Examining Developmental Dialogue: the Emergence of Transformative Agency

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Abstract

The intervention method of Developmental Dialogue, originally developed by Laura Mott (1992), has been further elaborated to promote employees' professional development and well-being. The aim of formative interventions is to enhance the agency of participants. There is particular interest in transformative agency, which is defined as participants' capacity to take purposeful actions to change their work activity. By applying six types of agency expressions, this paper examines how transformative agency emerges in an interaction between a DD participant and the interventionist. The agency expressions are analysed in the context of explicit and implicit intervention tools and objects of talk. The analysis yields a new category called reframing agency which is of interest particularly from a work-related well-being perspective. We interpret the findings with the notion of a contradictory object within the cycle model of professional development. The case suggests that changes in work, as interpreted by the researchers do not always fully grasp the participant's sense of collective work. Finally, at the end of the paper we propose ideas for further research.

Keywords: formative interventions, agency, activity theory

Introduction

The increased pace of change in the world of work creates a need for formative interventionist approaches that may help to simultaneously develop work and enhance practitioners' well-being. The notion of *transformative agency,* that is, participants' capacity to make purposeful changes in their work activity (Engeström and Virkkunen 2007) has potential for both of these. The aim of formative interventions is to enhance the agency of participants (Engeström & Sannino 2010), especially during complex change situations in their work activities. One of the promising formative intervention methods is Developmental Dialogue (DD). Originally developed by Laura Mott (1992), it consists of two discussions between a voluntary employee and an interventionist or as peer

discussions between colleagues, after which a third discussion is carried out in a group of employees with their line manager. In its later versions DD leans on the Vygotskian method of double stimulation (Vygotsky 1971), which refers to the use of different kinds of tools, such as theoretical models to help the participants gain new insight into their situation at work.

This paper is a description and analysis of an intervention discussion where the Developmental Dialogue method was applied between a practitioner-participant and a researcher-interventionist. The idea was that participants would benefit from an intervention that would help them see different options for their professional path and would contribute to the changes the work community was facing. The application of DD was part of a study that investigated the challenges involved in a complex network change of rail traffic control work in Southern Finland (Heikkilä, 2012, Seppänen et al. 2013). We will provide an example of a DD participant, who seemed to be challenged by balancing her interest in supporting others and developing work on the one hand, and the need to withdraw from these efforts for reasons of well-being on the other. Our data for the analysis was the second, transcribed discussion between the participant, "Helen", and the interventionist.

How does this method work in practice? We approach this question by analysing its use from the perspective of transformative agency. Our first research question is: How is transformative agency manifested in DD? Here, we apply the six types of agency expressions developed by Sannino (2008), Engeström (2011) and Haapasaari (2012). The findings will help us grasp the qualities of agency taking place in the intervention discussion. Secondly, we ask: What kinds of tools and discussion topics seem to enhance transformative agency in these dialogues? While acknowledging the complex mediation involved in developmental interventions, our analysis focuses on "tools" as material or non-material vehicles through which transformative agency emerges, and "objects of talk", topics of discussion that potentially make it emerge. With these analyses we aim to provide ideas for further research into the DD method as well as advancing and improving its applications.

In the next two sections we will firstly take a look at the concept of *agency*, after which we present the DD method. One of the important tools used is the cycle model of professional development, which is also a theoretical hypothesis about the stages through which agency evolves. Thirdly, we will present the participant and her professional path as well as interventionist's premises and design before the analysed DD discussion. The section on methods will describe the process of analysis as well as concretize the types of agency and categories of tools. In section 6, we will report separately the findings on the qualities of transformative agency (first research question) where a new category, reframing agency, is presented, and also cover the tools and objects of talk involved (second research question). We will end by interpreting the findings with the model of professional development and suggest further research on transformative agency in developmental interventions.

Transformative agency

Agency is regarded as an important outcome of formative interventions such as DD (cf. Engeström & Sannino 2010, 15). However, the term *agency* is widely used among researchers from different theoretical and methodological backgrounds. Emirbauer and

Mische (1998, 970) depict agency as a quality of engagement between the actor and their structural context, involving the dimensions of habit, imagination and judgement. Our main interest is in *transformative agency* that appears for the purpose of developing work, and therefore we follow Engeström's and Virkkunen's (2007) definition of this: *Agency is the subject's capacity to take purposeful actions to change their work activity.* This definition views activity as object-related and collective, and actions as individual (Leontiev 1978). Thus, the relationship between an individual subject and collective activities is central in activity theoretical approaches to agency. In his interpretation of Vygotsky (1971), Clot (2009, 292) maintains that individual activity is derived from the collective activity, and "the power to act" either develops or withers away in the work activity (Clot 2008, 13). Stetsenko (2005) suggests that human subjectivity, together with material production and intersubjective exchanges form a uniform dialectical system in which the three parts co-evolve and mutually determine each other.

Every work activity is organized around an object which is actually regarded as *the true motive* of the activity (Engeström 1987). The object, and in particular its contradictions, have the power to engender agency (Engeström and Sannino 2011). This means that although a work community is understood as a collective working on a certain object, every individual employee has their own relationship to the work: every individual creates their personal sense of this meaning and object. Thus, the changes in work and especially its object may be experienced differently by different employees.

The contradictory object may be manifested when the work activity changes or the subject's own motives change, and a mismatch may occur between the individual sense and collective meaning of the activity. This also means a change in the experience of well-being at work. This means that contradictions are the energy of change and also an important starting point in formative interventions (Engeström 2011, 622). Also for Clot, the source of development is the creative use of mismatches between the individual and the collective activities (Clot 2009, 293). Thus, agency can be understood as active working through contradictions.

There is great interest in understanding the emergence of agency during formative interventions. Different kinds of characterizations of agency or agentive actions of the participants in interventions have been analysed step by step. For example, Sannino (2008, 247) discovered that agency emerges in situations in which *a person commits to concrete actions in an innovation process* or *refers to former experience of good practices* – as an explanation for a future solution. Based on Sannino's (2010) findings as well as those of other researchers, Engeström (2011, 623–624) defined five forms of participants' transformative agency emerging during a formative intervention: agency may express itself through "*resisting* interventionists or management, *explicating* new possibilities or potentials in the activity, *envisioning* new patterns or models of the activity, *committing* to concrete actions aimed at changing the activity, and *taking consequential actions* to change the activity". Later Haapasaari et al. (2012) added *criticizing* as the sixth form of emerging agency, as it differs from *resisting*. These forms contribute to agency as *"participants' capacity to take purposeful actions to change their work activity"* (Engeström & Virkkunen 2007) in different ways. We interpret that resisting and criticizing show that the situation is experienced as unsatisfactory, which is a starting point for change efforts. Explicating is one step further, when one or more alternatives have been found, and envisioning is a further elaboration and concretization of these alternatives. A critical step in transformative agency is going beyond talk into turning

ideas into actions, either by committing to them or by taking consequential actions, which means reporting on actions.

In this paper, we use these six forms of emerging transformative agency to study how transformative agency emerges in an interaction between a DD participant and the interventionist. With this, our purpose is to investigate how different stimulating mediations (tools) as well as objects of talk enhance transformative agency expressions. In this sense, the forms of transformative agency here are analytical tools, rather than end points of the analysis.

In the following section, we present the DD method as an intervention based on the principle of *double stimulation* (Vygotsky 1971) and utilizing the theoretical models of Developmental work research (DWR).

Developmental Dialogue as a method for enhancing transformative agency

The DD method was originally developed by Mott (1992), and has been further elaborated in Finland (by Y. Engeström, J. Virkkunen, and Verve Consulting[1]). Mott's aim was to help employees question their current way of thinking (e.g. assumptions or fear concerning their work and their own opportunities to contribute) and to enhance co-operative skills in work communities. DD actually takes the individual's professional development as a starting point. However, as already mentioned in Section 2, the individual employee and his or her work activity and personal interest towards work co-evolve with the collective activity of the work community. Thus, the aim of the DD process, as elaborated in Finland, is to open up this relationship. It tries to help employees understand their experiences of work-related well-being as outcomes or reflections of the changing work activity, especially the changing object. By analysing the professional development of the employee and the current change of work activity side by side, the aim is to evoke new insights which are then put into practice in the form of concrete developmental tasks.

DD has usually been applied as a three-part method, which includes both individual and group discussions. The individual discussions can be executed either as peer discussions between three colleagues or as private discussions between one participant and the interventionist. The theme of the first discussion is the employee's work history, present situation, and changes at work. The second discussion aims to specify the participant's stage of professional career and define a personal developmental task. The developmental task should help the participant to progress in their professional development and interlock this development to the topical issues in the work community. The developmental task concretizes and puts to the test the ideas developed during the intervention process; it is an opportunity to express new kind of agency. Finally, in the third discussion, all individual participants and a representative of management meet and share insights and developmental plans. After this, participants put their planned developmental tasks into practice and try to make changes in their work. The process also includes a follow-up. All

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[1] However, there is no literal material available in the form of articles or books concerning this development. The developmental effort was made concrete by applying and utilizing the method, and the material consisted mostly of Finnish course material.

the discussions are confidential, and the participation is voluntary. DD is useful to work communities that are going through changes in their work.

The whole DD process is typically based on discussions in which the participant's individual professional development and the change of collective work activity are analyzed side by side, using different kinds of theoretical models. The first personal discussion and the preparation task sent to the participant in advance serve as joint data-gathering. Theoretically, the modified version of DD is based on Vygotsky's principle of double stimulation (Vygotsky 1971). Double stimulation aims to elicit new, expansive forms of agency in participants (Engeström 2007). This means that the discussion is structured by certain discussion themes and is intended to also include certain visual models to serve as second stimuli (explicit tools, Wertsch 2007). A participant is put in a situation in which a problem or a task (first stimulus) exists, and is guided to construct a new means (second stimulus) to solve the problem (Engeström 2007, 364 referring to van der Veer & Valsiner 1991). In DD, the first stimulus given to the participant is the task of interpreting their professional situation in the context of changing collective activity of their workplace. The second stimulus often comes in the form of general theoretical models or as otherwise theoretically informed questions or comments posed by the interventionist. It is important that the second stimulus is explicitly fulfilled by the participant with specific contents that correspond to their assessment of the situation in order to have personal sense for them (Engeström 2007). The participants themselves import stimulus-means into intervention settings, and the interventionist cannot control this process (Vygotsky 1971 ref. in Engeström 2007). Besides being given second stimuli as material instruments, practical interventions are also mediated by language and other semiotic mediation.

In his text on Vygotsky's notion of mediation, Wertsch (2007) distinguishes between implicit and explicit mediation. Implicit mediation involves signs, especially natural language, whose primary function is communication; it does not emerge for the purpose of organizing human action (ibid.,181). In case of explicit mediation, an individual, or another person directing an individual, intentionally introduces a 'stimulus means' into an ongoing stream of activity or problem-solving. This stimulus means, or tool, is often material and stable. Typical explicit models used as explicit tools in DD discussions are the following: the activity system model (Engeström 1987), the cycle model depicting personal professional development (see Fig. 1; cf. Mäkitalo 2005), the classification of work types or activity concepts (cf. Victor & Boynton 1998), or a figure depicting the relationship between an individual's career path and the changing collective work activity (a figure developed by Verve Consulting in a training project for occupational health care, Työläs 2008 - 2011). The idea of using these tools is to offer the participant new ways with which to interpret and conceptualize their experiences and perceptions of work, and thus generate insight into new ways of acting. In contrast, implicit mediation is not easily observed and is therefore less easily taken as an object of conscious reflection and manipulation (Wertsch 2007, 180).

An example of an explicit mediational tool is *the cycle model of professional development* (Figure 1). It crystallizes the theory of the co-evolution of a work activity and the professional development of an individual employee - that is the thread of the whole DD. The cycle model proposes explanations as to why and through what stages people find their way to new tasks or professions, or why they feel that their present job and tasks no longer offer the same satisfaction as before. The model is therefore central in the

intervention. It is based on Bratus' and Lishin's (1983) ideas (ref. in Engeström 1987, 166–168; Mäkitalo 2005, 109).
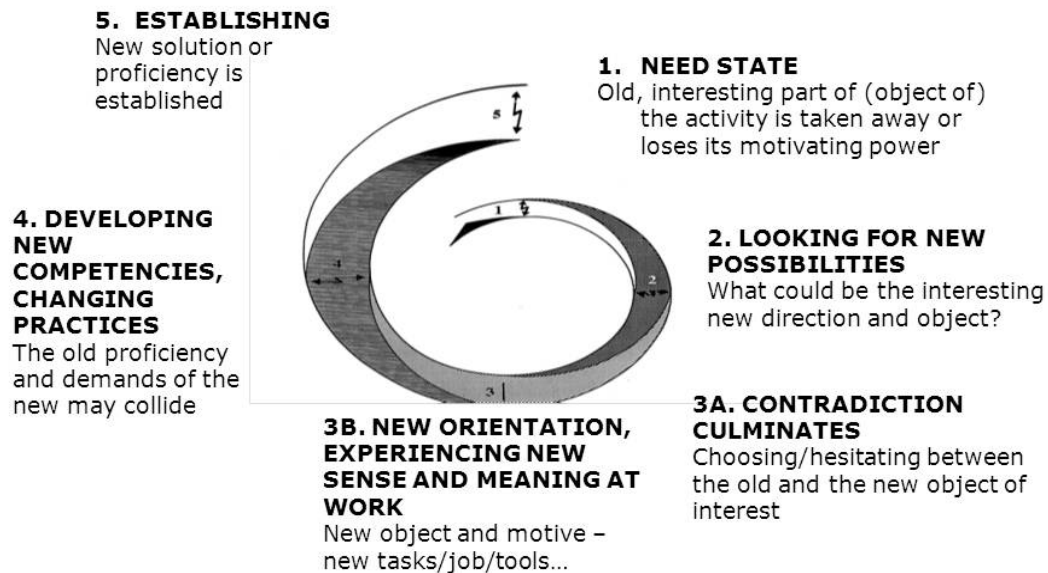

Figure 1: Cycle model of professional development (following Bratus & Lishin 1083; cf. e.g. Mäkitalo 2005)

According to this model, the work history or career path of an individual employee is redirected by the changes in the personally motivating part of (personal sense connected to) the shared object of the work community. A new cycle begins either when the interest of the employee towards an object loses its motivating power, or the personally motivating part of the collective object changes. Thus, the model depicts the cycle of renewing the object of interest and thus work-related wellbeing of an individual: finding new possibilities for action in the middle of change – how an employee resolves the conflict between different motivating objects that are meaningful for him or her – is essential to well-being. In practice, the stages do not follow each other smoothly and sometimes there is a need to return to the previous stage – the cycle can even be broken or divided into two cycles (Virkkunen 1995). During the DD process the participants use this model to depict their work history and their current situation at work. The analysis is then discussed together with colleagues or the interventionist.

We used DD as a supportive intervention in a research project (Sujut 2009–2011) focusing on traffic control in Southern Finland, which was going through many intertwining changes (Heikkilä 2012; Seppänen et al. 2013). In the next section we will briefly present the case of the DD participant, Helen, and the background of the interventionist, who carried out the intervention.

Participant Helen's professional path and the interventionist's premises

We used the DD method with the employees of train traffic control as part of a research project run by the Finnish Institute of Occupational Health (Sujut project 2009–2011). Our intention was to promote work-related well-being by enhancing agency. *Our working hypothesis was that some traffic controllers would, due to the ongoing changes of their work activity, feel that they needed to find a new direction or new possibilities in their work, that is to say, they were at the beginning of a new cycle of professional development (Fig 1, Stages 1–3).*

One of the participants was "Helen", whose somehow contradictory needs to take care of personal well-being and manage stress on the one hand, and to take part in developing the practices of the work community on the other made her DD discussions interesting data for further analysis. We decided to analyse *the second personal discussion with Helen* more thoroughly. However, to understand the interplay between Helen's expressions of transformative agency and DD as a method, we also need to consider the interventionist's role and actions as she represents the DD method. The interventionist is the one making a plan, a script, for the discussion and choosing certain tools to be used during the process. In the following two subsections we will first briefly present Helen's professional path and interpret it with the stages of the cycle of professional development. After this we present the background of the DD interventionist as well as the script planned by her for the second discussion with Helen.

Helen - an active participant with a need to "step back"

Helen had been working in traffic control for only a few years. She already had an interesting work history with different kinds of workplaces and tasks, ranging from working in assembly line production to working as foreman. Based on the first personal DD discussion it is possible to trace Helen's latest cycle of professional development. Right before entering traffic control work she had worked as a foreman in an organization owned by a large municipality. She described the work as quite hectic, and as a foreman she felt she was mostly helping her subordinates "put out fires" in different problems. She described worrying about these things at home and that *"there was no possibility to really develop the work"*. She was not satisfied with the situation (cf. Fig. 1, stage 1). Then Helen's workplace underwent an organizational change, and she had to start marketing the services of her own unit. Helen first tried to follow the new strategic direction: although she found the change personally unmotivating, she tried to gain more skills for her job by studying marketing. However, she was also considering other alternatives at the same time. (Cf. Fig 1, stage 2.) She was gradually reaching Stage 3 in her current cycle of professional development, which is when the contradictory situation becomes too much and a person has to make a decision. Helen decided to apply for traffic control when she was still studying marketing. The decision was motivated by a good example: Helen's friend was a traffic controller and very content with the job. Helen applied and was selected (cf. Fig. 1, stage 3B).

In her second DD discussion, Helen defined herself as being at Stage 4 on the cycle of professional development: a stage at where you develop new competencies and practices.

Becoming a traffic controller had solved Helen's challenging situation, and she was content with her situation. She was interested in developing her own skills and competencies as well as the work of her work community (cf. Fig 1, stage 4). Although Helen was interested in developing work, at the same time she tried to learn to avoid stress. This need to ensure her own well-being and to delimit workload can be seen in Helen's answer about her plans concerning her immediate future:

> Well…I can't think about that now. At the moment… I'm living one day at a time. I haven't made those kinds of long-term decisions. - - - I'm happy with this right now. In my previous job, when I tried to lead or help people or whatever, I suppose I became so exhausted that now it's enough for me to just to take care of myself and my work. - - - When I came here [to traffic control] - - I kind of made a decision to step back somewhat - although I sometimes feel tempted [to take part]- - at the moment I just want well-being for myself - -

Despite this need to step back and take care of her personal well-being, Helen was one of the most active participants. In the third phase of DD (the group discussion) she came up with an interesting initiative that could solve some of the current problems in traffic control work. The seed for this solution was first articulated during Helen's second personal discussion with the interventionist.

The interventionist's background and the plan for Helen's second DD discussion

The first author of this paper (Researcher 1) acted as the DD interventionist. She had previously graduated from a Master's programme with DWR as her main subject, and also herself tested a version of the DD method as part of a course during her studies. However, this was the first time she had actually used the DD method in her work as a researcher at the Finnish Institute of Occupational Health.

Before meeting Helen for the second time, the interventionist (Researcher 1) made a rough plan for herself to serve as a script for steering the conversation. This plan included ideas of discussion topics and theoretical models that could be used as a tool during the conversation. It was based on both the common structure of DD and Helen's first personal discussion (e.g. themes that the interventionist wanted to explore in further detail or specifically question). In practice, the interventionist prepared paper copies of certain models to have with her in the discussion, and wrote down some specifying questions beforehand. The plan made by the interventionist is introduced in Table 1 in Appendix 1.

The plan reveals the interventionist's orientation in the discussion with Helen. Thus, it was intended to serve as a tool, not as a rule. The interventionist had planned a script that included both questions that were not theoretically motivated but merely conventional conversational questions (e.g. *How are things going?*), and questions that belonged to the theoretical and methodological principles of the DD method (e.g. *At which stage would you place yourself on this cycle model?*). Some of these questions also included the intention to show the participant a certain theoretical model as a possible second stimulus that could offer a new insight into her current way of thinking. The interventionist had also analysed Helen's latest cycle and current stage of professional development using the cycle model of professional development (see Figure 1). She agreed with Helen that the current stage of Helen's professional development was that of *developing competencies and new practices* (cf. Fig 1, Stage 4).

In the next section we present the methods and process of analysis.

Methods of analysis

Our research questions at this point were 1) How is transformative agency manifested in DD, and 2) What kinds of tools and discussion topics seem to enhance transformative agency in these dialogues? Our data for the analysis was the second, transcribed discussion between participant Helen and the interventionist. The discussion took 70 minutes, and was held at Helen's workplace in the traffic control centre. Our analysis will limit itself to the level of the discussion during the intervention. However, we claim that there is a connection between the intervention activity and the participant's work activity: if there is agentive talk and commitment to changes concerning the participant's work during the intervention, it means there is at least a possibility that concrete actions will follow in the work activity (Schaupp 2011).

The analysis proceeded in three parts. First, Researcher 1 read through the transcribed discussion, and analysed Helen's speaking turns to find those responses that expressed agency (speaking turn as a unit of analysis). We were interested in *transformative agency* (see Section 2), and used the types of the participant's emerging agency suggested and described by Engeström (2011) and further developed by Haapasaari, Engeström & Kerosuo (2012). All the types are described in Table 2, and the definition of the types is a direct citation from Haapasaari et al. (2012).

Table 2: Types of transformative agency (Engeström 2011; Haapasaari 2012, 11)

Type of agency expression based on Engeström 2011 and Haapasaari 2012 (direct citation from Haapasaari 2012)	Data examples from Helen's 2nd personal discussion
A. *Resisting* the change, new suggestions or intiatives. Directed at management, co-workers or the interventionist.	*"No, that is it, it's good that I even got these two. I had to struggle here [while trying to come up with ideas for a developmental task]."*
B. *Criticizing* the current activity and organization. Change-oriented and aiming at identifying problems in current ways of working	*"- - in my opinion - - when a problem occurs, I think that the superior should gather people together and form teams to improve things"*
C. *Explicating* new possibilities or potentials in the activity. Relating to past positive experiences or former well tried practices.	*"This idea about a snowman team[2] may be totally crazy but if it was possible to ponder these ideas with a bigger group, we could maybe find something [a new idea etc.]".*
D. *Envisioning* new patterns or	*" - - if one could motivate these people to*

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[2] The winter had been very snowy and thus difficult for railways. Thus, Helen's idea was to form a team that would specialize in handling traffic situations caused by challenging weather conditions.

models in the activity. Future-oriented suggestions or presentations of a new way of working.	*take part in some kind of group and to plan something - - they might come up with good ideas - -"*
E. *Committing to actions.* Committing to take concrete, new actions to change the activity. Commissive speech acts are tied to time and place.	*"Yes, I could take part in that [snowman team] I don't become nervous very easily - - in that way I'm interested in it."*
F. *Taking actions.* Reporting having taken consequential actions to change the activity in between or after the laboratory sessions.	This type was not found in the data.

However, we needed another, more coarse framework for analysis before utilizing classification of agency types. To separate speaking turns including mere *sensemaking* and *analysing* from those reflecting transformative agency, we classified them according to their *initiative* and *responsive* elements. The classification was originally presented by Linell (1998 summarized in Mäkitalo 2005). We followed Mäkitalo's (2005, 263) coarse version of initiative-response analysis, and classified speaking turns only into two main categories. In practice, if Helen's speaking turn did not include any initiative elements but could better be described as being a pure statement or reflection, it was classified as a *response*. In case the speaking turn included even subtle elements of an initiative, it was classified as an *initiative*, and afterwards classified according to *the types of emerging transformative agency* (see Table 2).

After classifying Helen's speaking turns, we still lacked understanding on the connection between Helen's expressions of transformative agency and the DD discussion. The level of a speaking turn was too narrow to be used as the unit of analysis. Therefore in the second phase of the analysis, Researcher 2 divided the discussion into *topical episodes* according to discussion topics. Researcher 2's analysis was cross-checked by Researcher 1. The total number of episodes in the second discussion was 28. The change from one episode to another did not follow the order of the speaking turns: often the topic of discussion changed during a speaking turn. More than one type of transformative agency could be found within one episode. For example, while discussing the developmental task chosen, Helen might both explicate new possibilities and criticize the existing ones. Here we assume that the topic of talk, when linked with agency expressions, may manifest Helen's meaningful object. This part of the analysis made it possible for us to see which topics may have made Helen express transformative agency. The episodes were named after *the object of the discussion*, and were concretely interpreted from the speech topics by Researcher 1.

Although our focus was on the emergence of Helen's agency, we also had to take the interventionist's speaking turns into account because the interventionist is part of the method and mediates its theoretical presuppositions and principles during the discussion (cf. Wertsch 2007). Researcher 2 analysed the transcript and the topical episodes once

again, and paid attention to the interventionist's (Researcher 1) speaking turns and the *mediational tools used in the discussion*. The preliminary analysis made by Researcher 2 was cross-checked and further developed by Researcher 1. In the analysis of tools we applied Wertsch's (2007) idea of the distinction between explicit and implicit mediation (see Section 3). The categorization of tools is presented in Table 3. Types 1 and 2 are consciously designed explicit tools, while Types 3 and 4 are implicit; they were not consciously or intentionally introduced into the DD discussion and were only revealed during our analysis. Type 4 covers those speaking turns of the interventionist that are at first sight difficult to classify into any of the other categories, but still they seem to promote Helen's transformative agency.

Table 3: Framework for analysing tools

Tool category	An example from data: the tools used by the interventionist
Category 1 An explicit model showed to the participant as a paper copy (either a theoretical model or combination of empirical data and theoretical model)	*"- - did you place yourself on there - -"* Looking at the cycle model of professional development (see Fig. 1) with Helen.
Category 2 A pre-planned question or statement, part of the DD method	*"If you also consider our first discussion and the discussion so far, did you come up with anything, let's call it <u>a developmental task</u>, - - something that you would like to take forward?"*
Category 3 An unplanned question or statement, which can still be traced to the theory and methodology of DWR or DD	*"Yeah, on the other hand - - often you just need to try any solution and then you see whether it works or not, or if it could work in a different way. For example…often <u>a trial</u> like that can reveal something about the networks, also, it might also so show 'no one is taking care of this' - -"*
Category 4 Something that seems to be invested with meaning (by Helen) and used as a tool by the interventionist but cannot be directly connected to DD or DWR	*"Could that team structure, if it actually happens, could it be like some kind of a cell that can take, I don't know, some tasks, like a smaller unit, which can maybe operate more easily?"*

The next section reports the findings of our analysis.

Emergence of transformative agency

First, in Subsection 6.1, we take an overall look at the coexistence of the expressions of transformative agency and the tools used by the interventionist. After this, in Subsection 6.2 we take a closer look at some episodes in which transformative agency and the tools coexist, and analyse them in detail, also observing the topic of the discussion (the object of talk). The total results, covering the topics of the speaking turns, expressions of

transformative agency and the tools used by the interventionist, are presented in Table 4 in Appendix 2.

Coexistence of expressions of transformative agency by the participant and tools used by the interventionist

As the whole idea of formative intervention is to enhance the agency of the participants by utilizing certain kinds of explicit tools (models, pictures, tasks, questions about certain themes), we were first interested in determining the degree to which the tools or even the more subtle theoretical models that the interventionist planned to use during the intervention co-existed with the expressions of transformative agency of the participant. *Our hypothesis was that they would co-exist to some degree and that we should further analyse the episodes including both elements.* The two-part Table 5 in Appendix 3 represents the distribution of implicit and explicit tools used by the interventionist, Helen's emerging agency (agency expressions), and their coexistence per episode.

In fact, the first 14 of the 28 episodes mostly followed the plan the interventionist had made in advance to serve as a script in the discussion (see Table 1, phases 1- 3 in Appendix 1). A turn occurs in Episode 15, when the interventionist − spontaneously − gives Helen the opportunity to add to or comment on the themes, and a new series of episodes begins (an implicit tool). The interventionist does not follow any pre-planned script between Episodes 15 and 25. During these, she mostly asks questions or makes statements that were not planned in advance, yet can be traced to the theory and methodology of DWR or the DD method (Tool category 3), or does something else that seems to work as a tool and is therefore classified as belonging to Tool category 4.

Helen used expressed transformative agency richly. Interestingly, during the episodes, which follow the script (episodes 1–14), Helen expressed all the types of transformative agency, except that of taking actions (Agency type F). During Episodes 15–28 she expressed all other types, except resisting (A) and taking actions (F).

The transformative agency expressions and the *pre-planned* intervention tools (Tool categories 1 and 2) coexisted explicitly only during Episodes 8, 9, 11 and 12. Episodes 8 and 9 are important as they both dealt with the developmental task, which is an essential part of DD. However, it is interesting that a cluster of agency expressions occurs right after the preplanned section of DD discussion ends, that is in Episodes 15–18 where there is no explicit DD- or DWR-based tool (Categories 1 and 2). This cluster begins when Helen is given the floor in Episode 15, and it makes an interesting turn in the discussion. In addition, in Episodes 22 - 23 Helen is expressing transformative agency, although the interventionist's speaking turns were classified to tool category 4. In Episode 27 Helen is again expressing transformative agency although the interventionist's question at the beginning of the episode is only merely a discursive shift with the aim of closing the discussion.

Based on these findings, we came to the conclusion that *the data did not clearly support our hypothesis regarding the immediate coexistence of planned DD tools and agency expression.* Moreover, expressions of transformative agency seem to emerge in clusters. Thus we chose to further analyse not only the pairs of episodes 8–9 and 11–12 as examples of coexistence, but also the cluster of episodes 15–18, 22–23 and 27, in which the tool used is not pre-planned or very clearly theory-driven, but Helen nevertheless expresses transformative agency. To determine what actually happened during these

episodes, we needed to take a closer look at the topics of discussion, as they may explain the emergence of Helen's agency more in detail.

In the next subsection, we will report the findings of our further analysis of the chosen clusters of episodes.

Towards understanding mediation in the emergence of transformative agency

Our deeper analysis revealed a change in Helen's expressions of transformative agency during the discussion, and we also found a new type of agency expression, which we would like to call *reframing*. Due to space limitations, we selected only the most essential episodes from both the first part of the DD discussion, which followed the interventionist's script (Episodes 1 - 14), and the more informal end part (Episodes 15 - 28) to be presented in detail. We will proceed as follows: First of all, we will take a look at the emergence of Helen's agency in the cluster of Episodes 8 and 9. Then we will open up the cluster of Episodes from 15 to 18, where the roles of Helen and the interventionist seem to change. We will describe a) the type of agency Helen is expressing b) what seems to be the object of Helen's agency, and c) the tools the interventionist uses.

Agency emergence during the interventionist's script

Conceiving an idea with regard to a developmental task was the intermediary task given to each participant at the end of their first personal discussion. Episode 8 starts with the interventionist's question about whether Helen has come up with an idea for a developmental task. This question belongs to Tool category 2 and is an essential part of the interventionist's pre-planned DD script during the second personal discussion. Helen's immediate response was the following:

> **It was very hard for me**, when I really started to think about it. I was like, 'help, what can I (do) now - - what can I think of for myself because on the other hand, **like I said, I don't, or I like doing just this [traffic control work], I don't have the energy to even think about anything else. But then I tried really hard.** Then I began to think that - - **when we get this new remote control system, that I might like to participate in the piloting phase of it - - -**. Because I have been working with the switch gear monitor and I really do find it meaningful because there I can do something all the time. I like that position. - - If they approve me to do it, I would like to be part of that.

Helen's motive is also brought into the discussion: she wants to be part of testing the new remote control system, and she seems to like this kind of challenge and task in her work. She also wants to help her colleagues in the new situation:

> I could probably help the others too if I could be part of that.

In this episode, Helen expresses both *committing to concrete actions* (willingness to test the remote control system; Agency type E) and *justifying her choice by referring to past, positive experiences* (experiences with the switch gear monitor; Agency type C). In her first speaking turn Helen also makes a statement about her own situation (*I don't have the energy to even think about anything else*). She refers to her first personal discussion in which she talked about her past and why she wanted to have an easier role at work now. This could be interpreted as resistance (Type A) towards the script and aims of the intervention. However, Helen's words are not directed towards, for example, the intervention or management but her own situation: she is not sure whether she has the energy for a developmental task and she also wants to avoid stress. This kind of *conscious* decision-making concerning how to delimit or redirect one's own actions is what we

would like to call *the reframing of agency*. Therefore, Helen's agency seems to have three objects: learning to use the remote control system by piloting, helping others with the new system, and taking care of her own well-being at work. Here Helen's interests overcome her need to withdraw and concentrate on only her own basic tasks as a traffic controller.

The interventionist mostly asks about the ways in which it is possible to make Helen's idea a concrete developmental task, and how to move forward in preparing it and actually doing it. These are typical specifying questions made when discussing developmental tasks, and represent Tool category 2. The interventionist holds on to the planned DD script, but after a while also acknowledges Helen's situation and the need to reframe agency. In this sense, the interventionist crosses the boundary of the initial script (see Table 1 in Appendix 1).

This leads to a somewhat surprising Episode 9. Helen takes the initiative and continues the discussion around the developmental task: *"Well I do have another slightly less concrete idea ..."*. Helen's developmental idea is that traffic control needs some kind of specialized group to take care of snowstorm problems. In other words, Helen *envisions* (Agency type D) a new solution to the current situation. She also *criticizes* (Agency type B) the current practices and a rehearsal they once had, but at the same time is able to analyse and be critical of her own ideas. The core idea in Helen's developmental task combines two currently topical themes: the organizational change, which is aimed at implementing a team structure in traffic control work, and the difficult winter with lots of snow and frost, which caused problems in train traffic. During Episode 9, Helen *envisions* (Agency type D) how to make use of the forthcoming team structure in an effective manner. Moreover, she is ready to be part of the special team she has come up with, and is thus *committing to actions* (Agency type E) – although in this case there was no real life team activity to be committed to yet. Helen also *criticizes* (Agency type B) the current practices in training against disturbances and is critical towards what she has heard about the forthcoming team structure; the object of critique is the activity of the management and the superiors. The objects of Helen's agency in Episode 9 are developing traffic control work by using the new organizational structure and insufficient opportunity to manage it. The interventionist mostly asks the same kind of specifying questions (tool category 2) as during the discussion about the first developmental task, at the same time supporting Helen's speech by repeating her ideas in different words or summarizing and interpreting her speech (e.g. by referring to an earlier discussion in which Helen said she enjoys her work while it is busy).

Episodes 8 and 9 show that Helen is not a passive participant in the intervention or in her work community. She uses the intervention as a chance to challenge even her own ideas, and takes the initiative to talk about the second developmental task despite her need to reframe her own agency.

Episode 15 starts a cluster of 4 episodes during which Helen returns to use stronger agentive expressions in her speech. From episode 15 onwards, the dialogue acquires a new quality because it is no longer dependent on the script (Table 1, Appendix 1) of the interventionist. Next, we take a look at this cluster.

Overcoming the script: towards shared elaboration

During the cluster of episodes from 15 to 18, Helen is critical towards the current ways action is undertaken in her work community, but also has some ideas of how things could

be done differently. The discussion between Helen and the interventionist in the last two episodes, 17 and 18, is more a shared elaboration of ideas than a discussion between participants with well-defined roles. The interventionist mostly asks specifying questions.

Episode 15 begins with the interventionist's open question:
> So, I was just thinking, whether you have anything else that you want or would like to ask?

The question belongs to Tool category 4 as it was actually not planned in advance but occurred more by chance or from force of habit as it is an customary question at the end of most interviews. Helen hesitates at first but then starts to analyse and *criticize* (Agency type B) the current situation:
> I don't know if I have. I don't know. Of course, there are lots of things that make you wonder but - - - **sometimes it seems that at [the company] we lack people in charge, people who are given responsibility** - -

The object of Helen's critique is indirectly the management or the activity of the superiors. The episode continues with the interventionist asking for an example that would clarify the kind of situations that Helen is thinking of. This question represents Tool category 3 as a DD interventionist often wants to hear a concrete example that clarifies the statements made by the participants. Helen gives two examples to illustrate how sometimes decisions are made without anyone assigned to put them in practice. Helen hereby expresses *critique* (Agency type B) again, but she also *explicates* new possibilities (Agency type C) for handling the situation.

Episode 16 begins with the interventionist's question about whether the current, regular meetings of the work community serve as a forum for sharing information (Tool category 4). This can be seen as an extension to the DD script, since the interventionist is bringing a new theme into the discussion or even discretely proposing a solution to the problem concerning the flow of information in the work community. Helen explains how before these meetings there were no common meetings in rail traffic control. Nevertheless, meetings are problematic because shift work makes it impossible for all the workers to be present at the same, and it is challenging to implement the decisions made in the meetings, because no one is assigned to do this. Here again the object of Helen's *critique* (Agency type B) is the activity of the superiors and management.

Episode 17 begins with the interventionist's reasoning regarding Helen's comment on responsibilities and the flow of information. The interventionist goes back to the theme about teams and says:
> Could **the team structure, if it comes into being, could it be like some kind of a cell** that can take, I don't know, some tasks, like a smaller unit, which maybe can operate more easily?

This speaking turn belongs to Tool category 4. In fact, here the interventionist herself is expressing agency (Type D) as she is clearly *envisioning a new solution* to the traffic control's current challenges. Helen takes up the idea and elaborates on it further:
> Yeah, **should it**, if we're gonna have these teams, **should the teams then be given certain responsibilities** along with the [actual traffic control] work. Like the senior traffic controllers now have - I think they are responsible for the train journal and someone else is responsible for something else - - -. Yeah, **there should be - - responsible teams - - -** .

Helen is *envisioning* (Agency type D) new possibilities in the work activity, based on the interventionist's question. There are many verbs in the conditional and reported questions, showing that Helen is pondering the issue and elaborating on it.

Again the interventionist begins a new episode (18), this time wanting to open up a new way to conceptualize the problems regarding the flow of information, which Helen brought up in Episode 15. The interventionist presents an example from her own work community:

> Often - - **this 'flow of information' is a prevailing term**, a bit like 'haste', which you can find at any workplace - - You just nicely started to open up what it means at your workplace - - **if you want to develop on that, you can for example think about a couple of examples of situations** in which people did not get all the information, and what happened then, and through this consider what kind of tools or methods you need in your work. What is used in another community might not be a good solution in yours. **As a simple example, we at FIOH** in my own work team, we tried to use our meetings more effectively. - - We agreed to write [certain things] down in the agenda beforehand so that everyone could read them, and we decided to spend time on them only if someone wanted to ask or add something - - a small solution - -

The comment on the flow of information actually reflects the interventionist's background in DWR (Tool category 3). So, this interventionist's comment includes an implicit tool (Wertsch 2007) aimed towards the purpose of activity-theoretical understanding of information processes.

However, the later part of the interventionist's speaking turn is even more interesting as the interventionist again seems to be expressing transformative agency – this time by *explicating* (Agency type C), by referring to her own positive experiences of meeting practices. Helen returns to the idea of having responsible teams or groups for certain important issues:

> And also otherwise, in my opinion - - **when a problem occurs, I think that the line manager should gather people together and form teams to improve things** - - This idea about a snowman team may be totally crazy but if it was possible to look at these ideas with a bigger group, we could maybe find something [a new idea]. **This is just a rough idea but if it was thought over together, something might be found.** - -

In other words, Helen starts to elaborate on the interventionist's example, which seems to have had the role of a secondary stimulus for her: the first stimulus was the problem regarding the flow of information. She is both *criticizing* (Agency type B) the current meeting practices (indirect critique towards the superior) and *explicating* (Agency type C) new practices, such as the use of teams in developing new solutions and practices. Thus, the object of Helen's agency is again the management's activity, as well as the possibilities of utilizing teams to improve practices.

Episodes 17 and 18 constitute an interesting entity, where the defined roles of an interventionist and a participant are both destabilized. This kind of role taking or changing by the interventionist also seems to awaken Helen's agency, and there are at least two explanations for this. First of all, it might be that the issue (the object of discussion) is interesting to Helen as such - she was the one who brought up the problem of information flow in the discussion. Secondly, it is possible that in this part of the discussion the talk and issues are not determined by any particular models (e.g. the cycle model of professional development) but more concretely address the everyday life of the participant – and are somehow closer to her zone of proximal development as a developer of her own work.

Although Episodes 15–18 have no explicit tools (Categories 1 and 2) belonging to the DD process, the discussion can be understood as following Vygotsky's principle of double

stimulation, albeit in an unplanned way. The whole cluster of Episodes 15–18 concerns themes that Helen brought into discussion after the interventionist's open question on whether Helen had something in mind that she would like to talk about. It may be that open questions like this are part of an intervention dialogue or interview out of politeness or habit. However, this may be exactly the phase of the discussion when the interventionist or interviewer should be delicate and responsive to the initiatives made by the participant, as they may help to reveal the objects of interest and contradictory motives the participants are facing in their work.

In the conclusion of our paper we sum up our results. This is then followed by the discussion section where we reflect on our research and make a suggestion for further research on transformative agency in DD.

Discussion and conclusion

We were interested to find out, how transformative agency emerges in the Developmental Dialogue (DD) so that we could be able to evaluate the intervention method and develop it further. Our research questions were as follows: 1) How is transformative agency manifested in DD? 2) What kinds of tools and objects seem to enhance transformative agency in these dialogues?

Transformative agency in Developmental Dialogue

To investigate agency and to answer our first research question, we utilized the classification of agency types suggested by Engeström (2011) and Haapasaari et al (2012). We tested this type of analysis in the second personal discussion with a DD participant called Helen. We found all other types of expressions of transformative agency except taking actions (type F), which can be explained by the fact that we analysed only one discussion and this kind of expression often appears when participants report the actions they have taken in between intervention meetings. Thus we can say that the classification suggested by Haapasaari et al (2012) for analysing transformative agency in change laboratory interventions seems to offer a good basis for a toolkit also for the purposes of evaluating and developing Developmental Dialogue.

However, we would also like to suggest a new type of agency to be considered as part of the analysing framework for agency: reframing. When analyzing participant's agency expressions we found speaking turns that could have been classified as resisting (the interventionist; A). On reflection we came to the conclusion that this type of agency differs from the types of resisting and criticizing: here the object of participant's agency is, actually, his or her agency. In Helen's case reframing was motivated by her need to protect her own well-being. We want to suggest that these kinds of cases, where the participant reframes their own agency should be interpreted as an agency type of their own. An agency type called reframing could offer an important tool for researchers and developers because it is a concept that helps us pay attention to the boundaries or different alternatives at the boundaries the participants feel that they have. For interventionists, who are interested in the phenomena of work-related well-being, reframing could be a particularly important agency type to consider. During an intervention we should be able to separate between reframing that supports and reframing that in the long run prohibits well-being, and also help participants to analyse their own need for reframing. Thus, both

the phenomena of reframing and the interventionist's tools for confronting this need further research with more extensive data.

Tools and objects of discussion enhancing transformative agency

Our second research question concerned the relationships between mediational means (tools) used in the intervention, the object of discussion and expressions of transformative agency. Our original hypothesis was that Helen would express transformative agency especially in episodes where there is an explicit DD tool present. The analysis did not support our hypothesis about the coexistence of agency expressions and explicit intervention tools.

The whole intervention discussion seemed to consist of two sections (episodes 1-14 vs. 15-28), which differed from each other. The first section of the intervention was based on the planned script made by the interventionist. The second section started with the interventionist's unplanned open question and Helen took an initiative to open up a new topic. In addition, there was no expression of reframing agency in this latter part of the discussion. It actually seems that starting from episode 15 a new kind of social space appears which produced more expressions of transformative agency. This social space can be understood in terms of new objects of discussion that draw from both Helen's world of work, and the interventionist's world of developmental work interventions. The peer nature of the interlocutors may have contributed to this formation where the normative practice of the intervention is broken, and the new emerging 'space' (Gutiérrez et al. 1999, third space) is welcomed as a potentially fruitful context of development.

Reframing agency as a manifestation of contradictory objects

It is said that an analysis should be able to surprise even the researchers themselves. This was actually the case with our attempt to analyse the emergence of participants' transformative agency in DD. While this kind of an analytical framework worked as a radar to locate interesting and essential episodes and speaking turns for the purposes of our research questions, it did not help us to truly understand, how Helen's agency changed and developed during the discussion and why. What did we learn from this? We interpret the findings with the notion of a contradictory object within the cycle model of professional development (Fig. 1).

DD should focus on the relationship between individual's agency and experience of work-related well-being and the change of collective work activity. In other words, knowing about the changes and contradictions of the collective work is not enough: what is interesting is the personal sense that the participants' find in their work (Mäkitalo 2005; Miettinen 2005). The individuals actually seem to experience changes differently due to their current stage of professional development (see Heikkilä 2012).

Both Helen and the interventionist interpreted that Helen actually was at stage four on her current cycle of professional development. It is typical in the fourth stage that the old, well-known practices collide with the demands of the new solution. Developing work was an old object of interest for Helen and she also had prior knowledge and skills from working as a foreman and trying to take care of the whole work activity of an

organizational unit. As her new object, Helen had chosen to be an "ordinary" traffic controller with concern for her own immediate tasks and well-being. Helen's case suggests that the changes in work, as interpreted by the researchers, do not always fully grasp the participant's sense of collective work. The analysis has helped us specify the contradiction embedded in stage four of the cycle of professional development.

We therefore came to the following question: were Helen's directions towards transformative agency, on the one hand, and towards reframing her agency on the other hand, a manifestation of her contradictory objects and motives at work? We argue that this was the case. Spaces for reflection such as the Developmental Dialogue may offer participants a space for working out these contradictions. According to Sannino (2010, 843), if the interventionist wants to support practitioners in their attempt to engage in working out the contradictions in their work, practitioners have to be supported to express the conflicts between the motives that characterize their relationships toward their object. In Helen's case, the interventionist was readily able to support her in this. Activity theoretical studies on mediation and agency emergence in developmental interventions show that the role of mediational means, or tools, are important for practitioners to work out the tensions in their motives and objects (Engeström 2007; Sannino 2010; Wertsch 2007). In Helen's case, the object embedded in the cycle model of professional development (Fig. 1) was not meaningful for her as she had already analyzed her own professional path and solved the latest double bind situation in her work by changing job. Nevertheless, as Sannino (2010, 843) states, it is not that important which second stimulus the interventionist uses during the discussion, as long as she or he is willing to engage in the experience of getting it rejected or even replaced. In our case, the interventionist was actually engaged with the objects offered by the participant.

Recommendations for further research

In future, we will investigate DD discussions of participants representing different stages of professional development more thoroughly. It may reveal whether reframing is something that occurs differently or in relation to different kinds of objects or contradictory elements at different stages of professional development. Based on our data and analysis in this paper we cannot be sure, whether reframing is something typical of stage four only. However, reframing agency is a potentially useful concept to researchers interested in the relationship between individual agency and collective work. It would also be useful to investigate the whole DD intervention trajectories of the participants and in particular the evolutions of the developmental tasks. Thus, we assume it would also require examining the analysis and sensemaking actions of the DD participants, left out of the analysis in this paper.

Therefore, we consider it important for research on agency in formative interventions to take into account not just the participants' expressions of transformative agency but also the gradually developing sensemaking with regard to the object of and problems in the activity, as well as the contradictory motives of the participant representing a certain stage on the cycle of professional development (Engeström 2011, 622 - 624; Sannino 2008, 252). Investigating these should, however, be combined with the analysis of the intervention method itself (i.e. the interventionist as the carrier of the method and the tools used by him or her), if we want to evaluate our intervention methods in order to develop them further.

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Appendix 1

Table 1: Plan made by the interventionist to be used as a script during Helen's second personal discussion. (Bold indicates the main tools used as the framework for the discussion.)

Participant Helen, DD dicussion 2

1) How are things going? What is new since last time?

2) A short recap of what was discussed last time:

    a. Anything to add or comment on the notes made by the interventionist last time?*

    b. The idea of *object-oriented well-being* (**a figure depicting the idea**) and *the cycle of professional development*

        i. At which stage would you place yourself on this cycle model?

        ii. The interventionist's own view/analysis on Helen's cycle and Helen's comments on this **(Helen's latest cycle depicted by the model)**

        iii. "Have I understood you correctly: your situation at work is good – you are content and motivated?" (a planned question based on the analysis of Helen's first DD discussion)

    c. Showing Helen the Sujut researchers' interpretation of the changes in rail traffic control work **(the table depicting the *changing activity concepts of rail traffic control work*)**. Comments on this based on what you told me last time about the change?

3) **Developmental task (and backup questions)**

    a. If you consider our discussion so far, what has been significant to you in your work at the moment? And what has challenged you?

    b. What did you decide to choose as a developmental task?

    c. How can you proceed in practice?

    d. How does this promote your well-being at work?

    e. How does this idea connect to the ongoing changes of traffic control?

    f. Who should be aware of your plan; whose support do you need?

    g. Do you need any extra training or initiation etc.?

    h. Should you contact your line manager regarding some of these issues or ask for a consultation from etc. occupational health services?

    i. What issues would you like to share in the 3rd discussion with other DD participants and your line manager concerning the changes in work, your own stage of professional development or the developmental task and the support needed to execute it?

    j. Shall we agree on some kind of follow-up?

4) **What made you participate in DD, and what have you gained from it so far?**

Appendix 2

Table 4: Topic of speech, Helen's (H) expressions of transformative agency (TA), tool used by the interventionist (I) and the amount of speaking turns per episode. Order of speaker's marks for the beginner of the episode.

No.	Topic (object of speech)	H´s expression of TA	I's tool	Amount of speaking turns
0	Challenging winter on railways (the tape is turned on in the middle of the conversation)			H: 2 I: 1
1	I is interested in the intertwining challenge of organizational change and the snowy winter; Helen defends the good working morale of the traffic controllers			H: 5 I: 5
2	How is Helen doing since the last DD meeting (nothing special has happened)?		2	I: 3 H: 3
3	Commenting on the notes made by the interventionist last time		2	I: 1 H: 1
4	Explaining the idea of the cycle of professional development to Helen		1	I: 2 H: 1
5	Helen's own definition of her current stage on the cycle and the interventionist's interpretation of Helen's work history/career with the help of the cycle		2, 1	I: 6 H: 5
6	Historical phases and current change of traffic control activity. Discussing the change in traffic control with the help of a table depicting the latest historical production concepts of the traffic control activity		1	I: 6 H: 5
7	Interventionist's interpretation of Helen's well-being in the middle of changing work		2	I: 3 H: 3
8	First developmental task: taking part in the piloting phase of the new remote control system	A, E, C	2, 3	I: 7 H: 6
9	Second developmental task: snowman team	B, D, E	3, 2	H: 11 I: 10
10	Railway traffic as an activity with potential for major accidents			I: 8 H: 7
11	Not wanting any more developmental tasks	A	2	I: 1 H: 1
12	Concretizing how to put the developmental tasks into practice	B	2	I: 3 H: 2
13	Idea and concrete process of DD in traffic control			I: 1
14	Need to talk about the developmental		2	I: 2 H: 1

	tasks with one's line manager			
15	Problems in the flow of information in the organization	B, C	4, 3	I: 3 H: 3
16	Current meeting practices and their problems	B	4	I: 3 H: 3
17	Upcoming team structure as a possible solution to the aforementioned problems	D	4 = D	I: 2 H: 2
18	Problems and solutions of meeting practices in both the interventionist's and Helen's work community	B, C	3, 4 = C	I: 2 H: 2
19	Time pressure as the problem of an individual vs. as an indicator of changed work		3	H: 3 I: 3
20	Challenge of developing new personal sense in changing work, cleaning work as an example			H: 5 I: 4
21	Need to inform customers of the change to services, cleaning work as an example		1	I: 4 H: 4
22	Need to develop meeting practices and utilize the experience of employees by developing ideas together	D	3	I: 1 H: 1
23	Helen's opportunity to participate in Sujut projects workshop	E	4 = C	I:6 H: 5
24	Usefulness of having the voice of an employee just coming from a shift in the workshop			I: 7 H: 6
25	Helen's line manager calls in and gives Helen permission to participate in Sujut workshop			Not transcribed
26	Agreeing to keep in contact before the group discussion of DD process is held		2	I: 1 H: 1
27	Helen's workshop participation	E		I: 3 H: 2
28	Helen's motives for participating in DD process		2	I: 7 H: 7

Appendix 3

Table 5: Distribution and co-existence of expressions of transformative agency and tools used by the interventionist (the numbers and letters refer to those used introduced in tables 2 and 3 in section 5 Methods of analysis)

Episode	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Tool used by the interventionist		2	2	1	2 1	1	2	2 3	3 2		2	2		2
Helen's expression of transformative agency								A E C	B D E		A	B		
Coexistence								X	X		X	X		

Episode	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Tool used by the interventionist	4, 3	4	4=D	3 4 = C	3		1	3	4 = C			2		
Helen's expression of transformative agency	B C	B	D	B C				D	E				E	
Coexistence	X	X	X	X				X	X					