Deep Leadership® Coaching Effectiveness: A Case Study of a Science-Based Company

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Abstract: Organizational coaching can be described as a learning process that aims to facilitate the participants' leadership skills by providing them with new ways to view their work, as well as their actions within the work community. Previous studies focusing on the Deep Leadership® coaching process have found that the coaching program has immediate effects on the participating work communities. However, more studies on the effectiveness of the method are needed in order to enable an understanding of how the coaching method operates in different kinds of work communities. In this paper, we study the effectiveness of the Deep Leadership® coaching process (DL, 2014) by analyzing the changes that have taken place within a science-based company during and after active between 2011 and 2012. In this study, we combine the statistical findings of 360-leadership profiles, coaching feedback data, and the organization's climate survey data to evaluate the effectiveness of the Deep Leadership® coaching process. We will start by presenting the core aims and structure of the Deep Leadership® coaching process and the methods used to study the effectiveness of the program. Thereafter we will proceed to the analysis of this case study and discuss the findings in relation to previous studies.

Keywords: Coaching effectiveness; Deep leadership®; 360-leadership profile.

1. Introduction

  The development of leadership through coaching or training programs has become a general practice in many organizations (Stout Rostron, 2011). Organizational coaching can be described as a learning process that aims to facilitate the participants' leadership skills by providing people with new ways to view their work, as well as their actions within the work community (Kinnunen, 2011; Stout Rostron, 2011). However, as Ely *et al.* (2010) and Ladegard. and Gjerde (2014) have pointed out, very few studies have focused on the systematic evaluation of interventions that are targeted toward leadership development. In this paper, we will study the effects of the Deep Leadership® coaching process, organized by Deep Lead Inc. (DL, 2014) by analyzing the changes that have taken place in the participants' 360-leadership profiles and coaching feedback during the coaching process. The Deep Leadership® coaching process aims to promote the participants' leadership skills by supporting both executives' and subordinates' critical self-reflection and self-development (Kazmi and Kinnunen, 2012). By promoting the individuals' personal abilities and their willingness to develop these abilities, the training program aims to trigger learning processes that expand from the individual level to the level of active development of working groups within the organization. It is hoped that these processes, which start from the grassroot level, will eventually reach and impact the entire work community and thus become a permanent part of the organization's practices (Valli and Kinnunen, 2012).

  Previous studies that have focused on the Deep Leadership® coaching process have analyzed the effectiveness of the coaching method by focusing on the development of the participants' leadership profiles during and after the coaching process (Kazmi and Kinnunen, 2012; Kinnunen, 2011; Valli and Kinnunen, 2012). According to these studies, the Deep Leadership® coaching process has shown its effectiveness by advancing the leadership skills of the participants in both profit (Kazmi and Kinnunen, 2012; Valli and Kinnunen, 2012) and nonprofit organizations (Kinnunen, 2011). However, more studies on the effectiveness of the program are needed to enable an understanding of how the process functions in different kinds of work communities. In this paper, we further study the effectiveness of the Deep Leadership® coaching process (DL, 2014) by analyzing the changes that have taken place within an expertise organization during and after the active coaching participation in 2011–2012. The analyses are based on statistical data that were gathered from the individual participants, as well as from the work community's climate surveys before, during, and after the coaching process. In addition, follow-up interviews, which were carried out in

2014, were used to determine whether any permanent changes had taken place within the organization. We will start by presenting the core aims and structure of the Deep Leadership® coaching process and the methods used to study the effectiveness of the program. Thereafter, we will proceed to the analysis of this case study and discuss the findings in relation to previous studies.

2. The Deep Leadership® Coaching Model

The Deep Leadership® coaching (DL, 2014) model was originally developed by the Finnish Defence Force, where the aims of deep learning were combined with the aims of transformative leadership theories (for more information, see (Kinnunen, 2003). The aim of the model was to train people to become leaders who are self-oriented, who trust and respect their subordinates, who have good communication skills, who are able to critically evaluate their own work and leadership skills, and who act as examples to their subordinates (Kinnunen *et al.*, 2012). After showing positive results in the leadership programs and field tests carried out at the Defence Forces, the model was further developed to be used as a leadership-training program in civilian organizations. While the clients have mainly consisted of companies working in the field of technology, nonprofit organizations, such as the University of Helsinki, have also taken part in the training (Kinnunen, 2011).

The aim of the Deep Leadership® coaching model (DL, 2014) is to trigger a dynamic and "deep" learning process that continues after the formal coaching process has ended (Valli and Kinnunen, 2012). Therefore, the coaching aims to create a learning cycle in which the issues discussed during coaching are put into practice by changing defunct practices and creating new ways of doing at both the personal and the organizational levels. The learning cycle is illustrated in Figure 1.

Figure-1. The learning cycle of deep learning is created through continuous feedback (DL, 2014).
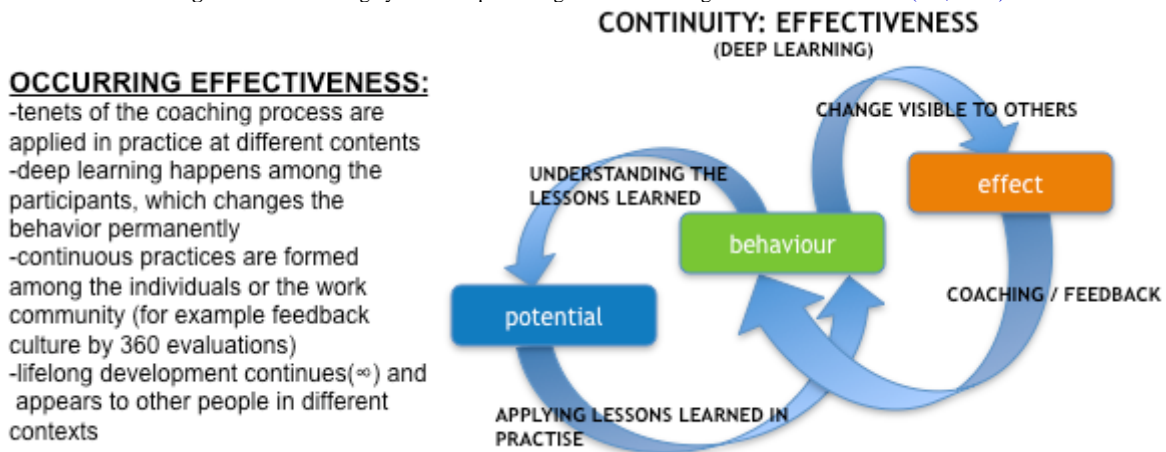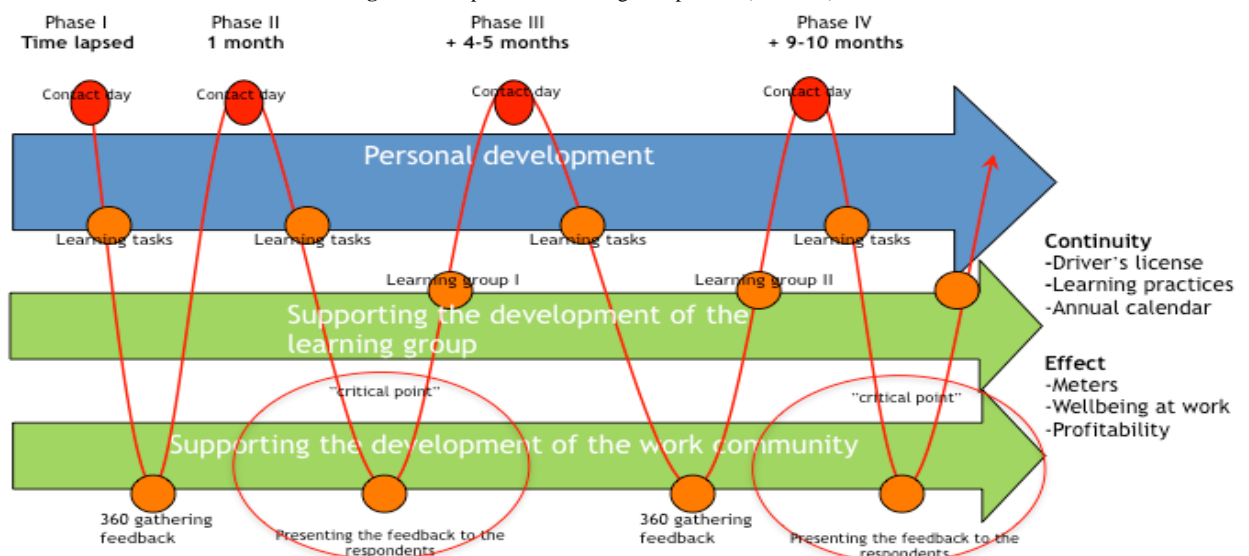

Figure-2. Deep Lead® coaching core process (DL 2010)

An essential part of this learning cycle is the reciprocal receiving and giving of feedback amongst the people in the work community. Through this continuous practice of feedback, the goals of the individuals' personal development can be fitted with the developmental needs of the larger work community. As Ahoniemi, Kulmala, and Nissinen have pointed out, "[a]n essential part of developing leadership is the clarification of the borderlines of one's

own activities and conception of human beings" (Ahoniemi *et al.*, 2009). To create this kind of cycle of learning, the Deep Leadership® coaching (DL, 2014) process includes different forms of exercises that aim to provide the participants with the ability to integrate theory-based learning into the practical, everyday functions of the work community. The active coaching process lasts for around two years, and it includes several phases, which are illustrated in Figure 2.

The most visible aspect of the process is formed by the four *contact days* that are held approximately every six months, starting at the beginning of training. The contact days are illustrated with (red) dots at the top of the picture. Between the contact days, the participants carry out a series of *individual and group work exercises and activities*. All activities are planned to advance the learning process and deepen the issues discussed during the contact days. Out of the exercises, the most notable one is the *360 profile*, which is gathered and analyzed at least twice during the coaching process. The 360 profile is a common tool in leadership development, and it consists of the systematic collection of feedback from coworkers, superiors, and subordinates. The feedback received from all respondents is gathered to form the recipients' individual 360-leadership profiles. These personal profiles are analyzed with the coach during the contact days, and the strengths and weaknesses shown in the profile are used as a basis for creating a personal development plan. At the end of the coaching process, the 360 profiles that were gathered at different points of the process are compared to determine whether and what kinds of changes have taken place. All the exercises, self-evaluation reports, and feedback received from coworkers are collected in a personal *learning portfolio*.
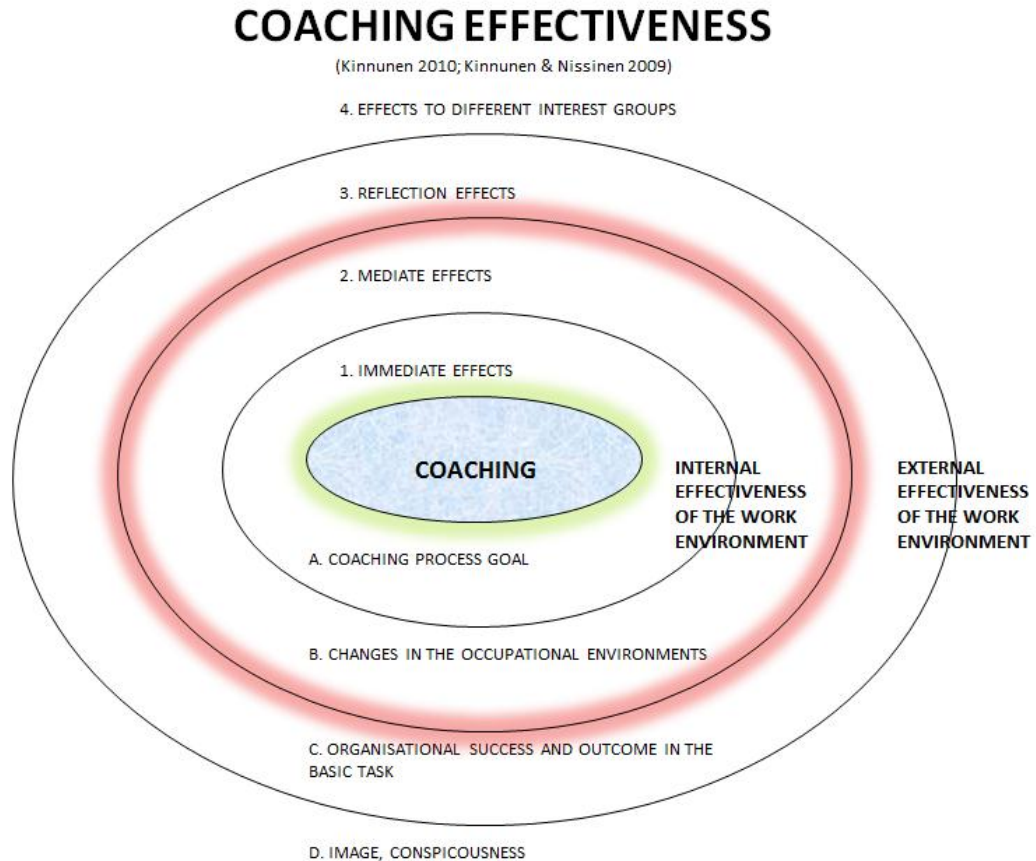
According to Kazmi and Kinnunen (2012) long-lasting changes within the organization's practices are best gained when the organization as a whole is committed to the idea of continuous learning and development. Similarly, Ladegard. and Gjerde (2014) maintain that the success of leadership programs cannot be evaluated without including the experiences of the subordinates. In the Deep Leadership® coaching programs, the experiences of the subordinates are visible in the 360 profiles of the superiors; however, depending on the organization, the subordinates may also participate in the coaching program themselves. Thus, the coaching process is not designed only for top-level leaders; instead, the process is the same for superiors and subordinates alike. This way, the Deep Leadership® coaching model comes close to the ideas of shared leadership—that is, leadership is practiced by several people within the group (Drescher *et al.*, 2013). However, whereas shared leadership focuses primarily on the functioning of the group (Drescher *et al.*, 2013). Deep Leadership® coaching is rooted in the development of the skills and knowledge of individuals. The primary goal of the Deep Leadership® coaching process is, therefore, to provide all participants, regardless of their position in the organization, with abilities to lead their own work and, thereby, provide them with the means to influence the working environment and the methods of carrying out everyday practices in different contexts.

3. Identifying Levels of Coaching Effectiveness

As Kinnunen (2011) has pointed out, the question of whether coaching programs are effective and worth the investment is essential for both profit and nonprofit organizations. However, measuring the effectiveness of coaching is difficult, as coaching is a dynamic process that takes place both within and between individuals (Ianiro and Kauffeld, 2014). One of the major challenges in evaluating coaching effectiveness is separating coaching-related effects from other organizational and personal processes that occur during coaching (Kinnunen, 2011). Another difficulty is created by the fact that, similar to teaching, coaching is, to a great extent, shaped by the personal characteristics of the coach and the participants. Thus, the success and effectiveness of a coaching program cannot be evaluated by looking at only its subject content. For example, in their study, Ianiro and Kauffeld (2014) showed that the mood of the coach before starting the coaching session affected the interpersonal interaction taking place in the coaching session. Similarly, (Day *et al.*, 2014) have pointed out that "the intrapersonal and interpersonal processes are central to leadership development over time." Thus, in addition to the content of the coaching program, the effectiveness of the program is influenced by the social interaction between the coach and the participants, the relationships among the participants, as well as contextual factors, such as the mood of the coach (Ianiro and Kauffeld, 2014). For these reasons, using only one approach, such as self-reports or pre- and post-training measurements, to study the effectiveness of coaching is troublesome. According to Ladegard. and Gjerde (2014) one of the main problems in evaluating leadership interventions is the lack of common evaluation criteria.

To overcome these challenges and to study the effectiveness of the Deep Leadership® coaching process from multiple perspectives, Kinnunen and Nissinen (2009) have developed a Deep Lead® coaching effectiveness process (DLCEP), which has been modified and applied by Kazmi and Kinnunen (2012) and Valli and Kinnunen (2012). According to the DLCEP model, the effectiveness of the coaching program can be studied through four key dimensions. These are: 1) **mediate effects**, 2) **immediate effects**, 3) **reflection effects**, and 4) **effects on different interest groups**. These are illustrated in Figure 3.

Figure-3. The internal and external effects of the coaching program (DL, 2014)

COACHING EFFECTIVENESS
(Kinnunen 2010; Kinnunen & Nissinen 2009)

4. EFFECTS TO DIFFERENT INTEREST GROUPS

3. REFLECTION EFFECTS

2. MEDIATE EFFECTS

1. IMMEDIATE EFFECTS

COACHING

INTERNAL EFFECTIVENESS OF THE WORK ENVIRONMENT

EXTERNAL EFFECTIVENESS OF THE WORK ENVIRONMENT

A. COACHING PROCESS GOAL

B. CHANGES IN THE OCCUPATIONAL ENVIRONMENTS

C. ORGANISATIONAL SUCCESS AND OUTCOME IN THE BASIC TASK

D. IMAGE, CONSPICOUSNESS

The two inner cycles represent the internal effectiveness that is taking place within the working community, and the second two represent the external effectiveness that is visible to outsiders. Starting from the center, *the immediate effects* represent the ways in which the participants achieve the direct goals of the coaching program and show personal development throughout the process. These are studied, for example, by analyzing the feedback that the participants have given about the coaching, comparing the results of the participants' 360 profiles at the beginning and end of the coaching, and looking at the learning outcomes related to the individual and group assignments. Thus, the immediate effects can be identified from the data that are gathered as part of the Deep Leadership® coaching process. Expanding on this, *the mediate effects* refer to the changes that have taken place in the occupational environment as a result of the coaching program. These can be studied, for example, by looking at the results of the climate surveys and reports in the workplace that have been conducted before and after the coaching. While the mediate effects are more difficult to recognize than the immediate effects, by comparing the individual learning profiles with the general trends in leadership satisfaction at the organizational level, it is possible to determine whether the development shown at the individual and work community levels follow similar paths.

The external dimension of *reflection effects* refers to the ways in which the internal changes are reflected in the operational success of the organization. These are more difficult to study than the internal-level effects, as the success of the organization depends on many issues. However, the reflection effects can be recognized, for example, by comparing customer surveys and balance sheets that are gathered before and after participation in the coaching process and analyzing the possible links between the changes in these documents and the internal practices of the organization. The fourth dimension of *the effects shown to interested groups* extends the external effects from the reflection effects to the areas that relate to the branding of the organization. These include, for example, the conspicuousness and image of the organization, and thus, the effects of the coaching process on interest groups are studied, for example, by looking at the ways in which the organization is marketed to and viewed by outsiders. Together, these four areas cover the internal and external sphere of the organization and four different levels of coaching effectiveness. According to the model, a successful coaching process that is carried out within a motivated and committed organization can lead to effects at all four levels. However, as Kinnunen (2011) has pointed out, the internal effects are easier to evaluate reliably than the external effects, as data regarding the immediate and some mediate effects are gained directly as part of the coaching process. The evaluation of the reflection and out-group effects requires the combination of different types of documents, preferably over long periods, to see whether or not the coaching has led to permanent changes within the organization.

4. Present Study

Previous studies have pointed out that more focus should be placed on the interior processes than on the visible outcomes of leadership programs (Ladegard. and Gjerde, 2014). For this reason, in this study, we analyze the effectiveness of the Deep Leadership® coaching process by using the previously described model of internal and external effects. The data for this study have been derived from a private science-based company that took part in the Deep Leadership® coaching during the 2011–2012 period. The organization is located in Finland but is part of an international corporation. To ensure the complete anonymity of the respondents, the name and other details of the company are left unreported. One important aspect of the studied organization is the fact that the ownership of the company had changed immediately prior to the start of the coaching process. As a result, the organization was undergoing many changes in its policies and practices that most likely also influenced the data and findings of this study. We will come back to some of these changes in the analysis. However, because of these structural changes that the company was going through, a reliable evaluation of the external effects of the coaching process remains beyond the scope of this paper. Instead, we will focus on the immediate and mediate effects of the Deep Leadership® coaching process. The study will answer to the following three research questions:

- 1. What kinds of changes can be seen in the participants' 360-leadership profiles as a result of the Deep Leadership® coaching?
- 2. Are there differences in the effectiveness of the coaching program in relation to executive leaders, operative leaders, and subordinates?
- 3. How does the participants' personal development relate to the working climate measures carried out in the organization before and after the coaching process?

We will answer the first and second research questions by analyzing the data gathered from three personnel groups as part of the coaching process. The groups consist of a) executive leaders, b) operative leaders, and c) subordinates, including employees working on technical issues. The data include the 360 profiles from 35 people gathered at the beginning and end of the coaching process (altogether 70 profiles), as well as participant feedback that was gathered after each of the four contact days. We will analyze the data set as a whole first and then take a look at the outcomes of the different groups to see if there are differences between their performances. For the third research question, we will compare the findings of the participants' leadership profiles with the results of an internal climate survey that the organization had carried out over several years. We will contrast the findings of the climate surveys with the follow-up interviews carried out with 10 participants in the coaching process to see if the interview data provide possible explanations for these climate results. Consent for using and publishing the data was requested and obtained from all participants at the start of the coaching process.

5. Immediate Effects
5.1. 360-Leadership Profiles

To answer the first research question, we will analyze the quantitative data gained from the 360 profiles (N=35). The Deep Leadership® 360 profile was gathered using the Deep Leadership® questionnaire, which includes 30 close-ended questions and three open-ended questions. (Ahoniemi *et al.*, 2009). According to Ahoniemi *et al.* (2009) the questionnaire includes the following 10 key areas:

1. Professional skills (PO) refer to the skills, knowledge, and natural orientations that affect the ways in which people carry out their current assignments.
2. Building trust and confidence (BT) refers to the ways in which leaders act as examples to their subordinates.
3. Inspirational motivation (IM) refers to the ways in which leaders encourage their subordinates to find out about new aspects about their work and thus further the goals of the group.
4. Intellectual stimulation (IS) refers to the ways in which leaders provoke the thinking of their subordinates and promote their creativity.
5. Individualized consideration (IC) refers to the ways in which leaders view their subordinates as human beings instead of seeing them as only workers.
6. Controlling and corrective leadership (CL) refers to leadership in which leaders lack trust in their subordinates.
7. Passive leadership (PL) refers to leadership in which the leader does not actively lead but only reacts when the subordinates cannot resolve the issue.
8. Effectiveness (EF) refers to efficiency of the entire organization in which the leader works.
9. Satisfaction (SA) entails both the organization's and the leader's general efficiency and success.
10. Extra effort (EE) refers to the subordinates' willingness to contribute to their work and their level of commitment to their work community.

The close-ended questions were answered on a scale of 0 to 4, where 0 represented the lowest agreement with the statement, and 4 represented the highest agreement with the statement.

Table 1 presents the descriptive statistics of the measured key areas in the two periods—2011 and 2012. Time 1 includes the results of the participants' 360-leadership profiles gathered at the beginning of the coaching process, and Time 2 includes the results of the profiles gathered at the end of the process.

Table-1. Descriptive Statistics of Whole Sample Using t-test for Equality of Means

	n	Time 1 M	Time 1 SD	Time 2 M	Time 2 SD	t	df	Sig. (2-tailed)
PO	35	3.25	0.23	3.38	0.22	2.50	67.73	.02*
BT	35	3.04	0.32	3.18	0.20	2.17	57.42	.03*
IM	35	2.55	0.32	2.73	0.27	2.53	65.97	.01*
IS	35	3.05	0.29	3.24	0.30	2.66	67.95	.01*
IC	35	3.11	0.31	3.28	0.25	2.43	65.03	.02*
CL	35	0.74	0.30	0.52	0.26	3.02	66.99	.00**
PL	35	0.60	0.26	0.43	0.25	2.78	67.99	.01*
EF	35	3.24	0.24	3.40	0.22	2.83	67.65	.01*
SA	35	3.30	0.28	3.42	0.22	1.96	63.96	.05*
EE	35	2.26	0.25	2.46	0.22	3.50	67.04	.00**

*$p<.05$, **$p<.001$

As the table shows, the mean scores of all positive leadership qualities were higher in the second profiles gathered at the end of the coaching process than in the first profiles gathered at the beginning of the process. The highest mean score was given to *satisfaction* in both the first and second measurements, while the lowest mean scores of the positive dimensions were given to *extra effort* in both periods. The lowest scores altogether were given to *passive leadership* in both measurement periods. As *passive leadership* is an unwanted leadership characteristic, the low and decreasing score is a desired outcome. Even the lowest mean scores of the positive dimensions of EE and EM showed higher mean scores in the second measurement than in the first profile. Correspondingly, the negative dimensions of both the *passive leadership* and *controlling and corrective leadership* styles decreased from the first measurement to the second one. The changes in the means scores were further tested using the t-tests for equality of means (equal variances not assumed), which confirmed that the changes in the means of the two measurement times were statistically significant in all measured dimensions. According to these findings, the participants' leadership skills, evaluated by their peers, subordinates, and superiors, had increased during the time of the coaching, while negative dimensions had decreased. These results indicate that the changes are the immediate effects of the coaching.

Next, to gain a more detailed understanding of the development, we will look at the ways in which the participants' 360-leadership profiles changed in the three reference groups. The total sample of 35 profiles consisted of three groups: executive leaders (n=7), operative leaders (n=1), and subordinates (n=27). As there was only one person from the operational leadership group who had completed the 360 profile at the beginning and end of the training, we will report the statistical findings from the executive and subordinate groups only. The descriptive statistics of the executive group are illustrated in Table 2, and the results of the subordinate group are reported in Table 3.

Table-2. Descriptive Statistics of Executive Leaders

	n	Time 1 M	Time 1 SD	Time 2 M	Time 2 SD
PO	7	3.34	0.24	3.44	0.21
BT	7	3.27	0.24	3.33	0.14
IM	7	2.91	0.19	3.03	0.17
IS	7	3.23	0.20	3.36	0.27
IC	7	3.13	0.35	3.25	0.29
CL	7	0.82	0.38	0.77	0.26
PL	7	0.60	0.16	0.49	0.39
EF	7	3.30	0.21	3.43	0.28
SA	7	3.33	0.31	3.41	0.34
EE	7	2.48	0.19	2.63	0.19

The mean scores of the 360 profiles show that the changes were positive in all the areas that the coaching aimed to improve. Correspondingly, the mean scores of the negative dimensions of CL and PL decreased during the process. As the number of participants in the executive group was only seven, it was not seen as meaningful to measure the statistical significance of the changes. However, as the mean scores improved in all measured dimensions, the findings indicate that the coaching was effective in promoting the executive leaders' leadership skills in these areas. While the sample is small, it includes the whole group of participants and thus provides an adequate overall representation of the development of the group. Following the findings of the executive group, the changes in the subordinate group also indicated positive paths of development. Similar to the executive group, the areas that the coaching process aimed to enhance increased between the two measurement periods, while the dimensions of *passive* and *controlling* leadership decreased.

Table-3. Descriptive Statistics of Subordinates Using t-test for Equality of Means

		Time 1		Time 2				
	n	**M**	**SD**	**M**	**SD**	**t**	**df**	**Sig. (2-tailed)**
PO	27	3.22	0.23	3.37	0.22	2.38	51.97	.02*
BT	27	2.98	0.32	3.14	0.20	2.18	43.77	.03*
IM	27	2.45	0.29	2.65	0.24	2.75	50.53	.01*
IS	27	3.00	0.30	3.21	0.30	2.55	51.95	.01*
IC	27	3.10	0.31	3.28	0.25	2.40	49.84	.02*
CL	27	0.72	0.28	0.46	0.23	3.64	49.75	.00**
PL	27	0.60	0.28	0.40	0.20	2.97	47.55	.00**
EF	27	3.23	0.25	3.40	0.21	2.66	50.53	.01*
SA	27	3.28	0.28	3.41	0.19	1.96	45.16	.06
EE	27	2.20	0.24	2.40	0.21	3.42	51.20	.00*

*p<.05, **p<.001

Compared to the executive groups, the subordinates showed stronger changes, as most of the results were statistically significantly higher in the latter measurement period than the first. The only dimension in which the changes were not statistically significant was *satisfaction*; however, the changes here also showed an increase in the mean score. The fact that the changes were stronger in the subordinate group than in the executive group has also been recognized in previous studies of the Deep Leadership® coaching model (Valli and Kinnunen, 2012). To see whether an explanation for this can be found within the coaching process itself, we will analyze the coaching feedback next.

5.2. Coaching Feedback

To see whether there are consistent differences between the three participant groups, we will compare the coaching feedback retrieved from the executive leaders, operative leaders, and subordinates. Feedback regarding the contact days were gathered by the coach after each of the four contact days. The feedback form includes the following 10 items: (1) My motivation to participate in the coaching, (2) My will to achieve the learning goals, (3) The clarity of the learning goals, (4) The efficiency of the use of time in the coaching, (5) The functionality of the teaching methods, (6) The functionality of the teaching material used, (7) The professional know-how of the coach, (8) My commitment to self-development, (9) My will to recommend the coaching to others, and (10) An overall evaluation of the coaching day (DL, 2014). The participants were asked to rate these items with grades from 5 to 1 by marking one of the following categories: excellent, good, satisfactory, mediocre, or poor. When looking at the overall mean scores of all the feedback areas during the last period of measurement, all three groups of executives (n=9), operative leaders (n=7), and subordinates (n=17) had the same mean score of 4.01. When comparing this outcome value to the mean scores at the beginning of the coaching program, the results had more diversity as the mean score of the 10 items in the executive group was 3.89; in the operative leader group, it was 3,84; and in the subordinate group, it was 4.01. Thus, even though the 360 profiles of the subordinates seemed to develop more than the profiles of the executives during the time of the coaching, according to the feedback, all three groups showed a high general level of satisfaction with the coaching.

However, the consistent measurement of feedback after each of the contact days also showed that the participants' satisfaction and motivation were not linear or static in any of the groups or in relation to any of the measured items. Instead, the development was dynamic and changed throughout the coaching. For example, the participants' motivation to participate in the coaching was 3.93 in the executive leaders group during the start of the process. After the second contact day, the mean score had risen to 4.00; in the third period, it had dropped to 3.92; and in the fourth period of measurement, it had risen again to 4.00. The corresponding values for operative leaders were 3.71 during the first period of measurement, 4.25 during the second measurement period, 4.42 during the third measurement period, and 4.00 during the final measurement period. Thus, it can be seen that the same outcome value can be reached through different paths. The feedback data also showed that, at the end of the coaching, all three groups were most satisfied with the know-how of the coach (*M*=4.56 in the executive group, *M*=4.86 in the operative leader groups, and *M*=4.65 in the subordinate group). The lowest values on their part were given to the quality of the learning materials in each group (*M*=3.78 in the executive group, *M*=3.71 in the operative leader groups, and *M*=3.65 in the subordinate group).

In relation to the coaching aims and immediate effects, the most interesting area of feedback is the one regarding the participants' commitment to self-development. The level of commitment was higher in all three groups during the last period of measurement than during the first measurement period. The changes in the means scores are illustrated in Table 4.

Table-4. Level of Commitment to Self-Development

Group	First measurement	Last measurement
Executives	3.87	4.11
Operative leaders	3.79	3.86
Subordinates	3.93	4.00

This increase in commitment can be regarded as a sign of the immediate effects of the coaching program, but it can also indicate mediate effects, as the ways in which people are committed to developing themselves are expected to also have an impact on the wider work community. However, to further study this assumption, we will take a look at the organization's own climate survey to see whether any visible changes can be identified at the organizational level during and after coaching.

6. Mediate Effects

To answer our third research question, we will take a look at the climate surveys carried out by the organization itself. As mentioned previously, the studied organization (referred to here using the letter A) was bought by another organization (referred to here using the letter B) in 2011. Before the transaction, organization A had carried out internal climate surveys that mapped its employees' satisfaction with the organizational practices. The measurements surrounding the coaching process are from 2010, before the transaction, and from 2012. Although in 2012, organization A was already part of organization B, the results of this climate study are comparable with the ones from 2010, as the questions used were mainly the same for both measurements.

One of the most notable findings of the climate survey is that the employees' satisfaction with the organization's management improved remarkably during the two years from 2010 to 2012. While some of the changes can be expected to follow from the organizational changes, some aspects can be seen to relate closely with the objectives of the coaching program. For example, a question that asked about the management's method of communicating with different parts of the organization was given a mean score of 2.88 in 2010; however, in 2012, the corresponding result was 3.25. However, when looking back at the results from 2009 (M=3.35), it can be seen that the mean score was almost the same then as it was in 2012. Thus, the changes that occurred between 2010 and 2012 cannot be regarded as solely an effect of the coaching; instead, it is likely that the lack of communication in 2010 had to do with the then upcoming organizational changes. However, when looking at an item that asks about the ways in which the organization's management motivates the employees with visions of the future, the mean score of 3.20 measured in 2012 was much higher than the preceding scores of M=2.51 (2010) and M=2.74 (2009). Likewise, a question measuring the employees' sense of appreciation had increased to M=3.43 from the previous values of M=3.17 (2010) and M=3.35 (2009). Contrary to this, however, people's satisfaction with the feedback they had received from their superiors had decreased over the years from M=3.61 (2009) to M=3.59 (2010) and then to M=3.30 (2012).

These numbers show that some areas of leadership in the organization went through positive changes during the coaching process and some areas did not. Similarly, the follow-up interviews carried out with 10 people from the subordinate group in 2014 showed that the personnel had different kinds of experiences about the mediate effects of the coaching. Some people felt that the coaching had improved the communication within the work community and had, therefore, resulted in permanent changes. However, others did not recognize any permanent changes in the working practices and felt that the fact that some people in the work community were not very committed to the process hindered the development. Apart from the previously mentioned areas, the dimensions of the climate survey had remained mostly the same throughout the years. Once again, this shows the complex nature of coaching and the difficulties in evaluating the reasons behind organizational changes. However, even though the reasons for these developments cannot be confirmed to be directly related to the coaching process, it can be said that the developmental paths of the individuals and the whole organization are similar, as both data types show a positive increase in the ways in which the leaders are able to motivate and appreciate their subordinates. It can be suggested that these developments at the organizational level are mediate effects that result from the coaching process, but in order to study this further, more data would be needed about the organizational processes and the changes that were going on during the periods of measurement.

7. Discussion

Several recent studies on leadership development have called for better reporting of leadership interventions (Ely *et al.*, 2010; Ladegard. and Gjerde, 2014). However, as coaching is a deeply interpersonal activity, the success of a coaching program cannot be evaluated reliably using only one method (Ianiro and Kauffeld, 2014; Ladegard. and Gjerde, 2014). In order to overcome the challenges related to the evaluation of coaching effectiveness, the Deep Leadership® coaching process includes data gathering. The data are used to evaluate the effectiveness of the coaching program in terms of internal effects (immediate and mediate) and external effects (reflection effects and interest groups) (DL, 2014). In this study, we analyzed the effects of the Deep Leadership® coaching method carried out in a Finnish organization during 2011 and 2012. By combining the data types of the 360-leadership profiles, coaching feedback, and work community climate surveys, we found that the participants regarded the coaching as a positive experience and that the training promoted the leadership skills of both superiors and subordinates.

In relation to our first research question—"What kinds of changes can be seen in the participants' 360-leadership profiles as a result of the Deep Leadership® coaching process?"—the data analysis showed that the leadership profiles of both executive leaders and subordinates improved during the coaching process. The coaching thus showed the immediate effects in the ways in which the goals of Deep Leadership® coaching were reached and that the participants' leadership skills were improved as a result of the training. However, these immediate effects of the coaching were different across the three personnel groups. Following the findings of Valli and Kinnunen (2012) the changes in the leadership profiles of the subordinates were more remarkable than the changes in the profiles of the superiors. This leads us to our second research question: "Are there differences in the effectiveness of the coaching program in relation to executive leaders, operative leaders, and subordinates?" According to the 360-leadership profiles, the effects of the coaching program were most visible in the subordinate group. Nonetheless, the self-evaluation reports gathered after each contact day showed that all three groups were satisfied with the coaching and that the participants' commitment to self-development increased in all the groups during the coaching. Thus, according to the 360 profiles, the immediate effects were stronger in the subordinate group than in the executive leader group; however, this kind of difference in outcomes was not visible in the self-evaluation reports.

Regarding our third research question about the mediate effects of the coaching, the findings were not consistent. While some of the areas related to leadership had improved in the climate survey of 2012 from the preceding years, others had not, and some had even worsened. Thus, in relation to the third research question—"How does the personal development of the participant relate to the changes in the working climate of the organization?"—it can be said that whereas the personal-level development was clearly visible in the 360 profiles and coaching feedback, the organizational development was not as visible. The data sets cannot be used to directly explain one another, as the data gathered by the Deep Leadership® coach and the organization's climate surveys included different measures, even though they shared some of the general content areas. However, it can be suggested that the improved motivation of employees at the organizational level is related to the leader's self-motivation and leadership skills. Thus, this improvement at the organizational level may be the result of the improved leadership skills that were gained from the coaching process. Nonetheless, as the findings of this study did not provide clear indicators about the relationships, this remains at the level of speculation.

The limitations of this study are related to the small sample size of the statistical data. While all the participants should have completed two profiles at the end of the coaching, this was not the case; therefore, the changes in the profiles of the operative leaders could not be carried out. Another limitation is the fact that the number of feedbacks received after the contact days varied according to the measurement period. These limitations are not, however, crucial to the outcomes of this study, as the aim of the study has been to evaluate the effectiveness of the coaching program within the context of the current case of an expert organization. Nonetheless, to further validate the effectiveness of the Deep Leadership® coaching method, more research is needed on the mediate effects and the external effects of the coaching program in different contexts. Another important aspect for further studies is the analysis of the reasons why the coaching process seems to have a stronger effect on the subordinates than on the executive leaders (see also (Valli and Kinnunen, 2012). More studies on the mediate internal and external effects of the coaching program are needed to gain a deeper understanding of the ways in which the immediate effects can be fostered to enhance the function of the work community at the wider level.

8. Conclusions

This study provided new evidence regarding the effectiveness of the Deep Leadership® coaching method by analyzing the results of the coaching process within the context of an expert organization. The main findings of this study show that the coaching process had several immediate effects, but the mediate effects remained less clear. These findings both support and elaborate on the previous findings of Kazmi and Kinnunen (2012) Valli and Kinnunen (2012) and Kinnunen (2011). According to the data, the participants' leadership skills improved in all measured areas, and their level of commitment to self-development increased during the coaching period.

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