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A knowledge-building community for public sector professionals

Nurturing expert knowledge and expertise is pivotal to societies that have set the objective of developing themselves as knowledge or learning societies. As the increasing need for knowledge as a success factor of organisations and societies has been recognized, so has the understanding of expertise become more varied. Parallel to the development in which knowledge production has become more dispersed (Gibbons et al. 1994), the definitions of expertise and expert positions have become broader in scope. The understanding of expertise through strictly defined professional groups and expert knowledge as the individual possession of knowledge by those who belong to the professional group has become limited as examined against the knowledge needs of societies. Instead the understanding of expert knowledge as shared (Resnick et al. 1993), distributed (Kafai & Resnick 1996, Salomon 1993) and contextualised (Eteläpelto & Tynjälä 1999) has gained ground. The notion of distributed expertise has helped to focus more analytically on the demands to transgress the boundaries between specialised knowledge domains. At the same time it has brought to the fore the requirement that experts must extend their knowledge beyond their specialised fields and build links to other expertise fields (Nowotny 2003, 155), and consequently, the necessity to build spaces for interaction which make information exchange and knowledge generation possible (cf. Castells 1996, 410-418).

The empirical case description in this article focuses on developing expert knowledge in a situation in which both knowledge needs and the definition of expertise fields changed radically within a social crisis. The experts involved faced the change process as a situation in which it is necessary to make sense of what is going on, to clear their own position as professionals and to negotiate in their own organisations for themselves a new legitimate position as experts with some old and some new tasks.

The article examines an educational process against the idea of a knowledge-building community as defined by Bereiter and Scardamalia (1993). Bereiter and Scardamalia have introduced the concept of a "knowledge-building community" in a context in which they deal with a process of expertise. Bereiter and Scardamalia use as examples of knowledge-building communities successful research teams and industrial firms in high-technology fields. Distinctive for both types of communities is their striving for continually advancing the community's collective knowledge and skill.

The group focused on in this article is a group of professionals employed in Finnish public administration in management, training and other expert tasks. They participated in an educational programme that was offered to people interested in the problems involved in developing the public sector. Since the change processes and challenges were cutting across different fields and levels of the public sector, the group was selected to represent different kinds of organisations both in central administration and local government and different kinds of expertise fields. Thus, a shared condition for the group were the changes which affected the public sector as a whole. Otherwise the situations of the experts differed by organisation, organisational position and knowledge domain. The article proceeds with excerpts from the group's discussions during a one and a half-years period. The aim is to highlight the pattern and flow of a progressive discourse.

The term "progressive discourse" is used here according to Bereiter and Scardamalia's (204-209) usage as a type of discussion that results in the advancement of knowledge. As they say, its goal is not consensus but a provisional synthesis that those involved will recognise as an advancement over what they understood before. The special quality of progressiveness is that it has no ceiling. For Bereiter and Scardamalia the progressive discourse is the key medium through which a knowledge-building community is created and maintained. Through knowledge building discourse those who participate in it, participate according to Bereiter and Scardamalia's definition in the process of expertise.

Alongside Bereiter and Scardamalia's idea, Boland and Tenkasi's (1995) notion of perspective taking and perspective making is utilised. This notion highlights useful

aspects with which to differentiate the discussion further. They mean by perspective making a process whereby a community of knowing develops and strengthens its own knowledge domain and practices (p. 356) and by perspective taking the taking of others into account, in light of a reflexive knowledge of one's own perspective (p. 362). These analytical aspects are useful in the research setting in which the target group is characterised by the transcending of organisational boundaries and expertise fields.

The article starts with a short description of the development pressures and challenges of the public sector in order to give the necessary background information for the knowledge building and sensemaking task that the group faced during the educational programme.

The context

The beginning of the educational programme took place in the middle of radical socioeconomic changes, which were to affect very basically the role of the public services. The modernisation of the public sector had started in the 1980s in most Western countries, also in Finland, and is still continuing. The discussion has revolved around intersecting debates: a discussion about the crisis of the welfare state and a more administratively focused discussion on public management. While a number of Western governments announced in the 1980s that they were finding it difficult to meet their welfare-state commitments, in Finland welfare services were still being augmented in the 1980s. It was only in the early 1990s, in the midst of a dramatic turn toward the economic depression that the soundness of the financial foundations of the welfare state was seriously questioned in Finland, and the crisis discussion appeared on the political agenda. But, in spite of the economic difficulties, the moral foundations of the welfare state were not questioned among the broader public (Julkunen 1992, 2001) and, in retrospect, the commitment to integrate technological and economic success with social equity came to characterise the Finnish model of the information society (Castells & Himanen 2001).

As compared to the discussion on the foundations of the welfare state, the parallel discussion on the structures and structural reforms of the public sector has been ideologically less charged. The discussion has covered a wide range of issues, starting from the decentralisation of tasks and market and client orientation to questions of management. Most clearly the demands for better administration have found their concrete manifestation in the principles of management by results, with different variations in different countries (Naschold 1995).

At the start of the educational programme it was becoming clear that administrative decentralisation and results steering would affect in fundamental ways expertise fields and the positions of experts. A central instrument of results steering is defined result areas. Achieving result objectives linked to the result areas is the driving force in the whole administrative chain from the central to the local administration. The language derived from the framework of results steering was becoming the language of goal setting and evaluation. The staff in the public sector was in a situation that Czarniawska (1995) has called a crisis of legitimacy: the rules had changed but nobody was certain about the content of the new rules and people had to give new kinds of accounts of what they were doing.

The educational programme and the participants

The educational programme relates to an action research project (Heiskanen 1993, Kirjonen et al. 1996, Filander 2000) generated by a research group of University researchers. The educational programme itself took place during a time span of one and a half years but the action research process with encounters between the participants and the researchers continued in different forms through the 1990s.

The further education programme was offered to people who were employed in the Finnish public administration in management, planning, training or other expert tasks and who were interested in development challenges of the public sector. Finally, 28 people employed in different management and expert positions were selected for the programme. The participants served in central administration, district and regional

administration, various departments of the local government, separate expert organisations and institutions of higher learning.

The programme contained seven contact periods and five meetings between the contact periods, assignments and the completion of a project work. The data of the programme consist of in-depth interviews, tape-recorded discussions in the organised group situations, reflection papers made by the participants, written reports prepared by the participants of the progress of their projects, reflections by the educators and tutors, and documentary material of the participating organisations. The educators brought back for discussion the ideas and criticism found in the reflection papers and other writings by the participants. The material was also used in planning the next steps of the programme. In the selection of the participants the importance of an ongoing development project was stressed. The project that each participant brought to the programme was an integrating element between the participant's own organisation and the other study methods applied in the programme. This article follows discussions of one theme group. The main sources of data are the taperecorded discussions of the group, whereas the interviews of and the written reports and reflections by the participants have functioned as background material for the interpretations.

The group

The description covers a group comprised of two psychologists, a doctor, a lawyer, an engineer and a public-health nurse. Both tutors had been trained in the social sciences and psychology.

The psychologists hoped to use the further education programme to start a cooperative project that cuts across sectoral boundaries. Both had felt it as a shortcoming in their job that they do not know enough about the situation and problems of the workplaces where their customers come from. Nor are the findings of studies of working life sensitive to the problems affecting the kinds of workplaces, particularly small

workplaces, typical of the field. They wanted to come to grips with this information deficiency on the basis of slightly different orientations – one put more emphasis on an individual-level, the other on an organisation-level approach.

The doctor and the lawyer came from a recently formed central administrative board created by amalgamating the operations and staff of two previously separate administrative agencies. As our programme began, the new administrative board was still organised along provisional lines. It was anticipated that at least some of the regulatory and supervisory powers that had belonged to the earlier agencies would be abolished. This would mean personnel reductions, redefinition of duties and changes in the composition of the personnel. The doctor and the lawyer hoped to find in the programme support for carrying the process out in a way that strengthens the survival resources of the staff, including both those who will stay and those who must leave. They thought that their bureau might serve as an example whose experiences could be later applied elsewhere in public administration, as well.

The engineer worked at a central administrative agency where large development projects were going on with the assistance of outside consultants. The projects concerned both development of the central agency itself and the modes of interaction between the central agency and its local organisation. When the programme started it was as yet impossible to foresee that the fate of the central agency was in the hands of political decision-makers rather than those of internal agents. Soon after the completion of our programme the agency ceased to exist as an independent body and its functions were transferred to the ministry. The engineer's interest focused on the local organisation; he wanted to give a contribution to making the local organisation better able to direct its operations in accordance with the needs of society.

The nurse worked as a trainer in an institution that gave training and consultation and conducted research in the field of occupational health service. She hoped that the programme would offer an analysis of the general trends of the changes taking place in working life. She thought that such information would help to plan training that would satisfy health service staff of both private enterprises and health centres.

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The composition of the group thus represented different knowledge domains and

provided a potential for perspective taking. Behind the individual strivings the persons

also had some shared concerns, which made the exchange of ideas and experiences

reasonable and motivating. Besides the general pressures for change in the public

administration, the recent recommendation by the labour market parties concerning

the maintenance of working capacity and the new legislation on rehabilitation posed a

framework for the work of all the members of the group. These shared concerns

provided the potential for the creation of a knowledge-building community through a

process of perspective making.

The progress of the discussions conducted in the group over a period of one and a half

years is crystallised in two concept maps (e.g. Novak & Gowin 1995) compiled by the

group.

Dialogues: the first map

As a starting point the group needed to reach a preliminary mutual understanding that

the theme named by the organisers of the programme "Maintaining working capacity

- prevention or therapy?" makes sense from their own point of view.

Engineer: Where does this expression (maintaining working capacity) come from?

Tutor AR: They put it in into the collective agreement between the labour market

organisations.

Engineer: Isn't it the general goal of all occupational safety and health activities and

all occupational health service?

Tutor AR: We have here this prevention or therapy...It is seeing the same theme from

different levels and viewpoints.

The legislation and the agreement were so recent that even the professionals in the

field were as yet unfamiliar with their contents. A preliminary glance was enough to

reveal some basic contradictions and practical problems that professionals must solve

one way or another. For example, the law has a passage that enjoins those concerned to find out whether rehabilitation is needed when a person has had 60 sick days. From the professional's point of view this involves both a practical and an ideological problem. The practical problem is how is it possible, in the present situation, to know when someone has accumulated that particular number of sick days when there are interruptions in the flow of information between the different sections of the service system. People may freely choose their doctor, so that there is no single place within the public health service that would follow the accumulation of sick days. Freedom of choice raises the ideological problem, also linked to the chances of public health service to help to maintain working capacity:

Trainer: It would be well if people used their own occupational health service.

Psychologist SK: The customer thinks that occupational health services represent the employer, it is a problem particularly with mental symptoms.

Lawyer: It is a good idea to discuss the function of occupational health service as a part of the employer system.

Trainer: Occupational health service is a separate facility, you must decide to use it.

Psychologist EM: The employer knows best who is absent.

Psychologist SK: Or those who work out the payroll.

Trainer: The data does exist.

Psychologist SK: In that case we must persuade the workplaces to pool their data.

Trainer: We haven't thought of marketing it by pointing out how much absences cost.

The theme made the group to look at the phenomena from different angles and to seek for potential gaps in information. In the perspective of occupational health service, the prevalence of illness and absence are natural indicators when talking about working capacity and losing it. Here the information systems are inadequate, but on principle means may be found to solve the problem. Nevertheless, in preventive work they may not be sufficient indicators.

Trainer: Is it prevention any more when there are that many sick days?

Psychologist SK: I see the matter through the lenses of my own profession. A

psychologist always influences a specific, not some general state of affairs. The

workplaces should have some kinds of system that would sound the alarm in good time.

The focus on prevention actualised the question of an alarm system which would make prevention possible. Quite soon, however, it became clear that it is not possible to deal with the alarm system separately from the understanding of the problems and their causes and from the level of desired influences, be it individuals or organisations.

Psychologist SK: Preventive measures should not be aimed only at the individual but also at reshaping the job, so that the individual is able to continue in his or her former job.

Engineer: What if we started with the existing systems?

Psychologist SK: Do you mean the occupational safety and health organisations, the healthy and safety delegates?

Engineer: No, the organisation of the workplace that produces the products.

Psychologist SK: Its aim is to produce the product, our aim is to maintain working capacity.

Engineer: Couldn't we bring them together?

Trainer: Instead of creating new organisations we might think over why the existing ones don't work.

Lawyer: Why do we need to create some system or other? Why don't we listen to people: everyone knows within himself or herself when things begin to go wrong?

Examination of interventions from the standpoints of both individuals and organisations made the group more specific about the kinds of interventions. The concepts of prevention/therapy suggested by the theme of the group fell into the professional vocabulary of some, but not all, members. The question of the target of the interventions needed further elaboration along with the simultaneous consideration of the level and substance of intervention.

Engineer: When we talk about preventive measures, we should focus on examining the organisation.

Psychologist SK: I disagree, both prevention and therapy may also focus on individual.

Engineer: But easily that's all that will be done.

Psychologist SK: Even then, prevention is possible at the individual level, too.

Engineer: The supervision of occupational safety and health has focused on organisations...I find this concept of therapy a bit strange. The word is familiar, but I don't know what it means.

Thinking over the causes of the problems, delimiting the target of the operations and the nature of the interventions brought into the discussion the question of the relationship between the system and the individual. This issue gave the group in many ways much to think about; what is the responsibility of the system and the individual both at work and within the therapeutical system, what is the status of the individual as a total personality within the system. While passing on to discuss working methods and influencing the maintenance of working capacity, the conceptual frame was beginning to feel too narrow to encompass the problem field that the group was attempting to grasp.

Psychologist EM: We are speaking too exclusively about work when we talk about maintaining working capacity. After all, there is much more to human life than just working.

Psychologist SK: I find it infuriating how the management and employers conceive, say, monotonous work. They think it is nice when the gals can think about their own affairs while doing their work.

Tutor HN: So should we speak of capability?

Psychologist SK: Of wellness.

The group crystallised its discussions thus far in a map. This first map starts with the individual. The individual is in the middle, characterised by his or her abilities, needs and resources. As working capacity is ability in relation to specific requirements, the map also includes some of the factors and parties involved in the definition and determination of working capacity. The map also covers the failure of working capacity. The main headings in the map are work, money and pension to underline the

facts that the relationship between work and an individual is the basic issue in working capacity and that failures in the balance in the relationship cost a lot of money for the employers and society and may lead to retirements.

Take in Figure 1

The system surfaced often in the discourse, sometimes in different senses, but always the relation between the system and the individual or the system and the professional were, in one way or another, tense. As a phenomenon, working capacity belonged to the "other side" of organisational life. The collision between the interests of the system world and the living world (Habermas 1987) which Risling (1988) describes in productive organisations can also be heard in the stories told by the participants.

Understanding working capacity requires a view of both the system world and the living world. There is no absolute working capacity but working capacity in relation to the requirements dictated by what is needed to achieve the strategic objectives of the organisation. Working capacity is capacity of an individual as defined by the system. When there surfaced among the participants a critical attitude to the integration of occupational health service into the employer system (as against the alternative of being placed outside the organisation) we may interpret this as a concern that the system world dominates too much the definition and treatment of working capacity. On the other hand, establishing it on a footing independent of the employer will not solve the problem either. The discussion above on an alarm system, for example, brings up the need that the specialists have of getting into the thick of problems of an organisation if they are to be able to direct their own work.

The participants did not situate themselves as professionals on the map. In a professional perspective the composition of the group was surprising. Creating a system or improving an existing one requires an orientation and approach different from those needed in developing customer service. The doctor, lawyer and engineer saw themselves as developers of the systems, the psychologists were directly concerned with customers, the trainer was mainly involved with expert professions.

The group members needed time to make sense of the theme and the views of the other participants. The upshot of the first round of discussions was the observation that in one way or another all of them work with the maintenance of working capacity, but they approach it in different ways.

Their divergent approaches crystallised, during the discussion on the target of preventive work, into principled debate between the engineer and one psychologist. Individual-level measures were subjected to a theoretical analysis; the discussion was dominated by a medicopsychological understanding of the issues. The parties did acknowledge the importance of an organisation-level measure, but the discussion did not produce anything that would have helped the participants to analyse the organisation, for instance from the perspective of intervention or development. The engineer's expression "I find this concept of therapy a bit strange" reflected a perplexity concerning both the concepts and the level of approach.

The group sought to ground its discussion on theoretical concepts. This was successful in some ways, but it also led to an imbalance in the discussion. The concepts caught the experiences and professional aspirations of some participants (e.g. the psychologists and the doctor) better than they did those of some others (e.g. the engineer and the lawyer). As a result, at the end of the discussion the group was left with a desire for new conceptual openings. At this stage the tutors refrained from suggesting conceptual frames. They assumed a non-directing role, restricting their interventions largely to situations in which the discussion seemed to be drifting away from the theme.

Dialogues: the second map

Discussions on the ideal and factual state of the results steering produced confusing observations. The central pressures for change affecting public administration had brought to the fore the need to gain a profile, both for the organisations and the individuals. The participants felt the question of gaining a profile to be in the air in a very demanding manner: justify your existence or be destroyed. The theoretical

foundations and implementation methods by results steering have been influenced by Drucker's (1954) doctrine of goal-oriented management, in which the core matter is an awareness of goals that is born in discussions. Some of the contributions of the participants, however, raise the question whether such discussions have served to keep up appearances rather than helped to refine and internalise the goal through mutual debate.

Engineer: In our department the local districts don't even have any profit goals because negotiations will only begin in autumn. But ministry has set us some profit areas...

Doctor: What might they be?

Engineer: Well, one of the profit areas set by the ministry is precisely the maintenance of working capacity. That is one of the things that makes you wonder about the awful number of organisations that are maintaining working capacity, too, all of them without any idea of the existence of the others. In the spring I was myself puzzling about where the hell they had found this maintenance of working capacity. Then I read in some paper or other that it is one of our central profit areas.

The above sample reflects the fact that in public administration results steering has come from above as an enforced change. In addition to goal and profit consciousness, the rhetorics of the results steering also includes responsiveness to social needs. What seems to cause tensions and raise unsolved questions is how the general view of the field existing at the ministry level is to meet the intimate knowledge of social needs existing at the level of working units.

Profiling was being discussed in civil service departments, but rather as a by-product than as a goal in itself. Here the demand that outcomes should be measured served both as an incitement and as a tool. Looking for focus areas and sharpening up profiles was seen as the positive potential of the management system. However, the participants thought that the discussion was being conducted along lines so narrow that they may seriously distort any operational foci that emerge. Territorial attitudes may be reinforced and overview be lost if each sector, department and working unit must try to show its usefulness and success by displaying a specifiable outcome.

Discussing goals tended to slide into and reduce to discussing measurable performance.

Tutor AR: Is that what people are worried, how they can get the tick (the marking that indicates the completion of a task).

Psychologist SK: When the day of reckoning comes, it is the ticks that will be scrutinised... If someone escorts a sick colleague to see the doctor, very soon it is two performances. Let's speak with a relation too, that's another performance completed. In that way the whole situation becomes distorted, as easily happens in the field.

From the professionals' point of view the situation prevailing in public administration was contradictory. High-class professionals could both win and lose. By displaying its expertise the public sector shows its strength and defends its right to exist.

Management by results creates internal pressures for bringing up areas of competence: competence is an asset in the competition for purchases and sales. However, areas of competence may only be brought up under limiting conditions that may shackle professional autonomy in a way that is not easy to accept. At the workplace level management by results was revealed as very much a technocratic reform without links with ethical and social argumentation. The result and how to measure it had been seen as a given or technical problem rather than as a question that only takes shape through widespread engagement and discussion. The participants expressed a concern that the results will be defined and the process carried through in a way that will bury the life world under the demands of the system world.

Discussing the situation of development work and conditions of work gave the concept of working capacity a personal, poignant quality. Working capacity was revealed in a new perspective as one of the outcomes and indicators of the functioning of work communities, while in the earlier discussions it was seen very much as the object of professional work. The theoretical discussions had ended without the discovery of a common language, but here a feeling of shared relevance was found through lived experiences. The participants had also come face to face with the disconcerting fact that several civil service departments actually work with the same matters without knowing about and communicating with one another. When the

theme of working capacity was taken up again for a closer look, these insights served as the starting point.

The ongoing developmental project made each participant's professional frame of reference a concrete and vivid factor in the discussions. Pressures arising out of the context of one's daily job created a demand for relevance; a developmental project should have some identifiable effect. Mental experiments concerning the use and effects of research findings emerged as a strong test in delimiting the problems. At the same time they helped to shape the theme of working capacity into a new type of shared intellectual challenge. Maintaining working capacity was seen to involve a range of concrete professional tasks and require specific forms of cooperation between different sectors.

At this stage the concept map method redeemed its potential by providing an effective generative tool in exploratory learning. The second map drawn by the group is a synthetic view of the approaches and working methods that can be used in the professional maintenance of working capacity of the population. The map knits the multiplicity of phenomena that have featured in the discussion into a coherent whole and simultaneously suggests a way of systematising linguistic usage. From the perspective of discourse dynamics it succeeds in reconciling the various standpoints in a way that leaves room for different approaches; in other words it is a provisional synthesis in the perspective making process.

Take in Figure 2

Earlier discussions led to divergent views of the most appropriate focus of action (e.g. whether operations should be aimed at individual, the organisation or at the population at large and who has the initiative, the professional or the organisation). These divergences caused some doubt as to whether the group would find a common language and subject matter. The map justifies the standpoints and approaches in their own terms without prioritising any of them. As a visualisation it lures into mental experiments about how strong are the boundaries separating the various segments and what crossing them would imply. In fact, that was what the group spontaneously did

when placing themselves, their field and their developmental project on the map. The map lived on as a tool of the group's collective memory in later discussions. The map functioned, following Star's (1989, 387) definition, as a boundary object that was "adaptable to different viewpoints and robust enough to maintain identity across them".

The map was broad in the sense that it accomodated each participant's professional field, enclosed in the sense that it explicitly directed attention to forms of professional action, leaving out other possible conceptual dimensions. Shaping ideas into a map was a satisfactory interim outcome. It gave a feeling that the participants had things to offer to one another and that, accordingly, going on discussions was meaningful. Also it gave the discussions a manageable structure. Free-floating creative thinking works for a while, but before long it becomes irritating. In the course of the development of the first map the group felt irritated about the wide array of topics and wanted to find a structure to the discussions through theoretical concepts and a search of cause and effect relationships. Before the crystallisation of the second map the group started to show signs of impatience because of the gap between discussions on the general level development and their own professional practice. The map was both a device for experimentally framing professional role (see Schön 1983) and the outcome of such experiments. As such, it had its weighty but not exhaustive place in the process.

Discussion

Interaction is crossing and switching borders. Lewin (1948) has illustrated the communicative situation with a set of circles. Each circle is divided into smaller areas so that the thickness of the lines marking them off varies. The circles represent those taking part in the communicative situation, each with his or her own private and social areas. The thickness of the dividing lines shows how near another person may approach the situation or activity marked off by the line. Just as Lewin pondered how to cross, in interaction, the boundaries that encircle inner worlds, we have found ourselves obliged to ponder how to cross the professional boundaries that encircle professional worlds. In the present study it was mainly the participant's relationship

with the system – here understood broadly as institutions and organisations of society – and educational background that divided experiences and orientations.

For those engaged in administrative work, particularly those that may be called administrative generalists, the system was the object and tool of the job. For those working in customer service the system created the framework that had to be taken into account in a job whose object lay outside the system.

The described process is a successful case of progressive discourse in which both perspective taking and perspective making had a role to play. Those who participated in the process were able to cross boundaries that separated professional worlds, manifested as divergent cognitive aspirations. The discussion led to a creative examination of things from alternative perspectives. This was achieved through the juxtaposition and mutual recognition of different aspirations. The participants themselves, also, felt that the group had been an inspiring experience.

We may point out a few factors that contributed to the success. Firstly, the process of application and selection functioned as a sieve that admitted into the programme persons who were looking for new things and who were oriented towards putting themselves on the line. Secondly, along with the cognitive aspirations expressed by the participants they also were open to transitional standpoints. Though in their work the psychologists mainly focused on individuals and the individual level, they also sought to increase their understanding of the structural phenomena of working life. The doctor, though engaged in administrative work, was familiar with the daily reality of customer service while the engineer, familiar with the roles of both regulating authority and a technical specialist, was looking for a more direct link with the field.

Thirdly, the discursive situation developed in the direction of tolerance and openness. A critical stage in this process were the initial discussions, summarised in the first map. The conceptual frame of reference that dominated the discussion was familiar to some, unfamiliar to some of the parties. Apparently a decisive factor influencing the progress of the discussion was that the persons who introduced this conceptual frame of reference did not stick to it very strongly but, rather, themselves expressed wishes

for different conceptual openings. This balanced the situation, giving all the participants a real opportunity to contribute to the development of the frame of reference.

Argyris (1991) has observed that people who possess high-class professional skill often perform badly in learning situations where their basic assumptions are subjected to reflection. His explanation is that many professionals are almost always successful in what they do and rarely experience failure. And because they have not failed they have not learned how to learn from failures. The discursive situation set up by the educational programme did involve the potential danger of the type of defensive reaction described by Argyris. The programme led the parties to areas where no one of the participants in possession of high-class skill was able to function as an expert, for example in the sense in which Dreyfus and Dreyfus (1986) understand an expert. The experience shared within the group was shared perplexity concerning the functions of public administration in changing social conditions. It may be assumed that this mutually recognised situation reduced any pressures that the participants might have felt towards playing the role of self-sufficient experts.

Fourthly, the tutors assumed a role of a contributor among others. This was a proclaimed goal, but it was far from obvious that it would actually be achieved. The tutors themselves felt pressures from the group towards giving them more lead and providing the discussion with a structure. Now and then they did act on such expectations, but both the tutors themselves and the participants eventually learned to put up with occasional meandering of the discussion. Contributing to the discussion on an equal footing gave the tutors room to take part in the learning process. A concrete visible manifestation of this was, for example, that one of the tutors started a joint project with two of the participants. It was important from the point of view of the group's common task that the group accepted all its members as learners. The task was constructing a frame, a frame that, as it stood, no one of the participants would have been able to set up without the group process. Constructing the frame, the cognitive analysis it involved as such, was a central part of the contribution that the programme as a whole made to the increased knowledge and skills of the participants.

Conclusion

The educational process took place in conditions which can be described as a social crisis. Somewhat less dramatic changes that in any case challenge basic assumptions of the functions and values of the public sector are continuously going on in many countries. Profound organisational and cultural changes are accompanied with changes in accountability rules, which means that people in the organisations have to make a new account of their activities. This was the situation also for the participants of the described educational process: they had to redefine their expertise and even identities.

Making sense of confusing situations requires forums in which effects of the changes and potential action alternatives can be reflected on. In the described case the changes touched the whole public sector and the transorganisational and multiprofessional composition of the participants was judged to provide the best conditions for discussions. The fact that people come from different organisations and have very different professional backgrounds is a demanding starting point for a long-term, intimate educational process. Still, intensiveness in the process with actice involvement by the participants on a long-term basis is a necessity in generating progressive discussion to increase understanding of the confusing situation.

A special challenge for discussions resembling the situation described in this article is to find a balance between the pressing need of the participants to make sense of their unique situation and the need to take distance to the acute problems in order to create alternative ways to look at the situations. Another challenge is the multiplicity of different perspectives and "languages" which the participants bring with them from their own specific standpoints. The third challenge is to create tolerance for uncertainty and to postpone the expectations to find immediate answers to questions for which there are no ready-made answers.

The way to overcome difficulties related to the above challenges in the described programme was a joint learning process in which both the forum builders and the participants were learners. The learner's role of the educators, however, was not self-evident or given: it had to be earned.

References:

Argyris, C. (1991), "Teaching smart people how to learn", *Harvard Business Review*, May-June, 99-109.

Bereiter, C. and Scardamalia, M. (1993), *Surpassing ourselves*, Open Court Publishing Company, Chicago.

Boland, R.J. Jr and Tenkasi, R.V. (1995), "Perspective making and perspective taking in communities of knowing", *Organization Science*, Vol 6, No 4, 350-372.

Castells, M. (1996), The information age: economy, society and culture, Volume I. The rise of the network society, Blackwell Publishers, Oxford.

Castells, M. and Himanen, P. (2001), *Suomen tietoyhteiskuntamalli*, WSOY, Vantaa.

Czarniawska-Joerges, B. (1995), *Public management contra public administration: A change of accounting rules in the Swedish public sector*, Working paper series 1995/5. Institute of Economic Research. School of Economics and Management, Lund University, Lund.

Dreyfus, H. and Dreyfus, S. (1986), *Mind over machine. The power of human intuition and expertise in the era of computer*, The Free Press, Bell and Bain Ltd, Glasgow.

Drucker, P. (1954), *The practice of management*, Harper & Brothers Publishers, New York.

Eteläpelto, A. and Tynjälä, P. (1999), "Johdanto", in *Oppiminen ja asiantuntijuus*, WSOY, Juva, 9-23.

Filander, K. (2000), *Kehittämistyö murroksessa*, Acta Universitatis Tamperensis 777, Tampere.

Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P. and Trow, M. (1994), *The new production of knowledge. The dynamics of science and research in comtemporary societies*, Sage, London.

Habermas, J. (1987), *The theory of communicative action*, 2, Polity Press, Cambridge.

Heiskanen, T. (1993), "Framing the unknown - researchers side by side with development practitioners", in Kauppinen, T. and Lahtonen, M. (eds) *Action research in Finland*, Ministry of Labour, Helsinki, 331-349.

Julkunen, R. (1992), Hyvinvointivaltio käännekohdassa, Vastapaino, Tampere.

Julkunen, R. (2001), Suunnanmuutos. 1990-luvun sosiaalipoliittinen reformi Suomessa, Vastapaino, Tampere.

Kafai, Y.B. and Resnick, M. (1996), "Introduction", in Kafai, Y. and Resnick, M. (eds.) *Constructionism in practice: Designing, thinking, and learning in a digital world*, NJ: Erlbaum, Mahwah, 1-8.

Kirjonen, J., Heiskanen, T., Filander, K. and Hämäläinen, A. (1996), *Tila ajattelulle. Asiantuntijatyön kehykset julkisella sektorilla*, Kasvatustieteiden tutkimuslaitos, Jyväskylän yliopisto, Jyväskylä.

Lewin, K. (1948), "Some social-psychological differences between the United States and Germany", in Lewin, G.W. (ed.) *Resolving social conflicts*, Harper & Brothers, New York, 3-33.

Naschold, F. (1995), *The modernization of the public sector in Europe. A comparative perspective on the Scandinavian experience*, Ministry of Labour, Helsinki.

Novak, J.D. and Gowin, D.B. (1995), *Opi oppimaan*, Tammer-Paino, Tampere. (Translation from Learning how to learn, Cambridge University Press).

Nowotny, H. (2003), "Democratising expertise and socially robust knowledge", *Science and Public Policy*, Vol 30, No 3, 151-156.

Resnick, L.B., Levine, J.M and Teasley, S.D. (eds.) (1993), *Perspectives on socially shared cognition*, American Psychological Association, Washington DC.

Risling, A. (1988), *Konsultationens teori. Att utveckla en organisatorisk kompetens*, Akademitryck, Edsbruk, Täby.

Salomon, G. (1993), "Editor's introduction", in Salomon, G. (ed) *Distributed cognitions*, Cambridge University Press, New York, xi-xxi.

Schön, D.A. (1983), *The reflective practitioner. How professionals think in action*, Basic Books, New York.

Star, S.L. and Griesemer, J.R. (1989), "Institutional ecology, 'translations' and boundary objects: Amateurs and professionals in Berkelys's Museum of Vertebrate Zoology 1907-39". *Social studies of science*, vol 19, 387-420.