Trust-building in networks as practical social learning processes

Anne H. Gausdal

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ABSTRACT

The aim of this chapter is to identify trust-building processes in networks, with particular emphasis on the link between practical intervention methods and such processes. It draws on a comparative case study with longitudinal data from three Norwegian regional networks undertaken to answer the research question: 'What are the core practical interventions in dialogue-based methods that facilitate social learning of trust in networks?' The answer is to let the participants meet face to face at several seminars over a period of several months and develop joint terms and understanding. Furthermore, the participants should work together on reflection tasks organized in small, temporary, inter-organizational groups under time pressure, requiring all participants to be active by sharing, reflecting on and having dialogues about experiences and challenges within the firms. Moreover, seminars could be arranged in various localities with joint meals and social mingling at informal moments, e.g. breaks and plant visits. These interventions seem to have the potential to facilitate the social learning of trust in networks in general and also seem to work in very early stages with weak or absent trust bases among participants. The main contribution of the chapter is to increase understanding of trust-building processes in networks as social learning processes at a practical micro level.

1. Introduction

Trust is considered essential for innovative networks that involve the creation and the sharing of knowledge (Hatak & Roessl, 2010; Newell & Swan, 2000) in a reciprocal way, as it is a significant factor in both sharing and absorbing tacit knowledge (von Krogh et al., , 2000, p. 45). The sharing of tacit knowledge is crucial for knowledge creation (Chung & Jackson, 2011; Nonaka, Toyama & Konno, 2000) and when trust runs low, people become more preoccupied with explicit, provable knowledge (von Krogh, 1998). As trust grows, network participants are increasingly willing to put themselves at risk, for example through intimate disclosure, reliance on the counterpart's promises, or sacrificing present rewards for future gains (Parkhe, 1993). Trust is positively correlated with cooperation and reduced conflict levels; it leads to more cooperative negotiation behaviours and more integrative negotiation outcomes in interpersonal and intergroup negotiations (Lewicki et al, 2003; Ross & LaCroix, 1996). Trust is also crucial for reducing complexity (Luhmann, 1979) and for enriching the participant's opportunities and access to resources (Uzzi, 1997). Trust is therefore a significant governance mechanism in long-term relationships such as networks (Hatak & Roessl, 2010). An important issue is therefore whether – and how – trust can be built or learned in general and in networks in particular. The aim of this chapter is thus to identify trust-building processes in networks, with particular emphasis on practice and the link between intervention methods and such processes.

Within trust research, two traditions of building interpersonal trust exist, the behavioural and the psychological (Lewicki, Tomlinson & Gillespie, 2006). This study addresses mainly the psychological tradition, which focuses on different factors and characteristics. Personal qualities of the trustor and trustee may induce trust, for example ability, benevolence, integrity (Mayer, Davis & Schoorman, 1995), sincerity, tactfulness and confidentiality (Moorman, Deshpandè & Zaltman, 1993). Characteristics of the form of the

relationship, past relationships between the parties and their communication processes influence trust building (Lewicki et al, 2006). Structural parameters that govern the relationship between the parties, for example third parties, may also build trust (Burt, 2001; Ferrin et al., 2006). Trust is created by human interaction (Hardwick, Anderson & Cruickshank, 2013), social learning processes (Möllering, 2013) and cooperation (Dirks & Ferrin, 2002; Hardin, 2002; Ross & LaCroix, 1996). Moreover, some defined actions, denoted as trust-builders (Abrams et al, 2003) and trust-building processes in the context of networks (Gausdal, 2012) have been identified. This literature shows that interpersonal trust can be influenced and manipulated through social qualities, characteristics, institutions and interaction. The main focus in this chapter is on social interaction and in particular on practical dialogue-based methods.

The chapter presents and discusses three dialogue-based methods expected to facilitate interpersonal trust through social learning (Möllering, 2013) and interactions as practical activity. Particular emphasis is directed towards what happens when the network participants meet and how the interventions or practices are carried out. The research question is: What are the core practical interventions in dialogue-based methods that facilitate social learning of trust in networks?

The main contribution of the chapter is to increase the understanding of trust-building processes in networks as social learning processes at a practical micro level. There is a need for further studies in complex field settings that assess the change in trust and 'longitudinal qualitative techniques are particularly well suited' (Lewicki et al, 2006: 1015). Therefore, to answer the research question, a comparative study with longitudinal data from three Norwegian regional networks has been undertaken.

This chapter is organized as follows: first, the five trust-building processes and three dialogue-based methods are presented. Second, the research method is explained and the

findings are laid out. Third and finally, there is a discussion followed by a concluding section.

2. Trust-building processes and dialogue-based methods

Trust is the willingness to be vulnerable to the actions of another, irrespective of the ability to monitor or control that other party (Mayer et al, 1995). Individual learning processes are cognitive or social. Cognitive learning processes are internal, whereas social learning processes happen among individuals in an interactive and performative process in which they observe, reflect upon, make sense of and give feedback to others. Several dialogue-based methods, such as network reflection, network IGP (an acronym for individual, group and plenary reflections) and foresight may contribute to trust because they hold some of the trust-building and social learning processes: connection, communication, direction, temporary groups and resource sharing (Gausdal, 2012).

Connection. Most trust-building processes presuppose that people are connected and in networks the participants involved rarely meet accidentally. Connections may be facilitated actively, for instance they can be set up through group work or by someone playing the procuress role by interviewing people and then connecting them (Wenger, McDermott & Snyder, 2002). The optimal context for stimulating personal connections and having people learn to trust each other is in small groups (von Kroghet al, 2000).

Communication. Frequent, rich and collaborative communication is important in building trust. Frequent communication increases the exchange of information in order to assess each other's abilities, intentions and behaviour; hence it 'increase[s] trust in one another's competence' (Abrams et al, 2003, p. 68). The quality of the communication is also important in building trust. Abrams et al (2003) emphasize the value of face-to-face contact – making interactions meaningful and memorable – as well as the development of close relationships. Collaborative communication – which requires a combination of sharing,

inquiring and listening – increases interpersonal trust (Abrams et al, 2003; Gausdal, 2012). The quality of the communication also requires people to be involved and to participate actively when they meet (Gausdal, 2012).

Direction. Shared vision and language seem to increase trust in networks (Abrams et al, 2003; Argyres, 1999; Tsai & Ghoshal, 1998). Language differences are a basic barrier to communication as they affect both the richness and the collectiveness of communication (Wenger et al, 2002). Shared vision and language are reinforced by setting common goals for the network from early on and by utilizing opportunities to learn common terminology and ways of thinking, while at the same time being aware of misunderstandings due to different jargons and thoughts (Abrams et al, 2003). Groups with common goals develop interdependence among members, which results in the group becoming a 'whole', with an intrinsic tension among the members directed at reaching the goals (Lewin, 1935). This feeling of wholeness and unity creates emotional bonding and relationships (Johnsen & Johnsen, 1994).

Temporary groups. In projects in which each party is dependent on the other, creating vulnerability, uncertainty and risk, 'the trust necessary to act in the face of vulnerability will be there quickly' (Meyerson et al, 1996, p. 183). Trust may thus be learned swiftly over short, intense periods of interaction in temporary groups with time pressure (Meyerson et al, 1996). Furthermore, to build trust swiftly, stable and standardized roles and clearly defined tasks are required (Möllering, 2006).

Resource sharing. Someone who receives trust and good faith usually wishes to be trusting, loyal and generous in return. Resource sharing, or social exchange, is distinguished from a strictly economic exchange by its inherent unspecified obligations, as well as by the fact that it both requires and promotes trust (Blau, 1986). Taking risks in sharing expertise and tacit or experimental knowledge, giving people access to limited or sensitive resources when

appropriate and being willing to let others access one's personal network contacts also promotes interpersonal trust (Abrams et al, 2003).

Network reflection is a method for inter-organizational management education that is close to Mintzberg's (2004) experienced reflection (Gausdal, 2008). Experienced reflection is a method for management education that – in addition to short lectures, seminars and presentations – includes reflection tasks. During these tasks, the participants reflect on their practice on their own, collectively in small groups and during class. The facilitating role here is to prepare the right context (Schön, 1987); the pedagogy therefore helps to facilitate (Mintzberg & Gosling, 2006). The network part of this method consists of several network interventions; these may be recruiting participants from a network, a planned ad hoc lunch intervention in temporary groups at the first seminar, seminars involving firm presentations, plant visits and network news, as well as inter-organizational presentations dealing with challenges within the firms, tailoring the content and pedagogy to the participants' expectations and providing participants with the same concepts, literature and lectures as mutual backdrops for communication. Reflection tasks are organized in temporary inter-organizational groups, different for each seminar (Gausdal, 2008). Table 2.1 presents the activities involved in network reflection and relates the activities to their respective trust-building processes.

Please insert Table 2.1 about here

As shown in table 2.1, network reflection appears to include the trust-building learning processes of connection, communication, direction, temporary groups and resource sharing. *Network IGP* is developed to support the organic development of network relationships with a sufficient level of trust and to initiate knowledge mobility (Gausdal, 2013). Network IGP is

deduced from network reflection (Gausdal, 2008) and inspired by dialogic conferences (Gustavsen, 1992), cooperative learning (Johnsen & Johnsen, 1994) and reflection (Schön, 1983). Network IGP entails a combination of individual and collective reflections on a given topic, problem or question. It consists of four phases: preparation process, individual reflection, group reflection and plenary reflection. First, the participants are divided into inter-organizational groups of 3–6 and start out with a short *preparation process*, including stating their names and their primary task at work, as well as sharing some safe personal information, for example where they live, their favourite leisure activity or their best summer memory. Second, the *individual reflection* is carried out in a given time (e.g. three minutes) on a given topic, problem or question. Third, a collective *group reflection* ensues, which is time-controlled (e.g. 20 minutes). The collective group reflection starts with talking rounds, in which all the participants share their ideas and suggestions from their individual reflection one by one with limited talking time (1–2 minutes). It continues with normal discussion, perhaps prioritizing answers, and finally the answer to the given topic, problem or question is arrived at. Fourth, the *plenary reflection* consists of short presentations (e.g. two minutes) of the answers from each group, followed by a plenary prioritization and/or discussion. The method therefore includes the trust-building processes of connection, communication, temporary groups and resource sharing. If the method is used to develop visions and goals, it may also entail the process of direction (Gausdal, 2013).

Regional foresight is a tailored, participant-based method to promote the understanding of future challenges. The method may be used to generate support for a regional agenda towards R&D and innovation (RCN, 2013). The paramount objective of this support mechanism is to strengthen the region's readiness for the future, including enabling colleges and research institutes to play a part in regional innovation. The objectives pertaining to the different processes will vary, but all the processes should aim at strengthening the

quality of the regional cooperation and the regional innovation system and contributing to consensus on the main development tasks (RCN, 2013). It is also common to use foresight to develop joint vision and goals, for example in networks, which is the case in this study. Regional foresight covers a series of process-oriented techniques, i.e. scenario analyses, brainstorming, consensus conferences, strategy workshops and Delphi surveys. Professional facilitators should assist in the organization and implementation of the method. Regional foresight therefore comprises the trust-building processes of connection, communication, direction and temporary groups. Moreover, if it is used to share tacit knowledge, personal contacts, advice and tips for example, it may also entail the process of resource sharing. As noted above, the three methods comprise several of the trust-building social learning processes. Table 2.2 gives an outline of the methods and their trust-building processes.

Please insert Table 2.2 about here

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3. Method

The empirical part of this study contains three longitudinal, mostly qualitative and process-orientated cases. Case study is useful here because the issues examined are very much linked to their contexts (Hartley, 2004). Primary data were collected through in-depth interviews, participatory observation, network facilitation, document studies, long conversations and a survey. The longitudinal data were obtained through the close monitoring of the development processes of the networks by means of participatory observation and action research. Data collection was carried out with informed consent and all transcribed interviews were approved by the informants. In reporting the results, the informants and firms have been made anonymous.

In Arena Healthinnovation (AH), approximately 135 hours were spent on planning and facilitating three interventions, observation and participation in meetings, seminars, 'innovation lunches', foresight workshops and product development workshops. Five in-depth interviews with key informants – CEOs, middle managers and the board – and five long conversations with the AH manager were undertaken. The data collection period lasted five years – from 2008 to 2012.

In Elecronic Coast (EC), approximately 732 hours were spent on planning and facilitating the interventions (2001–2002), observation and participation in 44 network meetings (2001–2006), 42 telephone interviews (2004), three personal group interviews (2005) and five personal in-depth interviews (2006). The interviewees for the telephone interviews were programme participants, whereas those for the group interviews were programme participants and management groups in two of the participants' firms and at University College, a total of seven people in all. The data collection period lasted five years, from 2001 to 2006.

In Clean Water Norway (CWN), approximately 540 hours were spent on planning and facilitating several network IGP interventions, observation and participation in team, network and board meetings (2007–2011) and two foresight workshops (2010–2011). In all, 27 telephone interviews and 10 in-depth interviews with 16 informants were undertaken in the period 2008–2012.

In AH and CWN, a group interview with the network board was carried out in late 2011 and a survey was conducted during May–August 2012. In the survey, the current level of trust and whether the firms trusted each other more at that time than they did three years previously were measured on a scale from 1 to 7, where 1 = completely disagree, 4 = neither agree nor disagree and 7 = completely agree. The survey was carried out through an electronic questionnaire addressed to the contact person in all the 12 AH firms and all the 36 CWN

firms. From AH, eight answers were received, hence the response rate was 66.7%. From CWN, 21 answers were received, yielding a response rate of 58.3%.

4. Findings

Three cases illustrate how the dialogue-based methods have been used in practice and show the effects of trust on social learning.

4.1 Electronic Coast

Electronic Coast (EC) is committed to arena and network building, with the aim of promoting growth and innovation in the region's electronics-based firms. The electronics firms are mostly classified as small and medium enterprises (SMEs), most of which are sub-suppliers and some are also competitors. The network reflection pedagogy was developed and applied in a management education programme in collaboration between EC and Vestfold University College in 2001–2002. It was a part-time programme (15 ECTS), financed by a participant fee and lasted nine months. The programme consisted of eight seminars, most of which were held during the daytime, although one seminar involved an overnight stay at a retreat. At the first seminar, after just two hours, the *lunch intervention* was enacted; as one participant (representative of others) explained during interviews four years later:

> *'It worked out well because it was a way of becoming acquainted that did not necessarily depend on who you were in a sense. Consequently, you were not known according to your title or profession, but rather you were just you.'*

The seminars were held in various locations, including some plant visits, and at each of them firm presentations and network news were agenda items. The main lecturer was

present at all the seminars and facilitated the interventions. Attendance at the seminars was high and a sign of the development of affective trust is expressed in the following quotation:

> *'Gradually, the confidence became so high because you had been working in teams with all the others, you were among friends.'*

It also seems that the participants found that the building of relationships and trust during the programme was faster than expected. As one of them put it '*I felt that I very quickly got in contact with several of the others'.*

Four years after the programme ended, the participants started to cooperate on trust-demanding activities, such as the joint development of products, quality management systems and using each other as mentors, as well as on two regional communities of practice. The 27 participating managers from 14 firms, who at the outset were mostly strangers to each other, increased their co-operation considerably, both during the programme and later on. They established strong and stable communities, presenting high levels of learning and trust, and developed systems to co-ordinate actions aimed at confronting common problems. The network reflection pedagogy therefore seems to have had a trust-building effect among strangers.

4.2 Arena Healthinnovation

Arena Healthinnovation (AH) aims to develop technical solutions covering the future needs for health services, with an emphasis on health promotion and traditional health and care services in private homes or at the place in which the user is currently staying. To develop AH as a network comprising 12 private technology firms, the municipality, the regional university and the regional hospital, five foresight workshops with an overnight stay were organized in 2009 and 2010. The mission was to connect the participants, develop a common vision and

strategy, define common unique knowledge and common opportunities, strengthen the sense of connectedness and finally develop joint projects. During the foresight process, activities were mainly carried out in temporary groups. Each group consisted of participants from the different stakeholders and the groups were reorganized at each workshop. The merging of the different stakeholders and logics was a challenge, as reflected in the following comments by one of the firms' CEOs about the first workshop:

> *'It was very unsettling to be together with the municipality, ergo representatives from a demanding customer. Moreover, suddenly someone from the university was sitting there. What on earth? What are we actually a part of?'*

Another CEO stated in the early phase:

> *'We are not really on the same planet as academia. I do not always understand what they want, it is completely different. The cultural gap is huge.'*

The participants and the network manager all emphasized the importance of the informal social interaction to build relations, such as dining together in the evening.

The results from the foresight workshops are visible above all in greater openness and transparency between the firms, also with respect to their technological platforms. The actors have defined common unique knowledge, common opportunities, common goals and strategies, and common innovation projects. In one of the innovation projects, eight firms are jointly developing new technology in the 16 planned senior citizen housing units in the municipality. In 2012, the private firms established their joint marketing organization. Moreover, according to the manager, '*An insane trust capital has developed among the participants'.* In the 2012 survey, the level of trust had a mean value of 6.1 and a mode value of 6 and 7; whether the firms trusted each other more than they did three years previously had

a mean value of 6.6 and a mode value of 7 (on a scale of 1–7). One of the firm representatives described the experience in the following manner:

> *'The process which has been going on to get this all started and to set up some framework and so on... it is because we have met up, and also partly because we have been sitting in groups and discussing, and partly because we have eaten and drunk together, that we have gotten to know each other a bit and feel we can trust each other to some extent.'*

Furthermore, one CEO in the AH board declared:

> *'The trust we have developed allows us to open up the technology process. I work in an IT company and we take special care to protect such things, but here it is possible to open up and cooperate more than is usual.'*

During the foresight workshops, several social learning processes among the participants from different types of stakeholders and cultures took place. As illustrated above, these processes have contributed to trust building.

4.3 Clean Water Norway

Clean Water Norway (CWN) is a public–private regional network in the water cleansing industry. Its main aim is to strengthen the value creation in the network, be a strong supplier to the water and drain industry on a national scale and become a global actor (CWN, 2011). CWN covers the value chain from sub-suppliers to systems suppliers, consultants, research organizations and demanding customers (CWN, 2011). The customer base covers public sewer plants, public water cleansing plants, construction firms, different kinds of industries

producing waste water, shipping firms and relief organizations. Before CWN was established in 2007, there was relatively little interaction between the firms (Gausdal & Hildrum, 2012).

Network IGP was introduced at the first ordinary network meeting in October 2007 to determine what the main topic at the next meeting should be. The alternative 'Learning from the Electronic Coast' was chosen. Therefore, at the next network meeting three representatives from EC shared their experiences and gave CWN a lot of advice based on their efforts, gains, pitfalls and successful activities. Subsequently, the EC and the CWN participants worked together in temporary groups, using network IGP, to consider how the water firms could utilize CWN in their value creation. One of the conclusions in the plenary session was that 'network teams must be organized ASAP'. Thus, at the next network meeting potential CWN teams were selected and started. Immediately afterwards, the initial team meetings were organized as a part of the network meeting, applying network IGP with external trained facilitators. One informant described this process as follows:

> *'We were almost forced to sit down in groups and try to get it going, and I think probably it was a precondition. If you did not do it that way, I do not think we had been sitting with the teams today.'*

In 2010 the network was in need of a new strategy process. Such a process was therefore initiated and completed in the spring of 2011, managed as a light version of foresight, with network IGP as the method for all the group work. To sum up, network IGP was applied 20 times at network and board meetings from 2007–2012, each time lasting from 10 to 75 minutes (Gausdal, 2013).

The importance of trust among the network participants seems to have been learned at an early stage, as is also emphasised by one of the CEOs:

> *'Trust is the keyword. The road to achieving such a high level of trust among us, allowing us to share business ideas and future plans, is long. In CWN we trust that what we tell each other will not be misused. We can therefore utilize each other's competence without negative implications for the firms. This level of trust is the most important result of CWN'* (RCN, 2010: 4).

From 2007–2008, the participants showed a great deal of trust-dependent behaviour. CEOs and middle managers contributed actively by sharing their knowledge in temporary groups at network meetings and started to work actively together in network teams. The firms carried out their first joint recruitment campaigns, offered each other the use of their laboratory facilities and started contacting each other to discuss joint customer projects. From 2009 onwards, they also started sharing R&D ideas and challenges, as well as collaborating in several joint R&D projects; for instance, two – partly competitive – firms collaborated with researchers on an R&D project to use new enabling technology – BioMEMS – to identify and measure water pathogens. Furthermore, the firms cooperated in several joint customer projects and one firm invited all the other CWN participants to use their newly established Egypt office (www.vannklyngen.no, 2009). In the 2012 survey, the level of trust had a mean value of 5.3 and mode value of 6; whether the firms trusted each other more than they did three years previously had a mean value of 5.7 and a mode value of 7. The predominant dialogue-based method for developing CWN was network IGP and to a certain degree also foresight. It is reasonable to assume that these processes have contributed to the social learning of trust within CWN.

4.4 Comparing the three cases

An overview of the context according to relevant theoretical dimensions and how the three cases do (or do not) vary accordingly, is provided in Table 4.1.

Please insert Table 4.1 about here

The three cases differ in the application and management of the dialogue-based methods and in the social learning of trust. In Electronic Coast, network reflection was carried out over a period of nine months, while in Arena Healthinnovation the foresight method was applied through five two-day workshops over the course of one year. In Clean Water Norway, network IGP was employed 20 times in the space of five years and foresight was applied by means of two two-day workshops over the course of three months. The slightly lower level of trust in CWN compared to AH could be explained by network size. By number of members, CWN is three times larger than AH and because the best context for learning trust is small groups, the disposition to trust a few network partners in a small network is higher than in larger networks.

5. Discussion and conclusion

Trust seems to have been learned in all the three cases and it is likely that the dialogue-based methods, network reflection, network IGP and foresight, have contributed to the social learning processes of trust. What is still not clear is what the core interventions are which contribute to the social learning of trust in these practical methods. To find out, it may be useful to break the methods down into their practical interventions and compare them, which is done in Table 5.1.

Please insert Table 5.1 about here

As shown in Table 5.1, the joint interventions in all three methods are: recruiting participants from a network with people from the same industry and the same region, who practice some of the same professions; letting the participants meet face to face at several seminars over several months and develop joint terms and understanding; having them work together on reflection tasks organized in small, temporary, inter-organizational groups, requiring all participants to be active by sharing, reflecting and engaging in dialogue on experiences and challenges within the firms; furthermore, organizing seminars in various locations with joint meals and social mingling at informal moments, e.g. breaks and plant visits. Finally, an external facilitator facilitates the interventions in all three methods.

A particularly interesting element for the analysis of the potential ability of these joint social interventions to contribute to the social learning of trust is their content in terms of trust-building processes or other trust-building mechanisms. Recruiting participants from a network with people from the same industry and the same region, who practice some of the same professions, contributes to building institution-based trust (Williamson, 1996). It is also significant that many of the participants have a common background or a similar demographic profile, something that influences trust building (Levin et al, 2006). External facilitators represent a joint third-party relationship, which also contributes to building trust (Burt, 2001; Ferrin et al, 2006). These types of trust building, however, do not require interpersonal contact and are therefore not dependent on social learning.

The joint interventions address different trust-building processes. All the three methods are linked to the trust-building processes in Table 2.2, but for the purpose of this study – analysing the core practical interventions – these links are too simplistic and their content needs to be explicated or unwrapped. All the methods entail the face-to-face meeting

of participants at seminars through social mingling and joint meals, both of which represent core parts of the trust-building process of connection. The face-to-face communication and dialogue in small groups and that at different locations contributes to the quality of the trust-building process of communication. Having the participants meet at several seminars over time at formal and informal moments and insisting on their active involvement (a common trait for the methods described here) contributes to the frequency of the trust-building process of communication. The development of joint terms and understanding contributes to moulding the language aspect of the trust-building process of direction. Working together in in small, inter-organizational groups under time pressure contributes to the trust-building process of temporary groups. The sharing of experiences and challenges within the firms, with the ensuing reflections, contributes to the trust-building process of resource sharing. To sum up this discussion, Table 5.2 links the joint interventions to their corresponding trust-building processes.

Please insert Table 5.2 about here

According to Möllering (2013: 291),

> 'It has been an interesting but unduly peripheral question in trust research to what extent the learning process of trust can be started without a trust basis but with the aim to develop trust. In other words, will actors engage in interaction in order to gain experience with others, thus "testing" if trust might be developed?'

In all the three cases here, the methods of network reflection, network IGP and foresight have been applied with participants from different organizations from their very first meeting. As they were all from the same nation and working in the same region, some kind of

characteristic-based trust (Zucker, 1986) might already have existed among them. Because most participants were strangers when the methods were introduced and some of them represented different types of stakeholders, such as private firms, public plants, the public sector and academia, my assumption is that their trust basis was very weak at the outset. They nevertheless engaged in social interaction to gain experience with others. These methods are therefore appropriate to 'test' if trust might be developed in a given setting. I argue that this may happen because these methods entail the social learning and trust-building processes of connection, communication, direction, temporary groups and resource sharing.

Based on the findings presented in this section, we can conclude that the answer to the research question, 'What are the core practical interventions in dialogue-based methods that facilitate social learning of trust in networks?', is to let the participants meet face to face at several seminars over several months and develop joint terms and understanding. Furthermore, the participants should work together on reflection tasks organized in small, temporary, inter-organizational groups under time pressure, requiring all participants to be active by sharing, reflecting on and having dialogues about experiences and challenges within the firms. Moreover, seminars could be arranged in various locations with joint meals and social mingling at informal moments, for example during breaks and plant visits. These interventions seem to have the potential to facilitate the social learning of trust in networks in general and seem also to work at very early stages with weak or absent trust bases among participants.

This study naturally has several limitations. Longitudinal real-life cases represent complex settings with several activities that may influence the results. The isolation of the phenomenon studied is almost impossible to achieve and other factors may therefore have influenced the results. In the selected cases, the composition of the participant sample and their predisposition for trust, the type of participants and the basic level of trust in the

different contexts may also have exerted some influence. The fact that Norway is a high-trust society (Newton, 2001) may have influenced the results; it would therefore be of interest to test the interventions in other national contexts.

This study makes both theoretical and practical contributions. The theoretical contributions constitute the presentation and discussion of the three dialogue-based methods – network reflection, network IGP and foresight – as well as breaking the methods down to their practical interventions and comparing them to identify the joint interventions that seem to contribute to the social learning of trust in networks. Another theoretical contribution is the linking of the practical interventions with trust-building processes in networks and other types of trust-building activity. This contributes to the emerging psychological tradition of research on how to manage trust-building in general and in networks in particular. More precisely, it contributes to how human interaction processes, communication and cooperation influence trust building. The practical contributions are the outlining and the description of the methods and the interventions which may influence the social learning processes of trust in networks. This may be of interest to managers, network managers, consultants and policy makers.

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TABLES

Table 2.1. Connecting network reflection activities with trust-building processes.

Network reflection activity	**Trust-building learning process**
• Participants meet face to face at several seminars over several months • Reflection tasks organized in temporary inter-organizational groups • Lunch intervention organized in temporary inter-organizational groups • Presentations organized in temporary inter-organizational groups	Connection
• Participants meet face to face at several seminars over several months • Seminars held at various locations, some including plant visits • Lunch intervention organized in temporary inter-organizational groups and requiring participants to work together on non-work topics/issues and share non-work competences and creative ideas • Reflection tasks organized in small temporary inter-organizational groups • Reflection tasks at each seminar requiring reflection and discussion of experience and challenges within the firms, as well as theoretical frameworks • Inter-organizational presentations – dealing with practical challenges within the firms • Presentations organized in temporary inter-organizational groups • Social mingling at informal moments, e.g. breaks and plant visits • Joint meals at seminars • One seminar with overnight stay at a retreat	Communication
• Tailoring the content and pedagogy to the participants' expectations, discussed and mapped out at the first seminar • Providing participants with the same concepts, literature and lectures as mutual backdrops for communication by participating in the same class • Firm presentations and network news • E-mails to follow up, prepare and motivate for each seminar • Recruiting participants from a cluster network with people from the same industry and the same region, who practice some of the same professions	Direction
• A planned ad hoc intervention at the first seminar on a safe project with a clearly defined target: preparing lunch • Reflection tasks that demand reflection alone or collectively in small groups and during class at a given point in time • Inter-organizational presentations – dealing with practical challenges within the firms	Temporary groups
• Reflection tasks at each seminar requiring sharing, reflection and discussion of experience and challenges within the firms, as well as theoretical frameworks • Lunch intervention requiring participants to work together on non-work topics/issues and share non-work competences and creative ideas	Resource-sharing

Table 2.2. Methods and trust-building processes.

Method	**Trust-building processes**
Network reflection	Connection Communication Direction Temporary groups Resource sharing
Network IGP	Connection Communication (Direction) Temporary groups Resource sharing
Foresight	Connection Communication Temporary groups (Resource sharing) Direction

Table 4.1. The three cases (networks) and their dimensions.

Network/dimension	**Electronic Coast**	**Arena Healthinnovation**	**Clean Water Norway**
Size (number of participating firms)	14	12	36
Participants	Technology firms (SMEs) Regional university	Technology firms (SMEs) Municipality (customers) Regional university Regional hospital	Technology firms (SMEs) Municipality (customers) Regional university R&D institutions
Main industry	Electronics and micro-technology	Health technology	Water cleansing
Methods applied	Network Reflection	Foresight	Foresight Network IGP
Trust now (2012)		6.1	5.3
Trust each other more than three years ago		6.6	5.7

Table 5.1. The practical interventions of the three methods.

Practical interventions	**Network reflection**	**Network IGP**	**Foresight**
Recruiting participants from a network with people from the same industry and the same region, who practice some of the same professions	X	X	X
Participants meet face to face	X	X	X
- at several seminars over several months	X	X	X
- also invited to share some personal information		X	
Reflection tasks organized in small temporary inter-organizational groups under time pressure	X	X	X
- demanding reflection alone and/or collectively in small groups	X	X	
- requiring sharing, reflections and dialogues of experience and challenges within the firms	X	X	X
- requiring all participants to be active	X	X	X
Developing joint visions and goals			X
Developing joint terms and understanding	X	X	X
Lunch intervention organized in temporary inter-organizational groups	X		
- requiring participants to work together on non-work topics/issues and share non-work competences and creative ideas	X		
Seminars comprising			
- social mingling at informal moments, e.g. breaks and plant visits	X	X	X
- joint meals	X	X	X
- overnight stay at a retreat	X		X
- various localities, some including plant visits	X	X	X
- firm presentations and network news	X		X
Theoretical anchoring			
- Providing participants with the same concepts, literature and lectures as mutual backdrops for communication	X		
- Discussing practical use of theoretical frameworks	X		
Presentations organized in temporary inter-organizational groups dealing with practical challenges within the firms	X		
External facilitator of the processes	X	X	X

Table 5.2. Linking joint interventions and trust-building processes.

Joint practical interventions	**Trust-building processes**
Recruiting participants from a network with people from the same industry and the same region, who practice some of the same professions	(Institution based trust)
Participants meet face to face - at several seminars over several months	Connection Communication
Reflection tasks organized in small temporary inter-organizational groups under time pressure - requiring all participants to be active	Communication Temporary groups Resource sharing
Developing joint terms and understanding	Direction
Seminars with - social mingling at informal moments, e.g. breaks and plant visits - joint meals - various localities, some including plant visits	Connection Communication
External facilitator of the processes	(Third-party relationship)