n=0	n=0	n=0
1.5	n=0	n=0	n=0	n=0	n=0
	1.5	2.5	3.5	4.5	5

QWL

Figure 24. Simultaneous improvement in performance and the QWL (m=management, s=staff, e=experts).

material of 668 answers. Furthermore, the distribution of answers was also checked if respondents who had answered at least three questions are taken into account in the average for performance and the QWL. This also produced similar results. 74% of respondents (N=591) assess that performance and the QWL had improved simultaneously, while 26% (N=211) disagree.

It is possible to find some statistical differences comparing the results of different groups by respondent group and sector. The present study focused only on the biggest sectors, i.e. industry, the private service sector, municipalities and central government. The results indicate that experts (93%) and staff (63%) in municipal projects ($p < .001$) and management (88%) and project experts (93%) at workplaces in the central government sector ($p < .05$) were more likely than average to perceive positive effects in both performance and the QWL. Staff in industry and government were less likely than average to assess that a project had had simultaneous positive effects. 61 per cent of the staff in industry ($p < .001$) and 67 per cent of the staff in the government sector ($p < .05$) estimated that the project had not achieved a simultaneous improvement in performance and the QWL.

Some of the respondents felt that the project had only promoted either performance or the QWL. About one in ten estimated that there was a clear or slight improvement in performance as a result of the project (response range 3.5-5) while there was no change in the QWL (2.5-3.49). Meanwhile, an equal number of respondents assessed that there was a clear or slight improvement in the QWL (3.5-5) while the project had no effect on performance (2.5-3.49). About 7 per cent of the respondents assessed that the project had no effect on either factor. The biggest group in this category is made up of staff (69%). Less than one per cent assessed that there was a slight deterioration during the project (1.5-2.49) in the QWL while there was no change in performance.

There was a total of 48 projects whose average for performance and the QWL for all respondent groups is equal to or higher than 3.5. Examined at the project level, too, these include slightly more projects than average in the municipal sector.

Factors related to project implementation and their association with a simultaneous improvement of performance and QWL

The second task of this article is to explore how the factors which are related to project implementation are associated with a simultaneous improvement in performance and the QWL. It is thought that project implementation, i.e. how new practices and forms of work organization are adopted, has a significance for how the effects of the project are experienced. Factors which are related to project implementation apply to questions which focus on issues such as the various parties' participation and cooperation during the project and the methods of the experts used.

Certain questions have been excluded from the indicators because they were asked only in the II programme period.

The factors which describe project implementation were measured in the survey by means of four reply alternatives (4=very successful, 3=quite successful, 2=rather unsuccessful, 1=very unsuccessful). Nine sum variables were formed from the questions concerning implementation using factor analysis. The questions that the sum variables were constructed from, together with Cronbach's alpha, are given in brackets below. Cronbach's alpha reaches fairly high values, except in the case of internal cooperation within the project, the achievement of goals, keeping to schedule and the accuracy of the cost estimate and the influence of the staff, in which it stays below .60. The variables which describe project implementation are:

1. *Influence of the management on the project* (how the management on the project influenced the contents of the project at the planning stage and the implementation stage, $\alpha=.64$, $N=814$).²⁹
2. *Influence of the staff on the project* (how the staff on the project influenced the contents of the project at the planning stage and the implementation stage, $\alpha=.71$, $N=800$).
3. *Influence of staff representative or shop steward on the project* (how a staff representative or shop steward influenced the contents of the project at the planning stage and the implementation stage, $\alpha=.80$, $N=709$).³⁰
4. *Influence of experts on the project* (how the experts influenced the contents of the project at the planning stage and the implementation stage, $\alpha=.73$, $N=809$).
5. *Implementation of goals, keeping to schedule and the accuracy of the cost estimate* (an estimate of the achievement of goals, keeping to schedule and the accuracy of the cost estimate of the project, $\alpha=.56$, $N=670$).
6. *Success of the expert's activities and of methods applied* (an estimate of the activities of the experts used and the research methods, training methods and development methods applied, $\alpha=.70$, $N=748$).

²⁹ In the I programme period, the survey covered participation by the management in general, while the survey in the II period examined the participation of a) top management and b) middle management or work supervision separately. In combining the data, it was decided that an average for management would be used for the II period.

³⁰ In the I programme period, the survey covered the influence of a shop steward on the project and in the II period that of a representative of the personnel in general. Here the data concerning them has been combined and they have been jointly examined.

7. *Internal cooperation in the project* (cooperation between management and staff, between management and experts, and between staff and experts, $\alpha=.53$, $N=773$).
8. *External cooperation in the project* (the significance of interaction with other projects in the programme and with other experts, $\alpha=.77$, $N=644$).
9. *Value added by funding support from the programme* (how much the funding support from the programme influenced the setting of objectives for the project, its implementation method and schedule, and the speed of the start-up, $\alpha=.72$, $N=707$).

Table 21 shows the averages of the factors related to project implementation in the whole material and for those respondents who assessed a simultaneous improvement in performance and the QWL. The respondents who assessed that the project had had a positive effect on both performance and the QWL also gave more positive assessments (in all respondent groups) of the other factors related project implementation. The difference is statistically extremely significant for all the variables ($p<.001$).

Table 21. Factors which affected the implementation of development projects in the whole material and among respondents who reported simultaneous positive effects on performance and the QWL.

Explanatory factors (scale 1-5)	Means for the whole material ($N=644-814$)	Means for respondents who reported simultaneous improvement in performance and the QWL ($N=402-477$)
Influence of management	3.2	3.3
Influence of staff	2.9	3.0
Influence of shop stewards	2.4	2.5
Influence of experts	3.5	3.6
Implementation of goals, staying on schedule and accuracy of cost estimate	3.3	3.3
Activities and methods of experts	3.2	3.3
Internal cooperation on the project	3.1	3.2
External cooperation on the project	2.3	2.4
Funding support from the programme	3.2	3.3

Both groups agreed on the fact that the most effect at the planning and implementation stages of the project came from experts, management, staff and staff representatives, in that order. Responses from both groups assess that goals, schedules and cost estimates were implemented quite successfully on average. Both groups agreed on the fact that there was more internal cooperation on the project than external cooperation, something which is to be expected of a work organization development project.

The factors related to project implementation were examined by respondent group (management, staff, experts) for those who reported a simultaneous improvement in performance and the QWL.³¹ The following statistical differences can be perceived between the respondent groups that reported a simultaneous improvement in performance and the QWL (Kruskal-Wallis test):

- the management itself assessed that it had influenced a project more often than the staff assessed that the management had had an influence ($p=.015$).
- experts assessed that the staff had influenced a project more often than the staff itself ($p=.014$) or the management ($p=.042$).
- experts themselves assessed that they had influenced a project more often than management assessed that experts had had an influence ($p=.006$).
- experts gave a more positive assessment of the implementation of goals, staying on schedule and the accuracy of the cost-estimate than staff ($p=.043$).
- the staff said there was less internal cooperation than management and experts ($p=.000$).
- the staff said there was more external interaction than the experts ($p=.020$).
- the staff gave a more positive assessment of the significance of funding support than experts ($p=.001$).

After this a study was carried on how the factors related to project implementation predict a simultaneous improvement in performance and the QWL in different respondent groups. The methods used were regression analysis and Stepwise method, with which the best and smallest possible set of predictor variables are obtained. The predict shares remain fairly small,

³¹ In the entire response sample, the respondent groups gave slightly more congruent answers than in the sample that had seen positive results. There were only the following statistical differences: the experts gave a more positive assessment of the success of the project, experts' activities, and internal cooperation than staff ($p<.021$). By contrast, the staff assessed that there had been more external cooperation than experts ($p=.009$).

especially where performance is concerned. On average about one tenth of the variance in performance and about a third of variance in the QWL are explained in this model (Table 22).

Table 22. Factors explaining the simultaneous improvement in performance and the QWL in various respondent groups (N=483) (regression analysis).

Respondent group	Factors explained	Explanatory factors (related to project implementation)	Standardised regression coefficient	Predict share (%)	F
Management	Performance	Experts' activities and methods Internal cooperation	0.22** 0.21*	13.1	11.2***
Management	QWL	Experts' activities and methods External cooperation	0.43*** 0.23**	26.9	27.4***
Staff	Performance	Influence of staff	0.38**	14.4	8.8**
Staff	QWL	Goals, schedule, cost estimate Influence of staff Experts' activities and methods	0.28* 0.28* 0.27*	34.2	8.7***
Expert	Performance	Influence of staff Internal cooperation	0.21* 0.22*	10.6	6.1**
Expert	QWL	Goals, schedule, cost estimate Influence of staff Internal cooperation	0.38*** 0.18* 0.18*	30.4	14.7***
All respondents	Performance	Influence of staff Experts' activities and methods	0.22*** 0.21***	11.4	19.8***
All respondents	QWL	Goals, schedule, cost estimate Experts' activities and methods Influence of staff	0.26*** 0.26*** 0.13*	27.5	29.1***

*=p<.05, **=p<.01, ***=p<.001

The views of the different respondent groups differ slightly from each other. An improvement in *performance* is felt by management to be associated with the experts' activities and internal cooperation, while staff feel it is related with the influence of staff, and the experts feel it is associated with the influence of the staff and internal cooperation.

According to the views of the management, an improvement in the *QWL* is associated with experts' activities and external cooperation, while staff feel it is due to experts' activities, the implementation of objectives and the influence of the staff. Experts feel that the *QWL* is best explained by the achievement of goals, keeping to schedule and the accuracy of the cost estimate, the influence of the staff and internal cooperation.

Based on this model, it would seem that experts' activities and methods and participation by staff in project implementation have the strongest association with a simultaneous improvement in performance and the QWL. The result is supported by the results obtained by Kalliola and Nakari (2005) and the results in the previous article concerning the significance of the development method and participation by the staff for the effects of the

project. Differences can be perceived between different respondent groups in that the staff and experts consider the staff to be important in the improvement in performance and the QWL whereas the management does not see this influence as significant to the same extent. Meanwhile, the management feels that the experts' activities and internal and external cooperation have an effect on a simultaneous improvement in performance and the QWL. However, the low predict shares of the regression model indicate that the effect of the development process on performance and the QWL also depends on many other context-bound factors.

Relation between improvement in performance and QWL and employment figures

Finally, we will examine what kind of association can be found between performance and the QWL on the one hand and employment on the other. In the self-assessment study the respondents evaluated the project's short and long-term employment effects, and we will examine the long-term effects here. It was assessed that the employment effects would be positive especially in the long term, as a consequence of the time-consuming nature of the running-in of new forms of work organization (Alasoini 1998).

The results show that the respondents who assessed that a project had positive effects on both performance and the QWL also generally gave a more positive assessment of the project's employment effects. Figure 25 shows a comparison of the project's employment effects according to the extent to which respondents saw simultaneous positive effects on performance and the QWL.

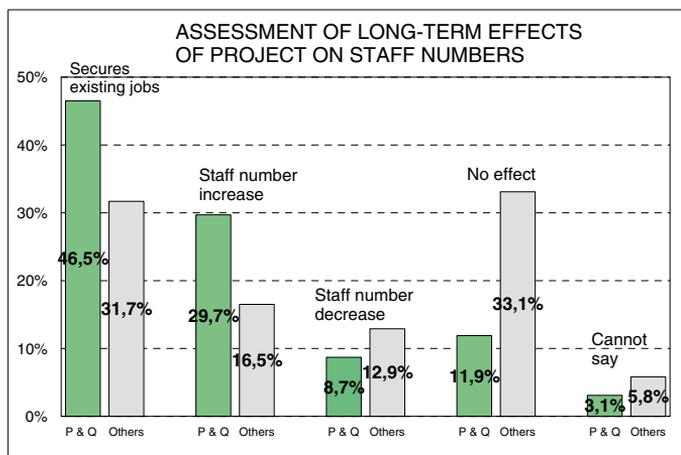


Figure 25. Assessment of long-term employment effects of development projects (P= performance, Q= QWL improved simultaneously).

Nearly half of the respondents who assessed that the project had had a positive effect on performance and the QWL also estimated that the project would secure existing jobs, while less than a third assessed that staff numbers would increase in the long run. Under 10 per cent of them believed that staff numbers would decrease. Only a third of the other respondents believed that the project would secure existing jobs and less than one in five believed that staff numbers would increase. More than a tenth believe that staff numbers will decrease.

The results are also similar among those who estimated that the project had had a positive effect on performance and the QWL when examined according to respondent group. However, differences can be perceived among other respondents. The experts give the most positive assessments of employment effects, while management is the most cautious in its answers (Table 23).

Table 23. Assessments of employment effects of development projects by respondent group (%).

		Secures existing jobs	Staff numbers increase	Staff numbers decrease	No effect	Can not say
Performance and QWL improved simultaneously	Management (N=124)	46	31.5	9.7	12.1	0.7
	Staff (N=67)	44.8	28.4	10.5	11.9	4.4
	Experts (N=95)	48.4	28.4	6.3	11.6	5.3
Others	Management (N=30)	33.3	6.7	20	40	
	Staff (N=81)	30.9	16	12.3	33.3	7.5
	Experts (N=28)	28.5	32.1	7.1	25	7.1

Discussion

This article has examined the simultaneous effects of the development projects in the TYKE programme on the performance of a workplace and the QWL in it, and consequently on employment. In evaluating the results, it is important to take into consideration the time period when the project activity took place. The time between 1996-2003 could be characterized as a special period in Finland. Initially, productivity increased rapidly in the late 1990s, especially in the electrotechnical and electronics industries and in services for the telecommunications industry, but since the beginning of the following decade growth has been more modest. Where the QWL is

concerned, the research results indicate a similar development. At the end of the decade, there was much positive development in the QWL, whereas development has been very slow during the past few years (Ylöstalo 2003). In spite of the varying general development in Finland, the effects of the development projects of the programme on performance and the QWL at the workplaces involved have been mainly positive.

On the basis of the evaluation results, a reform of the modes of operation has a clear significance for a simultaneous improvement in productivity and the QWL. The results confirm earlier studies that have indicated that good performance and the QWL can be combined. Nearly three out of four respondents assessed that it has been possible to promote both simultaneously with the help of the project. About one in five respondents assessed that the project had had more effect either on performance or the QWL. Not a single respondent assessed that improvement would have taken place in only one factor while the other deteriorated because of the project, something which lends further support to the idea that performance and the QWL are linked.

The assumption that the different respondent groups assess the effects of the project and the factors which affect them differently is confirmed by these results. The experiences of management and staff of the results of development projects and of the factors which affect development overlap only partially. Management and experts give more positive estimates of the effects of the project on performance and the QWL. The most conflicting results refer to central government projects, in which 88 per cent of the management at workplaces and 93 per cent of the experts involved in projects ($p < .05$) feel that the project has simultaneously improved performance and the QWL but only 33 per cent of the staff think so ($p < .05$). In addition to this, a general difference can be perceived in that management and experts more often see effects from the projects on the QWL, whereas the staff feels that the projects have effects on performance and the QWL to an equal extent. Correlation analysis also gives indications that the staff experiences the relationship between performance and the QWL as stronger.

The differences between respondent groups play some part in that there is a rather small number of projects where *all* respondent groups say that performance and the QWL had improved simultaneously. There are altogether 48 such projects. The main questions that the report brings up are: Why do management and staff experience the effects of the project and the implementation differently? How can project implementation be better supported so that it can promote performance and the QWL simultaneously? One way to approach this problem is to examine the

implementation of development work separately for different staff groups. Where the staff is concerned, the foremost factors that affect performance and the QWL simultaneously are the opportunity to influence the planning and implementation of the project and the activities of experts. On the basis of the answers of the management, it seems that cooperation between management and staff, and cooperation with experts and with other workplaces support the success of the project. The results seem to indicate that the various parties have different experiences of the development work. *Consequently, attention should be paid separately in development work to those factors which the staff and the management consider important for the success of the development project.*

The activities of experts and the methods and tools used during the project are emphasised as factors which affect the success of the project. Support from the programme is granted to workplaces for hiring an outside expert for the implementation of a development project. The expert's role is thus central to the project. The results show that the operating model of the programme brings value added to the workplaces involved and contributes to positive effects on performance and the QWL. An outside expert supports development work at the workplace and helps the parties involved in the change processes to find resources and solutions themselves for developing their modes of operation (Gustavsen et al. 2001, 231-272; Svensson et al. (eds.) 2002.) Experts are also expected to possess strong know-how in development and in the methods and tools available and an understanding of how the sector and work organization operate (Ramstad 2001, 51 and 73). About one in three projects which were successful in terms of performance and QWL were research-assisted³²; this is the same number as out of the entire response sample. There was no difference caused by the kind of expert organizations that were involved in the projects either.

An examination by sector shows that the effects of projects were the most positive in the municipalities. This result corresponds with that of the earlier self-assessment studies of the TYKE programme (Rissanen et al. 2002) and that of the evaluation study of the Wellbeing at Work Programme (Kajas et al. 2003), in which the results of development projects were also felt to be the most positive in the municipal sector and in the private service sectors. The association between performance and the QWL was also felt to be strongest in the municipal sector and the third sector. It was weakest in industry. In industry, the perceived effects of projects were better where performance was concerned than the QWL, while it was the

³² Research-assisted methods are characterized by a theoretical approach, and in them development work is often based emphatically on broad cooperation (see the previous article for more detail).

other way round in other sectors. On the basis of the results it would in fact seem that the factors associated with labour productivity and the smoothness of operations may have been emphasized a little more often in development projects in industry. On the whole, the results for each sector can be seen as a signal to the programme and projects on how better to direct and guide project operations so as to support qualitatively sustainable productivity growth better than hitherto.

The initial assumption of the perceived employment effects of projects is confirmed. The estimated employment effects were more favourable in the projects which had succeeded in promoting performance and the QWL simultaneously. In them more than three quarters of the respondents estimated that staff numbers would increase or existing jobs would be secured, while the corresponding figure for other projects remained at less than half. Both the management and the staff gave similar estimates of employment effects, something which further strengthens the reliability of the results. The results are also corroborated by the Ministry of Labour's *Flexible Enterprise* study (Antila & Ylöstalo 1999) in which it was found that organizational change activity was in a positive correlation with the trend in staff numbers.

The weakness of self-assessment as a method is that the information received is based mainly on subjective estimates. On the other hand, the reliability of the results is supported by many earlier studies. However, it remains unclear what the relation is between subjective estimates and objective indicators. In fact it would make an interesting topic for a follow-up study to examine the relationship between subjective and objective indicators and estimates in more detail for some individual projects. Furthermore, it would be valuable to study the projects which succeeded in promoting performance and the QWL simultaneously in more detail, in order to gain more in-depth knowledge about project implementation and success factors, and about the ways in which qualitatively sustainable productivity growth can be promoted at workplaces.

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Appendix 1. Indicators of variables which depict the effect of development projects in the entire sample (the answer 'cannot say' has been defined as missing information.)

Variable	Mean	Med.	S.d.	N	Min	Max
1. Labour productivity	3.84	4	0.574	768	2	5
2. Quality of products and services	3.94	4	0.547	794	2	5
3. Quality of operations	3.90	4	0.617	796	1	5
4. Customer services	3.89	4	0.630	794	2	5
5. Smoothness of operations	3.79	4	0.630	790	1	5
6. Team-based working	4.27	4	0.658	821	1	5
7. Cooperation between management and staff	4.02	4	0.700	826	1	5
8. Social relations in workplace	3.85	4	0.716	799	1	5
9. Opportunities for developing professional skill	3.99	4	0.720	814	1	5
10. Development activity	4.20	4	0.606	822	1	5
11. Mental wellbeing	3.65	4	0.712	783	1	5
12. Physical working conditions	3.41	3	0.610	800	1	5
13. Position of ageing employees	3.22	3	0.548	765	1	5
14. Position of young employees	3.25	3	0.505	762	2	5
15. Equality between the sexes	3.16	3	0.421	758	2	5

Tuomo Alasoini

Learning networks as creators and disseminators of generative ideas

The article above dealing with the dual role of the Workplace Development Programme has suggested that it is a special feature of workplace development as a component of innovation policy that it strives for a simultaneous, balanced and mutually supportive improvement in productivity and the quality of working life. Solutions which succeed in this are termed *workplace innovations*. The article further stated that workplace innovations are local and strongly context-bound and that they cannot be transferred from one workplace to another as such. However, simply stating this and restricting measures to improving productivity and the quality of working life at individual workplaces cannot, as such, bring workplace development legitimacy as a part of innovation policy. One of the key critical viewpoints put forward in the evaluation study of the TYKE programme (Arnkil et al. 2003) focused on the basic unit of development activity within the programme. Although the evaluation study found that the projects within the programme had been successful on average and produced good results, it was also stated that an individual company or workplace may be too small a unit to produce wide-ranging and sustainable effects in working life.

This article will explore this problem field further. The starting point lies in the idea that, although workplace innovations cannot be transferred as such from one context to another, they can be used as a basis for generative ideas which can act as sources of learning and inspiration for other workplaces, too. Where generating workplace innovations in a certain context could be described as ‘first order’ results of workplace development, the generative ideas created on the basis of the ‘first order’ results could be described as *generative* (‘second order’) results of workplace development.³³ Generative results require awareness of the mechanisms according to which the various principles, practices and solutions behind workplace innovations actually

³³ In addition to ‘first order’ results and generative (‘second order’) results, it is also possible to refer to other kinds of ‘second order’ results. These focus particularly on how durable the effects of the workplace innovations in question are in their own contexts and what kinds of support structures have emerged for them at the workplaces in question as a result of development operations. For example, the stated aim of project activity within the TYKE/TYKES programme is to bring about changes in the mode of operation of workplaces – i.e. ‘second order’ results.

function, and also of how information on these principles, practices and solutions can be passed on in accessible form to a wider audience.

The article starts out by dealing with these questions. It then examines the potential of two different ideal types of programme strategy to produce generative results. A more detailed examination focuses on the modules of the Norwegian Enterprise Development 2000 Programme and the network projects of the TYKE programme. Two other articles in this work will examine certain other means of the TYKE programme (Learning Together forums and module seminars) which were also used by the programme to strengthen generative results. The final section of this article will examine the approach of the new TYKES programme to promoting the creation and dissemination of generative ideas with the aid of learning networks.

The mechanisms behind the effects of HRM practices

In organization and management studies it is possible to distinguish various theoretical frames of reference that have been used for examining the effects of advanced managerial, work organizational, and skills and competence development practices. These practices will be referred to in the following by the common term HRM (Human Resource Management) practices.

Firstly, there are views according to which it is possible to find certain practices and underlying principles which can be applied in order to promote productivity and/or the quality of working life at the workplace in a more or less generally applicable way. This type of approach could be called *universalistic*. For instance, Appelbaum, Bailey, Berg and Kalleberg (2000) suggest that effective 'high-performance work systems' are made up of three types of element: employees' opportunities for substantive participation in decisions, appropriate incentives, and training and selection policies that guarantee an appropriately skilled workforce. On the basis of these three principles they identify in their own empirical research concrete practices which are related to employees' opportunities for participation and training, job security and rewards. In the US steel industry, for instance, the uptime of production lines using 'high-performance work systems', as well as certain indicators of the quality of working life, were clearly better than in lines that applied 'traditional work systems'. The researchers arrived at similar results on the basis of material from two other branches of industry (the apparel industry and the medical electronic instruments industry) as well. A similar, though more simple, approach has been applied in Finland by Antila and Ylöstalo (1999a; 1999b; 2002) in making comparisons between proactive (flexible) and traditional private workplaces. In their

research, the key distinguishing feature of the three elements mentioned above was employees' opportunities to use their skills and knowledge (i.e. the opportunities for employees and teams to participate in decisions at the workplace). The proactive workplaces were ahead of the traditional ones both in terms of profitability and the productivity of work and in terms of a number of indicators for the quality of working life.

The *contingency approach*, in contrast, starts out with the assumption that there are no unique, generally applicable principles or practices, and instead what is relevant is how compatible they are with the operating environment of companies and, in particular, with their basic strategy choices. According to the contingency approach, several 'good/best practices' can be identified, and their functionality will then depend on this compatibility. Many researchers have used Michael Porter's classification between corporate competitive strategies, and then tried to find HRM practices which match these strategic options as well as possible. For instance, Huselid (1995) and Schuler (1989) have identified three such units consisting of strategies and suitable HRM practices, while Ricart and Portales (2001; Portales 2001) have identified five such units in their research.

However, the universalistic and the contingency approaches need not be viewed as absolute opposites. They could also be viewed as frames of reference which supplement each other, and which operate at least to some extent on different conceptual and aggregate levels:

(1) On the one hand, it is possible to have the opinion (like the universalistic approach) that there are certain generic *principles* that have general applicability in promoting productivity or the quality of working life. On the other hand, it is possible to have the opinion (like the contingency approach) that there are various *practices* and *solutions* based upon these principles, which take various concrete forms and the effectiveness of which depends on their compatibility with the operating environment and the companies' strategy choices (Becker & Gerhart 1996; Boxall & Purcell 2003, 47-70; Delery & Doty 1996; Sánchez-Runde 2001).

(2) The gap between the universalistic approach and the contingency approach could be thought of as narrowing for another reason, too. For instance, in the study mentioned above, Appelbaum et al. (2000, 36-39) explain the superiority of practices typical of 'high-performance work systems' compared with those typical of 'traditional work systems' by the former systems' greater compatibility with the new operating requirements placed on companies as a result of changing market and technological environments. These focus particularly on companies' ability to produce more customized products of higher quality and at a faster rate than before.

However, according to the researchers, it does not follow from the overall superiority of practices typical of 'high-performance work systems' that they would necessarily apply to all sectors, especially sectors which have different competitive conditions. Thus it is possible to bring the universalistic approach and the contingency approach closer together by distinguishing between different aggregate levels: Some practices can be more functional than others on, for instance, the national level, which makes it possible to call them 'good/best practices'. At the same time, according to the contingency approach, it is possible that on a lower level, e.g. sectoral level, the practices which prove most functional may be different ones, due to different competitive conditions or some other factor. The corresponding difference between aggregate levels could be thought to exist between the sectoral and corporate level or the corporate and workplace level as well.

A third approach in examining the mechanisms underlying the effects of HRM practices is the *complementarity and configurational approach*. According to this approach, attention must be paid, in addition to the (external or vertical) fit between HRM practices and strategy choices as in the contingency approach, also to the mutual (internal or horizontal) fit of HRM practices. The internal and external fits produce more or less unique combinations of strategic positioning and HRM practices, which can be called configurations. The functioning of the configurations depends on the complementarity of their different elements. Complementarity can be said to exist between two elements (HRM practices) when "doing *more* of one thing *increases* the returns to doing *more* of another" (Milgrom & Roberts 1995, 181). The complementarity and configurational approach differs from the other two approaches dealt with above, particularly in its more holistic view. Another difference is that in it, it is assumed that the maximum performance level can be attained through many different combinations of HRM practices (the principle of equifinality), rather than just some specific combination (Delery & Doty 1996, 808-809).

There are variations on this approach. In a moderate variation, the idea of complementarity and configuration may mean that the benefit produced by a certain combination of HRM practices is bigger than the total benefit that might accrue from adopting each individual HRM practice separately (the principle of supermodularity). Empirical research in support of synergistic benefits generated in this way can, in fact, be found (cf. Appelbaum et al. 2000; Huselid 1995; Ichniowski et al. 1997; MacDuffie 1995; Pil & MacDuffie 1996). In a stronger form, the complementarity and configurational approach can also mean that the slow, gradual change of configurations which are functioning well is actually difficult and may well lead to a fall in corporate performance until a new functional configuration

has emerged. According to some writers (e.g. Milgrom & Roberts 1995; Whittington & Pettigrew 2003), the logical conclusion from this assumption is that organizational change should be implemented with speed, simultaneously and with strong central leadership.

All the above approaches can be useful as such in order to increase understanding of the mechanisms in workplace development. The universalistic approach can be particularly useful in helping to distinguish general principles (e.g. cooperation between management and staff in planning and implementing changes) in improving productivity and the quality of working life. According to the contingency approach, the recommended HRM practices should vary for each company depending on its competitive strategy. However, such a starting point would be ethically questionable if applied schematically in workplace development. The contingency approach can still be used in workplace development operations, however, not so much in 'fitting' the HRM practices of companies to their strategy, but principally in developing the strategies of companies in a direction that desirable HRM practices can be 'fitted' to (e.g. from cost leadership to differentiation based on quality or flexibility) (Alasoini 2003b, 101-102; cf. also the article on the dual role of the Workplace Development Programme in this work).

The complementarity and configurational approach also opens up interesting vistas for workplace development, some of which were already touched upon earlier in this work in discussing the difficulty of achieving a comprehensive change in the mode of operation. The complementarity and configurational approach can, if applied schematically, lead to an assumption whereby organizational change should be implemented with speed, simultaneously and with strong central leadership. However, and as Whittington and Pettigrew (2003, 131) have pointed out, this starting point alone will not help companies bring about changes in a more manageable manner. They in fact emphasize that a view of organizational change which is based on the complementarity and configurational approach needs to be supported with supplementary views describing the management of processes of change.

One such link, which can help bring a view of organizational change that is based on the complementarity and configurational approach closer to the discussion about workplace development, is the approach put forward by Gustavsen et al. (1996, 54-59) on concept-driven development. Gustavsen et al. have identified 14 principles that had been applied in Sweden in the 1990s by companies and other workplaces which implemented comprehensive change processes in an intensive way. One of these principles is to mobilize staff on a broad front and on all hierarchical levels

in support of the change. Thus it might seem that a successful change in accordance with the complementarity and configurational approach – i.e. a rapid transition from one functioning configuration to another – demands, in addition to strong central leadership, certain other features, such as extensive participation from staff and staff commitment to implementing the change. Another example of such a link is developmental work research and its view of an expansive learning cycle (Engeström 2005). For instance, it is possible to analyse the mutual relationships of HRM practices as relationships between the various elements of the activity system and to ‘pinpoint’ mutual incompatibilities in HRM practices as tensions and conflicts between the elements. Closer analysis of these tensions and conflicts, something for which developmental work research offers many tools, can then be applied in looking for new, more advanced configurations.

Workplaces’ development activeness and renewal of HRM practices

Numerous empirical studies and development projects from the past few years have observed that companies and other workplaces have been able to improve their operational and financial performance by renewing their HRM practices. This information does not, however, appear to have inspired a very large number of workplaces to follow the example and renew their HRM practices accordingly. Empirical studies from the EU Member States and Nordic countries show that many workplaces have tested individual practices to varying extents and in varying forms, but *not* many workplaces have tried to apply them to their own operations in a comprehensive or systematic way:

- The data of the EPOC Survey by the European Foundation for the Improvement of Living and Working Conditions on 10 EU Member States indicated that 33 per cent of the responding private and public organizations (N=5,768) used group delegation, i.e. group work in which “rights and responsibilities are granted to groups of employees to carry out their common tasks without constant reference back to managers”. However, only less than 4 per cent of all workplaces were characterized as proper ‘team-based organizations’ with a high coverage and intensity of group delegation (Benders et al. 1999).
- The Nordflex Project studied the spread of flexible work organizations in Denmark, Finland, Norway and Sweden (N=c. 6,000). The study grouped workplaces as ‘front-runners’ if they had a high degree of decentralized responsibility and a system of organized human capital development, and used teams, job rotation and a compensation system

based on results or quality. In Denmark, Finland and Sweden, only 13 per cent of the private-sector workplaces fulfilled all the five criteria, and in Norway the share remained as low as 5 per cent (NUTEK 1999).

- The Workplace Employee Relations Survey of 1998 studied the spread of new forms of work organization at British workplaces. The data (N=2,191) showed that even though teamworking in one form or another was quite widespread, only 3 per cent of all workplaces operated teams that corresponded to a model of ‘fully autonomous teamworking’ where teams also decide how work is to be done and appoint their own team leaders (Cully et al. 1999).
- The INNFORM Project was based on a survey on large and medium-sized firms in the United Kingdom, Germany and other Western European countries (N=459). Though many companies in Europe changed their organizational structures, processes or boundaries during the course of the panel study from 1992 to 1996, only very few of them adopted changes in all three dimensions. According to the authors, “it seems that holistic or systemic transformation is still very rare, involving fewer than one in twenty European firms” (Whittington et al. 1999, 594).
- Brödner and Latniak (2002b) studied the extent of organizational decentralization in the German capital goods producing industry with the help of survey material gathered at two different points of time (1997 and 1999). Their company-level data (N=c. 1,400) showed that strategic decentralization (reduction of hierarchy levels, use of production segments, reorganization of central departments into customer- or product-related units) was far more common than operative decentralization, such as the dissemination of group work, task integration and decentralization of planning and control functions. The share of companies that applied both types of decentralization accounted for only 11 per cent in 1999. Instead, 46 per cent of the companies had not implemented significant changes on either level.
- A study of 10 EU Member States commissioned by the European Commission examined the views of the management of companies and public sector organizations on the obstacles to the spread of new forms of work organization (N=810). A workplace was classified as a ‘user’ of new forms of work organization if it had formally designated teams that had independent decision-making power in a number of issues and if the teams were supported by a comprehensive HRM policy. Even though a majority of the workplaces belonged to the category of ‘users’, only 10 per cent of all workplaces were characterized as ‘system users’ which had implemented several elements of new work practices linked together as a ‘system’ (Business Decisions Limited 2002).

One might conjecture that workplaces are distributed on a curve more or less as in Figure 26 along a scale which represents their activeness in

adopting advanced HRM practices. The conjectured J-shape of the curve finds support in empirical research in, for instance, two studies conducted by Antila and Ylöstalo (1999b, 7; 2002, 20) that examined the division of Finnish private workplaces into proactive and traditional.

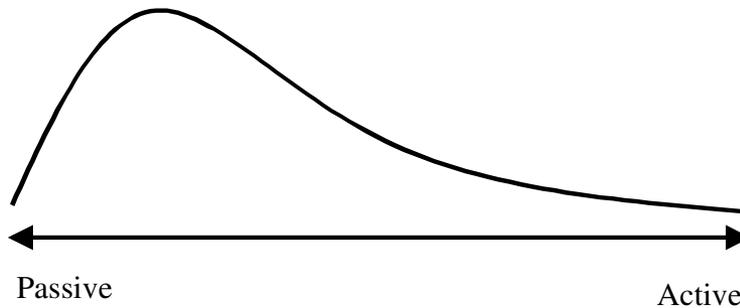


Figure 26. Distribution of workplaces according to their activeness in adopting advanced HRM practices.

Source: Alasoini (2003b, 101).

The study by Business Decisions Limited (2002) separately examined the issue of why certain workplaces did not apply new forms of work organization and also what difficulties the ‘users’ had encountered. The management at the workplaces belonging to the former category were most likely to justify their decision with the following three factors: new forms of work organization were not needed in order to respond to client needs, they did not fit in with the workplace’s culture and they were incompatible with the strategy of the workplace. In workplaces where new forms of work organization were applied, the management felt that the biggest obstacle to applying them that had existed or still existed was overcoming traditional ways of doing things in the workplace. This referred particularly to the incompatibility of the new forms of work organization with a Taylorist or profession-based tradition which existed in the workplace, or to their incompatibility with the values of the wider society.³⁴

Caution should be exercised in drawing far-reaching conclusions from this type of information, which is based exclusively on interviews with management. The views of management about the extent to which various practices that are generally regarded as progressive are applied in the

³⁴ The same research format has been implemented later with material collected from Finnish private workplaces (Ylöstalo 2005). The results of that study are largely in line with those reported here.

workplace may be overly optimistic. Similarly, the view held by management about the reasons why such practices were not applied can be retrospective rationalizations for a lack of awareness of such practices or an inability to implement the changes required by them (e.g. Bacon & Blyton 2000; Cully et al. 1999; Cutcher-Gershenfeld & Kochan 2004). Then again, the risk of such a distortion in the information tends to be disproved by the fact that opposition from employees, unions or middle management, existing legislation or collective agreements tended to be mentioned far more seldom as obstacles to using new forms of organization than client needs or the traditions and strategy of the workplace itself.³⁵ The results of this study can be interpreted to support the view expressed in the article on the dual role of the programme, according to which it is difficult to set out to renew individual HRM practices successfully, because they are tied to the modes of operation of a workplace and they reflect the basic strategy choices of that workplace. Against this background, research information alone or 'good/best practices' from successful development projects at individual workplaces would not appear to be a particularly effective method for promoting the spread of new HRM practices.

Programme strategies and generative results

In many countries, attempts have been made over the past decades to promote the spread of progressive HRM practices through various working life and work organization research and development (R&D) programmes. However, their conceptual approaches, activities, stakeholder and target groups, resources and public policy context have often been widely different. Public policy context is used here in the sense of whether the targets of the programmes have been set primarily with reference to the context and concepts of technology policy, labour market policy, education policy or social welfare and health care policy (e.g. Ashton et al. 2003; Brödner & Latniak 2002a; Business Decisions Limited 2000; Gallagher 2001; Gustavsen et al. 2001, 101-114; den Hertog & Schröder 1989; Naschold 1994; Totterdill et al. 2002, 19-26).

It is possible to make distinctions between programme strategies on the basis of the following criteria, for instance:

³⁵ One of the motives of the European Commission in implementing this study was the view that existing legislation and collective agreements could specifically be considerable obstacles in introducing and spreading new forms of work organization in the EU Member States. In the light of the management responses, this view was supported only in some countries. The differences between countries in this question were of striking magnitude (Business Decisions Limited 2002, 50).

- *size of target group*: a few demonstration projects vs. a large group of projects
- *nature of target group*: workplaces with progressive modes of operation vs. average workplaces vs. less progressive workplaces
- *strength of expert intervention*: direct participation of experts in the change processes at workplaces vs. indirect participation through, for instance, research, training, advisory services, counselling or general dissemination of information
- *focus of expert knowledge*: design solutions focusing on HRM practices vs. solutions involving the implementation of change processes needed to introduce them (process support, ‘process solutions’)
- *status of expert knowledge*: dissemination of certain ready-made design or ‘process solutions’ with the help of experts vs. experts as equal partners of the management and staff of the workplace in dialogue
- *the role of research and consultation*: main emphasis in creation of new research-based knowledge vs. consulting for workplaces
- *legitimate interest groups of projects*: management of workplaces vs. management and staff of workplaces vs. management and staff of workplaces with certain external interest groups
- *dissemination of information*: dissemination of information on demonstration projects after the end of projects vs. mutual exchange of information and experiences between projects during implementation vs. extensive projects that are forums for the exchange of information and experiences as such

There are clearly discernible logical interdependencies between the categories above. The above list is, however, enough to prove that there are many different choices in programme strategies for workplace development, and that a good number of them differ quite significantly from each other. At the beginning of this article, the different levels of results of workplace development were shortly dealt with. It seems that different programme strategies may make it possible to produce similar ‘first order’ results (i.e. workplace innovations in a certain specific context). However, on the basis of the discussion in this article, above, it can be assumed that the various programme strategies differ in their potential to produce generative (‘second order’) results.

The traditional programme strategy and good practices

The traditional – and still probably the most typical – programme strategy is based, roughly speaking, on a group of separate demonstration projects implemented at workplaces with progressive modes of operation. Their

purpose is to act as ‘empirical proof’ to demonstrate some principle, practice or solution. The demonstration projects, which act as pilots, are generally successful. This is influenced by the following factors:

- The projects are usually equipped with exceptional resources in terms of funding and expertise.
- They can practise extensive target-specific tailoring for the company, workplace or work unit concerned.
- They are implemented in progressive workplaces, which already have experience both of self-motivated development operations and cooperation with researchers or consultants.
- Participation in the programme boosts the legitimacy and ‘transparency’ of the project and, consequently, the commitment of the participants to implementing it as well as possible.
- Participation in the programme gives rise to what is called the Hawthorne effect, i.e. the participants improve their performance or give positive evaluations of the results of the experiment primarily because they themselves have received special attention.

On the basis of the results of demonstration projects, experts construct ‘good/best practices’ and then start to pass these as blueprints on to other, less progressive workplaces. Typical mechanisms for dissemination include consulting, training, seminars, publications and data banks. The potential for this kind of programme strategy to produce generative results depends first of all on the efficiency of the mechanisms used to disseminate information. The rapid advances in information and communications technology (ICT) and, particularly, the rapid spread of Internet access have provided effective new tools for this over the past few years. However, the production of generative results also depends on many other factors, such as the potential for productization of the principles, practices and solutions being spread, whether they become established and used by consultants and research and educational institutions, and the commitment to promoting them shown by other stakeholder groups such as the public authorities or the labour market organizations. Turning a phenomenon or an idea into a product and mechanically disseminating it is harder, the more abstract and systemically complex the phenomenon or idea is. For instance, it is easier to turn individual management techniques and tools into products and disseminate them as opposed to new forms of work organization, not to mention general management principles (Lilrank 1995; Powell 1995; Wareham & Gerrits 1999).

As stated above, European research results indicate that, in recent years, the main obstacle to the adoption of new forms of work organization is not so much lack of information on the new forms of organization themselves, the

various solutions available or the measures required in order to introduce them but, rather, workplaces' existing modes of operation and their choices of competitive strategy (Business Decisions Limited 2002). From this point of view, the problem with the traditional programme strategy is the weakness of the means used to influence the modes of operation, strategy choices and cultural factors at workplaces other than those which take part in demonstration projects. Influencing them calls for an open and experimental learning process. However, few programmes can offer a big group of 'second order' workplaces financial or expert resources or opportunities for target-specific tailoring to the same extent as in the case of the demonstration projects. Few programmes are also able to attain in 'second order' workplaces a level of legitimacy, transparency and commitment to adoption of new practices comparable with that of demonstration projects. The adoption of any practice that is even slightly abstract or systemically complex is not a mechanical process of transfer from one context (such as a company, workplace or work unit) to another, but a 'local creation'.

The traditional programme strategy is based on the idea of a linear innovation model that has also been called the 'cascade model'. The name derives from innovation studies and reflects the view that innovation emerges through certain stages which logically follow on from each other (basic research, applied research, development process, innovation, dissemination of innovation), progressing in one direction only. This idea has since been criticized by many innovation researchers. A more modern view is based on the idea of an interactive or recursive innovation model. According to it, the important thing is the interaction between the different parts in the innovation chain and their cooperation, in contrast to the idea of a hierarchical 'trickle' of knowledge proceeding in one direction only from one stage to the next in the 'cascade model'. At the same time, the concept of 'innovation networks' has emerged to replace 'innovation chains' (Miettinen et al. 1999; Schienstock & Hämäläinen 2001).

The success of the programme in producing generative results is, naturally, an empirical question in the final analysis. There has been a big gap between the workplace-level and generative results of many programmes that applied a traditional strategy. The successful results and experiences from demonstration projects have had limited success in their transformation into generative effects that will benefit workplaces or other parties outside the projects (see Arnkil et al. 2004; Fricke 1994; 2001; Gustavsen et al. 2001; Qvale 2002). This has been the case especially when the focus of development has been something else than management techniques and tools or the like which demand a very low level of abstraction (cf. above).

An alternative view – generative ideas as good practices

In view of what has been said above, it is far from surprising that many programmes in recent years have been looking for new means, alternatives to the traditional strategy, to improve the capacity for producing generative results. The starting point in these has been a striving to create interactive ‘learning spaces’ within the programme, which could bring together the various players already in the project planning and implementation stage (Alasoini 2003a; Ennals & Gustavsen 1999). *In these cases, the generative results of the programme have not been the ready-made results of completed projects that are disseminated, as in the traditional strategy. Instead, generative results have been understood more as ideas which are the focus of reflection for various players within the programme, and which emerge as a result of a mutual exchange of information and experiences between these players and which could – if developed together – serve the development of the players’ own activity in many different ways.*

This kind of thinking is based on an interactive or recursive innovation model. Instead of a few demonstration projects, the programme should include a relatively large number of workplaces, R&D institutes and other players. Permanent, long-term interaction between them and possible development cooperation may enable individual workplaces to, for instance (Alasoini 2003a, 27-28)

- improve their potential to carry out projects successfully. If ‘critical mass’ has been achieved within projects and programmes, it improves the chances of successful development and lasting results.
- improve their chances of receiving inspiration, ideas and encouragement to develop. The more ‘critical mass’ projects and programmes have, the better the chances of workplaces using comparisons to understand their own situation better and thus to support their own development.
- boost the search for new, innovative solutions. The more dialogue and critical examination there is between different points of view within projects and programmes, the better the chances will be of finding fresh insights.

This kind of activity could be called *reflexive* benchmarking as distinct from mechanistic benchmarking, which is based on a more universalistic view of ‘good/best practices’ that can be transferred as ready-made objects (Schienstock 2004, 18; cf. also Ennals & Gustavsen 1999, 50-52; Lundvall & Tomlinson 2002, 210-211; Schienstock & Hämäläinen 2001, 195-196; Wareham & Gerrits 1999, 47). In reflexive benchmarking, the interest of the parties involved focuses, above all, on finding operational

correspondences that give rise to generative ideas in different workplace contexts. The aim is to create 'learning spaces' (Nonaka et al. 2000). This concept indicates that learning and knowledge creation require a common, shared context between the parties involved. Context here means a combination of time and space (physical, virtual or mental). The concept of a 'learning space' contains the idea that learning does not take place in a vacuum and deterministic fashion, but in a way that depends on the characteristics of the context in which the various parties encounter each other.

In the traditional programme strategy, the main way of improving the ability to produce generative results is typically linked with developing the efficiency of the programme's channels for spreading information (consulting, training, seminars, publications, data banks, etc.). This is, naturally, important in the alternative programme strategy, too. However, the *main* focus of attention in it is on methods that can help create interactive contexts between the various players at the workplaces and researchers and developers, in order to promote joint learning and knowledge creation. A group of players who are striving to learn together in this way has been referred to in the literature on the new kind of programme strategy as a 'development coalition' (Ennals & Gustavsen 1999) or a 'learning network' (Alasoini 2003a; Bessant & Tsekouras 2001; Tell 2001).

There are not necessarily differences in the programme strategies' ability to produce workplace-level results. Programmes according to the traditional strategy, based on a limited number of demonstration projects acting as pilots, are often capable of advanced target-specific tailoring and extensive resource allocation for projects. Due to the larger number of projects, this is often not possible in the alternative strategy to the same extent. The exchange of information and experiences with other projects and the support to be gained in that way at the project planning and implementation stage can, however, compensate for this in the alternative strategy.

The capacity of the traditional programme strategy to produce generative results depends greatly on the character of the phenomenon or idea that is the focus. The dissemination of 'good practices' is more difficult, the more abstract and systemically complex the phenomenon or idea in question is. It could be assumed that the traditional strategy works better in R&D programmes where the main focus is the physical work environment than in programmes that focus more on psycho-social issues. In the programmes of the future, the alternative strategy will probably gain ground. Not only will the importance of psycho-social issues take on added importance as working life changes, but the alternative programme strategy is also based overall on a more modern and realistic view of innovation.

Example I: Modules of the Enterprise Development 2000 Programme

The Enterprise Development 2000 Research and Development Programme (ED 2000) implemented in Norway in 1994-2001 can probably be considered the programme which has applied this type of approach in the most consistent manner so far (Gustavsen et al. 2001; Levin (ed.) 2002; Oscarsson (ed.) 1999). The programme, with a budget of about NOK 90 million, was not built on individual projects, as is usually the case with such programmes, but on *modules*. The modules were development coalitions consisting of enterprises and expert organizations. The number of enterprises per module varied between five and 50, and each module typically included 5-10 researchers. There were about 80 enterprises in all that had taken part directly in a module, and the core group of researchers numbered 40. One of the conditions for modules receiving funding was that they should include more than one expert organization, and that these organizations should ideally represent different scientific disciplines. The aim was to combine the expertise of units specializing in social sciences, engineering, economics and business administration within the modules.

The seven modules included in the programme had been formed mainly on a regional basis. The enterprises within them represented the mechanical and engineering industry, the process industry, the furniture industry, the food and fish processing industry, fish farming, energy production and the service industry. The grounds given for constructing the programme on modules rather than individual projects was the view that innovative development can best be supported in enterprises by creating cooperation networks and promoting interaction on several levels: (1) within enterprises, (2) among enterprises, (3) among enterprises and various local and regional expert organizations and (4) among expert organizations. The new type of programme structure and its functionality were aims of ED 2000 in themselves, in addition to the financial and other results for the businesses involved. *The programme design goal* was to test how modules within the programme would work as a new model for combining research with corporate development from the point of view of both companies and research. *The research policy goal of the programme* was to test how successfully the collaborative constellations between R&D institutes would be able to produce more value added in corporate development compared with the traditional project mode in organizational research, in particular.

The success of the ED 2000 programme in attaining its company level ('first order') results is reported in the evaluation study of the programme (Oscarsson (ed.) 1999). It might be possible to consider the 'first order'

results largely comparable with the corresponding results of the TYKE programme (Arnkil et al. 2003; Ramstad 2001; cf. also the two previous articles in this work concerning results of project self-assessments). The experiences from the ED 2000 programme concerning the production of generative results can be considered ambivalent. Some modules were exemplary in achieving new forms of cooperation and interaction on the four levels mentioned above, while some only reached halfway to achieving this. The latter observation also applies to cooperation and interaction among modules. Something else which remains unclear in descriptions of the programme is to what extent and how the modules exercised external effects on the business sector outside the programme.

From the TYKE/TYKES programme perspective, perhaps the most baffling feature of the ED 2000 programme is linked with its strongly constructivist starting point. The ED 2000 programme had not set down any planning and design criteria for aspects such as management or the organization of work that could have united the different modules. Instead, the programme started out with assumption that foci and targets of development action would emerge 'locally', i.e. with the help of dialogues supported by researchers in companies and company networks (Gustavsen 2002, 25-26). The starting point for the programme was not the promotion of workplace innovations in the same sense as in the TYKE/TYKES programme (cf. above). In particular the results of the modules in promoting the quality of working life have not really been reported anywhere (Gustavsen et al. (ed.) 1998; Gustavsen et al. 2001; Levin (ed.) 2002).³⁶

Despite the apparently innovative research policy and programme design goals set for ED 2000 and its successor, the Value Creation 2010 Programme (VC 2010), it is difficult to adopt any directly applicable models from their material for the support of generative results within the TYKES programme. Despite their many shared starting points and areas of interest, the two programmes operate in very different conceptual spheres:

First of all, the starting point of the ED 2000 programme was not the promotion of workplace innovations in the same sense as in the TYKES programme. Some of the targets set for the ED 2000 programme were that the majority of the companies involved should have objectives related to health, environment, safety and gender equality as part of their business strategy (Oscarsson (ed.) 1999, 29). It is, however, a long way from this to the starting points of the TYKES programme, which are associated with

³⁶ Payne and Keep (2003; 2005) have also drawn attention to the same thing. They said that it was difficult to form an impression of the tangible effects of the modules in reforming work and work organizations, on the basis of the descriptions of the modules in the ED 2000 programme.

promoting workplace innovations and meeting the challenge of qualitatively sustainable productivity growth. This difference between the programmes probably reflects a difference in the stakeholder groups behind the programmes. Gustavsen (1998, 1), for instance, has characterized the ED 2000 programme as a tripartite programme whose stakeholders are companies and the central employer organization (NHO), the trade union movement (LO) and research (i.e. not central government in a direct sense). From the public policy perspective, this is a narrower tripartite coalition than the one behind the TYKE/TYKES programme.³⁷

A second viewpoint, one that is closely linked with the first one, is concerned with the constructivist approach of the ED 2000 programme. The TYKE/TYKES programme takes a critical view, in the same way as the Norwegian programme, of a simple ‘trickling’ of HRM practices later on from more progressive workplaces to less progressive ones. Moreover, the TYKE/TYKES programme does not strive to create or promote only certain specific generally applicable approaches or development models. Instead, the programme’s project activity primarily shares the following three characteristics: the *focus* should be comprehensive development of the mode of operation at a workplace, the *target* should be a simultaneous and mutually supportive improvement of productivity and the quality of working life (i.e. the generation of workplace innovations) and the *method of implementation* for development operations should be close cooperation between management and staff at the workplaces. The programme also tries to bring added value to project operations by encouraging projects to learn from each other. The starting point of the TYKE/TYKES programme is that although workplace innovations cannot be transferred as such from one context to another, it is possible to strive to use them as generative ideas that can act as sources of learning and inspiration for other workplaces as well.

By contrast, the modules of the ED 2000 programme do not appear to be connected by any clearly defined focus or target in the same way as the TYKE/TYKES programme. ED 2000 was interested in operations which

³⁷ The programme memorandum for the TYKES programme stated that “The new programme is based upon the concept that solid cooperation between workplaces, the research community and the policy-makers (public authorities, labour market organizations) is of great importance with regard to the effectiveness of the operating national innovation environment (the ‘triple helix’)” (Management Group of the Finnish Workplace Development Programme 2003, 2). This refers to the need to expand and deepen the traditional tripartite thinking so as to place the focus of the programme even more forcefully on innovation-driven workplace development and so that the emphasis of the programme would be even more on generative (‘second order’) results.

aimed at innovations, but even the concept of innovation was understood in a different way. According to Levin (2002, 212), for instance, "Innovations are essentially contested as theoretical concept, but identifying anything as innovation in everyday life will be equally complex because of the inherent constructivist nature of innovations. The judgements underlying the identification of something as an innovation is purely social. When a group of actors identify an artefact or a new social (organizational) arrangement as new, it is de facto an innovation." From this viewpoint, and as a result of the absence of uniform criteria for planning and design, innovations in the ED 2000 programme were largely forms of cooperation and interaction considered new by the players in the programme, such as various forms of employee participation, models for leadership, business-to-business networks or development coalitions consisting of companies, researchers and other regional players (ibid., 213-222). By contrast, innovations in the TYKE/TYKES programme (workplace innovations) are linked with reforms to HRM practices that have direct benefits for both productivity and the quality of working life in a certain 'local' context. The way in which Levin sees the concept of innovation corresponds in the concept definitions of the TYKE/TYKES programme most closely to a 'structural support element' for innovation, not the 'innovation' itself.

Example II: Network projects in the TYKE programme

Network projects were one form of project activity in the TYKE programme. They were defined as joint projects between several companies committed to production or other kind of development cooperation, with the aim of creating and testing organizational innovations that promote changes in their modes of operation and support employment. The network projects were included in the TYKE programme from 1997 onwards, when the programme was granted additional funding on a recommendation from the Science and Technology Policy Council of Finland. The additional funding was channelled into reinforcing research-assisted experimentation aimed at generating innovations within the programme and the dissemination of practices, methods etc. that emerged from these experiences. In addition to goals that were directly linked to the company or workplace level, the network projects were supposed to have 'conceptual goals' that were related to new development methods and organizational models with a potential for wider dissemination. The projects in question were planned in the long term and the last network projects in the TYKE programme will end in 2005. The following review is based on 35 network projects.

13 of the network projects were vertical networks made up of companies in the same production value chain, while 21 were thematic, regional or

sectoral networks which brought together companies. Five of the vertical networks were led by principal suppliers, while eight could be characterized as being led by other suppliers in the value chain. In the latter case, for instance, a group of suppliers led by one or two core companies tried to attain systems supplier capacity for the entire production network by intensifying the cooperation among the companies involved. One of the projects cannot be definitely identified as either a vertical or horizontal network, but as one creating an infrastructure; the project in question created an ICT-based setting for networking between geographically dispersed health care centres.

Metalworking companies were the most active participants in network projects: as many as one in three projects consisted exclusively of metalworking companies. In addition to that, they were also involved in many other projects. Apart from that, the network projects were spread across a number of sectors. The second-highest number of companies after the metal and engineering industry came from the mechanical wood processing industry and the electronics industry. 26 of the network projects involved industrial companies only. The number of participating companies was somewhere in the 250-300 range (the exact figure depends entirely on how 'participation' is defined). Most of the companies involved were SMEs.

The development coalitions committed to the network projects were formed from the participating companies and various expert organizations that worked with them. At its simplest, this was a coalition consisting of a group of companies and a single expert organization. In most cases (N=19), however, more than just one type of expert organization were involved. The average number of types of players involved in network projects was three. The types of expert organization that were most commonly involved in projects were state research institutes (N=17), technical universities or faculties (N=13) and consulting companies (N=12) (Table 24). The activeness of R&D cooperation between companies and the various expert organizations that participated in the TYKE programme's network projects appears to correspond on the whole to that of Finnish industrial enterprises more generally. A study by Nieminen and Kaukonen (2001, 74-75), comprising 374 mainly industrial enterprises in the Turku, Tampere and Oulu regions, showed that out of all the expert organizations the most active partners for enterprises in innovation-related cooperation were state research institutes such as the Technical Research Centre of Finland (VTT). State research institutes were followed by consulting companies and development agencies, technical universities and faculties, polytechnics and other educational institutions, other universities and – last on the list – schools of economics and business administration. However, universities

would seem to take precedence over state research institutes as partners for service sector companies (Siivonen & Martikainen 2004, 71-73).

Table 24. The extent of the development coalition in network projects (N=35) and the various types of institutions involved.

No. of types of institutions involved in development coalition	2	3	4	5	6	TOTAL
<i>Types of institutions involved</i>						
Companies	16	8	7	1	3	35
State research institutes	6	4	6	1		17
Technical universities and faculties	5	2	3	1	2	13
Consulting companies	2	4	4		2	12
Educational institutions		2	2	1	1	6
Public sector workplaces		1	1		3	5
Development agencies	1		2	1	1	5
Universities (other than technical)	2		2		1	5
Polytechnics			1		1	2
Citizens					2	2
Labour market organizations		1			1	2
Schools of economics and business administration		1				1
Rehabilitation centres		1				1
Entrepreneurial organizations					1	1

The key differences between the modules of the ED 2000 programme and the network projects of the TYKE programme can be encapsulated as follows: The modules were usually bigger entities. Some of them contained more than one company network, and they involved several R&D institutes. By contrast, just under half of the network projects involved only one expert organization. Another difference was that the modules and their company networks were horizontal development networks and had been formed chiefly on a regional basis. This was due to the emphasis on a regional perspective; in Norway, business-to-business production networks are not usually regional. Meanwhile, more than one in three network projects in the TYKE programme was based on vertical company networks. A third difference was that the modules and their company networks were often based on cooperation which had already existed for a long time in some form between the companies concerned (since the 1950s, in the case of one such network). By contrast, the company networks in the TYKE programme had usually been created within the programme. Fourth, it was emphasized that ED 2000 was a research and development programme, where the experts in the modules were representatives of research units; meanwhile, network projects in the TYKE programme included bodies such

as consulting companies and development agencies as experts also. The fifth difference was that the modules were forums for an exchange of ideas, where development actions might be formed only later as a result of interaction between the parties involved. By contrast, the network projects in the TYKE programme had from the very start fairly clearly defined and specific targets for the development of the modes of operation of the companies involved. The network projects in the TYKE programme started expressively as *projects* and not as more loosely defined forums like the modules.

In the TYKE programme, the network projects actually formed a fairly heterogeneous entity in the end (like the modules in the ED 2000 programme), because the programme had no detailed definition of what a development coalition ought to be like. Aside from the development coalitions, projects also differed in terms of their themes and their research-intensity. The Workplace Development Programme has produced publications on a large number of network projects, describing particularly the development methods or models applied or developed within the projects or other innovative practices or solutions. In this sense, network projects can be considered to have had generative ('second order') results in the same way as many other research or development projects. However, it is more difficult to assess how many network projects – and to what extent – really acted as learning forums where the mutual exchange of information and experiences between companies and expert organizations gave rise to generative ideas that were the focus of reflection by the players involved and which served the development of their operations (cf. above). In some network projects the operations of the network could, for instance, have depended to a great extent on the activeness of an individual player such as an expert organization coordinating the project or a key company in a vertical network, which might have caused the interface between the other players to carry less importance. Examples worth mentioning where all players in the network were systematically linked together and mutual exchange of information and experiences were extensively promoted include in particular the Lohja area environmental cluster (Javanainen (ed.) 2003) and the VAVE project among a group of metalworking companies in the Pirkanmaa region (Anttila et al. 2002; Koivisto & Mikkola (eds.) 2002). A full evaluation of the network projects will not be possible, however, until all projects have ended (on evaluations of network projects performed so far, see Jurvansuu et al. 2004; Koivisto & Ahmaniemi 2001; Koivisto et al. 2000; Vesalainen & Kempas 2002).

The Lohja area is an old industrial area in western Uusimaa province in southern Finland. The environmental cluster comprises 18 local companies, the organization Entrepreneurs of Lohja, the Lohja Hospital District and the City of Lohja itself. The companies involved are among Finland's leading corporations in the paper, wood processing, electronics and building materials industries and in energy production. The University of Helsinki's Western Uusimaa Institute for Continuing Education acted as coordinator in a project (1999-2002), which gave rise to the establishment of the cluster. Various subprojects have brought also other educational institutes and local consulting companies into the cluster.

The cluster is intended to launch and implement projects that aim to improve the state of the environment in the area, to create cooperation in environmental issues between authorities, companies and local residents, and to increase and utilize environmental know-how in the area. It is hoped that cooperation will help find solutions and operating models that reduce environmental impacts arising from raw material acquisition, energy use and the manufacture, transport, distribution, use, recycling and disposal of various products. The project funded by TYKE was a consequence of a competitiveness analysis of the area, carried out by a local partnership project in 1998. This showed that efficient handling of environmental issues was an important factor for companies' competitiveness and for that of the area as a whole.

The cluster is an open learning network seeking to expand. Specific rules were set down right at the outset, covering decision-making, the implementation of subprojects, funding, agreements and internal and external provision of information. The companies have formed clubs amongst themselves for the personnel in charge of environmental issues, logistics, information and acquisitions, and for technical staff. The operations of the cluster have been aimed at both local residents and company personnel, and have taken the form of environmental and company surveys, training seminars, visits, joint development projects and various other events, such as a car-free day and a car-pool day. The companies' joint development projects focused on reducing the environmental impact of logistics chains, on more effective waste recycling, on efforts to boost the user value of Lohja lake, on developing environmental indicators and on working together on developing environmental management systems. The cluster has continued its operations after its specific project funding ran out in 2002. In Autumn 2004, the cluster was granted an extra funding for a learning network project from the new TYKES programme, with a view to thematic and geographical expansion of its activities. The aim is, among others, to broaden the scope of the cluster to security management issues and to have more SMEs and new local communities involved.

Learning networks in the TYKES programme

Evaluation studies of the TYKE programme (Arnkil et al. 2003) and its network projects (Koivisto & Ahmaniemi 2001; Vesalainen & Kempas 2002) led to many development proposals concerning the establishment of development coalitions in working life with the help of programme-based activities. Some of the lessons learned were the following: Firstly, projects that aim to create development coalitions in line with the alternative strategy (see above) must have sufficient time range and enough 'critical mass'. Secondly, resources must be allocated also to mutual interaction and learning between the projects. Thirdly, the research training aspect of the projects should be strengthened and linked more closely to actual development work at the workplaces involved.

Learning networks in the TYKES programme represent a new form of project activity aimed to enhance the ability of the programme to produce generative results. The learning networks in the programme are joint learning forums of R&D institutes (such as universities, state research institutes, polytechnics or other educational institutions) and workplaces. A number of researchers and developers with common interests are taking part in the learning networks together with a number of workplaces, the development of whose operations is supported by cooperation with external experts. The networks may include other participants as well, for example consultancies and development agencies or regional actors. The common interest uniting the participants may be only loosely defined at the outset of the project. In addition to a common interest, the participants may be united by, for example, a geographic area, sector or industrial cluster, a position in the same value chain, or a similar position in a value chain. The purpose of the learning networks is to increase the developmental expertise of the participants, to create and experiment with new forms of development cooperation between R&D institutes and workplaces, and to generate new, innovative solutions for Finnish working life.

Cooperation longer than that normally existing in project mode between workplaces and R&D units was justified in particular from the following perspectives during preparation of the programme:

- *Workplaces*: The development challenges posed to workplaces by change are becoming more and more demanding. The problems are increasingly difficult to perceive and the links between cause and effect are becoming more complex. This is due to the increased knowledge-intensity and networking of the economy, which is a result in turn of the internationalization of product markets and the rapid development of

technologies. In an environment of this kind, it is increasingly difficult to find solutions to these challenges on the basis of the knowledge of either R&D experts or practitioners (management and personnel) alone. The search for successful solutions will require more and more interaction and combining of various types of knowledge, both that of the practitioners and experts.

- *R&D institutes*: Promotion of the exploitation of new knowledge and expertise in an increasingly knowledge-intensive and networked economy is becoming an increasingly important ‘third task’ of universities alongside education and R&D activity. The same largely concerns polytechnics in Finland (Science and Technology Policy Council of Finland 2003). For this purpose new forms of cooperation with workplaces are needed. At present, cooperation between companies and R&D institutes in Finland is obviously stronger in technological expertise than in management, social or educational sciences (Keso et al. 2003; Nieminen & Kaukonen 2001). The new strategy of the Science and Technology Policy Council of Finland, which stresses the growing significance of social innovation, will require closer cooperation in innovation between workplaces and R&D institutes as well as between R&D institutes with different areas of expertise.
- *Ministries*: In Finland, the responsibility of the ministries for strategic development in their own sectors is pronounced. In the future, development of sectoral policies should be based increasingly on research knowledge and on social and other innovations and their effective utilization. The ministries are responsible for the development and maintenance of the conditions required for innovation activity and of creative innovation milieus in their sectors (Science and Technology Policy Council of Finland 2003).

The following features are required of learning networks in TYKES:

- In the forefront are networks that aim at the creation of new knowledge and expertise on how to promote qualitatively sustainable productivity growth in Finland and which has wide applicability at Finnish workplaces. One of the indicators of new knowledge and expertise is the number of doctoral dissertations and licentiate theses produced through the network activities.
- In the forefront are networks that aim at learning and the creation and experimentation of new forms of cooperation at several different levels. Such levels of learning could, for example, be an entire network, an entity comprising some of the participants in a network, an individual workplace or an expert organization, team, or individual (for studies of learning as networks and at different network levels, see Knight 2002; Toivainen 2003; Vesalainen & Strömmer 1999).

- In the forefront are networks in which there are a large number of expert organizations and workplaces of many different kinds.
- In the forefront are networks with obvious potential for development. This potential will be realized through a development plan to which the active partners are committed. It is linked to the network's structure and modes of operation, the benefits sought by its active partners, and its potential for expansion.

The target number of learning networks in TYKES for the entire programme period is 25. The goal is also to create forums for the exchange of information and experience among the learning networks and to promote their contacts with similar networks in other European countries.

The learning networks differ from the network projects in the TYKE programme in particular in that they are meeting forums for workplaces and R&D institutes rather than projects that progress in a 'linear' fashion according to traditional 'project logic' and whose implementation is guided by an *implementation* plan based on this logic and possessing an exact timetable. Instead, learning networks should have a *development* plan which is updated from time to time and which describes the network's short-term (about a year) and long-term (about 3-4 years) development goals. Although the learning network can also implement various operative projects as part of its development plan, the key aspect of its operations is to seek new forms of interaction and development cooperation both among the active partners in the network and outside the network. Learning networks are horizontal networks in terms of their operating logic, even if they include as participants workplaces that belong to the same production value chain.

The learning networks can be compared to the modules of the ED 2000 programme and to the development coalitions of its continuation, the VC 2010 programme (2001-10) (Gustavsen 2001; Gustavsen (ed.) 2003). However, the regional dimension is not emphasized so much in TYKES. Instead, the object of interest and activity that unites the active participants of the learning networks and relates to promotion of qualitatively sustainable productivity growth should be designated at the outset. The structure of the learning networks is not defined precisely nor does the programme insist on more than one actively participating expert organization (in most networks there will be more than just one, however). It is more important for the different kinds of knowledge and expertise to meet in the network; there should be contact between the experts of R&D institutes and workplace actors and also between various experts representing different knowledge bases in the R&D institutes. Innovation-driven activity and efforts to achieve generative learning, in which the

parties to the network also question the norms and basic assumptions governing their own activity, are goals that unite both the learning networks of TYKES and the modules and development coalitions of the Norwegian programmes. The grounds for both TYKES and VC 2010 stress that activity aimed at innovation will increasingly require learning from differences as the economy becomes more knowledge-intensive and networked (Alasoini 2003a; Gustavsen 2001).

This common starting point does not mean just that the importance of *internal* and *mutual* interaction and cooperation in different development networks has a significant effect in creating generative results in various R&D programmes. It can be extended to comprise the *mutual* exchange of information and experience *between programmes*. For instance, the difference between the concepts applied in the Finnish and Norwegian programmes explained above means that it is difficult – or even useless – to attempt to compare them using a traditional mechanistic benchmarking set-up. The difference in the concepts used in the programmes does, however, offer an opportunity for the kind of reflexive benchmarking (Schiensstock 2004) where the key idea is specifically learning from differences.

In conclusion

This article has examined three kinds of perceptions of the effects of the use and development of managerial, work organizational and workforce skills and competence development practices (HRM practices) on productivity and the quality of working life. The three approaches were the universalistic approach, the contingency approach and the complementarity and configurational approach. Each of these was found to be useful in its own way in adding to the understanding of the effects of HRM practices for use in workplace development. However, it is difficult for workplaces to utilize research information and information from experiences of other workplaces about the effects as such in developing their own operations.

The article outlined new approaches to reinforcing the generative (‘second order’) results of workplace development operations. These approaches are based on reflexive benchmarking, where the aim is to create within the programmes ‘learning spaces’ which can unite the various players already at the project planning and implementation stages. The examples of new approaches examined in this article included the network projects and learning networks of the Finnish Workplace Development Programme and the modules and regional development coalitions of the Norwegian programmes.

In the Finnish Workplace Development Project, the learning network projects mark a clear step towards a greater emphasis on generative results alongside the 'first order' results focusing on the productivity and the quality of working life in the projects' own environment where they are implemented. Learning networks are also meant as a response to the criticism of the TYKE evaluation study, concerning the basic unit for development activity within the programme. Moreover, the learning networks could be considered an experiment with a new approach to boosting innovations activity in the Finnish workplace with the help of long-term dialogue between workplaces and R&D institutes.

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Elise Ramstad

Learning networks in Finland and the expanded triple helix model

Cooperation networks which support learning and innovation are being constructed and expanded in Finland at an accelerating pace. Researchers, prominent business leaders, the authorities, policy-makers and the labour market organizations all largely share the view that learning, improved skills and competencies, and the capacity for innovation are key factors for economic growth and welfare in Finland (Himanen 2004; Prime Minister's Office 2004; Science and Technology Policy Council of Finland 2003; Schienstock (ed.) 2004). There are already long traditions for setting up business, industry and production networks, but it is only since the 1980s that companies have become more active in setting up various business-to-business subcontractor networks, strategic alliances, partnerships and clusters (Ebers 1997; Harland & Knight 2001; Koivisto & Mikkola (eds.) 2002; Vesalainen 2002). The construction of networks has become more widespread in the public sector, too. In recent years, debate has expanded to include networks in support of learning that have been formed by various organizations, instead of just individual sectors. This has been influenced by a new concept of the way knowledge is produced (Gibbons et al. 1994), the triple helix metaphor (Etzkowitz & Leydesdorff 1997), complexity theory (e.g. Bartunek & Louis 1988; Bieri et al. 1955) and an added emphasis on learning from differences (Andriani 2001; Gustavsen 2001).

In developing new creative innovation environments, the key factor is the differences between the participants and their modes of operation. Difference and complexity facilitate the creation of new things and encourage a readiness for changes in the environment (Adriani 2001; Hargadon 2003). In a network which supports learning and innovation, the parties involved have their own interests and they also possess information and skills that supplement each other, which generates opportunities for discussing shared development issues and for pooling knowledge and skills. A complex network could be made up of cooperation networks between companies in various sectors, public sector bodies, the academic world, consulting companies, educational institutions, NGOs or policy-makers. Such a meeting between different activity systems can be referred to as the crossing of structural holes (Burt 1992) or boundary crossing (Engeström 2005). The challenge is to cross traditional boundaries and create new structures and practices which support learning across organizational borders. At best, the aim could be generative learning (Senge 1990, 12), i.e. the generation of new information and new practices as a result of

questioning present practices and reflecting upon them. It can often be difficult to cross boundaries, due to the different parties' different levels of social development, and differences in the language and modes of operation that are used (Arnkil et al. 2000; De Long & Fahey 2000; Engeström 2004; Luhmann 1989). Researchers have developed different tools for crossing boundaries to help in inter-organizational learning (e.g. boundary crossing laboratory, anticipation dialogue, work conference, interactive research). It has been suggested that tools which enable the parties involved to put themselves in the place of the other party and see themselves as a part of a whole in a new way are particularly effective in promoting the crossing of borders and organizational development (cf. Arnkil et al. 2000; Mead 1934). However, there is no one who can provide ready-made model solutions; instead, the organizations in a network must experiment with and learn something that does not yet exist.

Network cooperation that is aimed at learning is long-term work that requires a great amount of different expertise and resources. Since the beginning of 2004, the Workplace Development Programme TYKES has set up a new form of operation in support of learning between organizations. This new form of operation is called 'learning networks'. The aim is that learning networks should produce new solutions for the real problems that work organizations share. A learning network is loosely defined within the TYKES programme, and can be made up of a group of researchers or developers who share the same target of research or development and from a group of workplaces or their representatives whose operations receive support for development from cooperation with the researchers or developers. In addition to this, the networks can have other structural connections with other players (e.g. on the regional level). With the help of long-term exchange of information and experiences within the network and through joint development operations, improvements are achieved in expertise on workplace development and favourable conditions are created for innovations.

A learning network in the TYKES programme differs from traditional hierarchical business networks and networks aimed at technology development in that it comprises a more varied group of learners. A learning network does not limit itself to developing operations and learning within one company; instead, solutions are sought to the broader success of work organizations in general and the creation of new research information. This can comprise, for instance, the reform of work and organizational practices, learning between different expert organizations, reform of research and teaching operations in support of workplace development and developing infrastructure factors which support workplace innovations.

When it is successful, a learning network can be an effective tool for pooling skills and knowledge, solving problems and generating new knowledge. It can be used for bridging the gap between workplace development knowledge at the local level, in the academic sphere and the administrative sphere. Since this is a new form of activity, there is very little empirical information available on this type of network. Consequently, the Workplace Development Programme undertook in 2003 a study of existing learning networks in Finland as part of the planning work for this new form of activity. This article is based on data from a questionnaire survey and covers 50 learning networks in Finland, their goals, structure and forms of activity.

The purpose of this article

The purpose of this article is to give an overview of the kinds of learning networks that exist in Finland. It will help generate information on themes, structure and forms of activity which are common to learning networks, as well as the benefits they produce and possible problems. In examining the results, particular attention has been paid to the variety of forms that learning networks take, something which is thought to hold some significance for inter-organizational learning (Hargadon 2003). The intention here is not to analyse individual networks or make statistical generalizations, but rather to give an overview of a phenomenon which is little known hitherto, with a mind to future development action. Another objective here is to examine the role of working life R&D units and their potential for operating as a part of a learning network. At the start of the article, a new model is created for examining the players involved in workplace development and their interrelationships. The model in question is an *expanded triple helix model*, which is also called *a system of workplace development*.

The system of workplace development

Scientific and innovative operations which generate and utilize new information on working life can be examined at the system level. Where workplace development is concerned, this means that there is a specific group of identifiable players who are united by a shared interest: research and development of working life. Wenger et al. (2002, 4) have also called such groups 'communities of practice'. Examination of the system level provides an opportunity to study the institutions that are involved in producing information and the structures which connect them. Systems can be studied from different angles, e.g. a national, regional or sectoral

perspective, or the perspective of different areas of emphasis (Männistö 2003). A system may also comprise a number of different subsystems, for instance coalitions, hybrids or clusters.

National level systems include, for instance, the national innovation system (Lundvall (ed.) 1992; Miettinen 2002; Nelson (ed.) 1993) and the triple helix model (Etzkowitz & Leyesdorff 1997). These can be regarded as analytical meta-concepts that help us structure and understand systemic entities. The leading idea in these approaches is that the economic success of society depends to an increasing extent on the efficiency with which it produces and utilizes information, and that this can be promoted with the help of interactive networks which consist of various players. They also help us to understand better the connections between the different players who take part in the production, development and utilization of information.

The concept of the national innovation system has been used in Finland as a framework in science, technology and education policy (Rask 2001; Science and Technology Policy Council of Finland 1990; Schienstock & Hämäläinen 2001, 11). However, the development of work organizations has not been seen as a part of science and technology policy, and it is partly as a consequence of this that there has been little system-level study of workplace development. It has not been until the last few years that a more comprehensive innovation policy has been sought, one that would also include the development of work organizations (Prime Minister's Office 2004; Science and Technology Policy Council of Finland 2003). The model created in this article illustrates a system of workplace development that is an adaptation of the triple helix model put forward by Etzkowitz and Leydesdorff (1997) (Figure 27). Its aim is not to 'cover every eventuality' (cf. Miettinen 1996; Männistö 2002, 40), but to illustrate the field in this area, the players in it and the forms of activity.

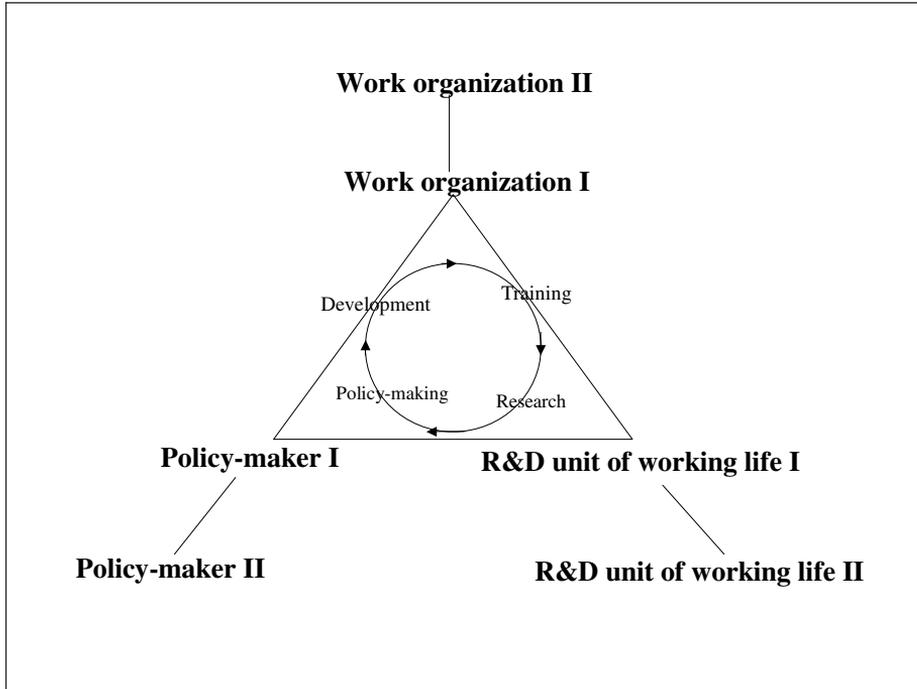


Figure 27. The expanded triple helix model: the system of workplace development.

In a study of the system level, the players involved in workplace development can be divided roughly into three groups:

- work organizations (different sectors, different sizes, low tech – high tech)
- R&D units of working life (universities, research institutes, polytechnics, continuing education centres, adult education centres and private consulting firms) and
- policy-makers (funding bodies for R&D, labour market organizations, authorities, the European Commission and regional players such as employment and economic development centres (TE centres), occupational safety and health inspectorates, state provincial offices, regional councils and economic development coordinators).

The system of workplace development differs from a ‘narrow’ triple helix model in aspects such as organization, emphasis and structure. The workplace development system has been adapted for working life in Finland and comprises more different organizations including public and third sector organizations and educational and research institutes than the

'narrow' triple helix model accommodates. The view is that the challenge of a productive, sustainable and innovative working life applies to all workplaces, including public and third sector work organizations. Another difference is that the emphasis is not on universities, which are at the centre of the 'narrow' triple helix model (cf. Tuunainen 2004). The view in the workplace development system is that in addition to the research information produced by universities and research institutes, workplace development also requires intermediary organizations which disseminate that information, and these can consist of, for instance, polytechnics, educational institutes or consulting firms. Thirdly, while the 'narrow' triple helix model features three kinds of relationships, the workplace development system recognizes six kinds of network relationships. The relationships have been shown in the model as lines. Interactive relationships that are essential for learning networks are those between work organizations, between a work organization and R&D unit, and those among different R&D units of working life. Work organizations and R&D units may also have connections with other players in a network, e.g. policy-maker organizations on different levels that provide resources.

The expanded triple helix model offers a new and complex perspective on the production and dissemination of information and learning on workplace development. The system of workplace development can be examined, for instance, from the perspective of the role of the various players (incl. information producers and intermediaries), the learning that takes place at different levels (the level of the individual, the organization and society) and the various forms of activity of the network (research, teaching, administration/governance, development). The model is normative by nature and emphasizes the importance of interaction between parties that supplement each other; as such, it is also suitable as a starting point for examining a learning network. The expanded triple helix model has since been adopted as an approach in the Workplace Development Programme. The fundamental idea of the model is that the best way of supporting working life development is to pool the different types of expertise possessed by the different parties involved.

Different types of cooperation

Cooperation *between work organizations* can be based on the crossing of horizontal (between sectors and units) and vertical (between management, staff and clients) boundaries. Another natural starting point for cooperation could also be a common region or locality (Alasoini 2003; Gustavsen 2001). During the past decade the general trend has been the transition from short-term to long-term network cooperation based on trust (Hyötyläinen

2000; Vesalainen 2002). In industry, for instance, operative cooperation is expanding, and the trend is now strategic partnership, where cooperation between companies is pursued in several different functions (Confederation of Finnish Industry and Employers 2001; 2003; Ruohomäki et al. 2003). Meanwhile, there is less reported experience of network cooperation between work organizations that do not belong to the same value chain (e.g. Javanainen (ed.) 2003; Jurvansuu et al. 2003; Ohtonen (ed.) 2002). However, that kind of networking is particularly interesting from the point of view of learning and new forms of cooperation.

In a network which aims at learning, the relationship between *work organizations and R&D units of working life* is equal and learning takes place in both directions instead of a more traditional and hierarchical consulting relationship. The role of R&D units in the network is emphasized in pedagogical questions, especially the creation of the social structures of learning and learning situations and in maintaining them. They also possess special expertise required in the network in areas such as organization theory and development expertise. In 2004, the database of the TYKES programme contained data on 135 Finnish workplace R&D units, including university units, state research institutes, polytechnics and other educational institutes. In addition to this, there are also numerous private consulting firms in Finland that are involved in workplace development. Since R&D units cover a wide variety of organizations, their role in a network may vary a great deal. At present, discussion in Finland focuses particularly on the role of the polytechnics, which were established in the 1990s, as workplace developers and participants in networks (e.g. Marttila et al. 2004; Ministry of Education 2004). High expectations are placed on the polytechnics and they are expected to take part in network cooperation more actively in the future, for instance as the intermediaries of innovations and disseminators of new models and methods.

Cooperation *between R&D units of working life* in the network can reinforce multidisciplinary research and the combination of different forms of operation (research, development, the dissemination of information, development of methods). According to a study from 2002 (Ramstad 2002), many R&D units were involved in cooperation with similar units. However, cooperation between different types of R&D units was far less common. Coalitions between public R&D units and private consulting firms were particularly rare. Cooperation may be hampered by factors such as the different operating and knowledge-building logic of researchers and consultants. The work of academic researchers highlights the testing of theories, the production of new information and discussion through the medium of scientific publications, while the important aspects of consulting operations are responding to the needs of the client organization and the

transmission and application of information. However, according to Alasoini (2003), it is specifically coalitions of different types of expert organizations that could offer a wider variety of expertise to work organizations in a network, while also supporting the development of the expertise of the expert organizations involved.

Networks which promote learning are unique and their participants vary. In addition to the interaction relationships mentioned above, networks can also have connections with other parties that are referred to here as *policy-makers*. The policy-makers can represent national, regional or local players. Their role in workplace development has traditionally focused on guidance, advice and supervision. For instance, legislation and comprehensive collective agreements are ways of influencing factors which in turn influence the functioning of the labour market and work organizations, such as employment contracts, working hours, equality, cooperation, occupational health and safety and occupational health care. Policy-makers also have an important role to play in guiding workplace R&D through the provision of funding. There has been some emerging discussion recently about whether the decision-makers could have a new kind of more indirect yet more dynamic role in workplace development (Haatanen 2001; Kevätsalo 1999; Niemelä 2003; Niiranen et al. (eds.) 2002). This does not refer just to representatives of the labour market organizations but to the authorities, funding bodies and regional players (Gustavsen 2001, 201). A learning network could offer a new kind of forum alongside the 'official arenas', where it would be possible to pursue discussion on the development of working life and work organizations on a broader front together with work organizations, researchers and developers. Through cooperation, the policy-makers would receive information on, for instance, current problems and how legislation actually works in practice as a basis for decision-making in the future. At best, a learning network could operate as a learning forum for the parties involved and thus promote structural change in working life, various forms of cooperation and the social legitimacy of development work.

Table 25. The roles of the various participants in a learning network.

	The roles of the various participants in a learning network
<i>Work organization</i>	expert on working life in practice developer of work practices, products and services developer of methods and tools funds development work influences labour market
<i>R&D unit of working life</i>	researcher, developer, instructor processes and disseminates information organizes learning provider of methods and tools disseminates good practices provides and develops training
<i>Policy-maker</i>	expert on working life provider of information and advice, administrator provides funding and supervision expert on legislation labour market developer

Implementation and material of the learning networks survey

The learning networks survey was conducted through a questionnaire that was e-mailed to R&D units during summer 2003. The aim of the questionnaire was to reach R&D units which were thought to be either involved in learning networks or interested in participating in them. The questionnaire was addressed chiefly to the biggest public research and education organizations. It was sent to a total of 78 university units, continuing education centres, state research institutes, polytechnics or other research and education organizations. Responses were received from 30 units.³⁸ One repeat questionnaire was sent to the units. The low response rate (39%) is explained in part by the fact that the questionnaire was sent out during the summer holidays. Another natural explanation is that the units that did not respond may not be involved in learning networks. Table 26 shows that the highest number of responses clearly came from the polytechnics.

³⁸ From some units, more than one response was received. Where these units are concerned, the average of the unit's answers was calculated for the multiple choice questions, while open answers and network descriptions were all taken into account separately.

Table 26. R&D units that responded to the learning networks survey.

	Questionnaires sent	Responses	Response rate %
Universities	22	6	27
Continuing education centres	10	4	40
Polytechnics	31	14	45
State research institutes	10	3	30
Other R&D units	5	3	60
Total	78	30	39

Participation of R&D units in learning networks

The questionnaire studied the units' participation in learning networks at the time of the questionnaire and prior to it. The questionnaire avoided giving a detailed definition of what a learning network was, since the forms of cooperation between R&D units and workplaces can vary a great deal, including differences in structure, content, duration and commitment.

The covering letter sent to the units gave a loose definition of learning networks, as follows: *“Learning networks refer to shared learning forums between one or more R&D units and a group of workplaces, whose aim is to improve workplace development skills through the long-term exchange of information and experiences and joint development work between the parties involved in the network. Typically, a group of researchers or developers with a shared research or development target takes part in a learning network together with a group of workplaces or representatives of workplaces, the development of whose operations will be supported by cooperation with the researchers or developers”*.

The majority of the respondents, 24 units, reported that they belonged at the time in question to one or more learning networks. On average, each unit belonged to two networks and all units belonged to a total of 84 networks (max. 17). Most networks included a polytechnic. The results were similar for the last three years, too. In 2000-02, 23 units had taken part in an average of two and total of 105 networks (max. 13) (Table 27).

Table 27. Participation of R&D units in learning networks.

	Participation in learning networks at present, no. of networks	No. of units	Participation in learning networks 2000-02, no. of networks	No. of units
Universities	12	6	15	5
Continuing education centres	15	4	19	4
Polytechnics	51	10	60	9
State research institutes	1	1	6	2
Other R&D units	5	3	5	3
Total	84	24	105	23

Six of the respondents did not have experience of learning networks. However, all respondents reported that they were interested in taking part in future in learning networks within the TYKES programme.

Descriptions of learning networks

Respondents were asked to describe the two most important learning networks that they were or had been part of. Descriptions of a total of 51 learning networks were received, but two of them described the same network, so there were 50 descriptions of different learning networks. The networks described were fairly different from each other, something which is partly due to the fact that the concept 'learning network' is not yet firmly established, and to the fact that it had not been defined in detail in the questionnaire. The minimum requirement, i.e. that the network should include both R&D units and work organizations, was fulfilled by all but three responses, which did not include work organizations. In these three, the participants represented only R&D units.

In the following, the descriptions of learning networks are examined according to their duration, type, form of activity and structure. In addition to the questionnaire, the analysis also draws on descriptions of networks on the websites of R&D units or elsewhere on the Internet.

Duration of network

The learning networks were often projects with set starting and ending dates. In these cases, the duration of the network's operations depended on external funding. There was a total of 40 project-type networks, of which 24 were intended to continue their operations depending on possible funding. Only 10 networks were engaged in continuous operations. The network with the shortest duration had operated for only six months while the longest-standing one had been in operation for 25 years. At the time of the questionnaire, the average age of the networks was roughly four years.

Type of network

The learning networks were very different in character, and that makes it difficult to identify specific types. Extensive learning networks may comprise elements of both horizontal and vertical networks (Koivisto & Ahmaniemi 2001, 108). The majority of the learning networks were, however, horizontal learning networks that serve the exchange of information and experiences between the different players. There were three networks which aimed at infrastructure improvement. Only one network was more clearly vertical. In it, the focus of development was to improve the supply chain between companies. There was also vertical cooperation in certain networks in the social welfare and health care sector, for instance in developing a home care service chain. One network could be characterized as an institutional network (Burkhard & Brass 1990; Carley 1992), in which operations and structures were well-established. This was a regional technology village.

The players involved in horizontal networks can be connected by factors such as a certain theme, region or sector/occupational group (Alasoini 2003, 38). The questionnaire indicated that learning networks had several of these connecting factors. Roughly estimated, the primary connecting factors were a certain theme (N=30), sector (N=15), infrastructure development (N=3) or region (N=1). Many of the learning networks also had secondary grounds for networking, for instance the development of the operations of a certain occupational group or sector, development of infrastructures or some regional starting point. The following presents some examples of the primary connecting factors of horizontal networks.

The *themes* of learning networks were varied and extended into the various areas of working life development. The focus of learning and development included work organizations and work processes, management systems (information management, safety management, HRM, SHRM), incentive

schemes, work environment and wellbeing at work, the introduction of new technologies, promotion of equality in the workplace, evaluation (e.g. result evaluation, evaluation of personnel skills) and a measure or method (e.g. a measure for performance).

In some networks, the theme differed from those of traditional fields of workplace development. In these, the connecting factor was the implementation of training in the field and development of teaching. In these cases, the focus of learning was often workplace research and development on a wider scale. These included 'The training programme for research-assisted workplace development' at the University of Tampere Institute for Extension Studies and 'The master class in developmental work research', for which the Center for Activity Theory and Developmental Work Research at the University of Helsinki, Merikoski Rehabilitation and Research Centre and the University of Lapland were jointly responsible. The aim of the latter is to create experts in the research and development of work and wellbeing at work, who can draw on their expertise in activity theory and developmental work research in developing work organizations. Meanwhile, in 'Learning network of work' was an Internet-based training programme on wellbeing at work which had been set up for use by SMEs and micro-enterprises in Northern Savo.

Where *sector* is concerned, the networks concentrated most often on developing *industry* and the *social welfare and health care sector*. Networks in industry had been created in the mechanical wood processing and paper industries, in the metals and engineering industry and the electronics industry. The main emphasis in two networks was on information and communications technology. Five learning networks were connected by the social welfare and health care sector. These networks focused on improving, for instance, a service chain for care for the elderly or home care, the quality of nursing and client services, or the quality of training in the social welfare and health care sector. The focus of development was often simultaneously on the development of both public and private service sector organizations.

The municipal sector was the connecting factor in four learning networks. These were usually extensive research or development programmes. For instance, the 'Kartuke' research programme studies and develops the evaluation of the performance of municipal service operations. The programme's operations have been organized in the form of two sub-networks, one of which focuses on guiding researchers and on encouraging discussion between researchers and the work organizations that take part in development projects. The other sub-network is called literally the learning network. In it, a dialogue takes place between research and practical

application in performance evaluation between the municipalities, researchers and developers. The Municipal Quality Network is a network made up of experts on the municipal sector, action researchers and the social partners, with the aim of developing the operations of the municipalities by combining factors linked with performance and the quality of working life and by sharing the participants' experiences and expertise on workplace development. The network has been in operation since 1995 and a research director has been appointed separately for it, as well as a network coordinator from the labour market organizations.

There were three networks operating only in the *state sector*. The Police College had started a network for developing the 'operating culture of policemen' and cooperation with stakeholder groups. The KAIKU programme is constructing a network of developers of wellbeing at work by training them for the state administration. The 'Becoming Visible network' is a project supported by the European Social Fund, which promotes asylum seekers' opportunities to study and find employment in Finland.

In networks aimed at *infrastructure development*, the main emphasis was on developing cooperation structures through, for instance, information technology or new kinds of operating models. An example of the application of information technology is the 'PlugIT network', within which health care service provision has been developed with the help of information technology applications integration. It is the biggest software technology project in its sector and it is funded by the Technology Development Agency Tekes. The network is based on cooperation among Finland's foremost software companies, the service producers and educational and research institutes. The intention is that the operations of the network should continue as part of the more extensive FinnWell technology programme, which focuses on developing health care processes and software production. The Workplace Development Arena network is also about developing new types of operating models, specifically looking for new teaching solutions and operating models for training in the social welfare and health care sector in connection with working life, with the aim of making it easier for students to gain access to workplace development tasks. The third network aimed at infrastructure development is 'ELMO-cooperation', within which new operating models are developed in order to improve the cooperation among development projects in the metals and electronics sector. These projects receive support from the European Social Fund and help disseminate good practices.

The network that emerged most clearly from *regional* starting points was 'Tampere Region Development Network For Innovation and Economic Policy'. This is an informal network which has developed over the years to

become a more permanent forum for implementers of the regional economic policy and researchers. Although region was seldom a primary foundation for a network, it was often a secondary connecting factor. Networks are, in fact, often made up chiefly of players from the same region, gathered round a certain theme or sector.

Structure of network

Information on the structure of the network is obtained by examining the number of different organizations and the number of different player types involved in the network. However, information on the number of organizations participating in the network was incomplete in the case of some networks, or only an estimate had been given of the number of participants. It is not always easy to outline a network, as its effects may sometimes extend very far. As a result, it is difficult to give an exact number of participants in learning networks. According to the estimates, a total of about 1,250 organizations were involved in them. About 18 organizations on average took part in one network (median figure) (Table 28).

Table 28. Size of learning networks.

No. of organizations	N	%
4-19	26	52
20-39	19	38
over 40	5	10
Total	50	100

The number of different player types in the networks varied between an estimated 2-11. In this context, the different types of players were various R&D units, work organizations from different sectors and any other parties belonging to the network (funding bodies, technology centres and centres of expertise, labour market organizations and regional authorities or political organizations). On the basis of the questionnaire, networks consisted of at least one R&D unit and several work organizations, with the exception of three networks, which only comprised representatives of universities and polytechnics. The networks comprised an average of five different players. About half the networks comprised between 2-4 types of players. Five networks comprised about 10 types of players (Table 29).

Table 29. Number of different types of players in learning networks.

No. of different types of player	N	%
2-4	23	46
5-8	22	44
9-11	5	10
Total	50	100

Of all the different types of players, work organizations featured the most in the networks (40%) (Table 30). R&D units accounted for just over a third of network participants while others accounted for about one quarter. Units located abroad, mainly universities, also took part in the networks. These have not been itemized separately but are included in the various types of players. The table below shows to what extent different types of players take part in learning networks, e.g. the number of networks that has nine different types of players is a total of one. The players in that network consisted of one R&D unit (the University of Technology), work organizations from four sectors (industry, private service sector, municipal sector, central government sector) and four policy-maker organizations (a regional organization, a ministry, a funding body, a labour market organization).

Table 30. The number of organizations and participation of different types of players in learning networks.

Different types of players	No. of types of players in the learning network										TOTAL	%
	2	3	4	5	6	7	8	9	10	11		
R&D units, total	5	8	16	19	10	12	7	1	12	4	95	37
University of technology		2	2	2			2	1		1	10	
School of economics and business administration				1					1		2	
University	1	1	3	7	3	5	2		2	1	25	
State research institute	1	2	2	2	2	2			2		13	
Continuing education centre			3		1	1	1		1		7	
Polytechnic	3	2	3	4	1	3	1		1	1	19	
Vocational institute				1	1				1		3	
Consulting firm or foundation	1	1	3	2	2	1	1		4	1	16	
Work organizations, total	3	11	20	20	11	18	6	4	8	3	104	40
Industry		3	8	6	3	3	2	1	2	1	29	
Private service sector		2	3	5	2	5	1	1	2	1	22	
Municipal sector	3	2	6	5	3	4	3	1	2		29	
Central government sector		3	3	3	1	3		1	1	1	16	
Third sector		1		1	2	3			1		8	
Policy-makers, total	1	2	8	6	9	5	11	4	10	3	59	23
TE-centre, state provincial office, provincial capital				1		1	1	1	2	1	7	
Technology centre or centre of expertise					2	1	1		1		5	
Occupational safety and health inspectorate			1				2				3	
Ministry						1	2	1	1		5	
Funding body	1	2	3	3	4	2	3	1	3	1	23	
Labour market organization			4	2	3		2	1	3	1	16	
Total number of networks	5	7	11	9	5	5	3	1	3	1	50/258	100

Among the *R&D units*, mostly universities (N=25) and polytechnics (N=19) took part in the learning networks. The universities act as experts most frequently in networks in all sectors. Polytechnics hold second place in all networks except those in the industrial sector, where private consulting firms came second. Half of the networks included more than one type of expert organization.

The participation of R&D units in learning networks differs from earlier studies concerning network projects in the TYKE programme (see the previous article) and companies' innovation cooperation by Nieminen and Kaukonen (2001, 74-75). In both of these, the R&D units belonging to networks were usually found to be state research institutes, consulting firms and universities of technology. By contrast, the role of schools of economics in the networks was smaller, something which conforms with the learning networks results.

According to Nieminen (2000, 65-68), the disciplines within universities can be divided into two groups on the basis of cooperation: the group of social sciences and the humanities, in which cooperation focuses mainly within the university, and the group of other disciplines, which is characterized by research cooperation with several different players. Here, too, the learning networks prove to have a different structure. Representatives of the humanities and the social sciences often take part in learning networks. One possible explanation for this is that learning networks often have broader themes than, for instance, networks which focus on technological and commercial innovations. Furthermore, experts in psychology and education may be the very people who possess the information needed to organize learning in a network.

The connection between the themes of a network and its cooperation structure is corroborated by Siivonen and Martikainen's (2004, 44-45) study on innovations in the service sector. In it, the companies whose innovations consisted primarily of non-technical social renewals considered universities and research institutes to be more important sources of innovations than companies on average. By contrast, private consulting firms were considered important sources of innovation in technology-intensive companies, although they held less importance for 'non-technical' organizations.

The highest number of *work organizations* in the networks came from industry and the municipal sector, with a total percentage of 56 per cent of all work organizations. Work organizations from several different sectors took part in about two out of three networks, and work organizations from at least three different sectors took part in one out of three networks.

The most frequent representative of the *other parties* is the funding bodies. Most of the networks received funding support from sources such as the European Social Fund, the Finnish Work Environment Fund, the Finnish Workplace Development Programme, Tekes, the Academy of Finland, the Wellbeing at Work Programme (2000-03) or the Productivity Programme (1993-2003). The networks also included a variable number of regional

organizations, such as TE centres, state provincial offices, occupational safety and health inspectorates and technology centres or centres of expertise. Employer and employee organizations participated in 10 learning networks. The most active ones were labour market organizations in the municipal sector (the Commission for Local Authority Employers (KT), the Trade Union of Education in Finland (OAJ), the Trade Union for the Municipal Sector (KTV), the Confederation of Employees in Technical and Basic Service Professions (KTN), the Union of Health Professionals (Tehy)) and in the metals sector (Technology Industries of Finland and the Finnish Metalworkers' Union), which were all involved in a large number of networks. The study of the Municipal Quality Network corroborates this result. In the material used by Kalliola and Nakari (2005), it was mainly the same organizations that were actively involved in municipal networks. Similarly, the metals industry has traditionally taken an active part in workplace development in Finland. In addition to the above, individual unions from other sectors also took part in the learning networks.

Forms of activity of network

Different forms of operation offer meeting places and boundary crossings between the parties involved. Pålshaugen (1998) talks about what he calls 'development structures', which are needed to create contacts for discussion between individuals, groups and organizations. Here, development structures have been taken in the broad sense as the infrastructure of development that supports learning in the network. Forms of activity connected with workplace learning networks could include, for instance, research, development, the dissemination of information, training, seminars and benchmarking.

The forms of activity of learning networks were studied with the help of a structured multiple choice question. The R&D units reported an average of seven different forms of activity of networks. The minimum was a network which engaged only in research and the maximum was a network with 15 different forms of activity (Figure 28).

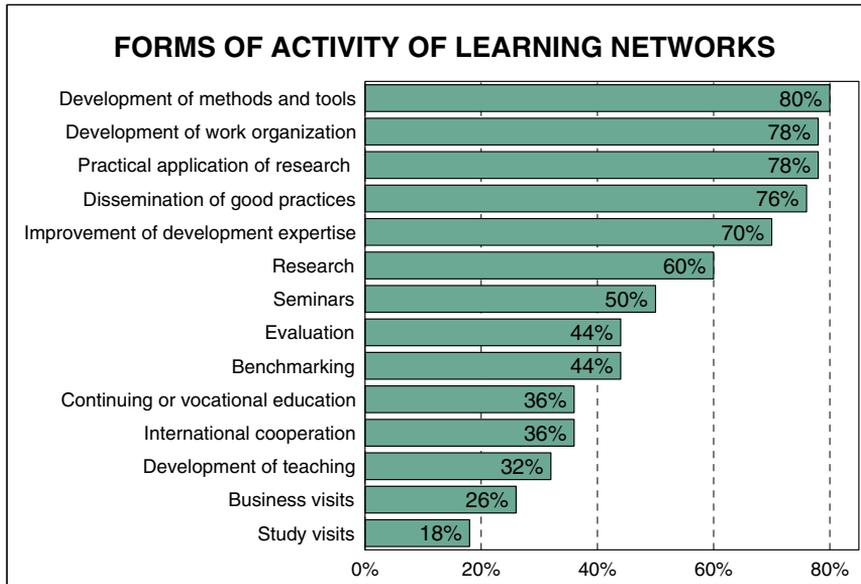


Figure 28. Forms of activity of learning networks.

In more than three out of four networks, the forms of activity included the development of methods and tools, development of work organization, practical application of research information, and dissemination of good practices. In many instances the networks also promoted the improvement of workplace development expertise, engaged in research, arranged seminars and worked on benchmarking and evaluation. About one in three networks included continuing or vocational education, international cooperation and the development of teaching. Study visits and business visits were more rare in the networks.

Diversity of networks

Networks can be set up for different purposes. Sometimes a short-term network consisting of just a few players can be the most flexible solution and the most effective in terms of solving problems. Recent studies indicate, however, that network diversity is an asset, particularly in networks aimed at promoting learning and innovation and business success (Alasoini 2003; Antila & Ylöstalo 1999; Reagans & Zuckerman 2001; Schienstock & Hämäläinen 2001). The network's potential for information exchange depends on the degree of difference of the parties involved in cooperation. A diverse network can offer a richer learning environment, especially in solving extensive and complex questions.

The diversity of a network may apply to different factors such as different types of organizations, different sectors, different forms of operation and different geographical areas (Hage & Hollingsworth 2000; Schienstock & Hämäläinen 2001, 12). When the quantity of new and different information in the network is increased, the innovation potential grows, i.e. the more varied the structures included in the network, the better it is able to promote innovative operations (Bartunek & Louis 1988; Bieri et al. 1955; Hargadon 2003). In an almost similar way, Hage and Hollingsworth (2000) have proposed that the probability of the creation of innovations, particularly radical product and process innovations, grows, if different kinds of research information and diverse forms of operation are available, for instance basic research, applied research, product development, quality control and marketing research.

In this article, the diversity of networks has been studied by examining the associations between three different factors in the network: the number of organizations participating in the network, the number of types of players and the number of different forms of activity. On the basis of correlation analysis, there is most correlation between the number of different forms of activity and types of players (Pearson .47, $p < .001$). The number of organizations and the number of types of players also showed a correlation (.38, $p < .002$). After this, the distribution of learning networks according to the three factors describing the diversity of the network was examined (Table 31).

Table 31. The diversity of learning networks.

No. of organizations	No. of different forms of activity	No. of types of players			Total
		2-4	5-8	9-11	
4-19	1-5	9	1	0	10
	6-9	6	8	0	14
	10-15	0	1	1	2
20-39	1-5	1	2	0	3
	6-9	4	6	0	10
	10-15	1	3	2	6
>40	6-9	2	1	1	4
	10-15	0	0	1	1
Total		23	22	5	50

There was only one example of the most diverse type of networks, with a number of participants in excess of 40, between 9-11 different types of players and between 10-15 different forms of activity. This was the Helsinki University of Technology's 'Research Programme on Rewarding' (Example 1). Other diverse networks included the 'Home Care 2005

network’ coordinated by Pirkanmaa Polytechnic and the ‘The training programme for research-assisted workplace development’ coordinated by the University of Tampere Institute for Extension Studies.

Example 1. Research Programme on Rewarding.

Leader and coordinator of network	Helsinki University of Technology, Department of Industrial Engineering and Management, The Laboratory of Work Psychology and Leadership
Theme	To create a learning environment where it is possible to successfully develop payment and rewarding in companies and organizations, and which makes it possible to study rewarding and accumulate information.
Duration	1996-2003, the programme continues
Learning methods	Research, development of companies and work communities, development of methods and tools, (development of evaluation for reward systems), dissemination of good practices (e.g. handbooks, articles, teaching, continuing education, websites, mailing lists), benchmarking, practical application of research information, improving the expertise on workplace development, arranging seminars, company visits, evaluation, development of teaching, international cooperation
Participation by work organizations	62 companies from industry, 35 companies from the private service sector, 14 from the municipal sector, 21 from the central government sector
Other workplace R&D units	Researchers in the field of rewarding
Other parties in cooperation	Labour market organizations, several unions and funding bodies
Future of network	The programme continues. The aim is to expand the network into different sectors of working life. The challenges lie in the area of salary and reward scheme reforms in the public sector and in pay systems in SMEs.

The role of an R&D unit in a learning network

Finally, we examine the role in a learning network of those R&D units that provided descriptions of learning networks. The respondents were asked to assess either the unit’s present role or its possible role in a learning network with the help of a multiple choice question. They were also asked to say who in the unit was involved with R&D operations and with whom the units cooperated in this area.

According to the assessment of the R&D units, they possess the expertise to function in different capacities in learning networks. Figure 29 shows that the majority of the units that responded (about 90%) felt they possessed the expertise to act as an expert in all seven of the areas included in the question.

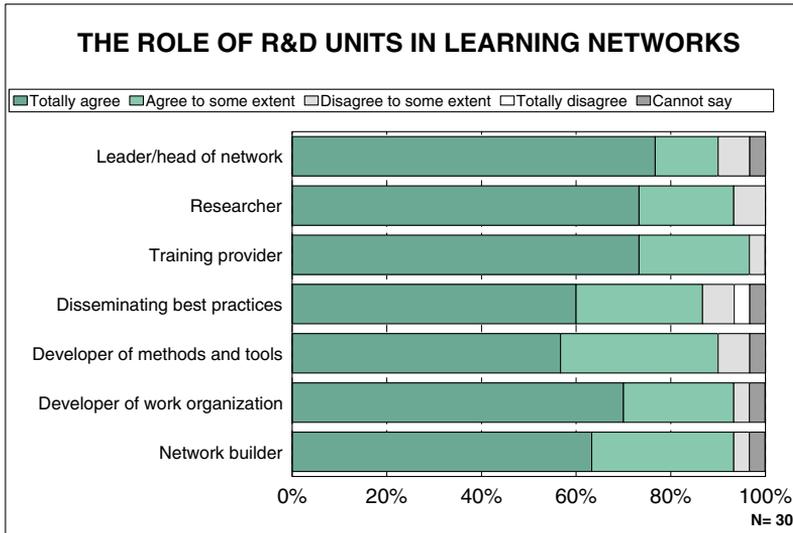


Figure 29. The role of R&D units in learning networks.

It is usually the researchers in a unit that take part in R&D activity of working life. Teachers take part in R&D operations less often than researchers but more often than students. The participation rate of teachers and students in R&D operations was highest in polytechnics. 50 per cent of respondents at polytechnics said they agreed totally or to some extent that teachers take part in R&D operations. The corresponding figure for students was 21 per cent. This result is corroborated by earlier studies. A study by Marttila et al. (2004, 2) that studies the R&D cooperation between polytechnics and companies found that although the role of teachers is taking on more emphasis in connection with working life, R&D work in practice often takes place between students and companies. The most important forms of cooperation between students and working life are students' traineeships and theses, and various development studies and other reports (Pakarinen et al. 2001; Ramstad 2002) (Figure 30).

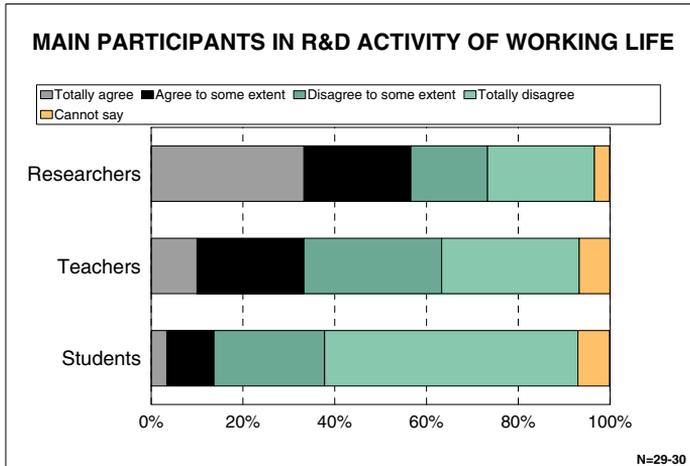


Figure 30. Researchers, teachers and students taking place in R&D activity of working life.

Earlier studies have often examined R&D cooperation from the perspective of the companies involved. In the present article, R&D cooperation was examined firstly on the level of learning networks and then from the perspective of R&D units. On the basis of the responses, the units are involved in cooperation on workplace development with several different partners. Most cooperation is with companies and other work organizations, universities and funding bodies. More than two in three respondents also agreed totally or to some extent that there is cooperation with policy-makers, research institutes and polytechnics. Cooperation with vocational education institutes and adult education centres is less frequent, as is cooperation with private consulting firms (Figure 31).

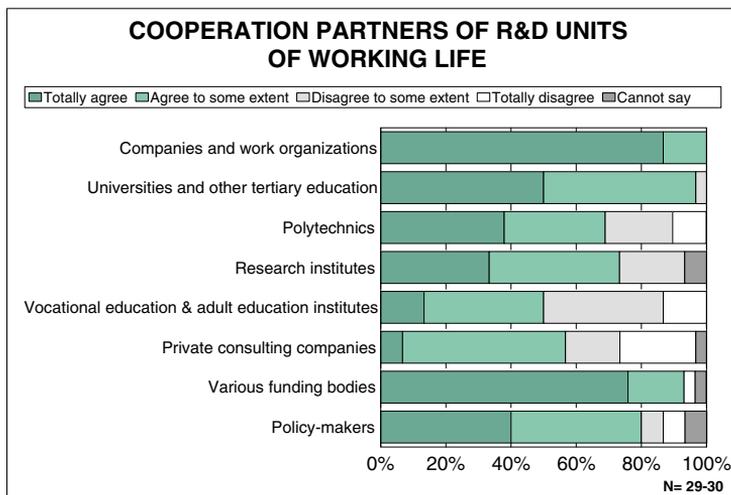


Figure 31. Cooperation partners of R&D units.

Benefits of learning networks

The benefits of learning networks were studied through a multiple choice question that the R&D units answered. The questions were drawn up from the perspective of the R&D unit and focused on the learning effects of the network, rather than the network's possible other effects in terms of funding or wellbeing. On the basis of the results, the units see a variety of benefits from learning networks. All units reported that the transition of research information for practical use and the development of workplaces' modes of operation were the most important issues that motivated them to undertake cooperation. It was a surprise to notice that the R&D units did not rank their own benefits highest, but that the most important benefits involved the development of work organizations' modes of operation. Other issues which were ranked almost as highly included the improvement of the expertise of researchers and developers, improvement of expertise on workplace development and increasing the research information on working life. The participation of teachers and students in cooperation projects was considered a slightly less important motivational factor. Some of the answers also mentioned the development and dissemination of the various methods, tools and innovations which emerge from the network, promotion of cooperation, promotion of productivity and the quality of working life, and promotion of regional development (Figure 32).

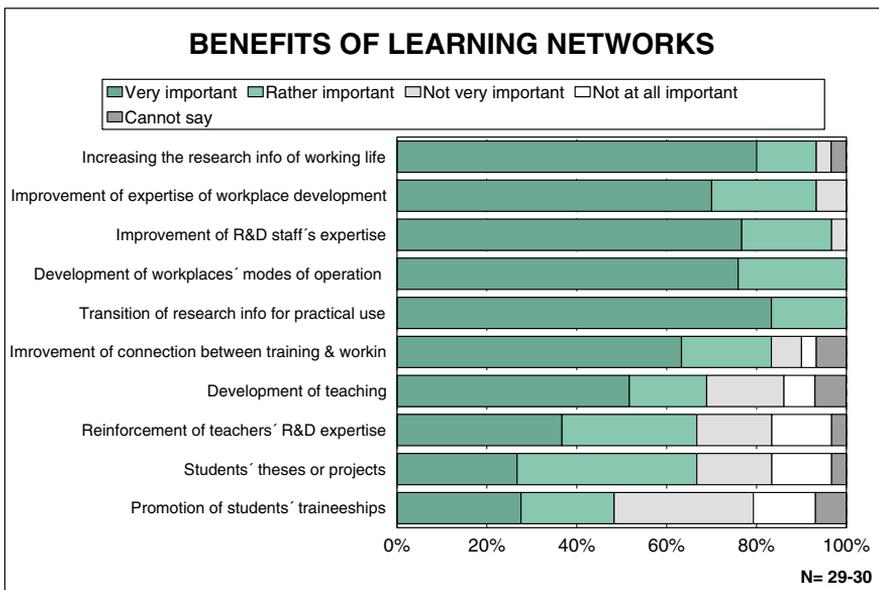


Figure 32. Benefits of learning networks.

Possible problems in creating a learning network

The questionnaire also asked the R&D units about any problems they had encountered in their learning networks. The main problem was felt to be the shortage of funding sources. 73 per cent of respondents agreed totally or to some extent that the creation and implementation of learning networks was made more difficult at the time of the questionnaire by the lack of funding for such operations. The next most common problem was the units' lack of personnel resources. Researchers, developers, teachers and students are rarely able to participate full-time in a learning network, due to, for instance, teaching duties. Some of the respondents felt that it was problematic to construct and coordinate a network. However, R&D units were rather unlikely to feel that the problem in creating a network would have been their own lack of expertise as such (Figure 33).

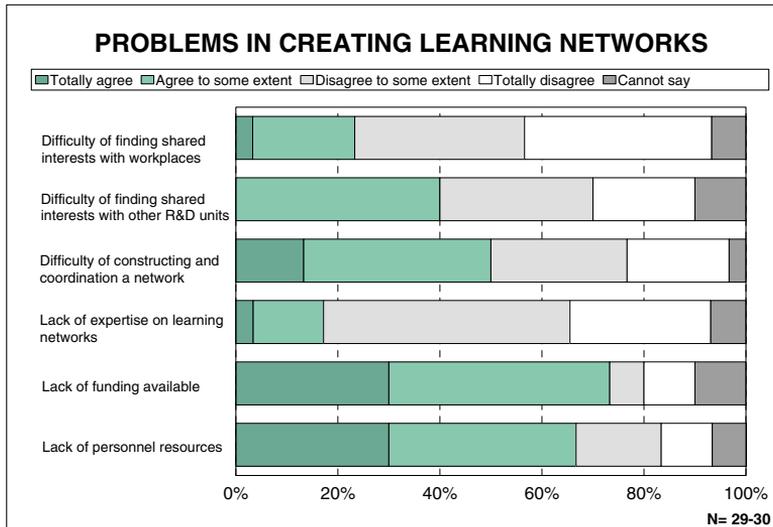


Figure 33. Problems in creating learning networks.

Other problems which were mentioned separately included a lack of time, the difficulty of the various parties committing themselves to the project simultaneously, and the long-term activities required by the networks. Funding is often granted for short projects only, when networked operations would require a guarantee that development work can continue in the long term. Funding applications and the reporting required by funding bodies were also found to complicate the operations of a network. Where polytechnics were concerned, the problems were considered to be the low awareness of their own research and development operations and how to use them more.

Further plans for learning networks

The R&D units were asked for information on their plans in the near future for learning networks. The responses seem to suggest that the role of learning networks will grow stronger in the future. The units regard learning networks as one key focus area and as a natural format for working in the future. Many of the units report that the networks will continue to operate in the future and that their operations will be developed further.

Work will be done to reinforce and consolidate the operations of the present networks; measures to this end will include, for instance, the development of network infrastructure through new technology, seminars and handbooks, and through developing network evaluation and monitoring their effectiveness. Where the longest-standing networks were concerned, the foremost future challenge was considered to be an improvement in their effectiveness and dissemination of information and development expertise that had been generated within the networks to other organizations, regions and sectors. The operations of established networks are expanded by including more organizations. Even units that were not involved in networks at the time of the questionnaire felt that the importance of networking will grow in the near future. Many units were in fact planning the construction of new networks at the time of the questionnaire.

Support provided by the TYKES programme for learning networks was welcomed and considered necessary. The units said that the construction of networks was long-term work which required guaranteed funding for the long term, too. It was hoped that funding would be channelled towards the operations of different networks and extensive networks and to the support of their infrastructure (e.g. websites). In addition to funding, it was hoped that the TYKES programme would reinforce its role in encouraging cooperation. It was felt that, as an external party, the programme had better opportunities for encouraging reluctant parties to work together.

In conclusion

This article has examined Finnish learning networks in the first years of the 2000s. Although this is a new form of activity in the TYKES programme, experience has been gained of learning networks in a number of different sectors and fields. In many cases, the intention was to continue and develop the operations of existing networks, and to create new networks. The report demonstrates the importance and topicality of learning networks in mutual learning between organizations.

In the article, an expanded triple helix model has been created, in which the emphasis is on the cooperation among the parties involved and on learning from differences. The model was used in order to show the parties involved in a learning network and the relationships among them. Learning networks included some twenty organizations on average, representing five different types of player. One in two networks included *different* expert organizations and two out of three included work organizations from *different* sectors. The percentage of policy-makers in the networks was low. In fact, connecting policy-makers and, particularly, labour market organizations with the networks and finding a new role for them could be considered one of the challenges for the future in learning networks.

This article has proposed that learning networks that are diverse in both structure and operations may have more potential for promoting network learning (Bartunek & Louis 1988; Bieri et al. 1955; Hargadon 2003). Due to their structural differences, their potential for exchanging information and combining information in different ways is greater. It was also thought that a network that had a greater diversity in terms of operations would be able to offer a greater variety of different learning situations, as individuals and organizations learn in different ways. A learning network that contains different opportunities for interaction, different forms of activities and consequently numerous learning opportunities, can be one way of facilitating the transfer of information and expertise from one organization to the next and support generative learning. This type of functionally *varied network infrastructure could also be one possible answer to the problem of poor transferability*. The problem of poor transferability means that the new practices or innovations generated in one work organization can be difficult to disseminate and transfer to other organizations (Alasoini 2003, 16-21). However, the examination of learning networks in this article is rather narrow and it has not been possible to test the hypothesis here. In order to test it, information would also be needed on network development, i.e. the process and the learning effects from the perspectives of the various parties involved.

According to Nahapiet and Ghoshal (1998), the creation and combination of new knowledge require four different things. The first assumption is that the possibility of exchanging or combining information exists. Secondly, the various parties involved should trust that interaction, exchange and combination will produce results even if they do not know what is being produced and how. Thirdly, the various parties involved must be motivated to create knowledge in cooperation. The fourth requirement is the ability to combine different information and skills. On the basis of this study, the ground seems fertile for learning networks in Finland, at least from the

perspective of working life R&D units. The desire, need and expertise for learning networks already exist. The challenge is to create learning forums where different parties can express their different views, where the opinions and experiences of others are respected, where alternative solutions are weighed and questioned, and where new solutions and ways of interacting are sought for working life development. In other words, the question is how to support discussion that upholds creativity and learning, and reformed modes of operation.

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The Learning Together forums as learning spaces

The message of the two previous articles on workplace learning networks is that in order to achieve generative ('second order') results, there must be 'learning spaces' that bring together the various participants. In accordance with the new workplace development programme strategy, programmes should actively promote the creation of 'learning spaces' at the project planning and implementation stage, rather than focusing only on disseminating the ready-made results of completed projects afterwards. The challenge for workplace development is how to create between the management and staff of workplaces, researchers, developers and other players interactive contexts that can efficiently promote learning together and the formation of new knowledge.

This article examines and evaluates the series of Learning Together forums implemented by the Finnish Workplace Development Programme in 2001-02 as a method applied by the programme to strive to strengthen its generative results. There were eight of these forums, intended as meeting places for representatives of workplaces and researchers and developers. The forums were planned as far as possible according to the participants' own interests and wishes, and the researchers and developers and workplace representatives took part in the planning duties on a rotation schedule.

The article begins by outlining the forums as a whole, and then goes through the forums in sequence. Descriptions focus particularly on the planning and themes of forums, and also on 'first-hand' feedback and assessment concerning their success. This is followed by a summary of the forums, which also contains some ideas for the development of seminars. Finally, the forums' success in promoting the learning together that had been set as their objective is examined in the light of four questions on learning that are more theoretical.

The forums in a nutshell

Background

The programme's project team started planning the Learning Together forums in 2000, under the working title 'Teamwork forums'. The preliminary idea was that the forums should deal particularly with practical and theoretical questions related to the application of teamwork and other

new forms of work organization. At the time, teamwork was becoming more widespread in Finland and many of the programme's projects had objectives that involved creating teams and developing teamwork (Alasoini et al. (ed.) 2001; Vartiainen et al. 2000).

The TYKE programme's project team presented the idea of the 'Teamwork forums' to a group of researchers and developers at a meeting in October 2000. As background to the meeting, the team had prepared a document about their ideas, including thoughts on the forums as a shared meeting and learning place for workplaces and experts, where they could work together on the development methods used in projects and practical case studies connected to them, and also outline possible ways of implementing the forums. At the meeting, the participants gave their views on the key issues in workplace development and everyone discussed how to develop the idea further.

The discussions showed that a series of forums focused on the theme of teamwork alone was generally felt to be too narrow in scope and a number of alternative ideas surfaced. The suggested *themes* included the need for discussion between networking and development projects, promoting interaction between management and staff, and promoting innovation; the suggested *form* focused on the need for dialogue between practical and theoretical approaches; and other possible *suggestions* included a forum publication or magazine and participation in public debate in a wider sense through contributions to other periodicals. The various participants had such different ideas about the direction the forums should take that it was considered necessary to form a smaller group to continue with planning the forum. In the end, the idea and objectives of the forums were shaped largely by the work of this smaller group.

Objectives

The objective set for the Learning Together forums was learning together about workplace development. The aim was to create shared 'learning spaces' for representatives of the participating projects, researchers and developers and other members of the programme's stakeholder groups. The idea was to use the forums to offer workplaces new thoughts and up-to-date information in support of their development work. It was hoped that the researchers and developers would be able to strengthen their expertise and discover new ideas on approaches and development methods by taking part in the forums. Above all, the plan was to make the forums into a shared space where interaction would be possible between the different parties involved.

The aim was for eight forums to be held in 2001-02, at about quarterly intervals. The leading idea in the planning and implementation of the forums was cooperation and interaction, with the aim of promoting the meeting of different perspectives (management, staff and experts). It was felt that promoting a dialogue between theoretical and practical approaches would be able to improve the mutual understanding of development work and generate a shared 'language of development' linked with it. A specific approach and implementation method would be created for each event. The plan also included highlighting and applying various participatory and action-oriented methods from the very beginning.

The planning process

A special planning group (with about 7 members) was set up for each forum, and the participants included researchers and developers and workplace representatives in addition to members of the TYKE project team. The group convened on average a couple of times before the forum. The members of the group generally changed after a few forums (appendix).

In planning the first forum, the group also spent time on structuring the entire set of forums. The question was how to set up a series of eight forums. Should the series progress according to the life-cycle of the project? Should a topic always be selected from the themes that were of current interest? Or should the forums focus on going over the key ideas of the TYKE programme, such as projects being based on the needs of workplaces, the importance of simultaneously promoting productivity and quality of working life, cooperation and research-assisted development? In the end, there was no far-reaching decision on this at the time; the group set out to implement the forums as separate events that were nevertheless linked together.

The idea document drafted by the project team (see above) had already contained the idea of drawing on different participatory methods in the practical implementation. Methods listed included workshops, work conferences, and various forms of work in smaller groups. The planning group considered the participatory aspect important in striving for 'learning together'. The group decided that the use of participatory methods suitable for the theme of each forum would be considered separately for each forum.

The planning groups worked on the themes and contents of the forums both via e-mail and at joint meetings. The process started with feedback

collected from the forum's participants, which included suggestions for the content of the next forum. The feedback was discussed at the joint planning meetings, where the success of forums was also assessed and the theme and implementation of the next forum were planned. The joint assessment also produced immediate 'suggestions for repairs' with a view to the next forum.

The group tried to make the content of the forums varied and wide-ranging so as to attract and interest as many different organizations as possible and development projects at different stages. It was considered important in the planning of the forums that they would offer opportunities for discussion and interaction between different players. The planning group drew on the expertise of its members at any given time, attempting to select implementation methods that were versatile and suited to the presentation of each topic, and which would also include participatory methods.

Implementation

A forum usually comprised an introduction to the day's theme, presentations of the development projects, and work in smaller groups. The introduction was intended to give an outline of the day's theme, create a team spirit and inspire thoughts and discussion. The person who gave the introduction was usually a participant in a development project or another expert. The openings of forums also employed various 'warm-up exercises' to help participants who had never been acquainted with each other. At the conclusion of each forum, there was a small informal gathering where participants could continue the discussion and create new contacts.

The project presentations were usually 'in three voices' (i.e. management, staff and experts), and told of interesting experiments, results and experiences connected with the day's theme. They were also expected to include the most common questions involved in development work. Project presentations always included an opportunity for other participants to ask and comment, but often there was also more detailed discussion in smaller groups.

Each forum comprised various participatory exercises and exercises in support of learning, together with work in smaller groups. The practical exercises were usually connected with the approach that was presented. For instance, the presentation on developmental work research included both a researcher's approach and testing the Change Laboratory and related exercises in practice. Participants were also often sent in advance various assignments linked with the theme of the day. The idea of the advance assignments was to activate discussion between the participants. The work

in smaller groups was planned in advance so that the groups included representatives of different organizations.

The project team of the TYKE programme was in charge of the practical arrangements and chairmanship of the forums. The preliminary idea was to hold some of the events in the premises of the work organizations that were presented. This was not done however, as it would have been impractical due to the large number of participants and the space required for working in smaller groups. The programme also put a special section for the forums on its website, where all the forum materials were collected: programmes, participant lists, advance assignments and summaries of the forums themselves and their results.

Evaluation

The Learning Together forums were evaluated in three ways. Firstly, at the end of each forum, the participants were asked to fill in a questionnaire, where they were asked to grade the forum on a scale of 1-5, assess the day's successes and weaknesses, and make suggestions for improvements and proposals for the content of the following forums. Secondly, the planning group performed an evaluation after each forum, going over the experiences during the day and the feedback from the participants. Thirdly, after the end of the entire series of forums, the project team collected its own experiences of the forum and those of the members of the planning group. The project team also performed an interim evaluation of the first four forums at the beginning of 2002, and the results were used in the planning of the remaining forums.

Learning Together forums I-VIII

In 2001-02, TYKE arranged eight forums. Table 32 gives a short presentation of each forum, its purpose and the participatory method used, together with project presentations and the expert organizations that took part in each forum. Although the series of forums was a continuum, each forum was a self-contained entity as well. Something that all the forums had in common was that they dealt with topical issues in workplace development and used participatory methods to encourage interaction between the various players involved.

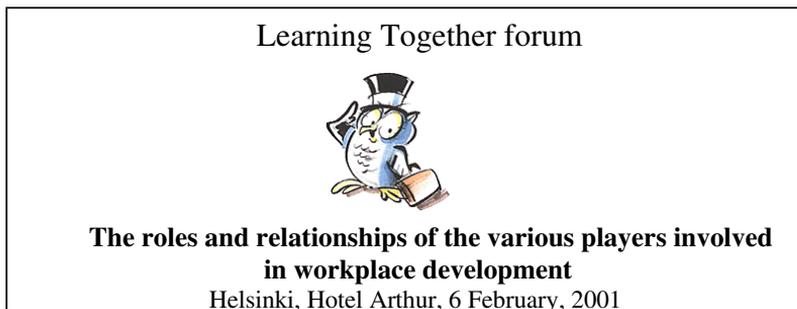
Table 32. The Learning Together forums: purpose, participatory methods used and project presentations.

Forum (date)	Purpose	Participatory method	Project presentations (workplaces and expert organizations)
1. The roles and relationships of the various players involved in workplace development (6.2.2001)	To learn about the roles of the management, staff and experts and the expectations of them and their responsibility in development work	<ul style="list-style-type: none"> • project presentations including representatives from management, staff and experts • comments from an expert representing a different approach and discussion • work in smaller groups and analysis of work 	<ul style="list-style-type: none"> • Stora Enso Timber/Laboratory of Work Psychology and Leadership at Helsinki University of Technology • Services for the elderly in the municipality of Kestilä/ University of Tampere Work Research Centre • Partek Multilift Oy/VTT Industrial Systems & Interlock Yritysvalmennus • Elisa Communications Oyj/ the Center for Activity Theory and Developmental Work Research at the University of Helsinki
2. Stumbling blocks to development projects (6.6.2001)	To learn about typical stumbling blocks to development work and various development methods that can be used to avoid them	<ul style="list-style-type: none"> • Pasilan Huolto Oy gave a description from several perspectives of the development process and its problems • problem solving in four smaller groups applying different approaches: communicative action research, SimLab process simulation, development cycle model and Change Laboratory • comparison of the solutions produced through the various approaches 	<ul style="list-style-type: none"> • Pasilan Huolto Oy/ABC-Kehitys Oy • VTT Industrial Systems • the Center for Activity Theory and Developmental Work Research at the University of Helsinki • Laboratory of Work Psychology and Leadership at Helsinki University of Technology • The Municipal Quality Network, Kehrä Oy • Merikoski Rehabilitation and Research Centre
3. Cooperation achieves results (10.10.2001)	To learn how to raise performance and link it with cooperation between management and staff	<ul style="list-style-type: none"> • processing performance and cooperation in smaller groups from three perspectives: flexibility of work, anticipation of future needs, and expertise • analysis of group work using the 'group fair method' 	<ul style="list-style-type: none"> • Vahanen Oy • Kvaerner Masa Yards, Turku shipyard • The Hospital District of Helsinki and Uusimaa • Sacotec Tarkkuusvalut Oy • Security Group STY –Turvaykköset • Stora Enso Timber • Tapani Sarajärvi Oy/Merikoski Rehabilitation and Research Centre
4. Wellbeing at work (12.12.2001)	To learn how to maintain wellbeing at work despite growing demands for performance and expertise, and risks such as pressure, exhaustion and ageing	<ul style="list-style-type: none"> • a theoretical examination of the concept of work ability • work in smaller groups on the following themes, using practical examples: a) control of the work process, b) maintaining energy and wellbeing in life and work and c) workers of different ages as a resource in an inclusive corporate culture 	<ul style="list-style-type: none"> • Oulu University Hospital/Merikoski Rehabilitation and Research Centre • Etelä-Pohjanmaan Osuuskauppa/Seinäjoen Polytechnic • Jyväskylän Total kiinteistöpalvelu/Ajatuskynä

		<ul style="list-style-type: none"> • a dramatized performance of the past development of a workplace for which participants then developed endings, working in pairs 	
5. Tool market (12.2.2002)	To share experiences and learn more about the development methods and tools used in development work	<ul style="list-style-type: none"> • division into smaller groups using visual identifiers • use of the idea cards from the previous time • presentation of tools used in development work with hands-on testing for the participants • the tools concerned were: anticipation dialogue, work conference, the assessment model for incentive pay, the tools for a learning organization, the centre of expertise model, the Magic Shop and various creativity-enhancing methods 	<ul style="list-style-type: none"> • Metso Automation • Telekolmio Oy/Duo-Plus Oy • Ajatuskynä • Social Development Co. • Laboratory of Work Psychology and Leadership at Helsinki University of Technology • Kehrä Oy • Innotiimi
6. Management as partnership (6.6.2002)	To learn together about management work and personnel management and about sharing leadership	<ul style="list-style-type: none"> • warm-up: work on the day's theme in smaller groups using 'trump cards' • dialogue between management, staff and experts about changes in management culture and managerial work • work in smaller groups on advance assignments and analysis 	<ul style="list-style-type: none"> • Hartwall Lapin Kulta/Practicon Oy • City of Lappeenranta • Mosaiikki network project: Fazer Suklaa Oy, Finnish Meteorological Institute, City of Jämsä, MTV 3, Stora Enso Oyj Imatra, Uusimaa regional council, Yleisradio Oy/Psykosoft Oy • The Service Foundation for People with Intellectual Disability
7. Using stories to learn about the work community (29.10.2002)	To use stories to learn to solve problems involving different workplace cultures in an interactive way	<ul style="list-style-type: none"> • warm-ups through an 'interactive ballgame' • Story Theatre • stories from the work communities themselves, work in smaller groups on the basis of the stories 	<ul style="list-style-type: none"> • Vaasan&Vaasan/Institute of Occupational Health • Teknikum Oy/Interlock Yrittysvalmennus • City of Helsinki institutional services/Ajatuskynä
8. Upward spirals in workplace development (10.12.2002)	To learn to identify upward spirals for development projects and to learn about the evaluation of the Learning Together forums and the TYKE programme	<ul style="list-style-type: none"> • using interviewing techniques to recall the development process • The Learning Cafe model: dividing up participants on tables according to colour-coded name tags • panel discussion drawing on the 'remembering the future' method (anticipation dialogue) 	<ul style="list-style-type: none"> • P.O. Korhonen Oy • Lapland hospital district/University of Lapland • Services for the elderly in the City of Kuopio • Social Development Co.

I The roles and relationships of the various players involved in workplace development (2001)

It was felt to be important to recruit representatives of a variety of different approaches for the first planning group. Researchers and developers were invited from the University of Tampere Work Research Centre, the Laboratory of Work Psychology and Leadership at Helsinki University of Technology and Merikoski Rehabilitation and Research Centre. After all, one of the aims of the forums was to draw on the expertise of different expert organizations in development work and encourage communication between them. The name 'Learning Together' for the whole series of seminars was also invented at the first planning meeting. The idea was that participants at each meeting would 'learn together' something about a theme that would be different for each meeting.



The roles and relationships of the various players involved in workplace development (management, staff and the experts used in projects) were chosen as the theme for the first forum. The idea was that the traditional Taylorist 'from the top down' development model, where initiatives and planning are purely the province of management or experts, has largely been abandoned by now in workplace development (Naschold 1993). The role of staff in development work, in the capacity of experts on their own work and in actively taking initiatives, has grown stronger. Participatory development also requires new operating models from management, such as participative management and support for staff development on the staff's own initiative.

At the forum, participants took a closer look at the roles of the various parties involved through a teamwork project at Stora Enso Timber, where the opportunities of management and staff to take part in the planning and implementation of operations had been improved. During the project, for instance, new participatory methods had been created, 60 supervisors had been trained as team instructors, and 300 employees had completed team

training. The main theories in the project included communicative development, concept-driven development and a socio-technical approach. The communicative development methods included development groups, internal developers, work conferences, company visits, team auditing and mini conferences; the last two were developed within the project. The presentation also focused on the many aspects of the role of expert in a project. In a development project, the expert must maintain a constant balance between the roles of developer and researcher. The challenge is to make theoretical interpretations of something you are involved in yourself in the capacity of developer.

The expert who commented on the project presentation came from the Center for Activity Theory and Developmental Work Research at the University of Helsinki and reflected on the project through the *Competence Laboratory* (Ahonen et al. 2001). The idea of this method is that the work community, including the superior, analyses its present working and learning methods and plans and implements change experiments to renew them. The instructor used for such a project should be an outsider in order to be able to guide discussion into analyses and different perspectives, but in order to understand the discussion he must also find out as much as possible about everyday work in the workplace concerned. The instructor sets the stage for learning by organizing the work during the process and providing tools for thinking and discussion. The comment focused on presenting the development method in question, and there was little talk of its connection with the company project that had been presented earlier. In fact, the planning group felt that a general presentation of different approaches might have been enough at the first forum. It is a challenge to present a new approach and to apply it to a new project, and it requires very thorough preparation. The lesson that emerged was that more time is required in order to achieve a dialogue between different development methods and that it also demands better planning and coordination.

In the afternoon, the participants divided up into three smaller groups, in which experiences connected with the theme of the day were presented from development projects in different sectors (the social welfare and health care sector, the metal industry, the telecommunications sector). The presentation of each project included the views of the management, staff and experts. The participants were divided into smaller groups concentrating on the issues in a specific field mainly according to their own interests. The participants in each smaller group had more in common, which also produced more lively discussion. At the end of the day, everyone went over the results of the group work together.

Feedback from the participants said that the series of seminars was felt to be a welcome new forum for bringing together representatives of different fields. The best things about the day were the discussion and work in smaller groups. Participants also felt that the presentations of various concrete development projects and approaches were instructive. Weaknesses mentioned in the feedback included the tight schedule and the limited time reserved for discussion. Participants wanted a more detailed exploration of the topics at hand, more tangible analysis of everyday problems and they wished the day could end on a high note. Things they hoped for from the following forums included dealing with the bottlenecks and traps of workplace development, comparison of projects, deeper theoretical analysis and presentations of different approaches.

II Stumbling blocks to development projects (2001)

On the basis of the feedback from the first forum, the theme selected for the second forum was one requested by the participants: to learn about the most typical stumbling blocks for development projects and to find solutions to them. It can often happen that a development project is not progressing according to plan; unexpected things can happen as the project progresses: the timetable in the project plan may fail, people have doubts about the new operating models involved, the effects of the project prove to be short-lived, new development needs emerge, to mention but a few.

It was decided to try an approach at the forum where everyone would be divided up into smaller groups to apply different development methods in trying to solve the stumbling blocks that had emerged in one specific development project. The example used was the building maintenance service company Pasilan Huolto Oy, and the parties involved in the project (management, staff and expert) started the day's seminar by telling the participants about the progress of development work and five specific problem situations that had emerged in the course of it. The following table shows the questions that the company posed to the participants (Table 33).

Table 33. Stumbling blocks in the development project of Pasilan Huolto Oy.

1. Changing the original project plan; how can projects be re-planned from the start if necessary?

During the implementation of a development project, there can be sudden and unexpected changes in the operating environment of a company (e.g. corporate restructuring, bankruptcy and subsequent restructuring, changes in operating strategy, disruptions in the permanence of client relationships, personnel problems, changes in key personnel). In such a case, the situation in some area of the development project may change so much that it is no longer worth going ahead with the project according to the original plan. However, the project itself is worth continuing. In such a case, the project should be re-planned so as to use the new, changed situation to best advantage.

2. How can the work community's 'sluggishness' in adopting new operating models be taken into account?

In order to change the service operations and internal operating models of an entire company, a change must be achieved in the way that every person in that company operates and even in the way they think. In this type of environment, it is impossible to achieve an instant change in operating models and especially not in the service quality that the customers experience.

3. How can a project bring about permanent change in the company's operating models?

The implementation of a development project should always aim to achieve permanent changes. It is important to ensure that operating models do not revert to their pre-project state some time after the end of the project. A small company cannot afford to maintain permanent development capacity (e.g. a development manager). In such cases, external development support is essential. But what happens when the development project ends and the company has to carry on with only the resources of its normal daily operations?

4. How can staff be encouraged to fully commit to development work?

How can a development project be implemented with all the dedication required, even if there is also pressing daily business to attend to? What is the best way of ensuring that personnel representatives can be fully involved throughout? Must a member of management always be present at all meetings? Could perhaps responsibility for sub-projects be delegated at least in part to the personnel level with the assistance of a consultant? How can the entire staff be made constantly aware of the project, the stage it is at, and its results?

5. How can the tangible benefits and effects of a specific development project be measured?

A development project always strives for tangible changes for the better. How can the tangible benefits of an implemented project be studied and measured? After all, the changes could have been affected by other things than the development project alone. Numerical changes can be calculated and compared. But how can people's behaviour changes and operating models be measured?

The participants were divided into four smaller groups to look for solutions to these stumbling blocks to a development project; each group was led by a representative of a different approach or development method. All the groups also included representatives of the company, which helped them approach and reflect on the situation of the company. Each group used a different method for solving the problems and drew on participants' own experiences of development work. The experts had familiarized themselves with the material on Pasilan Huolto in advance and talked with representatives of the company. Some of the experts had even visited the company in person as part of their preparation. The groups were made up as follows (Table 34):

Table 34. Group divisions at the second Learning Together forum.

<p><i>Group 1:</i> <i>How to measure the tangible benefits and effects of a project?</i> The development cycle model (VTT Industrial Systems)</p>	<p><i>Group 2:</i> <i>How to involve the staff in development work?</i> Communicative action research (Municipal Quality Network)</p>
<p><i>Group 3:</i> <i>How to take into account the work community's 'sluggishness' in adopting new modes of operation? How to achieve permanent change?</i> SimLab process simulation (Laboratory of Work Psychology and Leadership at Helsinki University of Technology)</p>	<p><i>Group 4:</i> <i>What to do when the original project plan does not work? How to involve the staff and customers in development work?</i> The Change Laboratory method (Merikoski Rehabilitation and Research Centre)</p>

Group 1 approached its question using the *development cycle model* of the researchers at VTT Automation (Figure 34) (Hyötyläinen et al. 1997). The group examined the theme by analysing the focus of change first and by then looking in more detail at the stages in the change process and its results by dividing up the process of implementation into tasks performed and results achieved. Finally, the group approached the indicators and measures of change from four perspectives involved in the analysis of the focus of change: 1) strategy and business operations, 2) organization and processes, 3) modes of operation and 4) the change process.

Development cycle

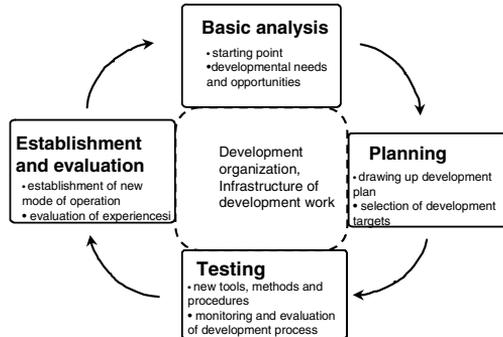


Figure 34. The development cycle model of VTT.

Group 2 worked with the *communicative methods* applied by the Municipal Quality Network in its development work (Kalliola & Nakari 2005; Lehtonen (ed.) 2004). In these methods, one of the main objectives is to generate cooperation and communication. Discussions strive for equal input and a broad base of staff, customers and decision-makers takes part in work conferences. The participants drew up lists and performed a risk analysis of the things that might prove an obstacle to the progress of the development project from the perspective of the management and staff. The biggest risks from the management's perspective were perceived to be time-use by the staff, confidence in the staff's ability to implement the project and a depletion of funding. Similarly, the biggest risks from the staff's perspective were perceived to be a lack of time, inability to take responsibility, opportunities to participate in planning and a concern that the whole thing would come to nothing. The groups also considered ways of avoiding the risks. In this context, they used Edward de Bono's six thinking hats, adopting an analytical, critical, optimistic and sentimental approach by turns. The thinking hats were used as a demonstration of democratic dialogue. The starting point was that everyone should participate, that everyone's ideas are equally important and that nobody's ideas are dismissed. The methods, which encouraged participation, and the enthusiastic atmosphere gave rise to several new ideas.

Group 3 worked with *SimLab process simulation* and created a simulation game for Pasilan Huolto. The experts had visited the company and were

thus able to model the processes of the company. SimLab is a creative, participatory and systematic method that enables the identification of process development needs. The method consists of six stages, where elements of change and project management alternate and merge (Figure 35). It was developed at the Laboratory of Industrial Management at Helsinki University of Technology as a development tool for operating processes for industrial and service companies and administrative organizations (Forssén & Haho 2001).

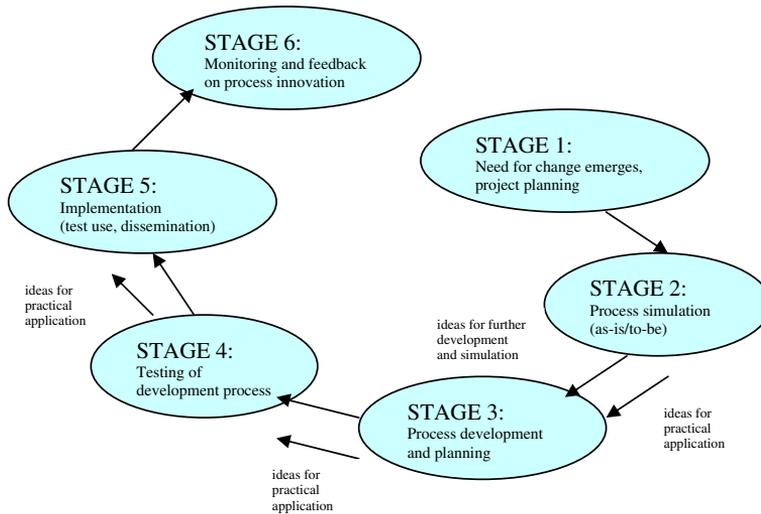


Figure 35. The stages of SimLab process simulation.

In the planning of the process simulation game, the group picked a few real example cases (including a fire alarm and being called out to unlock a door) from the operations of the company. Each of the participants was assigned a role (e.g. managing director, maintenance manager, wages clerk) that allowed them to take a bearing on the situation and look for solutions to the situation at Pasilan Huolto. The simulation game was considered a good method in combating 'sluggishness' especially in adopting new operating models, since it involves simultaneously planning and learning things.

Group 4 worked with the *Change Laboratory method* developed by the Center for Activity Theory and Developmental Work Research at the University of Helsinki, a method which strives to link the solving of practical problems with implementing strategic change in the organization (Virkkunen et al. 1997). The change laboratory is set up in close proximity to the everyday work, so that employees can easily go there to solve work problems and bring ideas developed in the change laboratory directly to their workplace for practical application. The most important tools are

boards on the walls, which can be used for illustrating the change in operations: what work practices were like before, what they are like now and what they will be developed into. The boards enable a transition from observations of individual work-related problems to models that show the whole picture and back to the operations and how to change them.

The group studied the activity system of Pasilan Huolto from the perspective of the work of the building maintenance staff. The boards on the walls were used to outline the role of building maintenance staff, the focus of work, the equipment used, the rules and the results of the work. The use of more complicated building maintenance equipment such as snow-clearing machines requires skill. When skilled workers leave to work for other companies, it causes a vicious circle where new workers must be found and taught how to use the equipment, and labour is not easily obtainable at the moment. This economically unprofitable, closed circle (demanding jobs – instruction – high turnover – demanding jobs etc.), was entered on the *ideas* board. Customer comments, work problems and disruptions were entered on the *mirror* of the change laboratory (Figure 36). These topics were then processed further through discussion with a representative of Pasilan Huolto. One general observation was that work problems were described to rather a large extent in the presentations, while comments and concerns connected with customers were very few in number.

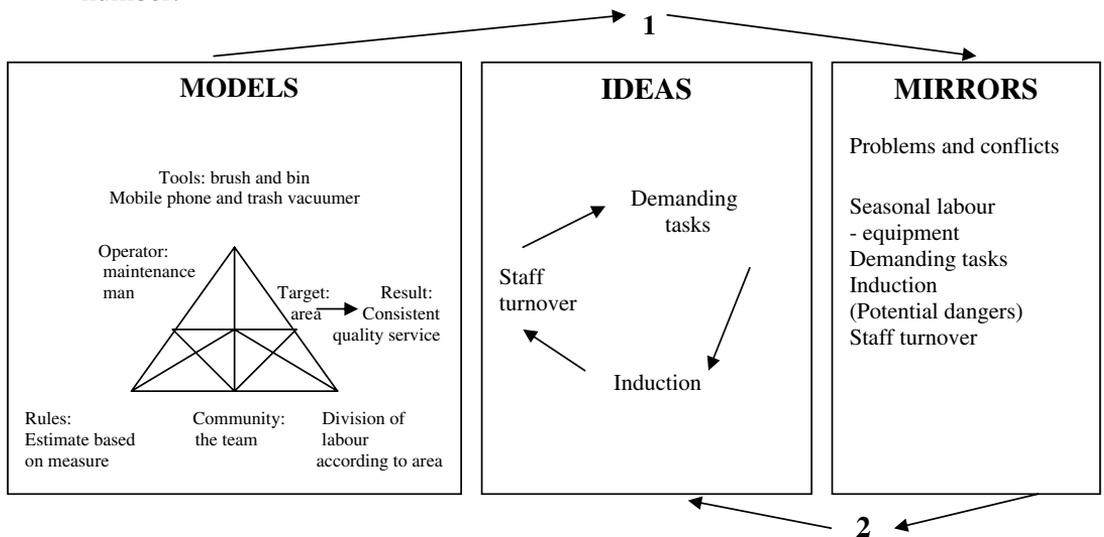


Figure 36. Example of how the group worked in the Change Laboratory.

At the end of the day, all the groups presented the solutions they had found for the problems that Pasilan Huolto had encountered in its development

work. It was particularly interesting to hear the company's own assessment of the success of the solutions and of how they might work in practice. The representatives of the company felt they had received some ideas, but some of the methods used were felt to be too heavy for the company to apply them itself. It was felt that many of the methods require special expertise, careful induction and specialized tools.

To end the day on a high note, Professor Kirsti Lonka shared some of her thoughts on learning and on how to use development methods.

The feedback showed that the participants felt that the most successful parts of the day were the group work and the joint thinking sessions. The participants felt that results could now be achieved through group discussions. The openness of Pasilan Huolto's representatives in bringing their problems to the forum encouraged the participants to be open, too, and discuss the problems they themselves had encountered in connection with development projects. New types of solutions were also found for the problems and participants learned about various practical tools. However, participants were only able to work in one smaller group, although many would have liked to have found out more about all four development methods. The time reserved for analysis of the group work was still felt to be too short.

III Cooperation achieves results (2001)

The first requirement of a learning and profitable workplace is cooperation between management and staff that is based on openness and trust. The third forum dealt with performance and cooperation on many different levels and from many different perspectives. Feedback from the previous forums had expressed a wish for a presentation from the TYKE programme. Consequently, this forum opened with a presentation from project manager Tuomo Alasoini on how to combine performance and cooperation in workplace development from the programme's point of view. After that, Risto Vahanen, chairman of the board of Vahanen Oy (a Finnish Group of engineering offices), introduced the day's theme by examining cooperation within a company and between companies as the building blocks of productivity.

After these introductory presentations, each participant was able to choose one of three smaller groups according to his own interests, as the groups would examine the theme, 'Cooperation brings results', from the perspective of the flexibility of work, anticipation or learning and skills. Two companies from different sectors had been chosen for each group with

the idea that this would help generate discussion both between them and all the participants of the group. The group work was analysed by applying the 'group fair method', in which two people from each group, the 'clerks' of that group, circulated in the other groups to explain the results of their group's work and collecting new perspectives to supplement their own. Finally, the original groups assembled again to hear what news the 'clerks' had gathered about the group's theme on their rounds.

The aim of the day had been to involve the company representatives more than before, and this was successful. The choice of theme that highlighted performance had been a deliberate choice in order to achieve this. There were a total of 110 participants and they represented the various parties involved fairly evenly: about one in three came from companies, one in four from municipal and State workplaces and about one in three was a researcher or developer. At the earlier forums, the proportion of experts and municipal representatives had been bigger.

The participants felt they had benefited most from the presentations of development projects and the group discussions. Risto Vahanen's presentation was also considered particularly good and gave the day a good start. Another thing that was considered good was that the project presentations came from many different sectors and were fundamentally different. They provided opportunities for comparison and ideas for participants' own development projects.

The timetable of the forum was still felt to be too tight and the time reserved for discussion and project presentations too short. Participants wished the forums would focus on one theme only and on a few project presentations at a time. They also wanted a clearer structure and objectives for group work and requested that the leaders of group work should keep more strictly to the chosen theme. The participants felt that the 'group fair method' worked well for the analysis of group work. They thought it was good that the topics that everyone had worked on were revised in discussion in smaller groups rather than everyone sitting down in the same auditorium to listen to a presentation of the results of all the groups.

IV Wellbeing at work (2001)

The theme of the last forum in 2001 was wellbeing at work. The objective of the day was to take a look at the challenges of a working life that is constantly and rapidly changing and the solutions that different work communities have found for maintaining well-being at work as employees age. The planning group wanted to emphasize the importance of linking

issues of how to cope with work with a broader thematic whole. The motto adopted for the forum was “the ability to cope springs from understanding what you are doing!”

The topic was approached with a historical review of the concept of work ability. Jorma Mäkitalo, medical specialist at Merikoski Rehabilitation and Research Centre, explained how the concept of work ability had expanded over the past years. Today, work ability is understood to include the functioning and culture of the entire work community in addition to the resources of the individual. This view was illustrated by a workplace health promotion programme that had been implemented at Oulu University Hospital, where wellbeing and work had been improved by analysing and developing working procedures with the help of a ‘*Change Laboratory for wellbeing*’. The comment concerning a different approach to supporting change was provided by researcher Petri Aaltonen from the Laboratory of Work Psychology and Leadership at Helsinki University of Technology. He explained how researchers together with representatives of five organizations had used research and joint workshops to create and test new tools for bringing the discussion of strategy to all levels of the organization.

The topic was explored in more detail on the basis of the presentations from the experts in four smaller groups, where the discussion was guided by a further presentations of a development project chosen in advance. For instance, Total Kiinteistöpalvelu (a Finnish building and building maintenance company) presented the development history of their company in the form of a play. The task of the participants was then to create a sequel to the play about what might happen to the company in the future after the development project. Finally, there was a presentation by Doctor Heimo Langinvainio on becoming an energetic work community and the day was concluded with an open informal discussion.

The historical overview of work ability, the presentation of a development project in the form of a play, Doctor Langinvainio’s presentation, the success in keeping to a tight schedule and the group discussions were all felt to have been interesting and successful. The positive atmosphere of the forum and the enthusiastic and active participants were also considered good. However, the general timetable for the day was again considered too tight and the time set aside for group work, in particular, was considered too short. The feedback emphasized that participants should be given more opportunities for discussion and thought.

This time, the participants were also given an opportunity to take part in the planning of the theme of the next forum, ‘Tools for development’, by writing down on idea cards their own wishes for the following topics: 1)

how to handle conflict, 2) creativity and innovativeness and 3) learning on the job. 16 completed cards were received, most of them connected with how to handle conflict. Topics raised included resistance to change, facing conflict and dealing with it, communications strategies in conflict situations and problems that are not dealt with. There was only one card concerning creativity and innovation. It suggested that time and energy should not be wasted in an emergency on exclaiming how awful the situation is, but that action should be taken instead, and then, when the situation is over, everyone should sit down and analyse what went wrong and what to do the next time, and also what was learned from the situation. Where learning on the job was concerned, the participants wanted to emphasize the model of learning together and participatory learning, where even proposals for small changes are taken into account. Furthermore, it was hoped that new development methods would also be presented, such as double teams, the use of drama and assessment dialogue.

V Tool market (2002)

There are a number of tools that can be used at the different stages of comprehensive development of a work organization. Tools are available for supporting the creativity, participation and learning of an organization and its staff, but also for solving various conflicts and problems in work communities. The idea behind the forum on the tool market was to present different approaches to development work and try out the methods and tools used in development work. In addition to approaches, the presentations particularly emphasized the ways in which methods and tools have been tangibly used in development projects.

The participants in the previous forum had been asked for ideas for the implementation of the forum on tools. The ideas were collected with the help of three different idea cards: conflict, ideas and learning at work. These were used in order to find out what kinds of conflict situations the participants had experienced at work, what development and learning methods had been used in their workplace and what methods to promote creativity had been developed in the workplace. The cards were used in the planning of the Tool market forum and in the presentations of the various development methods.

During the day, a number of development methods were presented. In the morning there was a joint presentation for all participants on methods that stress evaluation in different ways, and in the afternoon the participants were divided up into smaller groups that circulated on the Tool market to find out more about the development methods presented by experts. In his

introduction to the forum, Jarmo Lehtonen emphasized that the choice of methods must be guided by the framework of development. For instance, a project that relies on technocratic expertise will be implemented using different methods than a project that strives for participation by the work community and using its experience and know-how. Lehtonen mentioned the *work conference* as an example of a participatory method that has already been used in Finland in a number of municipal projects. Its original form, created in Sweden in the 1980s, is heavy, and consequently more flexible applications of it have since been developed in Finland (e.g. Lehtonen (ed.) 2004). According to Lehtonen, it is vital for the success of development work to involve a variety of representatives in the planning of the project, to use different problem-solving methods and to strive to reform the development structures of the work community so that they can be retained after the end of the project.

Anticipation dialogue and assessment of rewarding were examples of methods that emphasize evaluation. Robert Arnkil gave a presentation on the *anticipation dialogue* method developed in cooperation by the National Research and Development Centre for Welfare and Health Stakes and the Social Development Company (Arnkil et al. 2000). It is a set of methods that approaches the problems of today through the solutions of the future. Typical questions that are asked of the participants include: “Let us assume that we have moved forward five years in time and things have gone well with this (i.e. the problem under scrutiny) – tell me how things are now. What did you yourself do to bring this about? Who helped in achieving this good result? What were your concerns five years ago (i.e. actually today)?” The questions are a way of encouraging participants to express their own personal experiences. Different occupational groups in the organization, clients and various teams can all take part in the anticipation dialogue, as needed. The essential thing is that the dialogue is facilitated by a team or partner placed between the parties engaged in the dialogue. The method has adopted ideas from a solution-centred approach, democratic dialogue, constructive approaches and from the approaches of managing complexity and uncertainty.

Anna Palva presented the *assessment model for rewarding*, which has been developed by the Laboratory of Work Psychology and Leadership at Helsinki University of Technology and is used for assessing how well the incentive pay system of a work organization functions (Hulkko et al. 2002). The assessment comprises a description of the work organization’s incentive pay scheme, a questionnaire, interviews and a report, and also a system for awarding points and recommendations for improving the scheme. It is essential for the functioning of a pay scheme that it has been planned in cooperation between the management and staff.

In the afternoon, the participants divided into smaller groups indicated by a sticker on the name tag they had received that morning. The participants circulated the Tool market to find out more about the four methods presented there and work out the answers to the assignments given to the groups. The methods were presented both by researchers and developers and representatives of work organizations. This was a way of ensuring that the presentation of methods did not remain only on the theoretical level but that the participants would be able to form an impression of how they have been applied in practice.

Raija Eronen from Metso Automation told the participants about the *practical tools of a learning organization*. The company had systematically adopted various tools in support of learning. The tools included drawing up a personal learning plan for the employees, skills mapping, mentoring, a system of support persons, a skills vision, a skills map and a skills calendar. The participants felt the presentation of methods was clear and thorough. They said it gave them an overall idea of the learning organization and the learning tools used in it. The participants were also given an number of practical tools to take with them, and they felt they would be able to use these in their own project.

The centre of expertise model was presented by Harry Köhler of Duo-Plus Oy as the expert and Jyri Pouttu of Telekolmio Oy (a Finnish telecom company) as company representative. The starting point here is to first document, in the form of a handbook, all the things about the company's operations that help the employees succeed in their work. After this, the company's operating processes are described through work in smaller groups, and the company's core competences are defined. The handbook is drawn up with the help of a guided strategy process. By using the centre of expertise method, staff will be more aware than before of the focus areas of the company, process descriptions will help in developing the best practices and the customer is seen by the company as an important part of the skills process. Some of the participants felt the model was very heavy and labour-intensive to implement, something that emphasizes the importance of the help from a consultant and strong commitment on the part of the management. A handbook on paper also aroused doubts: Will anyone read it and how is it updated? How can the staff be encouraged to commit to implementation of the model? Will the model 'trickle' down as far as the field?

In the *Magic Shop*, participants could buy and sell different team characteristics and modes of operation. The participants had to work out what a team needs and what it is prepared to give up. The smaller groups

chose a spokesperson from among themselves who then talked with the shopkeeper, asking for advice from the team if needed. The participants took turn being the shopkeeper and the buyer. The aim of the Magic Shop is to help make the objectives of the team and the roles of the team members clearer.

In the group *Creativity enhancement*, developer Teijo Räsänen presented the development methods in support of creativity that Innotiimi applies. The methods presented were: the participatory problem-solving method, Double teams, the ‘group fair method’ and the TAL working model (abbreviated from the Finnish words for Wishes, Expertise and Creativity). The presentation also included the ‘feelback’ feedback method, which allows feedback to be collected from participants in real time and the information to be reviewed immediately. The presentation encouraged participants to exuberant creativity and reminded them of the importance of creativity in the workplace. However, it was also pointed out that it can be quite hard to return to the reality of the workplace from the realms of ‘creative madness’.

The participants felt that there had been a great deal of variety in the contents and forms of activity during the day. A wealth of methods had been presented and they had also produced tangible benefits that participants could take back to the workplace with them. Methods that stressed learning and creativity were felt to be particularly topical and interesting. Where some complex methods were concerned, it was feared that the consultant’s role would become too prominent. Everyone felt that discussions in smaller groups and answering questions given in advance was a good way to end the day. The idea of making up the groups on the basis of the name tag stickers was also thought to be fun and a good way of meeting new people.

VI Management as partnership (2002)

The objective set for the day was to learn about management work, diversity management and sharing management. In the feedback from the different forums, a number of responses had asked that management-related questions should be dealt with. Management as partnership is based on the willingness to learn from partners and become aware of one’s own role in cooperation as part of the organization. It is important in a partnership to understand the significance of mutual dependency, openness to new ideas, trust and mutual support. Partnership can be built on different relationships, such as superior – subordinates, ageing employees – young employees or between different occupational groups and sectors.

The day started with a playful introduction to the day's theme, which also allowed the participants to become acquainted with each other. Each participant was given three different 'trump cards' which were thought to be needed in a change project. The participants were then asked to trade cards with others according to what they themselves thought would be needed in a change process. As they traded with each other, the participants also introduced themselves to each other and became better acquainted with each other. After this, the participants were formed at random into smaller groups to discuss what each member appreciated in a change project. The answers were written on a flap board for all to see.

In her introductory presentation, Riitta Suurla from Taitoakatemia described management as partnership, as a shared journey where the parties involved give each other new ideas, support and help when their learning capacity and motivation are stretched to the limit. A community does not have just one authority who can say and decide what is the right thing to do; instead, it must be possible to question any issue and any procedure. According to Suurla, management as partnership is constructed from three levels: a) mutual exchange, where the community is to analyse why they need each other, b) equality, so that they can learn to understand difference and respect others, and c) representation, which makes it easier to pose challenges for partnership. Partnership is built together, on a foundation of shared agreements and trust.

Management as partnership in practice was examined through three projects in different sectors. The projects in question came from the public, private and third sector. The participants were given written assignments before they were divided into smaller groups. They were asked to consider the following: "What is management as partnership needed for? How has partnership been manifested in the development project and what value added has it brought? How are the main themes of partnership, i.e. motivation, a willingness to learn and a willingness to cooperate, reflected in the project?"

The City of Lappeenranta had implemented an extensive project in order to unify management culture. All City employees in a managerial position, a total of 320 people, took part in the training. The project gave managers more confidence and encouraged them to delegate more responsibility to the employee level, something which in turn promoted teamwork and the distribution of new modes of operation. Something that was learnt from the project was that new ideas do not turn into practices simply by setting goals, but that managers also need support in reaching these goals.

The Service Foundation for People with Intellectual Disability understood partnership in the broadest sense as cooperation between management, staff and clients. In the development project, the foundation's Board of Directors and the heads of units were given intensive training first, and after that the entire staff was given training. Feedback collected from clients guided the foundation's development work. The permanent objective was to establish professional structures for service provision for this service provider organization that had started out as an interest organization for the families of patients, and to establish a framework for learning together.

In the project *Mosaiikki – diversity as a resource*, management as partnership was based above all on equality and on accepting differences and using them as a resource. The network comprised nine organizations from different sectors, and the objective was to turn the differences of individuals and communities into a resource for the organization. The projects had created operating models and methods that had helped promote the utilization of the differences of individuals and work communities and their ability to learn from each other. The project was based on an extensive equality promotion project that had been agreed on as part of the incomes policy settlement between the central labour market organizations in 1998.

The starting points of *Hartwall Lapin Kulta's* project “We are in the same boat – can we be partners?” included weaknesses that had been discovered in the internal cooperation of the factory (brewery), in relations between supervisors and subordinates, in the flow of information and in the atmosphere at work. The company had not implemented similar work community development projects before. The presentation on the project openly brought out the partially differing views of management, staff and the head shop steward on the implementation of the project. To begin with, the staff had been quite sceptical about the project, but the participatory method of implementation had convinced them. The introduction of teamwork gave the staff more opportunities to develop the operations and have a say about their own work. This was new to many members of staff. The change improved the job satisfaction of the staff and the atmosphere at work, and as a result, efficiency also improved.

The participants felt the morning's introduction had been inspiring and had helped put everyone in the spirit for the day's theme. The introductory game was also felt to be a refreshing and different way of examining one's own views and swapping experiences with people one had never met before. The Hartwall Lapin Kulta project was highlighted as an interesting example, especially because it clearly brought out the different views of management and staff concerning the implementation of the project. The participants also felt that there was a great deal of different expertise and

experience present at the seminar, something which offered an opportunity for exchanging information and learning new things. Again, the aspect that was criticized the most was too much pressure in terms of time in the implementation of the forum. The participants said that more time should be set aside for presentations. Some did not consider the division into smaller groups to be a good thing, because not everyone had been able to join the groups they wanted and some would have liked to have taken part in all the smaller groups.

VII Using stories to learn about the work community (2002)

In the seventh forum, it was felt to be important to bring up a topical theme: the use of stories in developing the work community. The theme was an attempt to approach ways of supporting a successful introduction of interaction in corporate culture, where the different occupational groups clearly have their own jargon and different people have different ways of expressing themselves anyway. The morning warm-up exercise, an ‘interactive ball game’, brought a warmth to the rather small seminar room. The exercise was a concrete demonstration that more than verbal communication is needed for true interaction. The actual introduction to the day’s theme was given under the title ‘Stories as an aid in developing organizations and people’ by Titi Heikkilä, who wrote her doctoral dissertation on the subject in 1998.

This time, the participants divided up after their joint session into three groups to hear stories from development projects implemented by actual work communities. The project presentations selected were three different work communities who came to tell their own story about their development work. The Vaasan & Vaasan bakery project wanted to highlight their development pathway from a traditional setting “where the employer gives the orders and the employees put up a resistance” to a dialogue with mutual respect. The storyline of the institutional care units of the City of Helsinki’s Public Health Department was the adoption of a new working method and its progress from “Whispers in corners to open discussion”. The representatives of Teknikum Oy, a company manufacturing rubber products, went over the multifaceted development of interactivity by giving a presentation of the different stages of processing a tender and the interaction involved. After these short presentations, the participants had an opportunity to ask questions and find out more about what they had just heard, and to express their own views and experiences.

In the afternoon, the *Story Theatre method* was used to delve further into the themes of the project presentations that had been given that morning. In

addition to the actors, both the presenters of that morning's project presentations and the audience at large were invited to take the stage. Story Theatre is a form of community theatre based on spontaneous improvisation, where actors and musicians act as 'mirrors', acting out the stories of people in the audience. Story Theatre creates a space for people to connect with each other through sharing their stories.

The stories and the method of dramatization were considered accurate and topical choices for the day's theme. The introduction session in the morning about ways of using stories was considered excellent. The people who gave the project presentations were also praised for their good and active input in the presentation of their own story about interaction. The Story Theatre method as a new tool was felt to be interesting and the performances of the actors good. The idea of the method was understood, but the implementation stretched out for too long and was too loosely connected with the themes of the project presentations from the same morning. Lively discussion on the potential and limitations of the dramatization method for work community development ensued at the informal get-together at the end of the day.

VIII Upward spirals in workplace development (2002)

The topic chosen for the last forum was evaluation on the theme 'Upward spirals in workplace development'. The plan was to work with the different levels of evaluation during the day. On the one hand, the TYKE programme had lived for seven years at this stage, but on the other hand, each development project within the programme had its own development cycle. In addition to this, it was also felt to be important to evaluate the experiences from the series of eight Learning Together forums implemented over two years and how they can be used in planning future seminars. The basic idea on each level was to both evaluate the past and plan for the future.

In the morning, Tuomo Alasoini gave an overview of the seven years of the TYKE programme. He emphasized that the objectives of the programme had been particularly to boost innovation development at workplaces and workplace innovations and creating favourable conditions for them. The task of the TYKE programme had been to use project operations to promote 1) the simultaneous promotion of performance and the quality of working life, 2) comprehensive development and 3) the importance of cooperation between management and staff.

In the morning, the stages of the long-term development work of one individual work organization, furniture manufacturer P.O Korhonen, were also evaluated. The aim of the project had been to promote teamwork and create a new wage scheme. There had been a great deal of positive experience from giving teams more authority and freedom. The wage scheme, however, had proved to be a far more painful process, even if it had been started in a cautious manner and in cooperation between representatives of the employer and employees. In the wider discussion that followed, many others said they had similar experiences of development work. It was also said in the discussion that where development specifically of wage schemes is concerned, the shop stewards are in a key position, and that it is important to form a realistic idea of the requirements for cooperation and learn to find a shared interpretation of experiences.

In the afternoon, evaluation was examined through an extensive network project for telemedicine. The project had supported the adoption of a mode of operation using ICT in all 16 health centres in the Lapland hospital district and in specialist fields in the central hospital. The perspectives chosen for the presentation were the whole project on the one hand and the experiences of one health centre on the other. It was hoped that the evaluation study would explain why the new mode of operation had been adopted more smoothly by some work communities than by others. The study searched for information that could be generalized concerning ways of effectively using technology in health care and in a way which would be useful for the staff, too (Jurvansuu et al. 2004). According to the study, experiences from the initial pilot project helped in the implementation of this extensive overall project. The biggest single questions for the success of these types of extensive changes turned out to be the commitment and activeness of the management.

The festive nature of the very last forum was emphasized through the performance of a play called 'On my way... I'll be there in a minute – the role repertory of a nurse, everyday scenes from care for the elderly in Kuopio'; the play had been written by the nurses themselves, who also performed it. The idea for the play originated in the discussions held after the last meeting of the TYKE programme's other seminar type, the module seminar. The employees had started to seriously promote the idea of a play and they eventually convinced their superior and the project experts that they could succeed. The employees themselves did everything themselves from start to finish, with the external support of a professional director.

Finally, a group of the people responsible for the implementation of the Learning Together forums gathered together for a chaired panel debate to look for new seminar formats under the theme '2005 – memories of a good

future' using the anticipation dialogue method (Arnkil et al. 2000). The aim was to remember a good future where all the present problems and concerns had been solved. The debate produced many new themes and possibilities for arranging seminars. At the same time, the memories of the participants produced a review of the things they had experienced at the eight forums. The audience was also allowed to participate in the discussion and they were happy with what they had learned during the forums. The participants had all been prepared to give and receive. The general atmosphere and discussions had been open and people had even felt comfortable expressing their personal feelings at the meetings.

The anticipation dialogue method brought the visions of the future to new spheres as the participants 'remembered' the good future in 2005. The memories included that an Act on minimum standards for the quality of working life had been enacted and that everyone adhered to it, the resource problems of development work had been solved and worker rotation between the public and private sector had been introduced. There was more emphasis on the importance of tacit knowledge, interaction had increased and everyone had something to contribute to joint discussions. People had also learnt to listen to what other had to say. They had learnt to process negative situations and problem situations and to turn them into models for the benefit of others. The focus on Helsinki had finally been overcome, and the workplace development programmes had become very popular TV programmes.

At the end of the day, the programme's project team said this was the end of the Learning Together forums, and that the idea would not be resurrected in the same format again. However, they promised to arrange two theme seminars for the participants in 2003 (and these were, in fact, arranged). They also promised to collect the experiences from the eight forums and use them in planning future operating formats for the programme.

Participants' assessments of the forums and their development challenges

Early in 2003, the members of the TYKE project team and some of those who participated in the planning of the Learning Together forums were asked to write down their views on the success of the series of forums for an evaluation report. The questions asked were designed to shed light on the implementation process of the series of forums and to collect thoughts that had emerged along the way. The perspectives suggested for the written 'memories' were: "Did we learn together? And, if so, what?" and

“Thoughts on good models for future interactive forums within the TYKE programme – thoughts, ideas, whims!”.

Everyone who answered was happy with the series of forums. They all felt that the themes were headed in the right direction and that the method of implementing the forums using different methods promoted learning together and the sharing of information. They felt that the objective of the series of forums and its sub-areas met the requirements of modern networking ideas.

The participants varied from one seminar to the next, and this was considered to be a good thing. Despite the turnover in participants, it was felt that ‘learning together’ had taken place during the series of forums. There were also people who had taken part in all the forums. It would have been interesting to hear what kind of picture they had formed of the series. Had they, for instance, got an impression of a path from grasping the general importance of development work to a perception of the various problems involved in development work and further, through presentations of the tools of development work and participatory management methods, to a conception of ‘upward spirals in workplace development’? However, it was decided not to pursue this line of inquiry after the event.

Respondents felt that the planning group itself had worked as a good ‘learning forum’. People in the group learnt from the start to present various creative proposals bravely for the content of the forums planned. They also learnt to understand and interpret the views of others. The planning group also gradually learnt to trust the participants to show initiative and to leave more room for discussion and networking. Especially towards the end of the seminar series, the group dared to trust that participants would have the courage to use the ‘arena for public discussion’ created for the forums for open debate, assessment and criticism. The planning group supported the participants’ initiative for discussion in two ways, in particular: firstly, through advance preparation such as advance discussion with those who gave presentations about themes and by inserting opportunities for discussion in the forum programmes, and secondly by creating a relaxed atmosphere through various practical arrangements during the forum itself.

A number of working methods were used at the forums, based on both introductions and presentations and on activities. Everyone seemed quite satisfied with this variety. The forums were felt to be good meeting places for people from different organizations, and it was felt that good methods for helping participants meet new people more openly were discovered, particularly towards the end of the series. The assessments said that it had clearly come as something of a revelation for many people when the very

different and initially even distant experiences and methods presented at the forums had turned out to have links with the learning objectives of people's own development projects. It is, however, difficult to establish to what extent the new information and experiences gained from the forums are actually transferred into practical use in workplaces and continue to live there. At least the participants were seen to exchange visiting cards during the breaks and the discussions at the forums probably did lead to contacts outside the forum, too, in some cases.

Proposals for development from the respondents included choosing more restricted themes and holding regional seminars alongside the national ones. Generally, only one or a couple of people from each work organization had taken part in the series of forums implemented in 2001-02. It was felt that more people from the same workplace might be encouraged to come to regional events. Another suggestion was that separate workshops would be arranged for experts where researchers and developers who use different methods could be encouraged to exchange ideas with each other.

All the forums had been constructed with a view to the practical questions that people working in development projects were likely to face. Some of the respondents felt that this might even have been something of an obstacle to innovation and learning, since it might have drawn too much attention to the challenges and problems that were most common in development work at the time at the expense of *new* challenges and problems. One of the proposals for development was, in fact, to focus more than hitherto on preparations for the future. Seminars could use an exchange between researchers and developers and workplace representatives to outline how the successful workplaces of the future will differ from the present ones in terms of, for instance, management, work organization methods, or personnel and stakeholder relations. Another type of development idea that emerged was to put together clusters of a few development projects and hold shared meetings for them, which would also include some people from outside the projects as an 'audience'. The implementation of such a meeting could apply the storytelling method, which had already been tested at one forum, so that the various projects would prepare an idea for a story in advance and that suitable arenas for discussion would then be formed on the basis of the stories. The arenas would be given 'presenters' who would introduce the theme. This would encourage a deeper exchange of information and experiences between participants.

The objective set for the forums was to generate many different types of contacts between the various parties involved. The implemented series of eight forums provided the Workplace Development Programme with a wealth of experiences and new information on the shared 'learning space'

of workplace representatives, researchers and developers and other stakeholder groups. The target group of the forums had not been restricted, something which did on occasion cause problems for the themes and implementation methods of the forums. The purpose of the forums was not to offer ‘all things to everybody’, but more to provide ‘something for everyone’. It was left to the participants themselves to gather new impressions and use the opportunity provided by the forum for networking. This objective might have been supported even more efficiently if the planning group had been able to define more clearly in advance the concrete learning objectives set for each forum. However, it was decided not to structure the events in that much detail in advance; instead, it was felt to be important to leave room for spontaneous and informal interaction. It is also possible to say with hindsight that what was learned together could have been evaluated more comprehensively if the progress of each event had been documented in even more detail and reflected on more systematically together immediately after the event. In any case, it has been possible to draw on many of the observations on the Learning Together forums expressed in this article in planning ways of promoting interaction between projects in the new TYKES programme.

Did we learn together?

The purpose of the forums was to act as a ‘learning space’ for the management and staff of workplaces involved in projects in the programme, and for researchers and developers. How successful was this?

Learning can be analysed from different perspectives (e.g. Engeström 2001; Wenger 1994). One way is to use basic questions on learning as an aid. According to Engeström (2001), every analysis of learning should attempt to answer at least four questions: “who learnt something?”, “why do we learn something?”, “what do we learn?” and “how do we learn it?”. In the following, we will examine to what extent the Learning Together forums were successful as a shared ‘learning space’ in the light of these questions.

Who learnt something?

Invitations to the forums were sent to all the contact people at workplaces involved in the programme’s projects and to the experts involved and to a number of representatives of the programme’s stakeholders. During two years, a total of about a thousand people took part in the forums. The preliminary estimate was that there would be about 100 participants per forum, but towards the end the number of participants grew. At most, 160

people attended one forum. Participant numbers came as a surprise to the organizers, and everyone who was interested could not always be included in all forums. The high number of participants also turned out to be a challenge for the implementation of the day's programme, and especially any interactive segments in it (Table 35).

Table 35. Participants in Learning Together forums by category and grades given to forums.

Participants (N)	I	II	III	IV	V	VI	VII	VIII
Companies	18	13	33	32	29	19	27	8
Public and third sector	22	21	26	27	37	66	45	69
Ministry of Labour	13	12	14	8	14	14	10	1
Labour market organizations*	11	4	8	3	...
Researchers and developers	41	53	37	27	55	53	62	32
Total	105	99	110	94	139	160	147	110
Grade (1-5)	-	-	4.1	4.0	3.9	3.9	4.0	4.0

** The figures on representatives of the labour market organizations are included under 'researchers and developers' for four of the forums.*

The participants were from a great variety of organizational backgrounds and thus offered a varied learning environment. 50 per cent of the participants were representatives of work organizations, 37 per cent were workplace researchers and developers and 13 per cent were policy-makers and officials (representatives of ministries, the TYKE programme and the labour market organizations). Where work organizations were concerned, the public and third sector accounted for a higher percentage (31%) than companies (19%). The programme monitored the distribution of participants from the outset. Attention focused in particular on the number of company representatives, and attempts were made to attract more of them by, for instance, choosing themes that might interest them, such as profitability (forum III). After the second forum it was decided to send more than one invitation to each organization.

The varied group of participants can be seen as both an opportunity and a challenge for the learning process. Different participants and experts helped create a varied learning environment thanks to their differences. Many feedback messages said that the comparisons of the perspectives and experiences of different sectors had been particularly enlightening. People

had often noticed that the problems in development work were the same regardless of sector. In some cases, the highly specific and theoretical language of the researchers was considered a problem, as participants felt it was too far removed from the everyday work. Although the participants were a heterogeneous group and they were not united by a common development target to the same extent as the participants in the programme's module seminars (see the next article in this publication), this was not considered a big problem. On the whole, the feedback on the variety of participants was positive.

There can be several different levels of learning, such as the individual, the team, the work organization and a level between work organizations (Vesalainen & Strömmer 1999). Fundamentally, the individual is at the core of learning, and it is through the individual that learning can take place in teams, organizations and networks. The general feeling that the Learning Together forums offered opportunities for learning to all these different levels. At the forums, the individuals represented very different roles (manager, employee, researcher, developer, student, official and others) and different organizations (different sectors). It is thought that the opportunities for interaction, project presentations, and learning assignments offered by the forums, and solving the assignments together with other participants supported both individual and organizations in learning new things. Practical examples enabled comparison with the development work of other work organizations and made it possible to apply what had been learned to one's own work organization. Key personnel engaged in development work in their own organizations often took part in the forums, and they were then able to apply what they had learned in their own organization.

“We heard about experiments and experiences from many different kinds of companies, and that provided information for our own development projects.”

“It was good that we were put to work ourselves, to think and give our opinions.”

“The useful thing about the seminar was the perspectives of different sectors. In a bigger group it is easier to find the courage to raise questions. The matters discussed can be compared with one's own company and one's own needs.”

The learners included the members of the forum's planning team and, through them, the project team of the TYKE programme. Through the turnover of the members in the planning team and the systematic feedback

collected from participants, it was possible to constantly develop the 'learning space' itself, thus promoting the learning potential of the entire network. One of the members of the planning group aptly described this: "*It is fairly certain that the planners could not have produced the same model at the start of the series and that the participants would not have been ready at the time to take advantage of the space offered*".

Only a few participants said in their feedback that they had not learnt anything at the forum. They felt that the presentations had been on too general a level and that they had not contained anything new. However, the objective of the forums was never that people should learn from the presentations alone. It also depended on the activeness of the individuals themselves, to what extent they took part in discussion or became acquainted with new people. Personal motivation is always essential if learning is to take place.

Why do we learn? What is the motive for learning?

Network researchers often explain the motivation to take part in a network by saying that it enables a company to respond better to the challenges of new technology and a changing operating environment (Arino & de la Torre 1998; Dodgson 1993; Toiviainen 2003). It is easier to solve complex questions concerning the work organization together with a network than alone. This is also likely to be one of the reasons why people took part in the Learning Together forums. The feedback showed that participants had a need to know how development work had been pursued in other workplaces and how successful it had been. Researchers and developers thought it was important to find out about other approaches and development methods. The participants found it particularly important that the presentations included information on various problem situations that had occurred and how solutions had been found for them. They said that descriptions of development work often gave far too rosy a description of the process, despite the fact that various obstacles are often present.

The fact that the content of the forums had not been decided in advance, but that participants themselves were able to influence it through feedback and project proposals is also likely to have boosted people's motivation to take part. The topics dealt with were connected with real and topical problems based on practical work, and were important for the participants. A wealth of ideas for the implementation of the forums was received and participants were eager to provide feedback.

The themes of the forums dealt both with general workplace issues and specific questions (e.g. sector-based). In this way, the organizers hoped to ensure that the forums could provide for different learning needs. The general themes were used as a way of giving the participants a shared orientation, while the work in smaller groups was designed to bring out specialized questions in specific fields. When participants come from a number of different organizations, it is important that the theme of the day is on a general enough level to be able to bring all the different participants together. In the case of certain forums, this was not very successful. This was because the content of the programme had been made too complicated or too specific for the participants to share the same context. For instance, some of the comments for individual development projects that had been prepared were too detailed for everyone to be able to take part in the discussion.

One of the motives for taking part in the forums had nothing to do with the content of the forum, but with building up social capital, i.e. a desire to meet new and different people. Active work in smaller groups and an informal gathering at the end of the seminar gave people opportunities to forge new contacts.

What do we learn?

At the Learning Together forums, participants learned things about development targets, development methods and tools and about cooperation. The themes of the forums dealt extensively with key questions of workplace development such as the roles and relationships of the different parties involved, development methods, the importance of cooperation as a productivity factor, stumbling blocks to development work, work ability, management and evaluation. The purpose of the forums was not to seek actual 'ready-made' or 'right' solutions and answers to problems in working life. The aim was more to bring various perspectives into general awareness, to structure larger contexts and raise ideas concerning participants' own development work. The content of the forums was largely based on the participants' own wishes and interests. What was learned is consequently based to a great extent on what the participants themselves were willing to bring to the forum.

“The topics were very interesting, closely linked with work in practice, and gave much food for thought.”

At the forums, participants also learned about different approaches to development, development methods and their application in practice. The

forums provided a clear idea of Finnish workplace development and the development methods used in it. The challenge in planning the content of the forums was to find the right balance between theoretical perspectives on methods and practical project presentations. Researchers, in particular, would have liked more theoretical arguments, while many workplace representatives wanted information specifically on the practical application of development methods and ideas for developing their own workplace. The easiest solution would have been to implement two separate forums, one for the ‘theoreticians’ and one for ‘practical-minded people’. However, the project team was of the opinion that such a dichotomy was not a good idea: theory and practice go hand in hand in development work (that is the very idea of research-assisted development).

In addition to issues of workplace development, the forums also enabled participants to learn about cooperation and networking. The forums encouraged and, in some cases, ‘forced’ participants to work together with others. Working together can give people a great deal of new knowledge about themselves, other people and their own interactive skills (Hakkarainen et al. 1999; Soini 2001). The aim was to create groups across boundaries, especially groups including representatives of different occupational groups and organizations, in order to create the best possible environment for learning from difference.

“It was a chance to meet different people, different than you’d meet normally, different ideas.”

“There was a lot of expertise and experience present – the opportunities for exchanging information were great. Perhaps a more detailed compendium of contact information could be made available?”

“The great number of participants had been taken into account through cleverly arranging various smaller groups.”

On the whole, the participants were happy with the varied programmes of the forums. However, some of the forums were criticized a great deal for containing too many themes for one day, which made it difficult to concentrate and to explore the subjects more deeply. This in turn meant that the aim of the forums sometimes remained obscure for some of the participants. People said there should be fewer presentations and time should be used to process the topics raised more fully, and for discussion. Where the planning of the forums is concerned, this can be seen as a critical point. To begin with, the forums were deliberately structured in such a way that they would attract a variety of participants through a varied

programme. Consequently, if the content had been reduced, it might have drawn a smaller and less varied group of participants.

“There was no clearly stated goal: why did we gather and what did we hope to achieve?”

“The programme was too densely packed, too many topics in view of the time available.”

“The topics were interesting on the whole, but each of them could have stood alone as the topic of a separate seminar.”

“There might have been more time for working in smaller groups and perhaps the structure could have been tightened up.”

“Needed a tighter structure. I wondered if perhaps the event had grown too large in terms of audience numbers?”

The feedback showed that analysis of the group work and the ending of the forums, i.e. a summary of what had been learned, also remained confusing and unclear to some extent. It was felt that considerably more time was needed for analysis of the group work and a summary of the day, and considering what had been learnt during it. A successful learning situation requires time for reflection and feedback (Soini 2001). A common problem for all the seminars was a relatively tight schedule. This was reflected in a feeling of rush and lack of time, especially in group work. The informal gathering that was arranged as the conclusion to each forum was intended as a time for reflection and discussion. However, some of the participants would have liked a more systematic appraisal of each day to have been included within the day’s programme.

In the actions of the planning group, the results of learning can be seen most clearly as concrete changes to the implementation of seminars. The turnover in the planning group, the discussions and reflection on the forums all supported learning. The planning group received valuable information and feedback from the field on how people wanted the operations to be developed further. One example of a tangible change was that the organizers dared to leave more ‘empty’ space for discussion and exchange of ideas between the participants towards the end of the series of forums.

“I think one track of learning is visible in the planning of the seminars in the way we interpreted the experiences gained from the discussions and practical implementation of the

various forums. At least in the practical arrangements, we made interpretations where, towards the end of the seminar series, we trusted increasingly in participants' ability and courage to use the arena for open discussion that we had created at the forums for open exchanges, evaluation and even criticism." (a member of the planning group)

How do we learn?

“How do we learn?” i.e. how do participants learn and what are the main procedures through which learning takes place are classic questions in pedagogics. Individual people learn things in different ways. These ways could be, for instance, learning by reflecting, learning by doing, learning by arguing, learning by cases or learning by collaboration (Schank 1995; Soini 2001).

The Learning Together forums offered many different learning opportunities. On the whole, there were three concepts about learning that guided implementation of the forums. Firstly, the implementation of the forums was based to a great extent on *collaborative learning* (Dillenbourg et al. 1996; Eteläpelto & Tynjälä 1999; Lave & Wenger 1991). The primary task of the forums was to develop new practices that provide support and encouragement for participants to cooperate and learn together. The ways of promoting this were, in particular, various exercises in pairs or smaller groups that were designed to encourage discussion, project presentations and practical exercises. According to Larsson et al. (1998), the more interaction is based on oral exchange of information, the more opportunities there are for creating new generative information. In order to support learning opportunities, the planning group had to create an open, playful atmosphere that inspired trust. One of the ways of working towards this was the constant inclusion of a representative of the planning group or the project team in every smaller group. Judging from the feedback, the work to create a positive and motivational atmosphere for learning was quite successful.

A second principle that can be said to have guided the implementation of the forums was the idea of *equal expertise*. Regardless of what an individual's position, training or role was, everyone's viewpoint was considered equally important and valuable. For instance, project presentations were required to give several perspectives on the implementation of a project. During the two years, representatives of about 20 projects had given presentations on their development projects. Representatives of the work organization (management and staff) and the

expert involved in the project each gave a presentation of the implementation of the project and any problems involved from their own perspective. In order to describe the development project at their own workplace to others, the people involved must reflect on the process and evaluate it, and this also creates learning opportunities for the organization. Those giving presentations were encouraged to bring up difficult questions, too, such as conflicts between different groups or issues involving rationalization. After the presentation, there was direct feedback from the people who gave the comment on the presentation, and the other forum participants. Giving a presentation and receiving comments on it is an excellent learning opportunity!

A third idea which guided the implementation of the forums was *learning from difference* (Gustavsen et al. 2001). The differences among the participants were considered a resource, holding a great potential for learning. The aim was to construct each working method, including the planning group, the work in smaller groups and the entire forum, in such a way that many different sectors and occupational groups would be represented. This can be considered of primary importance for the success of the forums. However, there is a possibility that the forums were not able to fully exploit this potential arising from differences. In the implementation of the forums, attention focused primarily on providing learning for work organizations and experts, rather than the entire 'field of players' in workplace development. In particular, there were few policy-makers taking part in the forums, apart, of course, from the project team of the TYKE programme. It is possible to conjecture that a forum which would include a stronger representation of the third party to the 'triple helix' cooperation – policy-makers – could function as a new type of arena for exchanging ideas and as a supplement to the official channels for negotiation and existing tripartite organs. At the forums, the different parties involved would be able to consider topical issues in working life more freely and more creatively. This could also be one tangible way of promoting the triple helix concept that the programme has adopted as its fundamental principle.

In conclusion

At the time of writing, new forms of support for individual projects, work organizations involved in projects, experts and other parties involved are being planned within the new TYKES programme. The main emphasis in the Learning Together forums was on development work itself and the methods used. One of the challenges in the new TYKES programme is to construct 'learning spaces' around thematic issues involving workplace

development, such as the reform of service chains in the social welfare and health care sector, the utilization of information technology, answering the growth challenges of SMEs and promoting creativity in work organizations. The aim is to continue the discussion on topical and general issues involving the improvement of working life.

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Appendix. Participants in the planning groups of the Learning Together forums.

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Kirsi Koistinen	Merikoski Rehabilitation and Research Centre
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Jarmo Lehtonen	Ajatuskynä
Tiina Lifländer	Ministry of Labour/TYKE
Kaija Loppela	Seinäjäki Polytechnic/SoTe unit
Raili Meyer	
Tuija Mäkinen	Kehrä Oy
Anneli Pulkkis	Helsinki University of Technology/Laboratory of Work Psychology and Leadership
Osmo Rahikainen	Ministry of Labour/TYKE
Elise Ramstad	Ministry of Labour/TYKE
Ilari Rantala	Helsinki University of Technology /Lifelong Learning Institute Dipoli
Pekka Riihimäki	Stora Enso Timber
Nuppu Rouhiainen	Ministry of Labour/TYKE
Teijo Räsänen	Innotiimi
Sanna Sairanen	Ministry of Labour/TYKE
Sirpa Syvänen	University of Tampere/Work Research Centre
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Nuppu Rouhiainen

Module seminars – a new way of generating cooperation between projects

Supporting cooperation among projects has been a key form of activity in the Workplace Development Programme from the outset. It has always been one of the programme's aims to offer participants opportunities for mutual learning and to promote the spread of development experiences beyond individual projects. The experiences gained from the I programme period (1996-99) of the TYKE programme already pointed to a clear need to create new models for promoting cooperation between projects. The programme had paid attention from the very start to highlighting and disseminating the results attained, for instance through summaries of final reports that were placed on the programme's website and through a case database of good practices. The programme's website included a short summary of the aims and development implementation methods of all projects accepted for the programme, together with the contact information for the project expert and the person responsible at the target organization. There were also seminars and workshops, either open to all projects or intended for a specific target group, that gathered interested participants around a special theme to find out the latest information about a particular subject and practical examples in the form of case studies. It has also been one of the ideas of the TYKE programme from the very start to offer opportunities for the parties involved to contact other interesting projects, either in planning their own project or if they find that other projects have connections with the theme of their own project. However, it turned out that this form of self-motivated activity did not emerge to any great extent.

There were also models available from other countries' experiences for creating new cooperation models. For instance, Sweden and Norway already had long-term experience of building the infrastructure for a national development programme. The TYKE programme had followed the experiences specifically of Norway with great interest. The first TYKE yearbook, in 1997, included an article about the building of the infrastructure for Norwegian Enterprise Development 2000 Research and Development Programme (Mikkelsen 1997). One of the key themes in that programme was the creation of an infrastructure which would promote social innovations both within companies and between them. The operational aims included, for instance, creating development organizations within the participating companies and developing forms of cooperation among companies and research and development units to support that cooperation. Each of the modules created comprised several researchers and

research organizations and several companies, mainly from Norway's main export industries. The public sector and, to a large extent, the entire service sector were left outside this programme. The modules were sectoral or regional. The aim of the modules was to generate extensive interactive participation both within companies and among them. The groups of researchers take part in this process as equal partners with representatives of the companies, bringing a theoretical perspective to the development operations.

In its II programme period (2000-03), TYKE started a new form of cooperation between projects, *module seminars*, with two pilot studies, one in home care and the other in meal and cleaning services. The pilot studies were carried out in 2000-03. In autumn 2000, planning started on the first module, home care, and at the beginning of the following year, the first joint seminar was held. The second pilot started with a planning meeting in early summer 2001 and the first meeting between projects was held in October 2001.

In this article, we will begin by exploring the early stages of this new type of seminar, before the start of the practical pilots. There will then be a short overview of the starting points of the two pilots, their implementation models and samples of the content fields of implementation. Finally, there will be a brief assessment of the experiences gained from the pilots and some thoughts on why the new form of activity did not gain a wider spread, the lessons learned from the module seminar pilots and what should be done differently in similar experiments in the future.

The birth of a new seminar model

Encouraged by Norway's experiences, the programme had the idea, above all, of promoting cooperation between the projects during their implementation. A second idea was to bring the researchers and experts in the projects and the different methodologies they represented into a dialogue with each other.

Fairly detailed plans can be found from as early as summer 1999 concerning the construction of the new series of module seminars for the programme period starting from the beginning of 2000. The starting point was to arrange separate meetings about 2-3 times a year, as needed, for those belonging to a specific module. At the time, the idea was that once the projects had started, the basic information about them would be collected on a form, so that the projects could then be placed in separate modules according to theme. It was suggested that the grounds for dividing up the

projects could be, for instance, the main focus areas of the projects, their sector, or the new operating model to be developed. The forms of cooperation envisaged consisted of workshops or work conferences. The basic idea was that representatives of both management, staff and experts from each project would attend these joint meetings. The main aim of these small-scale workshops was to boost interaction and mutual learning between projects.

These ideas were left to incubate, and it was not until spring 2000 that the modelling of concrete module operations began again. In addition to the starting points presented above, the objectives now emphasized the potential of joint workshops to support and increase the mutual exchange of information and experiences between projects. Where organization of the modules was concerned, it was thought at this time that one person from the project team could take on the main responsibility for the whole, while each theme would have a separate coordinator. The grounds for dividing up the starting modules into themes were considered to be the division into so-called ordinary development projects and bigger network projects. The planned themes for the development projects included teams, management, work ability and wellbeing at work, quality and the social welfare and health care sector. Where the networks projects were concerned, the planned themes included, for instance, the problems inherent in the growth of SMEs and the changes in modes of operation caused by the introduction of new technologies.

At the beginning of summer 2000, preliminary lists were drawn up of how the projects in progress could be divided up into different modules. Themes that emerged at this time included development of work processes and support from supervisors, new organizational models and how to establish them, workplace health promotion, quality, interaction and cooperation and networking. Among the sectoral themes, home care and the school system were highlighted. To begin with, both private and public sector projects were collected under each theme. Network projects were still kept as a separate whole. It was decided to start by setting up some pilots, so that the experiences gained from them could then be used for disseminating module operations. For the first pilot, three home care projects were selected, two of which had an objective of mutual networking written into their implementation plans. The first planning meeting of this pilot was arranged in early autumn 2000 and the first actual joint seminar was arranged early in 2001.

The new model for module seminars was presented to the Management Group of the TYKE programme in October 2000. At this time, starting four modules and developing a model on the basis of the experiences gained

were set as the objective for 2001. Now the main planned themes that emerged included a module constructed around the theme of some network project in which the network companies would act as 'engines' for other companies in the region or for a group of companies that was interested in the same theme. The possibility of connecting module operations with evaluation of the network projects in the II period of the TYKE programme was also considered. Plans were made to put together a group of experts whose task would be to evaluate the network projects as a whole and assume responsibility for the planning and implementation of module operations. In this way, some of the key themes of the TYKE programme would be highlighted through evaluation. At this stage, it was thought that one of the pilot modules could be a theme connected with ageing and wellbeing at work. The idea was to combine private and public sector projects so that the module would be able to act as a relatively open, large network in which interesting experiences from different projects related to the theme could be presented and used as a basis for discussion. Another alternative was several smaller networks, which would strive for more intensive contact between 2-3 projects. It was planned that a small-scale survey would be made of potential participants in autumn 2001.

The start of module operations

Home care

The first pilot, which started in September 2000, was the planning of the module for home care. The participants were three projects which had started at the beginning of that year, home care projects in Kuopio, Tampere and Janakkala. The first two had already planned for mutual cooperation in the project implementation plans. These two projects offered a good foundation for a pilot module. The module was then reinforced with a third home care project that had started at the same time. Once all the responsible parties in all projects had expressed their interest in the pilot, the planning of actual operations was started. The aim was to ensure that representatives of both the target organization and the experts involved attended the joint planning meeting so that both perspectives were represented.

The TYKE programme's model for module seminar operations and the implementation plan of each development project that took part in the pilot had been handed out as background material for the first planning meeting (Table 36).

Table 36. Summaries of the implementation plans of the projects in the home care pilot.

Target organization Experts <i>Project name</i> Project duration	Development needs	Objectives	Development methods
City of Kuopio University and consultant <i>Development of service centres in structural change in services</i> 1.7.2000-30.6.2003	<ul style="list-style-type: none"> • Changing the operations of social welfare and health care centres to include greater variety • New forms of cooperation 	<ul style="list-style-type: none"> • Flexible cooperation between community care and institutional care • Client focus • Cooperation with NGOs • New IT systems • Staff wellbeing at work and training • New building project • Networking and development structures 	Municipal Quality Network's development model: strong cooperation, surveys at start and finish, work conferences, development group working, joint planning and network cooperation
City of Tampere Consulting firm <i>Development of service management in home care for the elderly</i> 1.5.2000-30.6.2002	<ul style="list-style-type: none"> • Uniform operations throughout the city • Optimum use of expertise • Even service quality 	<ul style="list-style-type: none"> • Evaluation of the service and care plan and development of a service management model • Service quality and productization • A rehabilitative approach to work, • Evaluation and utilization of monitoring information 	Municipal Quality Network's development model: strong cooperation, surveys at start and finish, work conferences, development group working, joint planning and network cooperation
Municipality of Janakkala Polytechnic <i>The KOHOKE project</i> 1.5.2000-30.5.2003	Combining home help services and home nursing into home care	<ul style="list-style-type: none"> • Learning new operating methods • Combining two care cultures • Work ability and coping of ageing employees 	<ul style="list-style-type: none"> • Employee-focused planning of operations • Work community and interaction training • Theme interviews • Workplace meetings

The common themes which emerged from the projects' implementation plans were: 1) flexible cooperation, 2) client focus, 3) the position of the staff, especially in relation to coping and wellbeing at work, and 4) professional skills, including vocational training. At the first planning meeting, the common themes were clarified further with a presentation of each project. After a discussion on the basis of the projects' early implementation plans, a total of ten common themes were identified. They included, for instance, an overview of working traditions, especially with a view to improving cooperation, the impact of organizational change on changes in operations, the compatibility of client orientation and a work community/employee focus, and exchange of experiences among employees at different levels. It was also found that the content of the terminology used differs from one municipality to the next, e.g. 'service centre', which means something entirely different in Tampere than it does in Kuopio. It was agreed that an attempt would be made to explain the terminology used by the different municipalities during the work, so that everyone would be agreed on what was being discussed at the joint seminars.

It was envisaged that the practical implementation method would be joint workshops that would be prepared by a planning group put together from all the parties involved. In addition to this, a coordinating group of a couple of people per project would also be elected to organize practical matters (such as preparation of the selected topics, introduction of themes, planning of joint meetings). It was decided to start the pilot module through a meeting in Kuopio. The day was divided in two: in the morning, there would be a review of progress in the early stages of each development project on the basis of interviews with each individual project, while in the afternoon, the focus would be on a theme chosen by the Kuopio team. The idea was that this would give all the different participants common ground, and that the presentations would also be a help in planning future workshops.

Meal and cleaning services

Meal and cleaning services emerged as the second pilot module. Separate workshops had already been arranged for meal service projects in the I programme period of the TYKE programme, something which contributed to the choice of this pilot. The meal and cleaning services module was started with a joint planning meeting for four projects in early summer 2001. In addition to three municipal projects, this pilot included a private company that offered cleaning services for hotels in the Helsinki metropolitan region. It joined the module slightly later than the other projects (Table 37).

Table 37. Summaries of the implementation plans of the projects in the meal and cleaning services pilot.

Target organization Experts <i>Project name</i> Project duration	Development needs	Objectives	Development methods
The meal service units in five municipalities in the Kouvola area (Kouvola, Kuusankoski, Anjalankoski, Elimäki, Iitti) Consulting firm <i>Network power</i> 1.4.2000-31.3.2002	<ul style="list-style-type: none"> •Innovative working procedures for new centralized units •Ageing workers' wellbeing at work, •Passing on experience to younger employees 	<ul style="list-style-type: none"> •Improving the competence of instructor-supervisors •Employee commitment to the development process as part of the everyday work •Improving the efficiency of the intermunicipal cooperation network 	<ul style="list-style-type: none"> •Varied, participatory teaching methods •Questionnaires for evaluating the operations of organizations and the development of employees to an entrepreneurial and self-motivated style of working
City of Vantaa meal service and institutional services Consulting firm and internal developers <i>Work community development project</i> 1.9.2000-30.7.2003	<ul style="list-style-type: none"> •Improving the continuity of jobs •A balance in employee numbers and structure •Helping ageing employees cope with work •Participatory and cooperative leadership •Flexible working and operating processes 	<ul style="list-style-type: none"> •Team-based working •Sharing of resources and balancing of staff resources •Work processes •Cooperation •New development structures •Incentives and rewards •Interaction •Subscriber-producer model 	Municipal Quality Network's development model: work conferences, development group working, systematic problem-solving methods, interviews, surveys at start and finish
City of Kajaani meal and cleaning services profit unit Consulting firm <i>Development project for profitability and the quality of working life</i> 1.1.2001-31.12.2002	<ul style="list-style-type: none"> •Employee cooperation and how to develop it •Improvement in the quality of working life and regionalization of operations through supporting ageing employees 	<ul style="list-style-type: none"> •Cooperative, regional operations •Self-motivated teamwork •Annual working hours contracts •Local wage system 	Municipal Quality Network's development model: work conferences, development group working, surveys at start and finish, interviews, workplace/team meetings

Housekeep Service Oy Consulting firm and internal developers <i>Hotels learning from each other and from their clients</i> 1.2.2000-31.12.2003	Expanding the experiences of the 1997-99 development project to hotel housekeeping operations	<ul style="list-style-type: none"> •Partnership with customer hotels •Learning from each other and from clients •Definition of the core expertise needed in hotel housekeeping services •Testing and developing a development programme for floor supervisors 	<ul style="list-style-type: none"> •Varied, participatory methods at seminars •A multimedia development programme and a virtual learning environment
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At the first planning meeting, the objectives and content areas of projects were brought up as background information for joint workshops. Two of the projects joining the module had been started in the II period of the TYKE programme, while two projects had already started in the I period and were now continuing. This meant that the development projects were, in part, at very different stages in their progress, unlike the situation in the home care module, where all the projects were just starting out. In addition to the themes for the joint workshops, there was also discussion at the planning meeting of the projected employee exchange between Vantaa and Kajaani. It had already been preliminarily agreed that six employees from Kajaani would make a two-day visit to Vantaa and that ten employees from Vantaa would make a similar visit to Kajaani. In addition to the management level, the participants in this exchange would also include employees from both the meal and cleaning services. The experiences of the exchange would then be one of the topics at the first joint working seminar in Kajaani in October 2001. The preliminary plan for other topics included the problems of working alone and solutions for them, as well as the work of substitutes.

A preliminary outline of the timetable for the future module work was also drawn up, setting the last joint meeting for the end of 2002, when the focus would be on project evaluation. It was also decided at the first planning meeting – in keeping with the home care pilot which had been started earlier – that a small group would be set up in order to plan the workshops and take charge of the further processing of selected topics and preparation of any advance material needed. It was further agreed that the people in charge of development projects would take turns in performing the tasks involved in advance preparation for workshops and documentation of the meetings.

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The same start-up method and implementation model were chosen for the two pilot modules, through applying those of the first pilot module to the second, too. There were also other similarities between the pilots. Both pilots focused primarily on projects in the municipal sector, although there was also one private company included in the meal and cleaning services module. Both modules comprised two projects that applied a development method which was based on the development model of the Municipal Quality Network (for more detail, see Kalliola & Nakari 2005 and Lehtonen (ed.) 2004). Also, the projects involved in the two pilots shared some experts. However, there were also some differences. The meal and cleaning services pilot focused on two sectors although some of the projects only focused on either meal or cleaning services. This pilot module had a larger participant group than home care, because one of the projects was a joint project between five municipalities, and there was also one project more than in the other pilot. All projects progressed at the same pace in the home care pilot, while some of the projects in the meal and cleaning services pilot were continuation projects close to completion.

Pilot implementation progresses: home care

First joint workshop

The first joint workshop confirmed the planning group's impression that all three home care projects had plenty of themes and interests in common. At the seminar, new common features emerged, such as the close connection of the projects in Kuopio and Janakkala with their local polytechnics as a source of expertise on which to draw.

In the morning, there was a short overview of the implementation plan and early progress of each project. Although the project presentations took up considerable time altogether, it was felt that this was the best way to start. If the implementation plans had simply been handed out to the participants in advance, this would have failed to create a 'team spirit' and a sense of 'being on the same page'. In the afternoon, the participants from Kuopio gave a presentation on their own themes in the form of a varied dialogue between the parties involved in the project. The other participants were impressed by the employees' innovative way of presenting their subject and praised it. Subjects which came up at the feedback discussion which concluded the meeting included the need for working in small groups in addition to the shared sessions and discussion held in a big auditorium, and the possibility of extending the meetings to two days, leaving more time for

informal interaction. It was also suggested that it might be possible to exchange papers on selected themes between meetings, or at least to put together a comprehensive list of e-mail and postal addresses to make it easier to exchange material. In conclusion, it was stated that "If things were easy to do, we would have done them already!"

In order to define the themes for the following workshops, it was decided to compile an interim report on the projects. This was done immediately in spring 2001 through a common set of questions: 1) the project's starting points, 2) the project's theoretical starting point, 3) cooperation between the different parties, 4) appropriateness of the project group(s) and the steering group, 5) the main development targets at present, 6) interim evaluation of project progress so far and 7) any other matters worth reporting that had emerged during the project. The summary of the interim reports brought up subjects such as the search for the proper role of the steering group and thoughts on how to convey to every employee the experiences that had been gained. All in all, it was found that the projects had developed at a good pace. People were enthusiastic and worked hard for the progress of the project. In addition to the development work, it was felt important to highlight the dissertations being done in two of the projects.

Two-day workshops, with rotating responsibility for arrangements

It was decided that the next joint meeting should be held in Tampere, and that it would be a two-day meeting in accordance with the wishes expressed. The themes selected were multi-vocational teamwork (Tampere), modelling of work processes and cooperation with educational institutes (Janakkala) and interval care, implementation of job rotation and the role of volunteer work (Kuopio). It was agreed that the working model for the two days would be shared introductions and working in smaller groups, which had been needed at the first meeting.

Some of the participants in the second workshop had already met in Kuopio, but there were also some newcomers present. The idea was that some of the participants would be the same (mainly those with supervisory positions) and that as many employees as possible would be able to attend at least one of the joint workshops and meet their colleagues from other municipalities. The day of the workshop coincided with a theme day for the elderly that was arranged in the centre of Tampere, and everyone went there together to have a look. The theme day presented a wide variety of local services for the elderly, including both public sector entities and volunteer organizations.

The workshop started with short presentations of the progress of each development project and topical questions in them. It was felt that time should not be spent on actual project presentations all over again, but that it was still important to ensure that all participants had an idea of the content of the other development projects. In one of the projects, the spring had been a time of constant change, something that was reflected in a certain level of frustration among the participants. Despite this, the pilot teams even in this project had continued to be active in their work on their themes. Exhaustion resulting from many cases of sick-leave was reflected in the progress of two other projects. It was jointly stated that some people felt that the project had not yet attained tangible enough results. On the other hand, everyone also found that despite the pressures, development activity had been fairly enthusiastic all around. The project experts even expressed their amazement at the resources that project participants had been able to summon.

The first workshop day was used for working on themes chosen by the Tampere pilot teams through 'group fair method' (see previous article). The themes were: service quality, the setting of objectives in support of client resources, a rehabilitative approach to work and cooperation between community care and institutional care. Each Tampere team presented its theme and its own experiences of it. The subject was then explored in more depth in mixed groups and the working methods and models used by other municipalities were brought into the discussion. The aim was to attain the most tangible interaction possible, in order to distribute new practices from one municipality and one working unit to another. The following morning, there was a short summary of the work done the previous afternoon, and the aim was then to find new thoughts that the development projects could work on further. There was then a presentation of the evaluation dialogue method used by the Janakkala project (concerning this method, see Arnkil et al. 2000). Finally, the participants from Kuopio and Tampere told the workshop about their experiences of cooperation with the third sector.

In the feedback discussion 'What we learnt – evaluation and summary', the following topics were among those that came up: 1) New information and tips were received specifically on the tools used in Tampere. The time set aside for working in smaller groups was not enough to allow for a real exchange of experiences about the tools used in other municipalities. The evaluation dialogue was a new and quite interesting form of dialogue for many of the participants. 2) Extensive discussion focused on the risks for development projects, for instance, the clarity/lack of clarity concerning decision power, and it was found that clear leadership and definitions of the authority of the various people involved are essential for the progress of

development projects. 3) The theme of wellbeing at work and coping with work attracted a lot of attention. The introduction of the forms of working often uses up quite a lot of resources. It was found that it would be important to see and experience benefits 'immediately' in order to maintain the motivation for development. 4) It was felt that the workshop had been quite successful as a place for meeting new people and forming networks. But the planning group should have focused more on working methods and assignments when planning the seminar, in order to ensure an even more successful learning process. As it was, the new working model introduced during the first seminar day (group fair) was not fully understood by all the participants and the schedule given was also far too tight. It was also felt that too much time had been spent on evaluating the project of the hosting organization. The planning group promised to take the feedback and suggestions into account in planning the last module meeting, which was arranged in the form of a two-day meeting in Janakkala at the end of spring 2002.

Pilot implementation progresses: meal and cleaning services

First joint workshop

The first joint workshop for this module was arranged in October 2001 in Kajaani. It included representatives of three municipal projects. The event was just one day, but it was used to best advantage by working efficiently from eight a.m. to seven p.m.! First, there were quick introductions to the development projects of each municipality. Many common topics and themes were found in these, despite the fact that the municipalities were very different in size and some of their development projects were at very different stages. The participants from Kajaani emphasized the importance of political decision-makers taking part in the development work. They also brought up the threat of service production being put out to competitive tendering, something which is a background threat in development work. The participants from Vantaa considered labour shortages and the ageing of employees to be one of the foremost challenges. In the Kouvola region, a previous project had focused on developing quality. The idea had been to respond to the threats of outsourcing by developing supervisory work and supporting ageing employees in maintaining their work ability and coping at work generally. In this continuation project, the plan was to consolidate the development trend that had been started in the previous project and to boost cooperation between municipalities.

After the quick project presentations, the participants from Kajaani and Vantaa told the workshop about their experiences of mutual employee exchange. Apart from a too tight timetable, the experiences were very positive. Employees involved in the exchange had found it very interesting to see the work done in different-sized units and they valued the opportunity to exchange ideas and experiences with their counterparts in the other municipality. The exchange visits could have been even more rewarding if anyone had thought of obtaining some advance information on key figures and operations of the municipality that was visited. That would have left more time for processing the practical questions that were felt to be very important. Separate travel reports on both visits had been drawn up.

To start off the afternoon, there was brief general introduction to staff motivation and wellbeing at work, which was followed by group work on the theme in smaller groups. First, the participants, in their project groups, considered the methods that had been used in their workplace to motivate the staff and promote wellbeing at work, and what methods were seen as actually doing this. The participants then divided into new groups to hear about the experiences of others. Finally, the participants returned to their 'original' groups to consider which of the methods that had emerged they could take with them to their own development project for further processing. At the winding-up stage of the group work, it was also agreed which materials should be appended to the memorandum of the workshop, so that everyone could continue using it. These materials included the result and performance review form of each of the municipalities in question, materials involving team development and the 'rules' for substitutions. Finally, the end of the day was spent on measuring methods for meal and cleaning services as a development tool. Vantaa had focused on developing a tool they called 'Critical success factors and measurements and the objective level for 2003' and 'scorecards'. Kajaani had introduced individual service agreements for clients, and clients were also asked for feedback once a year on their agreements. In 2004, a balanced incentive pay system and measuring tool (Balanced Scorecard BSC) were to be introduced in the entire city (this was already introduced in the meal and cleaning services in 2002).

The concluding discussions found that "this had been an information-crammed day". Participants hoped that the next meeting could be more clearly divided into themes, allowing for more further processing of the themes. Interaction between projects had been successfully achieved, tips and incentives had been received from other participants and new things had been learned that would no doubt prove useful in everyone's practical work.

The transition to theme-based work: measurement

The planning group met immediately at the start of the following year to go over the feedback from the first joint workshop and to plan the next meeting, which would take place in mid-February. At each planning group meeting, there was always a brief overview of the stage that each project had reached and its plans for the immediate future. The theme 'Measurement', which had already been touched upon at the first seminar, was chosen as the general heading of the second workshop, to be held in Kouvola. The topic was approached from many perspectives, including how to measure work motivation, how to assess skills and group work connected with these. There would also be more information on the new measurement system (BSC) being introduced in Kajaani and a general overview of the evaluation of different measuring systems and their development needs.

At the workshop arranged in Kouvola, the hosting project presented the day's theme under the heading 'Measuring motivation and occupational skill'. Key themes in the project included the so-called 'expert model' (good skills and control, core expertise, initiative), the use of core skills (with development as a new value alongside economic values), the 'lifeline for learning' (personal beliefs, new experiences and perspectives) and how to measure self-image (examining people's view of other people, measuring staff motivation as an explanatory factor in the success of every organization). Subjects that were discussed included the importance of having a basic job description and the importance of understanding the significance of one's own skills and know-how. Next, the participants from Vantaa presented their model for assessing skills. The key factors that were highlighted in the model were knowledge management, the skills of the individual, skills and ability, guidance of the individual and skills, and roles. The main thing was to find out: "what does our job require, what does the job aim at?" After this, time had been set aside in the programme to assess the presentation in smaller groups, but in practice, the timetable had been overstretched and the task proved impossible.

The first afternoon programme was a presentation of the new measurement system (BSC) being introduced in Kajaani. Topics that provoked discussion included the slight differences between municipalities in economic concepts and approaches. The differences made it difficult to understand other participants' justifications for the placement of the different segments. Next, the managing director of the hotel housekeeping company, which was now taking part in a seminar for the first time, presented the quality assessment system used by his company. The classification system presented gave rise to lively discussion about similar models in municipal

cleaning services. The participants from Kouvola then told the seminar about their own experiences of measurement and, above all, the difficulties involved. In conclusion, everyone agreed that the day had been rewarding and interesting. Something which remained unsolved was why measuring and the design of measuring systems is so difficult, when it is one of the main ways of assessing profitability and success! This was a subject for which not even that day's seminar had been able to provide a clear answer.

The transition to theme-based work: teamwork

The third joint workshop focused on teamwork. The day was arranged in Helsinki and the company that provided hotel housekeeping services was now in charge. To start up, the day's objectives and expectations were set up through a 'warm-up exercise'. Participants felt this working method was new and refreshing. After the exercise, the participants in each project wrote down the group's expectations of the joint workshop day. The first theme of the day was networked learning based on the experiences of the Kouvola region. It had been noticed in the region that it was important to ensure that the tacit knowledge of employees was brought into general use in teams, and that the best way of setting up networks was through interactive means rather than lectures. It had also been noticed that a network must have strong receptivity and that its operations should be transparent; it cannot withhold information. Finally, one of the employees present told of experiences of job rotation. After that, the participants divided up into smaller groups to share their experiences and thoughts on the subject.

In the afternoon, there was a presentation on the quality standards meters used in hotel housekeeping services; these are based on the hotel classifications. The meters are visible in work instructions, volumes of client service goods and auxiliary services. After the presentation, there was again a lively discussion about the corresponding municipal classifications and their use. Although this topic had already been touched upon at the Kouvola meeting, joint measuring methods for cleanliness still could not be agreed. A representative of occupational health care in Kajaani told of their active involvement in the development project. Occupational health care did not play an active role like this in the other projects in the module, although it would have brought additional support to development actions. Next, there was a presentation of the team cards used at Vantaa. The project had produced basic model cards for specific subjects, and the teams had used the models as a starting point for discussing their own 'rules of play'. In the Vantaa project, the fostering of collective memory and ensuring continuity have emerged as the key issues. The seminar participants got hands-on experience of the team cards by dividing up into smaller groups to

ponder a team card with the themes of the tasks and roles of the team members. As a conclusion to the day's work, the project groups then collected their thoughts on the aspects of their own operations that they needed to continue developing. The day's materials were again collected in a joint memo that was sent to the projects' contact persons afterwards. It was agreed that the expectations that had emerged during the day would be used as a basis for planning the last joint workshop.

* * *

Both pilot modules progressed by meeting about once every six months for a workshop. The home care workshops were two-day events, apart from the first one, while the workshops of the meal and cleaning services module were always one-day long. In the home care module, work was closely connected with the progress of development projects, while the meal and cleaning services focused more on working with themes that had been selected in advance. In the latter, later workshops often returned to themes that had been brought up earlier, such as measuring and quality standards. Both modules used working methods that included short introductions about the topic of the day and working in smaller groups. Discussion and mutual sharing of information were lively in both pilots. The two-day meetings added to the interaction and shared experiences in the meetings of the home care module.

The end of the pilot stage

Home care

The topic chosen for the first day of what was to be the last module seminar was 'Growing as a team'. This was felt to be a topic common to all and one that was of immediate interest. Each work organization had been built according to a teamwork model and had also had time to gain some experience of working in this way. It was felt that there was now a clear need to take the teamwork to the next level. In addition to the team theme, the workshop was also to spend time on an internal evaluation of each development project and a final evaluation of what significance the three meetings of the module seminar had had as a whole.

The theme of 'Growing as a team' was worked on in small groups with the help of three themes, which were introduced by the six teams from Janakkala. One of the introductions was creatively performed as a play! The themes were: 1) The smooth flow of work and how to develop it: the daily division of labour and the organization of evening work; 2) Developing functional teams: team meetings, client meetings and

cooperation between teams; and 3) Home care management: the values of home care and the client in home care. Topics that were discussed included how a client focus can be seen in practical work (client needs, a rehabilitative approach to work, whether changing situations are taken into account). It was found that the client focus of teams is visible in client meetings and in the development of a care and service plan. Things that may clash with a client focus include situations where difficult clients are 'circulated' from one team to the next. It was generally agreed that it should be possible to share out the work evenly among the teams without this kind of 'circulation'. Something else that came up in discussion was the differences in municipal practices, for instance, whether home care assistants are authorized to give out medicines. It was concluded that these differences represented different interpretations of responsibility. Another thing that was pointed out was that it is often very difficult to reconcile equality and security. The shortage of financial resources makes constant prioritization necessary, and in these cases, decisions should be made at the municipal level. It was found that the seeds of changes in operating culture had emerged in the various projects. It was also stated that smallish teams often work very well, as the closeness and cooperation help in introducing new operations.

At the start of the next day, the participants in each development project took some time to perform an internal evaluation of their own project. This was a very topical subject for two of the projects, as they were in the process of writing their final reports. A third development project had already ended, but was planning a continuation project in order to ensure the continuity of development work that still had not been completed.

- The participants from Tampere evaluated their project, which had already ended. They had performed an assessment, asking what had changed, if anything? Generally speaking, it was found that a change in the mode of operation usually requires both changes in norms and changes in the factors that guide employees (models that guide thoughts and actions, beliefs and symbols, and values and feelings). The results obtained were compared with the objectives set at the start of the project. The objectives had included clarification of the mutual 'rules of play', development of a service guidance model and application of team-based and multi-vocational work. The objectives handed down to the pilot teams at the beginning had been turned into areas of emphasis chosen by the pilot teams themselves. This had added new motivation to development operations. New tools had been created and new working methods learned. All in all, there had been regenerative learning in both ways of thinking and modes of operation, and borders had been crossed in order to build partnerships.

- The participants from Kuopio gave a presentation of their progress using the main observations made at the evaluation conference arranged in the winter. One of the starting points of their project had been to bring home care and institutional care closer to each other. Success had been achieved in the following areas: communication had improved, the position of the service centres had been consolidated and the whole that they make up had become easier to see. In planning the focus of the next period (2002-03) the main areas for development that emerged included an improvement in the resources for work with the elderly, management/power and responsibility and cooperation with private service providers.

- In Janakkala, a second evaluation round had been arranged in May, using the evaluation dialogue method. Evaluation had examined the successes and problems of the previous year and whether the project had attained its objectives and the general feeling about it all. At the same time, the operations of the final year of the project had also been planned. Although everything that had been planned during the previous year had not materialized, a certain realism had been introduced to development operations and development work was now progressing with small steps. The good things were the regular training and meetings and the fact that everyone had been able to meet at the same time. Participants now felt they were able to cope better. The municipality was also waiting for the project to end, as there would be more time for the basic work and overtime would end. During the last year of the project, teams were expected to become even more open, something which would require everyone to work hard and make a commitment. Questions related to the division of labour were expected to become clearer, and the work situation was expected to settle down as a result. This was also expected to raise the municipality's profile as an employer, helping to secure a supply of labour for the future, too.

Finally, an attempt was made to evaluate the module made up by the three workshops. The group work stage of evaluation found that there was a very lively exchange of experiences and ideas. Participants were able to get further information by asking questions and relate the experiences and operating methods of others to their own work. The conclusion was that there is a need for wider participation in the 'module municipalities', but that economic conditions and a lack of resources pose a problem. The best presentations and discussions in the workshops had emerged on the basis of tangible examples. It was agreed that one of the experts would create a template for an 'Internet file' into which the information on the persons responsible for joint themes in each municipality would be entered. This would work as a forum for passing on information, experiences and ideas between the parties in the future. The planning group of the module was

given the task of considering a possible continuation of the seminars. It was considered a possibility that participation could be expanded and cooperation introduced with projects in the same sector that were just starting out.

Meal and cleaning services

A meeting was held to prepare for the last joint workshop in November 2002. The original idea had been to arrange the workshop in 2002, too, but in the end it was deferred until mid-February 2003, when it was held in Vantaa. The main themes chosen for the seminar were mentoring, performance reviews, issues of power and responsibility and the lifespan of a development project and what comes subsequently. It was also hoped that during the day it would be possible to evaluate the entire module, i.e. the success and significance of the four workshops that had been implemented.

The atmosphere at the last workshop was cosy, if only because the seminar room turned out to be rather tight for the large number of participants. Still, after some searching, everyone at least had a chair to sit on! The first topic was 'Passing on skills – the potential of mentoring'. First, there was a general presentation of mentoring, followed by concrete examples from an application model used in Vantaa. The presentation gave rise to lively discussion about the various possible application models of mentoring. Mentoring did not yet have an established position in any of the organizations involved, as they were only looking for a suitable application method. It was agreed that there need not be a common model; each work organization should construct a mentoring model that suits its needs. After this, it was an easy transition to the theme of performance reviews. A presentation from Vantaa described in particular the problems that were connected with the implementation and follow-up of the individual reviews. In Vantaa, performance reviews were seen as an employment benefit connected with the quality of management. The model was illustrated with a performance of a 'chat' between a superior and an employee. A fresh new angle was introduced with the presentation of the group application of performance reviews used by the Housekeep company. After a background presentation, the audience was shown a clear, well-structured coaching meeting for the Tikkurila women's ice-hockey team. The performance highlighted interaction, a positive attitude and the search for development opportunities. Other viewpoints included sensitive issues vs. transparency and saving time vs. the usefulness of the discussion. This was again followed by lively debate on the use of the different applications and the potential for applying them in the participants' own organizations.

In the afternoon, the seminar moved on to teamwork development that everyone shared, with examples from Kajaani. There, a big change had been effected by combining the units for meal services and institutional care. During the change process, the highlight was on cooperation, multi-vocational work and regional operations. There had then been changes along the way, for instance, the composition of teams and the management model had been changed. In Kajaani, the regional teams were only gradually maturing towards wider autonomy. The teams were in charge of, for instance, planning their own summer holiday schedule and they had used an annual 'work clock' to describe their working year. Finally, there was a presentation of the experiences of the lifespan of a development project from the Kouvola region project, which had already ended. Representatives of each municipality gave their views on the challenges of the project. To begin with, there had been a forceful resistance to change everywhere, which was reflected in attitude problems, grumbling and frustration among teams and individual employees. There were considerable differences between teams, with some coping better than others with the challenges. People were branded too easily as being either for or against change. The conclusion was that, as difficult as it can sometimes be, branding people should always be avoided. The representatives of the municipalities also wished to emphasize the slow and long-term nature of development work. In conclusion, the representatives of Kouvola emphasized that although certain situations had felt extremely difficult to the point of being dead ends, the surveys conducted had shown that the work at many workstations was felt to be good and satisfying. The staff had also gained the courage to engage more readily and openly in discussion.

In the end, there was too little time for evaluating the entire module. However, the high number of participants and their lively discussions indicate that the workshop provided plenty of new things that participants could bring to their own everyday work.

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Both modules ended in a final joint seminar that was held according to plan. The number of seminar participants grew consistently from one seminar to the next, something which, in itself, may depict the success and enjoyment of the work. At the last seminars, the intention was to evaluate the whole module, but little time was left for this at the final meeting of either module. However, both modules focused on evaluating the success of individual projects.

Evaluation of the two pilot modules

The module experiment in the II period of the TYKE programme ultimately consisted of the two pilot modules presented above, one in home care and the other in meal and cleaning services. Both modules had joint meetings every six months: the first one had three meetings and the second one four. With the exception of the first meeting, the home care module meetings were two days, while all the workshops of the meal and cleaning services module were one-day meetings. The starting point was that representatives of both management and staff from all the target organizations should take part in each meeting together with an external expert for each project. It was also hoped that some of the participants would always be the same, but that most participants would change, in order to expand the participant base. The events were arranged in the municipality of each participant organization in turn, to enable as many people as possible to take part. The topics at each workshop consisted of common themes that had emerged at the previous meetings. The programme paid for all the costs of arranging the events and contributed towards the travel and accommodation expenses of five participants from each work organization, while the organization itself paid for any additional participants. In addition, the programme paid the project experts consulting fees for the planning and implementation of projects, and also travel and accommodation expenses. These basic principles were successfully implemented.

Although both pilots focused primarily on projects in the municipal sector, they progressed at different rates and applied different implementation models. The home care module progressed at a very even pace, according to the similar life cycle of the development projects. The projects in this module also found clearly more uniform topics and areas of interest common to all participants. The differences in the meal and cleaning services module might also have arisen because the participants consisted of two projects from individual municipalities, where the meal and cleaning services had been combined, one project which focused on developing the regional meal services and, the fourth participant, a project belonging to a private company providing hotel housekeeping services. The projects were at very different stages of implementation and their subjects were also much more different from each other than those in the home care module.

During the work on the modules, the participants in the home care projects seemed to be able to go more deeply into each other's work practices, and because the workshops lasted two days, they also got to know the representatives of the other municipalities better, since there was more time at workshops for informal interaction. On the other hand, the representatives of the meal and cleaning services seemed to get started

much more quickly in their meetings and they achieved a great deal in one-day meetings. This was already evident in the first meetings of both modules, when the meal and cleaning services module immediately split up into smaller groups and started working on shared themes, without any difficulty at all. The participants of the home care module, meanwhile, seemed to need more warming up. The meetings of the meal and cleaning services module focused more on presentations and introducing concrete models, and on working on these in smaller groups. The workshops in this module were built around a factual theme, rather than thinking more deeply about the role of employees in work processes. One reason might have been that those who work in the meal and cleaning services are in constant direct contact with the clients in a more 'sales-minded' way, while the fundamental idea of home care services is more about helping and caring than actually 'selling' those services. In any case, it appears that the different tasks and roles of employees are also reflected in their way of working together.

The differences between the pilot modules were also evident in the fact that the representatives of the meal and cleaning services immediately took the implementation of the workshops into their own hands, agreeing on their respective responsibilities: the chairing of meetings, provision of advance material and the documentation of the meetings. In the home care module, this advanced a model was not attained until halfway through the module work. Contributing to this was the fact that the home care module was the first to start, so that when the other module started a year later it was possible to rectify early errors and other omissions. The workshops of the meal and cleaning services also tended to return more often to themes that had been brought up earlier, such as measurements, quality classification and teamwork.

The workshops of both modules were arenas for lively participation. Joint presentations and discussions and work in smaller groups structured the implementation. General discussion was lively, and everyone shared new ideas and tangible tools, including forms and lists of things to remember. Although the exchange of opinions was lively and the participants became acquainted with each other, neither module succeeded in generating contacts outside these meetings, with the exception of the module planning group. At the end of the home care module, it was agreed that electronic contacts would be maintained and that the exchange of ideas would continue, but in the end not even the list including all the contact persons at the organizations involved was completed. At the final meeting of the home care module, a continuation for theme work was also planned, e.g. by including new projects and passing on to them the shared learning model that had been learnt during the two years of module work. However, the

planning group never met to consider this new form of operation. Instead, a representative of the pilot module presented this form of cooperation at the planning stage of an extensive home care project by several municipalities in Ostrobothnia. Where the meal and cleaning services module was concerned, a model was created from the outset for it which included how the module would end, and the issue of continued wider cooperation was never even raised at the final meeting.

The two pilot modules which were implemented succeeded in creating a forum for mutual sharing and learning that supported the progress of several projects that worked around a common theme. The themes, which were selected together, and the participation of a wider group of participants in the processing of matters were sure to bring value added to each development project and support to many individual employees, even if the experiment did not give rise to a new, uniform module model for wider implementation during the II period of the TYKE programme.

In conclusion

In this final section, an analysis will be made of why the new form of operation did not come to be implemented more widely, what was learned from the pilot experiment, and what might be done differently in future when these types of shared working models for several projects are being planned.

To begin with, the programme started with the challenging concept of participation by a large group in module seminar work. The idea was to start several different modules in which a significant number of the programme's development projects would participate. At the planning stage, a number of different ways and themes were outlined for bringing together similar projects. The idea was to create separate modules for private and public sector projects. In exploring the shared areas of interest of different projects it was noticed that it was difficult to find a clear common subject area for projects in industry, one that might motivate the companies to take part more in voluntary cooperation. Planning the content of a shared module for, for instance, the SME sector, would have required the use of an outside expert, and at the starting stage, the programme did not have a clear enough idea of the outline of the modules to give anyone such an assignment. The same problem was also found in the idea of using network projects as 'motors' for the modules. This, too, would have demanded a model planned in advance. The challenging prospect of networking private and public sector projects into a shared thematic whole, such as ageing and wellbeing at work, was also considered. In the end,

however, working together did not seem to carry beyond one seminar, and this module idea was abandoned. In any case, the four-year Wellbeing at Work Programme had started at the beginning of 2000. A theme seminar on the subject area was arranged later in 2002 within the TYKE programme's other new seminar form, the Learning Together forums (see the previous article).

It is important in the long-term work among projects that the chosen theme is so interesting for all the participants that taking part in the work is genuinely voluntary. It is also important that the participants themselves can affect the models for cooperation, the more specific subject areas chosen and the implementation. In the two implemented pilots, the themes were derived directly from the content of the implementation plans of the development projects involved. The projects in the pilots shared what they had learned and experienced in the work practices of different organizations without setting out to change the direction of the projects in any way. In fact, that was not an aim set for the pilot experiment. The aim of the experiment was originally to bring even the different approaches of experts into dialogue with each other. However, no model was created for this in the pilot experiments, apart from the presentation and sharing of the approaches used in the projects. There was some dialogue between different approaches in the planning groups, but it was relatively little in the end.

TYKE started off with two pilot modules, and the plan was that a model for wider distribution would be created on the basis of these experiences. However, creating new working methods and learning about implementation practices turned out to be much slower and much harder work than foreseen. The collection of experiences from the module experiments took the entire implementation period of the pilots, i.e. in practice until early 2003. In other words, the idea that new modules could have been started soon after the pilot experiments had started proved to be far too optimistic. Both the duration of the time period needed to test new models and the resources needed were misjudged. In fact, the arrangement of resources is a key aspect in support for the work. Who pays and for what must be planned in advance. In order to promote working together by different projects, expert resources have to be set aside and it must also be decided in advance in what way the programme contributes to the costs that arise from meetings. At the planning stage of the modules, the idea had been that each whole would have its own external expert who would be in charge of the progress of that module. This was discussed at the first planning meeting of the home care module, but it seemed difficult to appoint one of the experts involved in the module's three projects as the one in charge of the whole. No one seemed to want to take a place 'above' the expert of another project and be responsible for the entire module. A joint

external ‘module expert’ for the projects involved would have had its advantages, but also its drawbacks. At this stage, the programme should have had a much more far-reaching model of the structure of the module in order to have been able to use this kind of ‘module expert’. The overall responsibility had not been allocated to any of the external experts involved in the pilots, and the role of the responsible members of the project team had been defined as looking after the resources needed to keep the module going and to take part in implementation and monitoring. The problem with this type of shared responsibility was that the main responsibility for the whole module had not actually been allocated to anyone. The final responsibility for the progress of the whole was, in fact, left too much on the shoulders of individual coordinators in the project team.

In creating a new working method such as the modules, it is important to define what the objectives of the work are and what the roles of the different participants are. The foremost objective of the experiment was to boost interaction between different development projects, the exchange of experiences and mutual learning. These objectives were successfully attained. The plan had also been that the experiments would promote a dialogue between different experts and different approaches. This, too, took place in the pilot modules, but more in the form of an exchange of information than as an actual dialogue between approaches. The roles of the different parties in the implementation remained somewhat unclear. It had not been determined how many of the same employees or different employees there should be at the meetings, and the objectives of the documentation of the meetings in distributing experiences to the entire work community had not been considered either. The distribution of these mutual experiences was mostly left up to the activeness of each organization.

In creating new types of interesting models, methods and approaches on a wider scale, more emphasis should be placed on the interaction between the various parties involved and on using expertise in creating new things. In wanting to create new ways of working and promote the discovery of new methods between different projects and experts, consideration must be given to how these new ways of working can be used to promote the production of new perspectives. This will be easier to implement in the new learning networks project entity of the TYKES programme (see above). In addition to sharing mutual experiences, the promotion of versatile cooperation between development projects is a way of seeking new shared implementation methods for a possible re-direction of a project. This is something for which the module experiments carried out in 2001-03 provided good background information.

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Tuomo Alasoini

Towards qualitatively sustainable productivity growth?

The role and potential of the TYKES programme

The aim of the new TYKES programme is to attain qualitatively sustainable productivity growth in Finland and to promote it through the programme's own measures. In the programme, qualitatively sustainable productivity growth means improving the productivity of work in a way which is combined with an improvement in the quality of working life and which, as a consequence, supports employees' staying on at work. In this instance, the quality of working life refers specifically to employees' ability to develop at work and exert an influence over their work, their general wellbeing at work and the internal cooperation and trust within work communities.

Research and statistics do not give any clear indications that the productivity growth attained in Finland in recent years is qualitatively sustainable. For instance, the Working Life Barometers of the Ministry of Labour indicate that wage-earners feel that their ability to influence the pace of work has weakened and that their work has become more psychologically stressful in recent years. EU comparisons indicate that the percentage of work organizations that are risk-prone in terms of their effects on employee wellbeing is high in Finland (Dhondt et al. 2002; Lehto 2002; Smulders 2004). However, the Working Life Barometers do not suggest that wage-earners in Finland have experienced the change in working life over the past few years as *wholly* or even *mainly* negative – the reverse is more likely to be true. The major cause for concern is that Finland's competitive position is threatened by population ageing which is faster than in many other advanced industrial countries over the next 20 years or so, and there are no signs of a change in the quality of working life which could encourage Finnish wage-earners to stay on at work. The Working Life Barometers of 2002, 2003 and 2004, for instance, indicate that the share of wage-earners who felt that the meaningfulness of work had deteriorated was bigger than the share of those who felt that it had improved, despite the fact that wage-earners considered the changes in working life positive in many other respects (Ylöstalo 2003a; 2003b; 2004).

Another major challenge in bringing about qualitatively sustainable productivity growth concerns the uneven nature of productivity growth in Finland. Although productivity growth as a whole has been relatively rapid in Finland by international comparison, it has been based largely on the

favourable growth of a few specific sectors. We cannot assume that these sectors will continue to act as growth engines in this way; in fact, we will need favourable productivity growth on a broader front and perhaps even entirely new emerging growth sectors.

The TYKE/TYKES programme can be characterized in terms of its public policy approach as ‘conditions-enabling’, ‘network-facilitating’ or ‘broad systemic innovation policy’ (Piiirainen & Koski 2003; 2004; Schienstock 1999a; Schienstock & Hämäläinen 2001). The grounds for the legitimacy of this type of innovation policy are not market failures in the narrow sense, but the failures of the innovation system as a whole and its weak performance in the wider sense (i.e. system failures). Where the TYKE/TYKES programme is concerned, the grounds for legitimacy as explained above could be considered to be the failure of the innovation system to promote qualitatively sustainable productivity growth in Finland.

A comprehensive and systemic perspective is characteristic of this type of innovation policy approach. ‘Comprehensive’ refers to the importance – for the national competitive edge – of boosting innovation in all sectors, rather than just a few select, technologically advanced ‘spearhead sectors’. ‘Systemic’ refers to the perception that there is permanent, mutually supportive interaction between technological and social (incl. organizational) innovations. This comprehensive and systemic perspective is evident in the TYKES programme, particularly in that the focus of its innovation activity is workplace innovations (i.e. solutions that promote qualitatively sustainable productivity growth), and that its development activity focuses on reforming the modes of operation of workplaces rather than just individual practices, and that the programme comprises all sectors and, in principle, all kinds of workplaces.

This article, which concludes the present volume, will examine the context in which and the methods with the help of which the programme strives to promote qualitatively sustainable productivity growth in workplaces. It evaluates the role and potential of the TYKES programme from two perspectives. The first is how well the workplace-level goal of the programme responds to challenges of change that focus on the modes of operation of workplaces today and in the near future. The other perspective is how well-developed the programme’s *own* modes of operation can be considered to be in relation to its aims. Initially, the article will examine what kind of pressure for change will focus on workplaces’ modes of operation over the next few years, in the light of what has been written on the subject. The focus here consists of selected views on what general trends can be distinguished. Then, the article will go on to examine what empirical research can tell us about the corporate- and workplace-level

mechanisms behind various managerial, work organizational, and skills and competence development practices. Finally, an overview will be taken of the role and potential of the TYKES programme. The programme will be examined against Naschold's (1994) six principles that he used to characterize 'best practices' in workplace development strategies.

Perspectives on the change of production models and forms of work organization

The pressure for change on the production models and forms of work organization has been studied from a number of different frames of reference over the past few years. Freeman and Louçã (2001) have presented an analysis which reaches far into the early days of industrial mechanization on the long waves of the economy and how they are intertwined with various technological, managerial and organizational reforms. In the past 200 years or so, they perceive five such waves with the leading production sectors and core products and innovations that supported them. The foremost message contained in Table 38 is, firstly, that the dynamic of the long waves is tied to the interaction between mutually supportive and supplementary technological, managerial, organizational and other social innovations. Secondly – and especially with a view to the problem field explored in this article – the production models and forms of work organization which prove most viable in the different waves differ from each other. In fact, one of the key themes of debate in economics and social sciences over the past few years has been to establish concepts for the ways in which production models and forms of work organization in the ongoing wave, which is based on information and communications technology (ICT) advances, are different from the era of mass production, which characterized the previous long wave.

Table 38. Characteristics of the long waves.

Constellation of technological and organizational innovations	'Carrier' branch and other leading branches of the economy	Managerial and organizational changes	Approx timing of the upswing * downswing
Water-powered mechanization of industry	Cotton spinning Waterwheels Bleach	Factory systems Entrepreneurs Partnerships	1780-1815 * 1815-1848
Steam-powered mechanization of industry and transport	Railways and railway equipment Steam engines Machine tools Alkali industry	Joint stock companies Subcontracting to responsible craft workers	1848-1873 * 1873-1895
Electrification of industry, transport and the home	Electrical equipment Heavy engineering Heavy chemicals Steel products	Specialized professional management systems 'Taylorism' Giant firms	1895-1918 * 1918-1940
Motorization of transport, civil economy and war	Automobiles Trucks Tractors, tanks Diesel engines Aircraft Refineries	Mass production and consumption Fordism Hierarchies	1941-1973 * 1973-1990
Computerization of the entire economy	Computers Software Telecommunications equipment Biotechnology	Internal, local and global networks	1990-

Source: Freeman & Louçã (2001, 141) adapted.

One often used way of conceptualizing this change is to analyse it as a crisis of the Fordist mass production model, i.e. as a gradual crumbling of its growth and productivity potential. Many writers (including Freeman and Louçã, above) have considered the symbolic ending of the golden age of the Fordist model to be 1973, when the oil crisis put a stop to the post-war era of rapid economic and productivity growth in the developed industrial countries. As a consequence of this, businesses began to attempt to free themselves of the principles of the Fordist model. Bélanger, Giles and Murray (2002) have examined the changes in production models using three dimensions: production management, work organization and employment relations (Table 39).

Table 39. Operative principles of the Fordist model and the new production model.

	FORDISM	NEW MODEL
<i>Production management</i>		
Source of competitive advantage	Economies of scale through continuous production; internalization of costs related to a constant flow of supplies	Productive flexibility in the pursuit of niche markets; externalization of costs related to supplies where possible
Source of efficiency	Standardization of product	Standardization of processes in order to achieve high levels of product quality but rapid adjustments in the type of production
<i>Work organization</i>		
Application of knowledge	Lesser mobilization of worker knowledge in favour of separation of conception and execution	Higher mobilization of worker knowledge in order to resolve problems in the production process and to achieve productive flexibility
Degree of specialization	Greater specialization and extensive division of labour	Increased polyvalence in order to overcome jurisdictional and functional problems in the separation of tasks
Degree of supervision	High degree of direct supervision	More self-regulation or process-driven regulation
<i>Employment relations</i>		
Degree of security offered	Higher: less flexibility for employers	Lower: more flexibility for employers
Social adhesion required	Lower: technical division of labour reduces the need for social commitment	Higher: integral to the achievement of production objectives

Source: Bélanger et al. (2002, 49).

In *production management*, the change has meant greater flexibility in production, standardization of processes, and the dismantling of vertical integration and conversion of value chains into networks consisting of several companies. The main forces for change have been the increasingly individual demands of clients, the emergence of new management

approaches such as process management, and the rapid advances in ICT. In the area of *work organization*, companies have tried to move towards flatter and leaner structures, to dismantle detailed division of labour and to deploy the skills of the workforce more effectively through measures such as self-management, multi-skilling, team and project work, job rotation and job enlargement. Where *employment relations* are concerned, companies have been pursuing more flexible terms of employment and stronger employee commitment. Companies have been searching for greater leeway in issues such as wages, working hours, job security and job assignments, either by attempting to influence the content of collective agreements or by striving to influence individual employment contracts in ways which bypass the trade unions. Typical means for companies to strive to boost employee commitment include various forms of direct participation, and pay systems tied to output and quality.

The change in question is long-term and fundamental in nature. According to the researchers, the companies' strategies for change contain many different kinds of tension and actual conflict, both within the three sub-areas of the production model – production management, work organization and employment relations – and between them. For instance, in the area of employment relations, the demands of a new production model for greater flexibility and stronger social commitment on the part of employees obviously involve a great deal of mutual tension (see also Ghoslan et al. 2001; Lester 1998, 269-283; Schienstock & Hämäläinen 2001, 146-148; Thurow 2002). Tension and conflict also emerge because the Fordist production model was tied in many ways to the institutional structure of society as a whole, for instance the education, funding and labour market systems. Employment relations, in particular, are a field where the leeway of companies depend to a great extent on the degree and forms of the regulation practised by the central government and labour market organizations.

Attempts have also been made to conceptualize the evolution of the forms of work organization with more detailed classifications than those above. Miles, Snow, Mathews and Miles (1999) have examined the change by making a distinction between three historical development periods that they call the eras of *standardization*, *customization* and *innovation* (Figure 37).

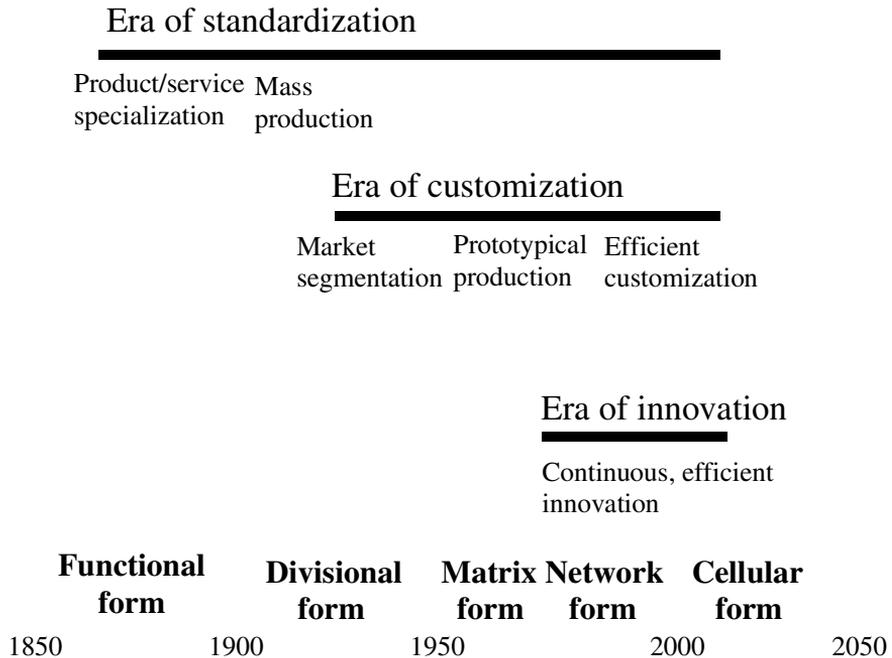


Figure 37. Coevolution of the economic era and organizational form.

Source: Miles et al. (1999, 158).

The typical form of work organization in the era of standardization, largely characterized by Fordist mass production, was functional. With an increase in the demands for customization the organizational forms of companies have evolved from the functional model towards divisional forms which allow for better market segmentation, and further towards matrix and network forms of work organization. However, Miles et al. are of the opinion that instead of closer customization of existing products, services and processes, an increasing number of companies now derive their competitive edge from a capacity for continuous innovation. This means that design creativity is becoming a more important core competence for a company than flexibility and responsiveness. Design creativity is evident in a company's capacity for the rapid production of product and service innovations and individual and advanced design solutions. They call the form of work organization that is best suited to continuous innovation 'cellular'. It is typical of cellular organizations that they consist of largely self-organizing cells which can merge, if required, into metamorphosing clusters in order to create product and service innovations and new client solutions. Employees working in cells are required above all to possess an

entrepreneurial spirit, the ability to self-organization and strong commitment through various bonus- or profit-based reward systems and part-ownership arrangements, for instance.

Shapiro's (2002, 218-227) view of the different levels of 'maturity' of organizations also sets out from the *functional* model. He examines the subsequent stages according to the relative importance that processes take alongside functions. At the *process-sensitive* stage, for instance, various multi-functional process-improving teams emerge in support of functions, but the staff continue to identify themselves through the functions they represent. At the next stage, the *process-driven* stage, processes have already been identified to an extent where process owners have been named for them, but the resources required by processes are still tied to the functions. In the *process-dominated* stage, the organization operates in accordance with the process logic and functions in their traditional sense have been dismantled. They may have been turned into, for instance, various centres of excellence which are responsible for development operations in certain special fields and which offer help in demanding development tasks concerning the processes. The next development stage is one that Shapiro calls the *capability-based* organization. Here, the key source of competitive edge for the company is no longer superior mastery of certain processes but various capabilities built on the combined effect of processes, technologies, organizational structure, staff competence and culture. The sixth and final stage in Shapiro's system is the *alliance-based* organization. It, too, competes through capabilities; more specifically, through the ability to make certain units representing different capabilities work together in order to produce new solutions or innovations. Capabilities are now also organized internally into different networks which reach across corporate and organizational boundaries. Although Shapiro's classification is based on distinctions between organizational forms that differ in their level of 'maturity', there is, at the back of it, a view of their evolution and the logic of it bears many similarities to the classification system used by Miles et al. despite its different terminology. Shapiro, too, considers the growing need for perpetual innovation (the 24/7 principle) to be the foremost force that drives the evolution of organizational forms forward.

Engeström and certain other researchers at the Center for Activity Theory and Developmental Work Research at the University of Helsinki have examined the historical development of production models and the forms of work organization that are based on them by using a classification system originally introduced by Victor and Boynton (Ahonen et al. 2000; Engeström 2004; Virkkunen & Pihlaja 2003). They distinguish between five development stages: *craft production*, *mass production*, *process*

enhancement, mass customization and innovation-oriented so-called *co-configuration production* (Figure 38).

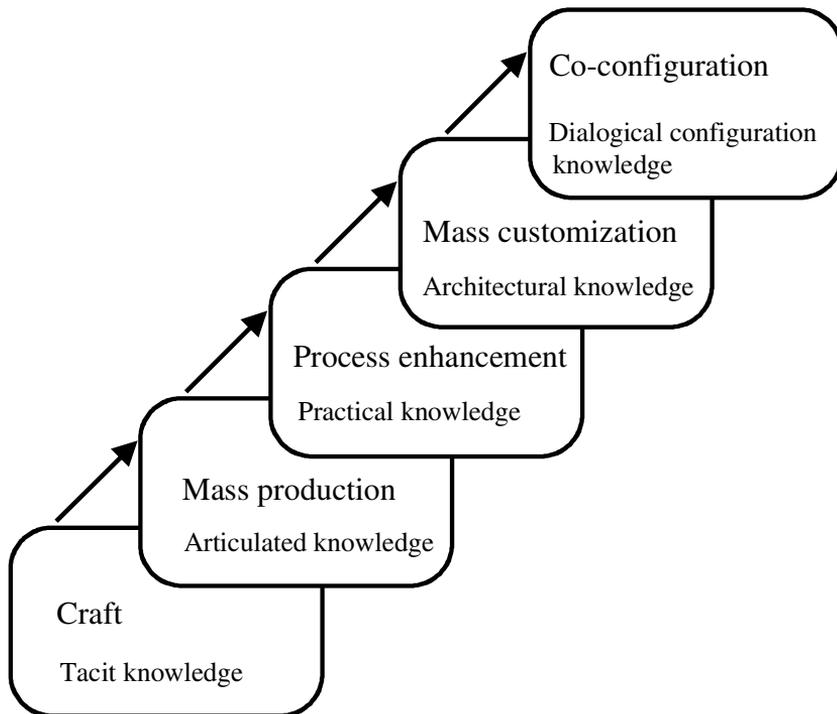


Figure 38. Historical forms of work.

Source: Engeström (2004, 12).

The force for change contained in these production models is their ability to create use value for the clients. In certain historical contexts, old models can no longer keep their promises concerning use value, and the ensuing contradictions lead to the gradual development of new types of models. According to Virkkunen and Pihlaja (2003, 7), mass customization and co-configuration production are two of the models which have developed during the most recent long wave in the economy as defined by Freeman and Louçã. According to Ahonen et al. (2000, 286), the mass customization model developed as a result of the contradiction caused by the differentiation of customer needs and companies' rigid product structures. In it, the aim is to combine the individualization of products with economies of scale. Meanwhile, co-configuration production is emerging from the tension between rapid technological advances and the stubborn fixation of corporate product structures around certain ready-made

solutions. It is typical of co-configuration production that the client is integrated closely and for the long-term with the development of the products and services of a company (or company network), that development is continuous in the sense that products, services and combinations of the two are constantly changing, and that cooperation promotes learning for both parties. Engeström, Engeström and Vähäaho (1999) have put forward 'knotworking' as one example of a new form of organizing work based on co-configuration production. The characterization of co-configuration production and knotworking given by Engeström et al. is, on the general level, similar to the views expressed above, which have also emphasized the importance of perpetual innovation and the subsequent need for networking and continuous restructuring of forms of work organization.

According to Schienstock (1999b, 27-31), the new competition based on customer-tailored innovations calls for a '*new organizational logic*' compared with the paradigm of Fordist mass production. It is characteristic of this new logic that an efficient organization can no longer be defined to the same extent as before according to some specific structural features descriptive of the organization but, to a growing extent, only through certain general concepts, ideas or principles, of which he lists the following:

- The systematic globalization of production processes, i.e. companies are scattering their production processes geographically according to the local competitive advantages they can derive through this.
- The dismantling of vertical integration, i.e. companies are working towards lighter structures through outsourcing functions or splitting them off into separate profit centres and cost units.
- The functional integration of processes, i.e. companies are integrating their processes within themselves and across corporate boundaries, using teams and groups that strive for the mutual coordination of their areas of responsibility in a multi-functional and seamless way.
- Discursive coordination, i.e. companies are less able to manage their operations through bureaucratic decision-making and supervision and are increasingly forced to settle for 'soft' methods, based on, for instance, creating a shared vision and culture, as well as intensive exchange of information and interaction between the different parts of the company.
- Increased organizational reflexivity, i.e. companies are dismantling their bureaucratic rules and methods and giving teams and groups more self-management and self-regulation capability and, as a consequence, improving their ability to adapt their operations to changes in the environment.

Schienstock emphasizes the importance ICT as a requirement of the ‘new organizational logic’. However, in his view the interdependence between ICT and the ‘new organizational logic’ is mutual in the sense that the ‘new organizational logic’ also gives birth to new opportunities for designing technologies (ibid., 32).

Conclusions

The trends and challenges of workplace modes of operation which emerge on the basis of the above views can be compared to the workplace-level aim of the TYKES programme, which was presented earlier in this publication. According to it, “the aim /.../ is to strengthen, via development projects, a mode of operation that will help workplaces to develop their operations in a manner supportive of qualitatively sustainable productivity growth. This will require in particular enhancement of workplaces’ development expertise, close cooperation between management and employees, and the ability to make skilful use of expert networks in support of development.”

The *development expertise* of a workplace refers to its ability to plan and implement development measures focusing on products, services and operations. In addition to adequate technical skills and competencies possessed by management and staff, development expertise refers to the mastery of various systems, methods, models and tools needed in development activity. The significance of development expertise can be assumed to grow in proportion to the growth in the importance of capacity for continuous and rapid innovation as a source of competitive edge for workplaces.

Close cooperation between management and staff does not refer in this context narrowly to the formal cooperation and participation systems at the workplace, but in a wider sense to the internal dialogue at the workplace and the trust this generates between management and staff. Dialogue helps the workplace rise above heavy bureaucratic steering and management towards steering, management and learning based on a shared vision, values and culture – in short, the ‘discursive coordination’ and ‘organizational reflexivity’ described by Schienstock (1999b) above. It can be assumed that the importance of dialogue grows in proportion to the increase in demands for flexibility and customer-orientation and in proportion to the continuity of development activity and the tighter the schedules on which it has to be implemented.

The workplace’s *ability to make skilful use of various expert networks* refers to its ability to utilize the know-how of customers, other players in

the value chain and external expert organizations such as research and development (R&D) institutes or consultants in support of development. All the views above highlight in one way or another that there is a new emphasis on the significance of cooperation with customers and the networking within the value chain itself. Also the use of consulting companies and other knowledge-intensive business services (KIBS) is on the increase, as workplaces are increasingly focusing on their core competences with the growing knowledge-intensity of the economy (e.g. Burton-Jones 1999; Leiponen 2001; Miles 2003). Emphasizing the cooperation between workplaces and R&D institutes, in particular, and making it a goal of the TYKES programme are linked with what was already stated earlier about the value added of research-assisted approach. In development activity aimed at changes in the modes of operation, research-assisted approach can create more favourable conditions for innovative solutions than pure consulting, as it contains critical and experimental testing of hypotheses and the framing of related questions. It is particularly useful in this context as changes on the level of the modes of operation focus, on the one hand, on *systemic wholes* made up of various practices, and on the other hand, on *mental models* that guide the thinking and actions of the management and staff at the workplace. At its best, research-assisted approach also generates new information which can be used on a broader front, outside the workplace in question.

On the basis of what has been said above, the workplace-level goal of the TYKES programme emphasizes largely the same features that many writers have considered to be the key features of new production models and forms of work organization. In the following, we will examine what kinds of practices have helped companies and workplaces improve their performance in the past few years in the light of empirical research.

Empirical research on the conditions for qualitatively sustainable productivity growth

The bulk of organization and management studies that have examined the company- and workplace-level mechanisms behind various managerial, work organizational, and skills and competence development practices (HRM practices) have been produced in Anglo-American countries such as the United States, Canada and the United Kingdom. This research on ‘high-performance’ or ‘high-involvement/commitment’ work systems largely supports the view that companies or workplaces that systematically apply certain individual or a set of ‘advanced’ HRM practices are ahead of others in terms of their financial, operational or organizational performance. There is, however, variation between different studies in terms of what practices

are included as features of such work systems and how performance is measured. Typically, such practices are linked with employee motivation and the opportunities that employees have of using and developing their skills and competencies at work and of taking part in decision-making concerning their own work (e.g. Appelbaum et al. 2000, 39-44; Bartel 2004; Huselid 1995).

In recent years, several comprehensive summaries and critical reviews have been produced of research on 'high-performance work systems' (e.g. Becker & Gerhardt 1996; Delery & Doty 1996; Edwards & Wright 2001; Ehrnrooth 2002; Godard 2004; Guest 2001; Ichniowski et al. 1996; Kumar 2000; Paauwe 2004; Richardson & Thompson 1999). They show that many studies contain methodological and conceptual problems that are difficult to solve. In addition to these, the research in question also contains other, more context-dependent problems with a view to applying its results to promoting qualitatively sustainable productivity growth specifically in Finnish workplaces. These include the following, in particular:

- The studies have been chiefly interested only in the effects of HRM practices or other characteristics of the company or workplace (its size, technology, capital intensity, product market, etc.) on its financial (profit, market value, growth in sales, etc.) or operational (productivity, quality of products/services, customer satisfaction, etc.) performance. Only relatively rarely is this combined with a simultaneous study of how employees themselves experienced these practices.
- The studies have been chiefly interested only in the effects on performance of the duration of HRM practices such as teamwork (how long was teamwork applied?), its extent (how many of the staff are involved in teamwork?) or its intensity (how developed is the teamwork?). These kinds of static comparisons have usually not taken into account how these practices were introduced, for instance, to what extent the employees were involved in creating them. The introduction process can, however, have considerable significance for how widely accepted some individual practice becomes and the level of commitment to its implementation at the workplace.
- Various socio-economic context factors may have significance for the way in which the effects of individual HRM practices or 'bundles' of such practices are filtered through to performance. Such context factors include the level of institutional regulation of the labour market, the educational level of the employees, the forms of collective bargaining, the relationship between the supply of and demand for labour on the labour market or the economic and social distance between different employee groups (Bae et al. 2003; Nielsen & Lundvall 2003; Paauwe

2004). In terms of all these context factors, there is a clear difference between Finland today and the Anglo-American countries.

In Finland, there has been little of this type of research so far. In the following, we will take a closer look at two Finnish examples.

Example I: the studies of Antila and Ylöstalo

Antila and Ylöstalo (1999a; 1999b) have gathered material on Finnish private workplaces with more than nine employees to study the factors which explain the financial success of a workplace. They studied the links between individual HRM practices and workplace success and conducted a comparison between flexible and traditional workplaces. Later, Antila and Ylöstalo (2002) have begun to refer to ‘proactive’ workplaces instead of ‘flexible’ ones. The difference between the proactive and traditional workplaces is based on the extent to which decision-power has been delegated in different matters to teams and individual employees. Proactivity, as conceptualized by them (Antila & Ylöstalo 1999b, 143-152; 2002, 202-209), is a rationale which characterizes the mode of operation of a workplaces. It is close in many ways to Schienstock’s (1999a) description of the ‘new organizational logic’ and the descriptions by certain researchers (e.g. Adler & Cole 1995; Womack & Jones 1996; Womack et al. 1990) of the ‘lean production’ model. Schienstock has carefully avoided attaching to the ‘new organizational logic’ any strong claims about its significance for the quality of working life or employee interests. This follows from his claim that it is difficult by now to define an efficient organization by certain specific structural features. More general concepts, ideas or principles are now more important, and they may take a different form in different operating environments. The views of the advocates of the ‘lean production’ model, instead, are more optimistic, emphasizing the *opportunities* which emerge for expanding employees’ work into planning and development tasks.

In their follow-up study, Antila and Ylöstalo (2002) compare proactive and traditional private workplaces in a number of different dimensions, and they also use material collected from employee surveys in these workplaces. The information on the trends of personnel numbers and total payroll of the workplaces seem to indicate that the performance of proactive workplaces is much better. The distinction between proactive and traditional is the foremost factor in Antila and Ylöstalo’s material that separates the activeness of the workplaces in product and service innovations and personnel development. However, it has no significance in terms of production technology or office and information technology innovations;

the foremost distinguishing factor is the market area of the workplace. Proactive workplaces have much closer relationships than traditional ones with clients, other companies, educational institutions, consultants and the public sector. The cooperation contacts of staff at proactive workplaces are also more comprehensive than those of traditional ones.

Employees' views on the quality of working life are much more positive at proactive workplaces than at traditional ones. In addition to opportunities for exerting an influence, this applies to the perceived job security, atmosphere and the cooperation between management and staff. The only exception is the stress of work, where the situation was the opposite. However, the personnel at proactive workplaces are far more likely to perceive a change in the meaningfulness of their work more positively than personnel at traditional workplaces. This difference remains great between different age groups also. In proactive workplaces, even employees over the age of 50 experience changes in the meaningfulness of their work in a more positive way than age groups over 30 in traditional workplaces.

The concept of proactivity, as defined by Antila and Ylöstalo, is based on a fairly simple idea³⁹, but it describes largely the same features which were used in the previous section to characterize advanced workplaces. Their follow-up study indicates that the characteristics typical of proactive workplaces could support qualitatively sustainable productivity growth in Finland, at least tentatively. On the other hand, Antila and Ylöstalo's research also shows that, as decision-power and responsibility are delegated to teams and employees, great pressure is brought to bear on the position of lower-level salaried employees. In a more general sense, too, proactivity can show itself in a different light for different personnel and occupational groups. Another critical comment concerns the fact that Antila and Ylöstalo's research – just like the discussion on 'high-performance work systems' more generally – shares the perspective of the management and staff of a company or workplace. In thinking about the conditions for qualitatively sustainable productivity growth, the perspective should be broader. It is possible, for instance, that a wider spread of a proactive modes

³⁹ The distinction between proactive and traditional workplaces is made using a sum variable that describes the amount of delegation of decision-making power to teams and employees. In the opinion of Antila and Ylöstalo, this variable alone is enough to distinguish between the workplaces they call 'proactive' and 'traditional'. However, it would be possible to assign an entirely different theoretical content to a distinction made solely on the basis of the delegation of decision-making power. For instance, it could equally well show the difference between workplaces organized according to Taylorist and socio-technical (or humanistic) organizational theory. The latter specifically emphasizes self-managed teams and the autonomy of work as the key principles of organization (cf. Adler & Borys 1996; Julkunen 1987, 51-60; Kira 2003, 87-92).

of operation might reinforce the segmentation of the labour market and cause an increasing part of the workforce to become excluded from the core of the labour market. This, in turn, might undermine the conditions for qualitatively sustainable productivity growth.⁴⁰

Example II: the studies of Tuomi and Vanhala

Tuomi and Vanhala (eds.) (2002) and their research team compiled sectoral information in 1997-2000 on the success of companies in the metal and engineering industry and in retail trade, the wellbeing of the companies' staff and the practices that the companies applied concerning their organizational structure, organizational operations and management and support for their human resources. The purpose of the research was to identify features of the companies that explained their success and the wellbeing of their staff with the help of statistics and questionnaire materials from both the management and staff. Tuomi and Vanhala's research team used the following indicators for corporate success: the operating margin percentage, competitiveness (i.e. growth in sales, market share, profitability and marketing), ability to encourage staff commitment, and successful development of products and services. The indicators for staff wellbeing included the work ability index, strength of commitment to the organization, and psychological wellbeing and problems. The research team used more advanced statistical methods of analysis than Antila and Ylöstalo, but, on the other hand, it did not strive for very far-reaching conclusions on a conceptual level.

One of the main results of the study was that more or less the same features of companies were linked with both success and staff wellbeing in the cross-sectional analysis. According to the research team, "features of the organization's structure and operation such as team and group work, opportunities for exerting an influence or undergoing training, good organization of work operations, support for human resources, support from supervisors, a low incidence of conflict and uncertainty at work and high psychological and physical demands of work all presaged at least one of the variables used to depict the success of companies, and favourable

⁴⁰ The increasingly lively debate in many countries over the past years concerning the higher intensity of work and problems with wellbeing at work has aroused interest in modes of operation that provide a more balanced combination of individual-level, corporate-level and broader societal interests. In the debate on 'sustainable work systems', for instance, the inclusiveness of work systems has been given increasing emphasis, i.e. the fact that they also prevent a segmentation of the labour market and help integrate the unemployed back into working life (Docherty et al. (ed.) 2002).

development of these features was also linked with favourable development of several variables that indicated staff wellbeing” (Tuomi et al. 2002, 242). Good development and training opportunities for staff and team or group work had the strongest impact in the success of a company.

The main conclusions drawn by Tuomi and Vanhala’s research team, particularly where the promotion of staff wellbeing is concerned, were the following: Firstly, development of the organization’s operations would appear to be a more effective way of developing staff wellbeing than any efforts to influence the staff’s lifestyle. This conclusion has already been presented earlier in this work. Secondly, in organizational development, it is important to adopt a broad, comprehensive perspective in order to gain synergy benefits between different factors. This conclusion, too, is in line with a starting point already adopted in this work, according to which workplace development should concentrate specifically on promoting changes on the level of the modes of operation. On the subject of synergy effects, the conclusions of the Tuomi and Vanhala research team are in line with the assumptions of the complementarity and configuration approach (Milgrom & Roberts 1995; Pettigrew et al. (eds.) 2003).

Conclusions

Many empirical studies of company- and workplace-level cross-sectional material have identified at least some degree of positive correlation between the systematic application of various HRM practices and performance. This correlation has usually been interpreted to mean that systematic application of HRM practices improves performance, rather than interpreting it in the opposite direction in terms of causality. There have, however, been different interpretations of what exactly the effective mechanisms are. The same applies to the extent of the additive effects of individual HRM practices (i.e. their separate effects added together) and to the extent of synergy effects. In the Finnish studies presented above, success and the quality of working life on the workplace level were explained to a great extent by the same factors.

From the perspective of workplace development, one key shortcoming in research on ‘high-performance work systems’ is that it has mainly focused on which HRM practices appear to explain good performance. Something that it does not, however, say much about is *why* certain companies and workplaces apply these practices more systematically than others, or about *what should be done* to boost the number of companies and workplaces which are developing their operations systematically. The mainstream of research has been committed on a ‘metatheoretical’ level to a universalistic

approach, i.e. the idea that certain ‘best practices’ exist. The setting in some of the studies has been more varied in the sense that they have also made alternative assumptions on the basis of the contingency, complementarity or configuration approach. The information produced by these studies on the relationships between different variables has remained more or less hypothetical, however, even in the best cases. There are almost no studies that have combined an intensive case-study approach with survey-based research on ‘high-performance work systems’ in search of statistical generalizations, although this might have made the statistical associations easier to understand.

The Workplace Development Programme and the ‘best practices’ of programme-based development

In an earlier article in this work, Elise Ramstad examined how it has been possible to promote operational performance and the quality of working life in the workplace simultaneously – in other words, qualitatively sustainable productivity growth – with the aid of the development projects of the TYKE programme. In this chapter, we will consider how the TYKES programme should operate and how the programme should be developed in order to respond to the challenge of qualitatively sustainable productivity growth as well as possible.

The first article of this work found that workplace development should be viewed as a networked activity because its aims cut across a wide sward of public policy. The impact and success of workplace development programmes are crucially dependent on the ability of the programmes themselves to undertake versatile cooperation on a broad front with a great variety of different players. In addition to this networking ability, the scope for programme-based workplace development is influenced, naturally, by many other factors, such as the expertise available for programme- and project-level operations and the resources in terms of funding and time.

The evaluation study of the TYKE programme compared the programme with certain other programmes in Finland and abroad, such as the Business Process Re-Engineering Programme of Tekes, Priority 4 of the European Social Fund’s Objective 3-programme, the National Productivity Programme, the Wellbeing at Work Programme and the Norwegian Enterprise Development 2000 (ED 2000) Programme (Arnkil et al. 2003). The group behind the evaluation study did not, however, use any specific explicit model that the strengths and weaknesses of the various programmes could have been tested against. The critical viewpoints which emerged on

the TYKE programme in the evaluation were taken carefully into account in preparing the new TYKES programme (see the first article of this work).

A mechanical comparison of different programmes is not productive, simply for the reason that their targets, their criteria for success and their resources, as well as the context in which they were created and implemented are all different. On the basis of a comparison of workplace development strategies in six countries (Australia, Japan, Norway, Sweden, Germany and the USA), Naschold (1994) has identified several generic principles which according to his view help improve the effectiveness of strategies. These are:

- The strategic justification for a workplace development strategy arises primarily from macro-level industrial policy issues rather than the industrial relations system or the research and development system.
- On the programme and project level, the aim is to attain an international or global standard, rather than settling for a national or local standard.
- In development operations, the aim is a type of indirect intervention that combines simultaneous design and process orientation and broad company- or workplace-level participation as opposed to traditional design solutions provided by experts or centralized bargaining solutions by the social partners.
- The development strategy is supported and guided by a strong national infrastructure which comprises a large number of experts.
- The players are networked on the micro level (the company or workplace level).
- The resources and duration of the programme-based operations are adequate in relation to the aims of the programme.

According to Naschold, so far no country has united all these principles in its workplace development strategy; according to his comparison, Japan appears to have come closest in the early 1990s. He particularly criticized the Swedish and Norwegian development strategies in the 1980s and early 1990s for lacking a clear link with industrial policy, and for the fact that the programmes and their projects were characterized by a lack of international benchmarking and that the ambitious goals of the programmes were at odds with their resources and duration. This criticism was based particularly on the evaluation results of the Swedish Leadership, Organization and Co-Determination (LOM) Programme (1985-1990) and the Norwegian Centre for the Quality of Working Life (SBA) Programme (1988-1993) (Davies et al. 1993; Naschold 1993). Subsequent workplace development activity in Sweden and Norway has taken note of this criticism and tried to respond in a number of different ways (e.g. Eriksson (ed.) 2002; Gustavsen et al. 1996; 2001; Levin (ed.) 2002; Svensson et al. (ed.) 2002; Tell 2001).

Critical questions could well be levelled at the principles put forward by Naschold. The principles are not operationally connected in any direct way and they do not form a frame of reference on the same conceptual level as that used by, for instance, Piirainen and Koski (2003; 2004) in their study of innovation policy approaches. On the other hand, the validity of Naschold's principles are backed by an empirical analysis of the widely differing development strategies of six countries. In the following, the principles put forward by Naschold will be used as a loose frame of reference in examining the role and potential of the TYKES programme for attaining the objectives set for it.

The strategic justification for the TYKE/TYKES programme

Without an adequate link with macro-level industrial policy issues and, consequently, with the strategic development goals of workplaces, there is a danger that workplace development could easily remain simply a way of intervening reactively with various 'corrective' measures, for instance in the problems caused by new technologies, production models or management methods. According to Naschold (1994, 126), programme-based workplace development that originates one-sidedly from the problem settings of the industrial relations system carries the danger of producing 'structurally conservative' solutions for the economic, workplace and occupational structure. The main problems and development needs of working life are seen too much from the perspective of existing and gradually disappearing structures, and development operations may not necessarily have much to give to support the emergence of new, developing structures. In particular, many evaluations of programmes for the quality of working life from the 1970s and 1980s point to the weakness of the programmes in this respect. Few companies were interested in taking an active part in them; their results were not very widely disseminated; and they had no particular significance for industrial policy issues (Buchanan & McCalman 1989; Cole et al. 1993; Julkunen 1987).

The TYKE/TYKES programme has emerged from cooperation between players in the industrial relations system – the Ministry of Labour and the labour market organizations – but the programme has also been justified with broader innovation and economic policy arguments. When the TYKE programme was prepared in 1995, this was the vision of workplace development as a part of national innovation activity and, consequently, part of the conditions for knowledge-based economic growth (National Workplace Development Programme 1996) and, when the TYKES programme was prepared in 2002-03, the vision of qualitatively sustainable

productivity growth as a condition for maintaining economic growth and a welfare society (Management Group of the Finnish Workplace Development Programme 2003). According to certain views (Pirainen & Koski 2003; 2004; Schienstock & Hämäläinen 2001, 190-193), the Workplace Development Programme deserves the recognition for the highly advanced concept of innovation that it adopted. The problem has been, however, the divergence of the programme's innovation and economic policy argumentation from that of the key players in the policy sectors in question (cf. 'narrow' vs. 'broad systemic innovation policy'). The credibility of the programme as a legitimate player in these policy sectors could have been further undermined by the fact that the programme was seen primarily as an activity pursued by players in the industrial relations system. The evaluation study of the TYKE programme showed that this was also the case among the programme's own foremost stakeholder groups (see the article on the dual role of the Workplace Development Programme).

One important way of increasing the links between the Workplace Development Programme and industrial policy and, further, the promotion of change in workplace structures, is to seek opportunities for programme and project cooperation with the various industrial policy players on both the national and regional level. Examples of cooperation on the national level so far include jointly funded projects between the TYKE programme and certain Tekes technology programmes, such as the Business Process Re-Engineering Programme in 1997-2000 (Tekes 2001) and its successor in 2000-04, the Business Concepts for Industries (UTT) Programme (Tekes 2004). Programme-level cooperation with the key industrial policy players will be reinforced in the TYKES programme. The potential for doing this will be improved by the emphasis that Finnish innovation policy will place in future on the need for combining technological and social innovations (Science and Technology Policy Council of Finland 2003), the growing pressure on Tekes to focus more than hitherto on service innovations and the strategic development of companies' businesses (Hjelt et al. 2004), as well as the greater resources for the TYKES programme and the longer programme period of six years. This latter factor will make it possible to commit to various joint projects on a more equal footing than before and for a longer term.

TYKES is a partner and co-funder in the national TRIO action programme (2004-09), which is being coordinated by the Technology Industries of Finland. TRIO is a development programme for growth-oriented SMEs. It aims to raise the technology level of the SMEs and SME networks, improve their business skills and boost the internationalisation of their businesses. TYKES has also pursued negotiations on funding cooperation with Tekes's

Finnwell healthcare technology programme (2004-09). The aims of the programmes have much in common. The development of work organizations in the social welfare and health care sector is a special focus in the TYKES programme from the perspective of qualitatively sustainable productivity growth, and so are SMEs.

On the regional level, TYKES is striving to become involved via the employment and economic development centres (TE centres) in projects that are essential for the regional industrial and technology strategies. This could take the form of learning network projects or projects to be decided separately, through which TYKES takes part in reinforcing the regional innovation environment for workplace development.

Global, national or local standards?

Another criticisms that Naschold (1994) levelled at Swedish and Norwegian workplace development strategies was the insularity of local or national solutions that was typical of programmes and their projects in both countries. In his opinion, this had been fed by the ‘hegemonic’ position that both countries developed in the 1960s and 1970s in the international debate on industrial democracy and socio-technical systems design. However, the ‘hegemonic’ position in these fields had not been a help to Sweden and Norway in the international productivity competition for a long time.

These kinds of characterizations have never been appropriate for Finland. Finland kept a low profile internationally in workplace development up until the 1990s, endeavouring to take onboard influences from different sources. Lovio (1989) once characterized Finland as ‘the uncrowned republic of followers’, a country that, like Japan, was able to make the most of ‘the benefits of being a follower’ in modernizing its production. The above characterization could also be considered apt for Finland in terms of workplace development. However, since the period of rapid growth which was generated after the recession in the early 1990s by Nokia and the ICT cluster in general, Finland has come to be seen more as a ‘leader’ than a ‘follower’ in international comparisons.

The vision of the TYKES programme is that “Finland has a network of expertise for work organization development which creates national competitive edge and which effectively promotes qualitatively sustainable productivity growth” (TYKES vision 2009). The programme could at least be considered to be applying global standards in its setting of targets. However, it is impossible to assess unambiguously how well the Workplace Development Programme has succeeded in the pursuit of this vision on the

basis of its operations so far, or whether it can realistically be expected to bring the vision to reality in the future.

The evaluation study of the TYKE programme characterizes the programme in relation to other similar programmes by stating that it belongs “to the group of the most advanced working life programmes” (Arnkil et al. 2003, 198). The Workplace Development Programme and programme-based workplace development in Finland more generally have also received positive assessments in certain other recent European comparisons. In a study of publicly supported workplace development programmes in Europe, Gallagher (2001, 155) mentions the Finnish Workplace Development Programme as a good example of both openness and activeness in seeking new information and ideas from the experiences of other countries and from the participation of a large number of stakeholders in the networks of the programme. In their own evaluation, Bröder and Latniak (2002, 25) highlight the active role of the Finnish labour market organizations in promoting new forms of work organization through national programmes such as the Workplace Development Programme. The Wim Kok (2003, 31) European Employment Taskforce Report to the Council of Ministers highlights the TYKE/TYKES programme as a good example of a way of supporting companies and the workforce in adapting to change through developing companies’ modes of operation in a variety of ways. Neither of these assessments, however, are based on detailed examination of the programme or its projects.

Comparisons of different programmes on the project level is difficult. Comparison is made more difficult by the fact that projects can be very different in different programmes. Furthermore, there can be different forms of project activity within a single programme, such as the TYKE/TYKES programme. However, Vartiainen’s (2000) study on teamwork projects in the TYKE programme’s I period offers one approach to international comparison; the study in question compares the level of teamwork at the workplaces which took part in the projects with the material of the EPOC study carried out in 1996 by the European Foundation for the Improvement of Living and Working Conditions. The material in question contained information on the incidence and nature of teamwork at workplaces in 10 EU Member States (Finland not included). According to the EPOC study, only four per cent of European workplaces applied teamwork in a way which fulfilled the criteria set by the researchers for ‘real’ team-based work organization (Benders et al. 1999). Vartiainen compared the level of teamwork applied by 52 workplaces that took part in a TYKE teamwork project with the top European four per cent of the EPOC study mentioned above. On the basis of this comparison, the teamwork applied by Finnish

workplaces was more advanced on average than that applied by the top four per cent of the EPOC study, according to seven criteria out of eight.

Workplace-level participation in processes of change

Naschold (1994) considers the simultaneous design and process orientation in the development processes and, particularly, the emphasis on broad company- or workplace-level participation to be a strength in the Swedish and Norwegian workplace development strategies. However, recent Swedish and Norwegian programmes have emphasized a process-oriented approach increasingly at the expense of the design-oriented approach (Eriksson (ed.) 2002; Gustavsen et al. 2001; Levin (ed.) 2002; Svensson et al. (eds.) 2002). The Workplace Development Programme could be considered to be more design-oriented than the most recent Scandinavian programmes and thus to fulfil Naschold's requirement for simultaneous design and process orientation. The development projects in the TYKE/TYKES programme have also started from initiatives by the workplaces themselves. For instance, according to the self-assessment study, the main source of the initiative in nearly 90 per cent of the development projects in the TYKE programme's II period (2000-03) was some player on the workplace level, usually top management (see the article by Ramstad in this work).

One important criterion from the point of view of workplace participation is the role of the employees in the processes of change. On the basis of the self-assessment of completed development projects in the TYKE programme, this can be evaluated either directly, by examining the views of management and staff concerning the participation of the different parties in projects and their mutual cooperation during the projects, or indirectly, by comparing the views of management and staff on the effects of the projects. It can be assumed that the more favourable the different participants' assessments of the projects' effects, the more they felt they were able to influence the progress of the projects. Analyses presented elsewhere in this work show that, at the planning stage, the management is seen to have much better potential for influence than the staff. At the implementation stage, this difference is evened out. The views on project effects held by representatives of the management are also more positive on average than those of staff representatives. The evaluation study of the TYKE programme, where views on project effects were examined an average of 2-3 years after the end of projects, still shows the same result (Rissanen et al. 2002, 30). In this study, however, positive views no longer directly reflect the respondent's organizational position. Members of management tend to evaluate the effects most positively, but the views of salaried employees in

supervisory positions and ordinary employees show little difference. Salaried employees in non-supervisory positions are less likely than others to consider the effects positive. One explanation for this could be that the projects supported by the programme focused on the tasks of this group less than on any others.

The lack of suitable material for comparison makes it more difficult to evaluate how well the Workplace Development Programme has succeeded in promoting broad workplace-level participation in processes of change. In any case, a comparison with Antila and Ylöstalo's (1999b, 90-93) research material indicates that there was a clearly smaller difference in development programmes in the TYKE programme between how actively different groups (top management, middle management, work supervisors and other staff) took part in the implementation of processes of change in the workplace. This observation applies in a comparison of workplaces which participated in development projects in the TYKE programme with both traditional and proactive workplaces. The result would seem to indicate that participation in organizational processes of change within workplaces which took part in development projects in the TYKE programme was more extensive than at Finnish workplaces on average. However, it is impossible to conclude from this comparison that this was specifically a result of the programme, as it is possible that the programme attracted a specific kind of workplace. In any case, the self-assessments of the development projects within the TYKE programme and the workplace survey which was conducted as part of the programme's evaluation study (Rissanen et al. 2002; 2003) would both indicate that well over half of the projects led to improved cooperation between management and staff in the workplace.

The national infrastructure of workplace development

Strengthening the national infrastructure of workplace development was one of the three main target areas of the TYKE programme in both programme periods and it is also written into the vision of the TYKES programme. A leading aim in the TYKE/TYKES programme has been to promote the expertise of workplace R&D institutes and cooperation between R&D institutes and workplaces that is based on research-assisted development. At its best, research-assisted approach produces new, useful knowledge that can be generalized for use in supporting development activity. Knowledge produced by research-assisted approach is also thought to produce more favourable conditions for innovative solutions (that a renewal of modes of operation often demands) than pure consulting, which does not contain a similar critical, experimental testing of hypotheses and the setting of questions that goes with it.

A large number of R&D units have taken part in the programme's projects as experts. For instance, over half (49%) of the respondents to a questionnaire from 2001 which consisted of 123 R&D units in Finland (excluding private consulting companies and development agencies) considered the programme to be a very or fairly important funding body for the unit's R&D operations (Ramstad 2002, 65-66). In the light of its own statistics, however, TYKE was not very successful in boosting development cooperation between workplaces and universities, state research institutes or polytechnics, if this is examined according to the focus of the programme's funding in projects. The total share of funding for experts at universities, state research institutes and polytechnics out of all expert funding allocated to development projects fell somewhat (from about 35% to about 30%) in the programme's II period compared with the I period, despite the aim being the opposite, while the percentage of consultants grew noticeably (from 37% to 58%). The role of consultants became particularly dominant in development projects in industry and the private service sector (Arnkil et al. 2003, 86-88).⁴¹ In network projects, meanwhile – where the participants consisted mainly of industrial enterprises – state research institutes and technical universities and faculties held a dominant position during both the TYKE programme periods (see the article on Learning networks as creators and disseminators of generative ideas).

In the light of the above figures, it is also easy to understand the results of the workplace survey which was conducted as part of the evaluation of the TYKE programme. The survey studied the views of management and staff at workplaces which had taken part in stage I of the programme concerning the effect of projects in boosting development cooperation with various expert organizations. Of the respondents, 33% felt that the project had had great or fairly significant effect in increasing development cooperation with consultants. The corresponding figure for polytechnics and other educational institutions was 29 per cent, but only 20 per cent for research institutes and 18 per cent for universities (Rissanen et al. 2002, 20).

It is not always easy to promote long-term research and development cooperation between workplaces and R&D institutes, especially when moving from developing 'hard' technology to development of business operations or the work organization, for the reason that the parties involved

⁴¹ A great majority of consultants who participated as experts in the development projects of the TYKE programme were self-employed or employed by small domestic consulting companies specialized in business development of Finnish SMEs or work organizational issues. Many of them also had close links to the academic world. Only in a very few cases were big international consulting companies involved.

subscribe to different operating logic (Jonsson & Gustavsson 2002; Keso et al. 2003, 33-53; Nieminen & Kaukonen 2001, 78-80; Tell 2001 23-24). The above results for the TYKE programme can be compared with the corresponding results of the Norwegian ED 2000 programme. According to the evaluation study of ED 2000 (Oscarsson et al. (ed.) 1999), only 17 per cent of the companies which took part in the programme said they would be willing to use the same researchers in future, if they themselves had to pay for the researchers work in full. The percentage went up to 55 on condition that the companies would receive the services of the researchers on the same financial terms as in the programme. However, 45 per cent of respondents said they would not be willing to use the same researchers in future even on those terms.

It has become an increasingly important goal in the TYKES programme to reinforce the national infrastructure for workplace development. The programme has a scientific forum of experts, and in this way it hopes to bring R&D institutes more closely into cooperation on developing the entire programme. The aim is to raise the total percentage of funding for universities, state research institutes and polytechnics out of the programme's expert funding for projects to a minimum of 45 per cent in the TYKES programme; this would mean a rise of 10 percentage points on the II period of the TYKE programme. Another aim linked with this is that projects supported by the programme, such as method development and learning network projects in particular, should support researcher training better than hitherto. It is an aim for the entire programme period that 70 doctoral theses or licentiates should emerge from the projects on the basis of their material. TYKES is endeavouring to reinforce the role of polytechnics, in particular, in workplace R&D operations and in the programme's projects.

Networking on the company and workplace level

The difficulties that earlier programmes experienced with disseminating the results and experiences of development projects afterwards were the main reason that the Swedish LOM programme and the Norwegian SBA programme began to emphasize the need to raise the number of workplaces that take part in programmes and encourage them to network amongst themselves. From the 1980s, a paradigmatic change began to take place in Scandinavian workplace development, as networks began to be considered primarily as tools for constructing new knowledge rather than just the means of disseminating information afterwards (Ennals & Gustavsen 1999; Gustavsen et al 2001). One of the reasons for the emergence of this new 'network paradigm' was the success of the Japanese quality movement in

creating a nationwide quality improvement network at this time (for more detail, see Cole 1989). This success was a stark contrast to the failure of the Scandinavian countries and certain other western industrial nations to promote the spread of new forms of work organization. Naschold (1994, 136-142) considered the attempts of the LOM and SBA programmes to be in the right direction, but that neither of them had advanced very far in creating networks.

In earlier articles in this work, we have already examined the means through which the Workplace Development Programme supported networking and development cooperation among workplaces. These means can be categorized on the basis of the level of their interactiveness in the following order, for instance:

- internal cooperation within projects between the different players (e.g. network projects in the TYKE programme and learning network projects in the TYKES programme)
- cooperation among projects (e.g. module seminars)
- interactive forums for debate (e.g. Learning Together forums)
- training sessions and seminars
- documentary material (e.g. publications and web-based information registers).

On the basis of self-assessments on development projects in the II period of the TYKE programme, about 40 per cent of the representatives of management and staff felt that contacts with other experts that they had obtained through the programme had been very or fairly significant for the implementation of their project. More than 25 per cent of them considered interaction with the other projects in the programme to be important for the implementation of their own project. The corresponding figures for programme period I were slightly better (Ramstad 2001, 66). According to the evaluation study of the TYKE programme, the programme had been more successful in stimulating mutual exchange of experiences between workplaces than in promoting development cooperation between workplaces and various expert organizations (cf. the previous section). About 40 per cent of respondents at workplaces felt that they now make better use of the experiences of other workplaces and that they themselves are now more prepared to share their own experiences with others as a consequence of being involved in the programme (Rissanen et al. 2002, 20). In any case, all the above results on the networking and development cooperation of projects and the workplaces that took part in them demonstrate that only less than half of the respondents consider the programme to have added value in this way.

The generative-level goals have been defined more clearly in the TYKES programme (see the first article). The programme aims to divide up the projects systematically into different modules, and strives to encourage mutual interaction and cooperation between the modules in every way. Method development and learning network projects, for instance, form their own modules. The modular division principle according to development theme, sector and region is also applied to the development projects. One of the targets of the TYKES programme is to improve the percentage of projects that feel that the contacts with other experts and interaction with other projects that they have gained through the programme are important for the implementation of their own project.

Workplace development objectives vs. resources

In evaluating the development strategies of the Scandinavian countries, Naschold (1993; 1994) drew attention to the discrepancy between the ambitious objectives of the programmes and their resources, especially their duration. The timespan of a programme first of all affects the timespan of the projects in it. Development work aimed at reforming modes of operation takes time, and as a consequence short-term programmes run the risk of their projects failing to achieve this, and of being forced instead to aim for fast and visible but also one-off, inadequately established and – at worst – purely cosmetic changes. If a programme has a short duration, this also makes it more difficult to disseminate the results and experiences from projects and to build cooperation networks. Furthermore, additional funding resources are always expended when a programme is being started or closed. This often leads to reduced cost-effectiveness for short-term programmes. Naschold considered the five-year LOM and SBA programmes to be examples of short-term programmes that were characterized by the aforementioned problems.

TYKE/TYKES has been in operation continuously since 1996, yet the breaks between programme periods (1999/2000 and 2003/2004) have hampered the systematic development of the programme and long-term planning of operations and project activity. In the I period of the TYKE programme, the aim was to complete all development projects before the end of the programme period, at which point it became necessary in some cases to introduce artificial breaks in some projects (Alasoini 2000, 59-64). In the II period of the TYKE programme, it was then possible to operate in a more flexible way, allowing projects more freedom in exceeding the end of the programme period. During the II programme period, the average duration of development projects grew considerably. This goes some way towards explaining the fact that self-assessments indicated that the success

of development projects in the II period of the TYKE programme was better on average than that in the I period (see Ramstad's article in this work).

It is an important improvement that the TYKES programme period is now six years instead of four, as before. This will improve the long-term perspective of programme-based workplace development in Finland and give project activity more room for manoeuvre. Now that the programme has been set to continue until the end of 2009, this also increases its overall duration to fourteen years, a long duration even by international comparison. The programme's financial and staff resources have also grown over the years. At least in this sense, the realism of the programme's objectives in relation to the available resources can be considered to have grown over the years.

In conclusion

This concluding article examined the ongoing change in production models and forms of work organization in the light of the literature and empirical research and of what they can tell us about the conditions for qualitatively sustainable productivity growth. The conclusion of the overview is that the workplace-level objective of the TYKES programme is in harmony with the key trends and challenges in the changes in workplace modes of operation. There has been surprisingly little empirical research on the link between HRM practices and the performance of companies or workplaces in Finland. On the whole, one shortcoming in the research has been that research has only rarely aimed at combining survey-based statistical generalization with a more 'interpretative' intensive case-study approach.

At the end of this article, the TYKE/TYKES programme was examined against the 'best practices' of workplace development strategies identified by Naschold. This examination produced many critical viewpoints, which partly overlapped with those that were included in the evaluation study of the TYKE programme. The following table shows a summary of the criteria used for examining the programme, the critical viewpoints which emerged and the ensuing development challenges for the TYKES programme.

Table 40. The TYKE/TYKES programme and its development challenges as examined against the 'best practices' of workplace development strategies.

The 'best practices' of workplace development strategies	Key observations	Development challenges
Strategic justification arises primarily from macro-level industrial policy issues rather than the industrial relations system or the R&D system	TYKE/TYKES emerges from the industrial relations system, but strives for legitimacy through innovation and economic policy arguments, too	To reinforce links with key industrial policy players nationally and regionally
On the programme and project level, the aim is to attain an international or global standard, rather than settling for a national or local standard	On the programme level (of TYKES, in particular) the aim is explicitly for a global standard. There is no clear aim set for the project level.	To step up reflexive benchmarking activity on both the programme and project level
In development operations, the aim is a type of indirect intervention that combines simultaneous design and process orientation and broad company- or workplace-level participation	Design and process orientation is in quite good balance on the programme level. In most projects, management is the source of the initiative and the main player. Variation occurs in the participation level of staff.	To mobilize staff for development activity becomes an increasingly important viewpoint in project-funding decisions
The development strategy is supported and guided by a strong national infrastructure which comprises a large number of experts	The view of the state of workplace R&D infrastructure has become clearer. Not much progress has been made in reinforcing the role of R&D institutes on the programme and project level.	To reinforce the role of the scientific forum of experts. Active support for the 'third task' of universities and polytechnics.
The players are networked on the micro level	One in three development projects is networked in some way	To intensify the internal and mutual cooperation of learning networks. Systematic division of all projects into modules.
The resources and duration of the programme-based operations are adequate in relation to the aims of the programme	The TYKE programme's breaks between programme periods were a problem for the systematic development of the programme and for the planning of operations and project activity	The longer duration and increased financial and staff resources of the new TYKES programme will help alleviate the problems in question

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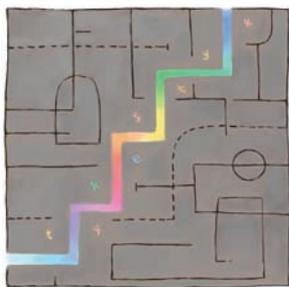
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Tuomo Alasoini
Elise Ramstad
Nuppu Rouhiainen

The Finnish Workplace Development Programme as an expanding activity

Results, challenges, opportunities

This work will explore the potential for applying a research-assisted and programme-based approach of workplace development in the light of the results and future challenges of the Finnish Workplace Development Programme TYKES (1996-2009). The purpose of this work is to boost awareness of workplace development as a way of promoting both the productivity of work and the quality of working life. The authors consider workplace development as an integral part of broad systemic innovation policy. The work contains nine articles.



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