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Building Better Programmes: Learning Networks in the Promotion of Workplace Innovation

Tuomo Alasoini

This paper starts by providing a generic conceptual framework to improve understanding of critical success factors for the social effectiveness of programmes that promote workplace innovation. Thereafter, the paper shows how this framework can be applied in making choices about the content of projects in the programmes. A distinction is made between user-oriented, method-based, and learning network types of project. The three types are examined and compared, in terms of their ability to provide four kinds of outcomes, programme learning and policy learning. The paper also shows how learning networks can be applied to overcome some of the problems involved in the two other types of project. In elaborating the argument, the author makes use of the experiences gained from the implementation of learning network projects in the Finnish Workplace Development Programme TYKES.

Key words: Development programme, learning network, reflexive benchmarking, work organization, workplace innovation

1. Introduction

The growth of knowledge-intensive work and the transition to an increasingly knowledge-based economy have increased the need for businesses to be innovative. Their search for continuous productivity improvements and new sources of competitive advantage has led to a growing interest among policy-

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makers, too, in creating favourable conditions for workplace change and innovation. This has, however, only seldom resulted in legislative intervention. What we see, instead, is a great variety of persuasive 'soft' forms of regulation (Forsyth et al. 2006; Sisson/Marginson 2001; Trubek/Trubek 2005), ranging from general policy frameworks and recommendations to the provision of education and information on 'best practices' and, further, to more direct forms of support such as advisory and consultancy services, benchmarking tools and grants and subsidies to companies.

Development programmes are a widely used 'soft' form of regulation to facilitate workplace innovation. A 'programme' is here understood to mean three things: first, that development is guided by a shared framework which applies to several work organizations at the same time; second, that the content of the framework has been agreed by management and the staff in the work organizations in question, together with the main stakeholder groups such as central government, the social partners and researchers/consultants and other experts; and third, that the work organizations involved engage in close exchange of information, interaction and cooperation (Alasoini et al. 2005b, 45-46). The concept of 'workplace innovation' is not limited here to the adoption of a ready-made set of 'high-performance' work practices. We expand the idea of workplace innovation to collaboratively adopted changes in a company's work, organizational or human resource management practices that lead to improved performance, and that also support other types of innovation. The last part of the description is based on the view that different types of innovation at the company level are usually interwoven with each other, containing significant complementarities (Bresnahan et al. 2002; Laursen/Foss 2003; Whittington et al. 1999). Typical objects in recent European workplace development programmes have included team-based organizational structures, flexible working methods, and business practices based on trust and participation (Brödner/Latniak 2003; Business Decisions Limited 2000).

Despite the increase in the number of workplace development programmes, and of evaluation studies conducted on them, there has been little debate about experiences concerning how to set up a programme. Crossnational learning in particular has been practically non-existent (cf. Alasoini

et al. 2005a; Naschold et al. 1993). The first purpose of this paper is to present a proposal for a generic framework, enabling a better understanding of factors critical for the social effectiveness of programmes, and thereby improvement of programme planning and implementation.

The second purpose of this paper is to show how the framework described can be applied in making choices about the content of projects in a programme. The framework is used for discussing three ideal types of project. The three types are called here as the user-oriented project, method-based project and learning network project.

The third purpose of this paper is to show how learning networks can be applied to overcome some of the problems involved in the two other types of project. We use the experiences of the learning network projects funded by the Finnish Workplace Development Programme TYKES (1996–2009) as an empirical example of the third type of project. So far, the TYKES programme has funded 1,400 projects of different kinds at Finnish workplaces. Although this paper is largely based on experiences gained in workplace development, the results may be assumed to be applicable in many other kinds of programmes too.

2. Framework for analysing the dynamics of development programmes

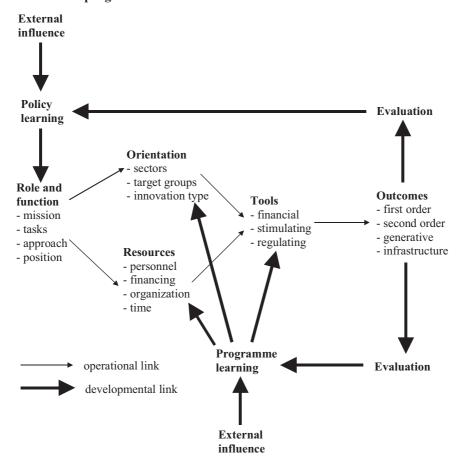
Figure 1 displays the framework which in this paper is presented as a tool for analysing the dynamics of development programmes. The elements of the framework are connected by two kinds of link, operational links and developmental links. According to the framework, every programme is simultaneously a production system and a development system (cf. Colbjørnsen/Falkum 1998). As a production system, a programme is called on to produce outcomes derived from the role and function of the programme; the framework analyses these at four different levels. As a development system,

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For a more thorough description of the TYKES programme, see Alasoini et al. (2005b) and Arnkil (2004).

on the other hand, a programme should produce programme learning and policy learning.

Figure 1: Framework for analysing the dynamics of development programmes



Every programme has a defined role and function, which is crystallized in the mission, main tasks, approach and the administrative and organizational position of the programme. These basic choices determine the orientation and resources of the programme. The orientation refers to the sectors, target groups and thematic aims of the development activities. Key resources

include the persons participating in the programme and their expertise, and the organization, the financial resources and the duration of the programme.

The tools to be used are chosen on the basis of the orientation and the resources available. Tools are typically of a financial nature (such as project funding), of a stimulating nature or of a regulatory nature. Various development projects often need to be supported by stimulating tools, which can involve raising awareness, distributing information, creating networks or enhancing expertise. Directly regulating tools, such as quality standards, have so far been relatively rare in workplace development programmes.

Programme outcomes can be analysed at the following four levels:

- First-order results from projects mean changes immediately caused by the projects in work organizations participating in the project. In workplace development, typical first-order results are improvements in labour productivity, customer service, work environment, job satisfaction, etc.
- Second-order results from projects demonstrate how durable the improvements attained are. However, second-order results are often difficult to attain through one-off changes achieved in a project. Typically, second-order results need to be supported by changes which promote the development capability and learning capacity of those work organizations participating in the project.
- Generative results show how results from projects supported through the programme benefit other parties besides those directly involved in the project. However, generative results do not necessarily, and in workplace development not even primarily, involve ready-made 'best practices' that can then be transposed from one context to another; rather, they involve the production and dissemination of interesting ideas which can become sources of inspiration or encouragement to actors outside the project.
- Fourthly, we may mention infrastructure results. These describe how programme measures can cause broader impacts in the development infrastructure as a whole. Typical infrastructure results include national, regional or sectoral enhancement of knowledge and know-how, and new kinds of multi-actor co-operation relationships found to be useful.

The above is a description of a programme as a production system. Another aspect is how a programme functions as a development system, the focus being on the learning impact generated by the programme. Evaluation of the programme outcomes is of critical importance as a feedback mechanism. Evaluation may take many forms, including not only separate external evaluation studies, but also evaluation as undertaken by actors themselves participating in the programme or its projects.

As Figure 1 shows, evaluation can at its best generate two types of learning. Programme learning refers to learning that occurs 'inside' the programme during its implementation, while policy learning 'transcends' the programme and extends to the role and function of the next-generation programme. The subjects of learning, as seen through the framework, are the implementers of the programmes and the policy-makers.

However, programmes cannot be considered as a closed system. This is why the framework includes external influences which also generate learning effects. Such external influences may include new types of social problem observed or new research findings outside the programme.

As Figure 1 shows, a programme is a dynamic system which in its ideal form produces positive 'outward' effects at four different levels, which is capable of renewing itself (programme learning), and which is capable of contributing to the improvement of programme activities in a broader context (policy learning). According to the logic of systems thinking, shortcomings of a programme to produce desired effects derive from faults in its individual elements or mutual incompatibilities between the elements. However, it is not the purpose of this paper to discuss all possible interactions between the elements and their problems systematically on the basis of the framework; instead, the intention is to show how the framework can be used in making choices about project content within programmes.

3. Three types of project

Project financing is a typical tool used in development programmes. The logic of the systems thinking embodied in the framework shows that choices of project content not only affect programme outcomes but also influence

learning processes based on the programme. The following is a discussion of three types of project, applications of which can be found in various programmes. Each type is assessed in particular on the basis of its ability to generate results at different levels, programme learning and policy learning. The focus is on learning network projects and their usefulness in addressing the problems inherent in the other two types.

In workplace development, a user-oriented project typically starts at the initiative of management of a work organization. The user specifies the goals of the project and how it is to be implemented, which must, however, at the same time support the goals of the programme and conform to its project financing criteria. Financing criteria are typically broadly defined, allowing for adjustment for user needs and the local context. The programme supports the project financially for instance by providing research, consultation or training, by paying personnel compensation or by providing investment financing.

Characteristic of a method-based project is that the project consists of the application in a specific context of pre-determined development methods provided by the programme. Such methods may be standardized, or the project may involve further development of an existing method or the testing of a completely new method. What is essential is that project financing is restricted to those actors: work organizations, consultants and researchers, who are committed to the usage of specific methods. In some cases, the programme may have an auditing procedure which restricts the use of the method to experts approved within the programme.

A learning network project differs from both of the above, in that it is not as firmly committed to specific, pre-determined goals or methods. Instead, the project is based on the idea of bringing together actors who share an interest in sufficiently similar development issues, but have a wide enough diversity of expertise, and engaging them in long-term interaction with the aim of creating potential for innovation. As its name states, a *learning* network is a network created specifically for learning. Here, learning is not simply a 'by-product' of the sharing of experiences, which happens in all networks; instead, it is the explicit and primary function of the network to produce learning events (Bessant/Tsekouras 2001; Knight 2002). The actual

learning can occur *in* the network, *as* the network, and *beyond* the boundaries of the network. Besides interaction, the generation of learning events requires the use of methods and tools that help create shared objects for discussion and action between the members of the network.

4. Outcomes of the three types of project

4.1 User-oriented projects

The types of project differ clearly in how they produce results at different levels. User-oriented projects are usually well equipped to produce significant first-order results. They can involve considerable target-specific customisation, and participants usually have access to exceptionally good financial and expert resources. The participating work organizations are usually also highly committed to implementing the project, because, being part of a broader programme, the project is subject to the scrutiny of other work organizations and interest groups (Alasoini 2006).

What is important to understand in development programmes is that the first-order results in user-oriented projects may have emerged under exceptionally favourable circumstances, and that it could be misleading to draw far-reaching conclusions concerning the functionality of any solution employed in the project. Attaining second-order results, as noted above, also requires changes in the development competence and learning capacity of those participating in the project. The distinction between production and development systems can be applied at the work organization level too. The primary goal of the production system is to produce products for customers under controlled conditions and as efficiently as possible. The question of how permanent first-order results are cannot be answered from within the production system alone in a work organization; the development system must also be strengthened. The temporary development organization which exists for the duration of the project should enable the creation of a more permanent development structure for the institutionalisation phase of new solutions which follows the project. Thus, user-oriented projects should from the outset adopt a conscious strategy, where both the production and development systems are addressed simultaneously in the organization.

The weakness of user-oriented projects is in their poor ability to produce generative results, as found in several workplace development programmes (Fricke 1994; Gustavsen et al. 2001; Naschold et al. 1993). The production of generative results can be examined as a three-stage process (creation – transfer – reception). First, solutions which prove to be useful are created in a project in a local context. These might be described as local innovations. Then these, or some elements of these, are transferred into another context, for instance through consultation, training, seminars, publications or databanks. Thirdly, they are adopted in a new context.

Drawing on the list of factors that have an impact on the diffusion of innovations according to Rogers (1995), we may propose that the simpler the solutions involved, and the more similar the two contexts in terms of operating practices and social norms, the better such a model works. In programmes applying user-oriented projects, it is often the case that neither of these requirements is fulfilled. Firstly, as noted above, these projects tend to be highly location-specific, and therefore the solutions created are highly customised, containing a lot of tacit and 'sticky' knowledge. Secondly, because these projects emerge from the specific needs of users, the group of work organizations launching the project is probably highly heterogeneous.

User-oriented projects do not in and of themselves create a favourable foundation for infrastructure results either. In programmes based on user-oriented projects, sufficient resources must be reserved for stimulating tools needed to strengthen knowledge and know-how and for creating cooperation relationships.

4.2 Method-based projects

The ability of method-based projects to produce results at various levels depends on how standardized the methods used are. But in any case, the method-based approach in all its manifestations limits the potential for customising the project. The narrower scope for customisation may in some cases undermine the commitment of work organizations to the project. On the other hand, the expertise of the researchers or consultants working in such projects is usually solid, and they are adept at using the method in question.

However, because of the customisation and commitment perspectives, we may propose that it is on average more difficult to achieve the same level of first-order and second-order results with a method-based project than with a user-oriented project.

For generative results, however, the opposite is true. Applying similar methods in different projects provides opportunities for benchmarking. This is particularly true when the methods are relatively standardized. Applying similar methods generates shared objects for discussion across projects and thereby inter-organizational learning processes. A crucial question is how relevant the learning events, created by applying the methods used in the programme, are for the work organizations involved. This is largely dependent on the nature of the method, such as how extensively, and how deeply into the culture of the organization, the development processes required by the method may reach. The more extensive and far-reaching the changes are, the more difficult it is to produce generative results.

Method-based projects may also be considered better at producing infrastructure results than user-oriented projects. They either create new methods, improve existing methods, or at the very least contribute to expertise in applying existing methods. In programmes using method-based projects, the infrastructure results are largely built into the projects, whereas in programmes using user-oriented projects, the producing of infrastructure results require the use of separate stimulating tools.

4.3 Learning network projects

The learning network project type is more demanding than the other two, and is based on a different kind of change process theory. The change process theory underlying user-oriented and method-based projects could be described, following the classification of van de Ven and Poole (1995), as teleological. In such change, goal-driven action to correct a state of affairs deemed unsatisfactory is launched by a purposeful entity. The change has one single subject. How this manifests itself in workplace development is that the management and personnel of the work organization implementing the change, and the researchers and consultants supporting it, all commit to the

project implementation plan together. The single subject emerges as the collective expression of the willingness of these parties. In learning network projects, by contrast, there are several change subjects, each with its own development agenda, bringing its experiences for collective processing. The purpose of collective processing is to produce critical assessments, that can in turn generate new ideas or lead to redefinitions in ongoing development work. The change process theory underlying learning network projects could be described as dialectic.

For a programme to use learning network projects, it must have an advanced development concept, probably based on earlier programme history and policy learning thereby generated, plus sufficient resources. The latter applies to time resources in particular, since building up networks, and achieving the confidential interaction relationships required for networks to function, is usually time-consuming. The three principal properties of learning network projects are: there are several actors with their own development agendas committed to project implementation; there is planned interaction between the actors in the course of the project; and this interaction generates actions of learning. The actors must be able to identify shared development themes. The learning subjects may be individuals, groups, organizations or other communities, intra-network consortia, the network as a whole or, in some cases, actors outside the network.

In learning network projects, programme financing is primarily allocated to promoting interaction between parties, rather than to supporting microlevel projects run by individual work organizations. The core process in learning network projects is bringing the experiences gained in micro-level development work by the various actors to common discussions in a variety of forums, resulting in the generation of new development measures. Such measures typically fall into three categories. Firstly, common discussion can generate new ideas for the actor who has presented his experiences, and help or otherwise encourage that actor in his own development work. Secondly, other actors in the project may gain new ideas or encouragement for their own development. Thirdly, common discussion can lay the groundwork for new joint projects by several of the actors involved. Although, in learning network projects, programme financing is primarily allocated to promoting

interaction processes, part of the input of the contributing experts can be reserved for supporting individual development projects.

Learning network projects lack many of the elements which in user-oriented projects are vital for the achieving of significant first-order results. On the other hand, the former have an advantage over the latter, in that participants in learning networks can obtain feedback on their development or other supportive expertise more easily and more comprehensively. However, we may assume that on average it is more difficult for learning network projects to achieve the same first-order results than it is for user-oriented projects.

We should remember that the good results achieved in user-oriented projects are products of an environment which is in many ways artificial. This may lead to an unrealistic perception of the permanence of the results produced, as noted above. In learning network projects, this risk is lower, because the very logic of the project type itself allows the actors to improve their own development competence, and to strengthen their own development systems, by participating in discussions of the experiences of other actors.

The producing of generative results is an in-built objective in learning network projects. Such projects can function within the context of a programme, not just as a forum for the exchange of information between participants, but also as an intermediate-level structure which can facilitate a broader exchange of information within programmes. As the number of learning networks in any programme is limited due to their resource-intensive nature, it is easy to bring them together and thereby create opportunities for the exchange of information between projects.

Regarding infrastructure results, what was noted above concerning method-based projects largely also applies to learning network projects. Learning network projects are a more favourable platform than user-oriented projects, both for the evolving of new methods and the related accumulation of new competence, and for the creation of new kinds of co-operation relationships. In terms of the latter in particular, learning network projects have an edge over method-based projects.

4.4 Summary of the outcomes

Table 1 summarizes the differences between project types in their potential for producing results at different levels. These are ideal types, which may appear in endless variations in different programmes. The table should not be construed as claiming that it is impossible to achieve significant infrastructure results in programmes relying on, say, user-oriented projects. The table simply notes the strengths and weaknesses inherent in each project type, without commenting on what other kinds of programme tool might be used to compensate for these weaknesses.

Table 1: The three types of project and their capacity for producing different kinds of outcome

	User-oriented project	Method-based project	Learning network project
First-order results	good potential	fair potential	some/fair potential
Second-order results	fair/good potential	some/fair potential	some/fair potential
Generative results	some potential	fair potential	fair/good potential
Infrastructure results	some potential	fair potential	fair/good potential

User-oriented projects are clear in their profile, in the sense that their most obvious strength is in the production of first-order results. Their ability to produce second-order results depends on how realistic a view the programme takes, concerning how artificial the context producing the first-order results is, and to what extent the project has addressed the question of strengthening the development system of the work organization. However, user-oriented projects are clearly at a disadvantage in producing generative and infrastructure results.

Method-based projects have a more even results profile. While they are not as effective in producing first-order and second-order results as user-oriented projects, they provide a more favourable environment for the production of generative and infrastructure results.

In learning network projects, the programme financing is allocated primarily to promoting interaction between the participants, rather than to supporting micro-level change processes run by individual actors. For this reason, these projects are usually not as good at producing first-order results as the other two types of project. Because learning network projects are more explicitly about improving development competence of the participating actors than the first two types, their risk of leaving a gulf between first-order and second-order results is not as high. Many learning network projects may in fact focus more on improving participants' development systems than on improving the actual production systems. The strength of learning network projects compared with the other two project types is in their ability to produce generative and infrastructure results.

5. Learning mechanisms of the three types of project

As Figure 1 shows, the ability of development programmes to produce programme and policy learning depends not only on the outcomes created through projects and other tools but also on the evaluation of outcomes and various external factors. The following is a discussion focusing solely on how the learning mechanisms of the different types of project can be expected to differ from one another. The learning subjects in this discussion are the parties implementing the programme and policy-makers.

User-oriented projects are at their strongest in producing first-order and second-order results. In workplace development, user-oriented projects generate information on new designs for production systems or development systems that have proved useful. The use of such information as a mechanism for programme and policy learning involves three critical points. Firstly, such information is typically spread out over individual, often very heterogeneous and small projects, and needs to be compiled. Secondly, as noted above, good results in user-oriented projects are often achieved in an environment which is in many ways artificial. How is it realistic to assume that other work organizations can later achieve similar success in adopting and applying practices developed in projects, given that they would not have the same kind of support? Thirdly, the results of user-oriented projects tend to be context-

specific. How is the success of a project due to the special features of its context, and how much customisation do the solutions require in order to be useful in some other context?

In method-based projects, the critical learning-mechanism issues are very different. Method-based projects are based on a more normative approach, and their thematic range is typically narrower. This makes it simpler to compile experiences from projects, and enables the accumulation of profound new information in selected thematic areas. The essential question for programme learning and longer-term policy learning is how relevant these thematic areas are, and how we can know or ensure their relevance.

Learning network projects represent a sort of middle ground between user-oriented and method-based projects, in terms of how normative the underlying approach is. They require a greater concentration of programme resources on specific chosen themes than in the case of user-oriented projects, but on the other hand there is more room for experiments within projects than in the case of method-based projects. One challenge faced by programmes using learning network projects is to ensure that the development undertaken remains within the overall guidelines of the programme. Compared with the other two types of project, learning network projects can produce learning events more quickly. This is due to the fact that learning networks produce critical evaluations on development work of the participating actors at a rapid rate, and in the best case right from the start of the project. In the other types of project, particularly user-oriented projects, such information is usually not produced until towards the end of the project.

Another area in which learning network projects can be assumed to have an advantage is the achievement of radical changes in policies by redefining or re-contextualising the agenda for development. In user-oriented projects, this is particularly difficult, because the results produced are disparate, the new information they contain is difficult to accumulate, and there is a risk of the accumulated information being communicated to policy-makers with a long enough delay for the information to have already become partly irrelevant. In method-based projects, by comparison, it may be difficult to depart from the normative approach employed, which often has a strong affinity with existing policies. Learning network projects are better placed to avoid

both of these problems. Learning networks are governed by dialectic process theory, which incorporates an aim towards posing new kinds of question that may even extend to questioning the object of the existing development work itself. Redefining the object requires the learning network project to actually be able to transcend traditional organizational boundaries, to combine different kinds of expertise, and to nurture new kinds of co-operation between different actors.

6. Processes in learning network projects

The discussion above suggests that learning network projects can help find solutions to certain problems inherent in the other two types of project. However, whether learning network projects can succeed in this depends crucially on how well the core process of the projects function, i.e. what kind of interactive forums the projects manage to create to support the development work and learning of their participants. The purpose of development programmes and projects is to create new knowledge. Learning network projects aim at producing actions of learning which might be described using the metaphor of knowledge creation (Hakkarainen et al. 2004). Creating new knowledge in interactive forums requires that projects utilize procedures and tools which the participants can use to identify shared objects for discussion and action. The following is a more detailed discussion of factors critical for the core process of learning network projects, and for other processes supporting it.

One of the assumptions in a learning network is that its participants have complementary expertise, so that everyone in the network can be, in a given situation, in the role of a learner. If this is not the case, then it is misleading even to describe the set-up as a learning network. A learning network is not just about transferring information from one actor to another, but also about

The two other metaphors of learning, as distinguished by Hakkarainen et al. (2004), are 'knowledge acquisition', in which the main focus is on transmitting knowledge to an individual learner, and 'participation', which conceptualises learning as an interactive process of participating in various (existing) cultural practices and shared learning activities.

creating new knowledge, as noted above. Learning opportunities are an important motivation for members of the network to participate in the first place.

Three principal variations of the core process of learning network projects can be identified, according to what kind of expertise the participants bring to open forum. Firstly, one member of the network may have more extensive expertise in a given area than the other members. In such cases, the other actors benefit the most from discussions in open forum, as they can gain ideas and encouragement for their own development work in that area. Secondly, several members of the network may already have experiences in a particular area. This enables benchmarking, and thereby serves as a learning opportunity for those participants presenting their experiences. Thirdly, a learning network may discuss matters which are relatively new for all participants. In such cases, the network may, for instance, launch development projects run by several actors to acquire greater expertise in the area in question, to share their experiences and to identify new, useful local applications.

In workplace development, the high context-dependence and system-dependence of the practices and solutions are the main limiting factors for benchmarking proper, where several actors compare their practices to a specified 'best practice'. Context-dependence means that the characteristics of the environment of a work organization determine how applicable any given practices may be in that organization. System-dependence, on the other hand, means that other practices adopted earlier in a work organization affect the applicability of any new practices in that organization.

In workplace development, learning is usually based not on 'best practices', but on the fact that different actors have different experiences. However, learning from differences and diversity requires that the representatives of these organizations are capable of identifying functional correspondences between their respective organizations, where sensible comparisons can be made. The organization being compared is not regarded as a standard but rather as a mirror which reflects similarities and differences and helps place the practices of one's own organization in a broader context. Lundvall and Tomlinson (2002) have described this kind of activity as 'intelligent bench-

marking', as opposed to the 'mechanical' benchmarking proper. The terminology they use is based on the notion in evolutionary economics that learning and innovation stem from diversity, and that therefore the mechanical use of specific 'best practices' as a guideline for development can, in the long term, narrow rather than broaden the opportunities for learning and innovative thinking. Schienstock (2004) describes this kind of situation with the term 'reflexive benchmarking'. What is important in reflexive benchmarking is the use and evolution of dialogical methods, rather than the construction of detailed sets of indicators and strict measurement systems.

Example: Reflexive benchmarking (Alasoini et al. 2005a)

Reflexive benchmarking begins with the network participants choosing a focus theme and analysing it into sub-themes, using models or other conceptual tools as necessary. The researchers and consultants working in the project then collect information from participants on the solutions and experiences of their respective organizations related to the theme. This information is compiled into a first-order databank, which enables the comparison of solutions and experiences by sub-theme.

The participants meet in open forum, where each sub-theme is discussed in an agreed manner and in an agreed order. Each sub-theme is introduced with a review of the solutions and experiences of one of the participants. The choice of participant for each presentation depends on whose solutions and experiences could best function as a mirror for the other participants. It is usually more productive to use a SWOT analysis and dialogical methods than a lecture-type approach. When dialogue seems to be exhausted, a second and even a third mirror can be introduced to continue discussion of the sub-theme. Each sub-theme is discussed in this manner. The researchers and consultants working in the project guide the discussion and take notes. At the end of the forum, the notes are compiled into a summary for the participants, and participants are polled for their views on the summaries and on how well the method works and how successful the meeting has been.

After the forum, the experts prepare a more comprehensive summary on the basis of their notes and compile a second-order databank, which includes any complementary information that may have emerged in the forum. The results from one round of benchmarking help plan and implement the next round. The databank for each sub-theme can be added to later, for instance by compiling information on solutions and experiences that have emerged among the participants as a result of the development measures launched after the benchmarking round.

The choice between mechanical and reflexive benchmarking in learning networks is ultimately a matter of expediency. In cases where a member of the network has demonstrably successful experiences of certain practices which are not highly context-dependent or system-dependent, mechanical benchmarking can, in fact, be an effective learning tool in a network.

Learning networks can have very different types of interactive forum, such as management group meetings, expert group meetings, workshops, seminars, training sessions, project visits and online forums. Their impact may also vary greatly, depending on the network.

How interactive forums are set up and how they succeed in promoting learning among the members of the network requires sufficient preparation on the one hand and sufficient aftercare for development processes launched on the basis of forum discussions on the other. In this paper, these are called as support processes of learning network projects.

There are several critical issues related to preparation. One of these is the composition of the network, which determines what kinds of mirrors for exchange of experiences can be formed within the network. Relevant factors include the size of the network, its structure, and the similarity or diversity of the expertise of its members. Similarity of expertise may narrow the knowledge domain of the network, whereas diversity may prevent participants from understanding each other's situation, aims, language, concepts and values (Foss et al. 2002; Nahapiet/Ghoshal 1998; Tell 2001). The latter is probably an easier problem to overcome through network activities than the former. Another critical issue is what motives and expectations the participants have for acting in the network, and how much these differ between participants. Because learning networks are a new type of project, and in some sense a seemingly complicated one, it may be more difficult to draw up cost-benefit assessments of participation in a project than in the more traditional types of project. The most important expected benefit for participants in interactive forums is not so much finding ready-made solutions for problems defined by the participant himself as redefining the problems themselves and putting them in a wider context (Tell 2001). A third critical issue is what kind of interaction the participants have had previously, and what relationships of trust (or mistrust) already exist between them. Previous interaction and trust between participants may make it considerably easier to prepare and launch interactive forums.

When successful, interactive forums result in development measures undertaken by individual participants or jointly by several participants. How successful these processes are often depends on supportive measures provided by the network. In workplace development, a critical issue is which people from work organizations actually participate in the network forums. As noted above, learning can happen at many levels in a network. Generally, we may say that participation in a learning network promotes learning at the individual level more readily than at the team level, let alone the level of the organization as a whole. Significant factors that can be seen as influencing how, and at what levels, learning happens include what kinds of people participate in the network, and what their position is in the organization, how robustly the management supports them, and how well the network is integrated into the organization's own development system.

7. Learning network projects in the TYKES programme

The Finnish Workplace Development Programme TYKES was started in 1996 as part of the programme of Finnish government. Initially, the programme was set for four years, but the new government which took office in 1999 made a decision to continue it for another four years. In 2003, a new decision by the government was made to launch a third programme phase with increased resources for another six years. The programme supports practically oriented development projects, which promote simultaneous improvements in productivity and the quality of working life in private and public work organizations, disseminate information of workplace development and reinforce expertise on workplace development.

Learning networks represent a new form of project activity that was introduced in 2004 in the TYKES programme. These projects were inspired by the

results of the programme evaluation study. In this study that was carried in 2002–2003 (Arnkil 2004), the evaluators noted that individual (mainly user-oriented) projects had on average been fairly successful, generating 'local innovations', but that an individual work organization is typically too small a unit for achieving widespread impact in working life. The major findings included the following: firstly, projects aimed at creating forums for producing generative ideas must have critical mass and a sufficiently long duration. Secondly, interaction and learning within and between projects must be provided with sufficient resources from the beginning. Thirdly, research should be more closely linked to development efforts in the work organization in order to reinforce generative results.

The learning networks in the programme are joint learning forums of R&D units and work organizations.³ A number of researchers with a common object for development are taking part in the learning networks, together with a number of work organizations, the development of whose operations is supported by co-operation with them. The networks may include other participants as well, for example consultancies and development agencies, labour market organizations or regional actors. The common development object uniting the participants may be only loosely defined at the outset of the project. The purpose of the learning networks is to increase the developmental expertise of the participants, to create and experiment with new forms of development co-operation, and to generate new, innovative solutions for Finnish working life. In the forefront are networks that aim at the creation of new knowledge and expertise related to workplace innovation; that aim at learning at several different levels; that consist of a large number of expert organizations and work organizations of many different kinds; and that show obvious potential for development in terms of the network's structure and modes of operation, the benefits sought by its active participants, and its

During the third programme phase (2004–2009), TYKES funds, in addition to learning networks projects, smaller (user-oriented) workplace development projects and projects which have method development on their focus. Workplace development projects still account for a clear majority of all funded projects. Their most typical aims include the improvement of work organization, work processes and human resource management.

potential for expansion. Functions to be supported include setting up and coordinating the network, exchange of information in the network, small-scale development projects, international cooperation, improvement of development methods, and research, publications and post-graduate studies (Alasoini 2006).

So far, TYKES has granted funding to 17 learning networks. The project duration varies from three to six years. The initiative for such a project typically comes from a university or research institute. The networks can be roughly divided into six with a primarily regional focus, and seven with a primarily thematic focus, the remaining four having a specific development method as their focus. Naturally, there must be shared themes in all networks. Examples of such themes include the following:

- Improvement of reward systems in four sectoral sub-networks with a view to developing applications, which help provide improvements in productivity and well-being at work.
- Development of interactive strategy processes and related strategy practices by sharing information and working out jointly new solutions at 'diagnosing' workshops.
- Use of the change laboratory method in the development of new operating concepts for the use of personnel management, teaching at polytechnics and occupational health care.
- Improvement of expertise and exchange of experiences related to environmental and safety management in two regional (Karkkila and Lohja) sub-networks.
- Development of Eastern Uusimaa as a 'learning region' by strengthening its self-identity and enhancing the capacity for joint development of SMEs in the tourism industry.
- Development of customised tools based on problem-based learning as integrated development concepts that combine knowledge on workplace development and adult education for the use of companies.

- Promotion of exchange of information and mutual learning in the area of employee well-being and work environment management in the North-Ostrobothnia Region.
- Development of learning environment based on the concept of open source innovation for the improvement of joint development capacity in the knowledge cluster of intelligent machines and machine systems.

It is difficult to estimate the number of organizations participating in the networks, because the networks are open structures with some fluctuation in membership. How active the participants are in contributing to the network also varies. At the moment, more than 200 work organizations from different sectors and more than 100 researchers or other experts are actively involved. In the majority of the networks, there is co-operation between researchers and consultants, and between work organizations of different sectors.

The learning networks are meeting forums for work organizations and R&D units, 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 participants in the network and outside the network. Also networking between the projects is promoted in the programme through seminars, workshops and joint publications.

8. Learning network projects – what's new?

Learning network projects undertaken in the TYKES programme are intended as a new, experimental type of project. The following is a discussion first of the specific new features in knowledge creation which learning network projects have to offer when used as a tool in workplace development,

and then of certain preliminary project experiences that are based on articles and reports by the projects and presentations at cross-project workshops.

First of all, learning networks at their best function as 'open source innovation' based forums for joint development. Open source innovation is often a more fruitful approach in workplace development than it is in R&D aiming at producing new product or process technologies. In workplace development, work organizations usually have a much lower threshold to discuss their own solutions in open forum, as these typically feature a lot of tacit or 'sticky' knowledge that would be difficult for their competitors to use directly. Indeed, issues in workplace development rarely come within the sphere of business secrets for the work organization concerned.

Secondly, learning networks help create new kinds of co-operation which typically never emerge on market terms or even in the more traditional user-oriented projects. This is true of both work organizations and R&D units. There may also be better potential for creating new kinds of co-operation in workplace development than in R&D concerned with new technologies. Many of the thematic objects of workplace development are not particularly sector-specific; very different work organizations may turn out to be interested in very similar issues, such as teamwork, work environment or performance-based pay.

Thirdly, learning networks create new kinds of potential for mixing up the traditional roles of actors in development work. For example, employees in work organizations or other practitioners who participate in a network can join the researchers as 'co-researchers' in analysing the problems of other work organizations or in the joint development of methods on the basis of their own local knowledge at interactive developmental workshops or virtual platforms of different kind. The interactive forums are not meant to be one-off events, but links in a longer chain of joint development processes, which may use a variety of other means as well. Adopting new roles comes close to a form of knowledge generation which has been described as interactive research (Aagaard Nielsen/Svensson 2006). What is essential in interactive research is not only that it is practically oriented, but that both the researchers and the practitioners are committed to the shared learning and knowledge generation process from the very beginning of the project. Shared learning

serves the interests of the researchers in producing generalized knowledge in the form of publications, and those of the practitioners in gaining a deeper and more sustainable insight resulting from the critical analysis inherent in the joint learning process.

Experiences from the learning network projects in the TYKES programme demonstrate that this experimental project type is prone to new kinds of problem compared with the traditional types of project. Interactive forums require a lot of advance planning on the part of the network coordinators. The reports and presentations produced by the project co-ordinators and other participants show that in some cases it has been difficult to get work organizations to commit to the interactive forums. The idea of an approach based on dialectic process theory, inherent in the learning networks and in which the generating force is dialogue between actors with different development agendas, may have been hard to grasp for many of those used to the more traditional, goal-driven teleological approach. At the same time, the concept of the learning network per se may have remained unclear, particularly to some of the representatives of work organizations in the larger networks or, more generally, to work organizations which have the loosest connections to networks. In some cases, this may simply have been a question of insufficient competence for working with such an approach, and accordingly in some projects it was found that more of the traditional consultation, coaching and training measures had to be used than had been originally planned, alongside the interactive forums. It has also been discovered in some learning network projects that some work organizations were fundamentally only interested in the cooperation insofar as it would produce quick-fix solutions that would benefit themselves (i.e. first-order results), rather than committing to a longer-term learning process (i.e. producing second-order results), let alone sharing their own experiences with others in turn (i.e. producing generative results). The project stories revealed how certain SMEs and ICT companies operating in rapidly changing environments in particular found it difficult to commit to learning networks, because of other interests competing for the time resources of their managers or other key employees.

As noted above, learning network projects as implemented in the TYKES programme are not governed by a precise, pre-determined implementation

plan, as is the case in the traditional project logic based on a rational planning ideology. This is not to say, however, that learning network projects do not need at least as thorough a pre-planning stage as other projects. Indeed, it is justifiable to consider, when a learning network project is still at the planning stage, what mechanisms and resources are likely to be needed for the project for the purpose of implementing eventual re-evaluations, and any measures which may be needed to help, for example, maintain the relevance of the subjects under examination, ensure the commitment by the participants, or find new shared objects for development within the network.

9. Concluding remarks

Learning network projects can be most favourably pursued in a relatively stable policy environment, enabling long-term accumulation of knowledge and expertise in a specific area of R&D. It is also helpful for learning network projects if it is possible or feasible to use an 'open source' type of joint development or interactive research approach in the relevant field, or to take an unprejudiced approach to creating a plurality of co-operation relationships. Although programme learning and policy learning are difficult to transpose 'as is' from one context to another, there is still a need for livelier crossnational and cross-sectoral debate on how to build better programmes, i.e. programmes with increased social effectiveness. As work organizations can trade inspiring and encouraging generative ideas within programmes, development programmes in different national and policy contexts should be able to trade similar experiences. This sort of debate will probably become increasingly important in the future as programme-based 'soft' regulation is gaining ground in Europe under the auspices of the Open Method of Coordination, an approach used in the construction of Social Europe to employ non-binding objectives and guidelines to bring about change in European social and employment policy (Trubek/Trubek 2005; Zeitlin/Pochet 2005).

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