Leadership style of NGO leaders and their perception on Distributed Leadership

Masterthesis Onderwijswetenschappen

Topic: Learning in Organisations

Student: Diede Oudenampsen

Student number: 3991849

Supervisor: Machiel Bouwmans

Second reviewer: Rouven Hagemeijer

Date: 11-06-2017

Word count: 7922

Abstract

In the last decades, leadership has transformed due to changing demands from society. This has led to a rise in distributed leadership within organizations and a change in perspective on what good leadership is.

The aim of this research was to discover whether the leadership style of NGO leaders predicts their perception on distributed leadership. Hypothesis is that there is a positive association between transformational leadership and the perception on distributed leadership and a negative association between transactional leadership and perception on distributed leadership.

A quantitative questionnaire was used to measure the constructs. Age, gender, level of education, leadership experience and received training on leadership were included as control variables.

The analysis showed a significant positive association between transformational leadership and the perception on distributed leadership. Little proof was found for the relation between transactional leadership and the perception on distributed leadership.

The reliability of the scales used in this research was questionable; therefore the results should be interpreted with caution. For future research on this topic it is essential that the concept of distributed leadership is operationalized with validated scales. With this the connection between leadership style and perception on distributed leadership can be studied further. More knowledge on the characteristics of leaders and its effect on perception of distributed leadership would contribute to the understanding of this topic.

Introduction

In the current society, organizations have to deal with a complex, fast changing environment which is highly competitive (Barkema, Baum & Mannix, 2002). This is in particular the case for non-governmental organizations (NGO's). The future of these organizations depends on how well they are able to adapt to the unpredictable demands of the environment (Hailey, 2006). Due to these societal developments, the role of the leader has changed (Hulpia, Devos & Rosseel, 2009). In NGO's, the leaders are facing increasingly complex managerial problems due to their often limited resources and increasing role and significance (Lewis 2001). As a result, the leader does not have the time, expertise and energy to lead alone (Spillane & Diamond, 2007, Tashi, 2015). Since the leader does not have the time and energy to obtain all relevant leadership skills, it is required that the whole team takes responsibility in leadership of the organization (Pearce, 2004).

Due to these changes, a new approach to leadership has become popular. In the past, leadership emphasized power and influence of a single person to direct followers in organizational action (Burke, 2010). Nowadays, distributed leadership (DL) has become popular, which implies that leadership is distributed among team members. Distributed leadership should therefore be seen as an approach to leadership and not as an individual leadership style. This approach emphasizes leadership as a practice rather than as a role or responsibility (Spillane & Diamond, 2007). It emphasizes leadership of the team members itself (Carson, Tesluk & Marrone, 2007), a shift from a vertical to horizontal leadership.

Distributed leadership, with its horizontal leadership approach, has several advantages over traditional leadership. It can, for example, lead to increased commitment of organizational members (Katz & Kahn, 1978), and increased team cohesion and satisfaction (Bergman, Rentsch, Small, Davenport & Bergman, 2012). Furthermore, it can enhance team effectiveness by increasing team social capital, including knowledge, abilities and skills, through team information sharing processes and team learning (Day, Gronn & Salas, 2004). These advantages could especially be beneficial for NGO's as it is essential for the success of NGO's to delegate responsibilities to colleagues (Hailey, 2006).

Because of this shift in leadership distribution the role of the formal leader has changed. What also changed is the perception on what good leadership is. In the past, leadership was seen as a downward, hierarchal or vertical process (Bass, 1985). However, more recent approaches view effective leadership as a bottom up process which is more centered on engaging the team in the leadership process (Uhl-Bien, Marion, & McKelvey,

2007).

A considerable amount of literature has been published on the topic of leadership. Especially leadership styles have received a fair amount of attention in research on leadership. Traditionally, a distinction between two leadership styles was found: transactional and transformational leadership. Transactional leadership emphasizes the rewarding of the employees efforts while transformational leadership strives to offer more significance to the employees work. Transformative leaders do this by encouraging employees to strive further than what is expected of them (Burns, 1978).

Despite this extensive research on leadership styles, there remains a lack of understanding on how these leadership styles contribute to distributed leadership. No previous study has invested the relation between leadership style and perception on distributed leadership. Not only is this relation understudied, the context in which research on distributed leadership is executed is rather homogeneous. Most research in this area is solely executed within the context of schools and focusses primarily on team characteristics (Tashi, 2015).

The increasing interest for the field of distributed leadership has increased the need for a clear understanding of what distributed leadership is, how leaders perceive it and what factors influence this perception. A recent attempt was made by Hairon and Goh (2015) to operationalize the concept of distributed leadership. This resulted in a survey offering new opportunities to assess individual perceptions on distributed leadership. However, the characteristic of the leader and the relation with its perception on distributed leadership has received little attention so far. As Nicolaides et al., (2014) states: "Certain leadership styles and functional leadership behaviors may lend themselves better to sharing than others. Identifying and elucidating the extent to which various types of leadership styles and behaviors can be shared effectivity are worthy of future investigations (p.937)".

This study therefore is set out to assess this relationship between leadership style and the perception of NGO leaders on distributed leadership. By investigating these perceptions, a start can be made in advancing the understanding of the relation between leadership style and distributed leadership. Assessing the perception on distributed leadership is meaningful because our perception often automatically leads to corresponding behavior (Chartrand, Maddux & Lakin, 2005). Consequently, this study will contribute to the understanding of the relation between leadership style and distributed leadership. A larger understanding of this relation can help to understand in which contexts distributed leadership might lead to the intended results.

Accordingly, the objective of this research is to determine whether leadership style is predicting the individual perception on distributed leadership. Additionally, the research question can be defined as following: "To what extent does the leadership style of NGO leaders predict their perception on distributed leadership?"

Theoretical framework

Distributed Leadership

There is a variety of definitions (e.g. shared leadership, collective leadership or rotated leadership) used in literature to describe the concept of distributed leadership. These definitions are closely related but not always the same. The term distributed leadership (DL) will be used throughout this research and will be defined by the four components as explained by Hairon and Goh (2015).

To gain a better understanding of distributed leadership it is important to understand how DL differs from traditional leadership forms. DL is contrasting with traditional leadership that emphasizes the role of the managers who are higher in hierarchy and external to the team (Druskat & Wheeler, 2003). Distributed leadership is, on the other hand, often executed by different individuals in the organization who are together in charge of decision making and influential practices (Leithwood et al., 2007).

However, this definition does not imply that everyone is always a leader; it just means that leadership is not restricted to those in formal leadership roles (Harris, 2013). In other words, distributed leadership emphasizes leadership as practice rather than leadership as role or responsibility (Spillane & Diamond, 2007). Important to note is that distributed leadership only occurs when individuals are fully engaged in the leadership of the team and are not hesitating to influence and guide their fellow team members. This influence and guidance of team members aims to maximize the potential of the team as a whole (Pearce, 2004).

There are four elements of DL according to Hairon and Goh (2015). These elements were defined by reviewing the conceptual, operational, measurement and contextual issues of distributed leadership. These issues were assessed and integrated in existing definitions. As a result, a division of four components describing distributed leadership was found.

Bounded empowerment. Bounded empowerment is the willingness of a leader to renounce a certain but limited degree of authority to employees. This limitation of authority is express in three ways. Firstly, it is bounded which decisions are delegated. Secondly, the formal leader is still informed by the subordinates about the decisions and lastly the decisions are aligned with decisions of colleagues and the vision of the organization. It is important to

understand that this does not mean that responsibility and accountability are also relinquished by the formal leader. It only means that other team members are allowed to make decisions without getting the responsibility and accountability (Hairon & Goh, 2015).

Developing leadership. Developing leadership can be defined as the building of leadership capacity and competence within an organization. This is essential in DL to offer all team members what is needed to take on an active role within the team. These competences are developed through specific leadership activities by all members of the team. For this, trust among team members is essential. These activities include considering individuals needs in decisions making, taking initiative as a team member and a focus on the process of influence in achieving shared goals. These competences are developed through formal and informal leadership roles of different team members (Hairon & Goh, 2015).

Shared decision. Shared decision can be defined as the sharing of decisions and responsibilities among team members. With this, initiation of engagement or influence could start from any of the team members. The goal is to accomplish tasks in the most efficient manner and achieve educational improvement. For this, distributed decisions are aligned with the organizational goals. This element of DL differs from bounded empowerment in terms of power. In bounded empowerment the formal leader decides what decisions are shared, while in shared decision all team members are entitled to engage in the process of sharing decisions most effectively (Hairon & Goh, 2015).

Collective engagement. Collective engagement can be defined as the engagement of employees in decision making. Key principle is that different team members should be involved regardless their level or position. In an interactive process, the talents of different members are coordinated and deployed towards achieving common goals. This is done through interactive actions and interactions between leaders and followers. Additionally, expertise of team members is shared within the team (Hairon & Goh, 2015).

Leadership styles

Numerous studies have attempted to define a number of leadership styles. The most well-known distinction in leadership styles was made by Burns (1978), comparing transactional and transformational leadership. These two leadership styles are often seen as the two opposite ends of the leadership styles spectrum. Bass (1985) build upon these styles and argued that transactional and transformational leadership should be seen as two separate leadership styles. A third leadership style is also often part of this distinction. The *laissez-faire* leadership style is the avoidance or absence of leadership. Leaders avoid making

decisions, are absent when needed and are hesitant in taking actions (Judge & Piccolo, 2004). Since this style is defined by its absence of any leadership (Avolio, 1999), it was not taken into account for this research.

Transformational leadership. A transformational leader is defined as "one who raises the followers' level of consciousness about the importance and value of desired outcomes, and the methods of reaching those outcomes" (p. 141) (Burns, 1978). The leader empowers employees to achieve a common vision for the organization and its mission (McDaniel & Wolf, 1992). The term charismatic leadership is also used at times to describe transformational leadership, but the term transformational leadership will be used throughout this research.

Over time, four components emerged which describe transformational leadership. These factors are idealized influence, inspirational motivation, intellectual stimulation and individualized consideration. Idealized influence is the degree to which the leaders behaves in a way that causes followers to identify with the leader. Inspirational motivation is the degree to which the leader demonstrates a vision that is appealing and inspiring for the followers. Intellectual stimulation is the degree to which leaders challenge assumptions, encourages ideas from employees and takes risks. Individual consideration is the degree to which the leader attends to the needs of the follower (Burns, 1978).

Criticism on this conceptualization is however present. De Hoogh, Den Hartog and Koopman (2004) therefore integrated this criticism into a new conceptualization. Criticism was that idealized influence and inspirational consideration can be seen as a behavior aimed to empower employees but that it also includes an aspect of participation in leadership. Therefore the two aspects are integrated in one component called participating leadership. This leads to the following distinction used throughout this research: individual consideration, intellectual stimulation and participating leadership (De Hoogh et al., 2004).

The first component, individual consideration is the act of encouraging, supporting and coaching employees. The goal of individual consideration is for leaders to encourage employees to reach their full potential and provide learning opportunities in a supportive climate.

The second component is intellectual stimulation. This means that employees are encouraged by their leader to approach problems from a new perspective. The leader questions assumptions, reframes known challenges and applies new perspectives in established environments. This requires openness from the leader (Bass & Riggio, 2006).

The last component is participating leadership. Within this component the leader encourages employees to develop their leadership competences and experience success in this (Spreitzer, De Janasz & Quinn, 1999). This is done by offering opportunities for participation in decision making among employees. The aim of these opportunities is to empower employees. Within this approach, a responsibility given to the whole team to take care of each other's interests and act in the interests of the group as a whole (Warrilow, 2012).

Transactional leadership. Transactional leadership is defined as a leadership style in which the leader acts as an agent of change. The relation between leaders and followers are a number of exchanges aimed to maximize the gain for the individual and the organization (Burns, 1978). These exchanges help to accomplish objectives, complete tasks and maintain the current organizational situation. Followers are motivated to fulfill their self-interests and concentrate on clear organizational objectives (Sadeghi & Pihie, 2012).

Transactional leadership consists of two components. The first component is contingent rewarding and aims to focus on positive reinforcement of employees. Positive reinforcement means that good behavior is emphasized and rewarded. This is done both throughout the process and when goals are accomplished. Nevertheless, negative reinforcement might be given (e.g. suspensions) when the quality of the work is below the standards of the organization (Sadeghi & Pihie, 2012).

The second component of transactional leadership is management by exception. In the original conceptualization this component was split into two components, an active and a passive form of management by exception. Active management by exception means that the leader monitors the work of the employee to avoid mistakes. Passive management by exception means that the leader starts to act only when the organizational goals are not achieved (Bass & Avolio, 1993).

There are a few criticisms to this. Since these components are not based upon the exchanges between leaders and employees it does not justify to the core of the definition of transactional leadership. The lack of explanation of the exchanges strikes in this. Therefore a new component was created to substitute the management by exception components. This element is called offering a fair deal. This means that the leader must offer a deal in which employees expect that their efforts lead to the intended results and that they will rewarded in a fair way. As a result, leaders are not looking to change, but merely trying to keep things the same (Sadeghi & Pihie, 2012).

Relation between leadership style and distributed leadership

When the characteristics of both leadership styles are compared to the characteristics of DL, an overlap can be discovered. This is mostly visible when the role of the team in the leadership process is emphasized. Here you can see that within DL and transformational leadership the whole team is given a responsibility in achieving the intended team goals. To achieve this, attention is given to the development of the individuals and their input in the group process (Bass & Riggio, 2006; Hairon & Goh, 2015).

How this responsibility of team members is shaped differs for the different leadership approaches. Within DL this is done through sharing decisions among the team, engaging in this shared decision making and offering authority to employees. Collective engagement is considered essential in this (Hairon & Goh, 2015).

Within transformational leadership the engagement of team members in the leadership process is achieved through the support of individual employees. This is done by challenging known ideas and encouraging employees to participate within leadership by engaging them (De Hoogh et al., 2004).

The difference between this aspect and DL is that the power of decision making remains at the formal leader within transformational leadership, while this power might be distributed to other team members within distributed leadership. Therefore transformational leadership might be considered more top down while distributed leadership is more bottom up.

The approach to sharing leadership within transactional leadership is in contrast to transformational leadership's approach. In this approach team members are not encouraged to take responsibility as the responsibility for leadership practices remains with the formal leader (De Hoogh et al., 2004).

Given these comparisons it can be concluded that the characteristics of DL are more closely related to the characteristic of transformational leadership then those of transactional leadership. Therefore it is expected that individual leaders with a transformational leadership style will perceive distributed leadership more positively as it has more in common with their style of leadership. Consequently individuals with a transactional leadership style will be less positive towards distributed leadership. Since the perception is measured, the way leaders look at distributed leadership is assessed, not the extend in which they use distributed leadership. Therefore the following hypotheses can be stated:

H1: There is a positive association between transformational leadership and the individual perception on distributed leadership.

H2: There is a negative association between transactional leadership and the individual perception on distributed leadership.

Method

Design

In this research, a correlational quantitative study was conducted. An expected relationship between leadership style and perception on DL was analyzed and tested based on theoretical grounds. This design was chosen since there is an expected relation between variables. This makes it a suitable design for the intended goals of the research. A conceptual framework can be found in appendix three.

Sample

Participants. The collection of data for this research was aimed at leaders in international Non-Governmental Organizations (NGO's). This target group was chosen because the role and significance of NGO's has increased in the recent years (Robbins, 2005). Simultaneously, NGO's face increasingly complicated managerial problems (Hailey & James, 2004).

The targeted NGO's are representing the interests of students in different fields. Examples are a union of international medicine students and a European student organization who strives for a borderless Europe. The organizations therefore either present a field of studies or the group of students in general. All organizations are part of the IFISO (Informal Forum of International Student Organizations). The respondents are mostly students or young professionals who are leading in the position of (international) board member or leader of a project group, working group or committee. Most of the organizations work with volunteers.

By calculating the G power the number of required respondents was measured. A F-test was executed, power = .8, effect size = .15, significance = .05. Eighteen predictors were taken into consideration. This included three predictors for the dependent variable, two predictors for the independent variables and thirteen predictors for the control variables. This resulted in a need of 150 respondents.

In total 170 young leaders filled out the questionnaire. Of these participants, twelve participants were excluded from the sample as they did not meet the requirements for the study. Also six participants were removed as they were outliers. The final sample size was therefore 152.

In total leaders from fifteen different NGO's participated in the research. 49,3% of the participants was female, 50% of the participants was male. 95,4% of the leaders was higher educated (resp. 63,8% bachelor's degree, 30,9% master's degree and 0,7% Doctorate degree). The leaders originated from 31 countries and were aged between eighteen and 35 years (standard deviation is 2,76 years, average age is 23,19). The average leadership experience was 2,38 years, with a minimum of zero and maximum of twelve years (S.D. is 2,096 years). 61,2% of the leader received any form of training or education specifically aimed at leadership.

Sampling. Different methods of sampling were used to obtain the largest possible sample. Firstly, a convenience sample was used. This sampling method is used when a random sample is not possible. It is a fast and easy method of sampling (Neuman, 2016).

Since random sampling was not possible this method was used. This was done in several ways. Firstly the questionnaire was send online through email to different board members of several NGO's. Furthermore, personal connections were approached through personal messages on Facebook. Lastly, during a large congress of a European student NGO (AEGEE), leaders were approached individually to participate in this study. Over 200 members were present during this congress, of which most fulfilled a leading role on a local or international level.

Another sampling method used was snowball sampling. In this sampling method a personal network of a respondent is used to obtain more participants (Neuman, 2016). When personal connections or NGO's were approached, they were asked to spread the questionnaire further among their connections of NGO leaders in order to obtain most respondents. 911 leaders were approached, leading to an average response rate of 18.66%. Large differences could be found in the response rate among the different sampling approaches: congress (55,81%) personal connections (62,5%) and through email (7,57%).

Procedure. During a specific time period, respondents were invited to fill out the questionnaire. This was done on paper during a five day congress and online during a period of four weeks. A consent letter was part of the questionnaire which provided all potential respondents with the required information.

To ensure that only suitable respondents participated, a control question was added to the questionnaire. This control question was: "Do you fulfill a leading role within an international NGO?" A leading position was fulfilled when a respondent was part of an (inter)national board or local board. Another possibility was if a respondent fulfilled a leading

position in a project group, working group or committee within an international NGO. Participants were asked to contact the researcher in case of doubt.

Instruments

The data was obtained through a questionnaire. The questionnaire can be found in appendix six. The questionnaire consisted of 46 questions which could be filled out online through the program LimeSurvey or offline on paper. The questionnaire measured transactional and transformational leadership and the perception on distributed leadership. Some control variables were included as well (age, gender, level of education, leadership experience and leadership training). The depended variable is perception on distributed leadership and the independent variable is leadership style.

Leadership Style. Leadership style was measured through the CLIO Questionnaire (De Hoogh et al., 2004). This questionnaire measures empowering leadership, autocratic leadership, passive leadership, transactional leadership & transformational leadership. Only the items measuring transactional and transformational leadership were taken into account as these styles are representing two ends of the leadership continuum (Burns, 1978).

This resulted in a total of seventeen items, eleven items measuring transformational leadership and six items measuring transactional leadership. It uses a seven point Likert scale where one means 'strongly disagree 'and seven 'strongly agree'. A sample question of transformational leadership is: "I talk to colleagues about what is important to them". A sample question of transactional leadership is: "I ensure that conditions are created in such a way that staff can do their job well".

The questionnaire was translated from Dutch into English. To ensure the quality of the translation a back translation procedure was executed. A near native English speaker checked and confirmed the translation. The results can be found in appendix eight. According to De Hoogh et al., 2004, the reliability of the items measuring transactional leadership is .70. The items measuring transformational leadership have a reliability of .74.

Since the questionnaire was made for the purpose of 360° feedback the questions were formulated to assess others. Therefore small changes in wording were needed to address self-assessment (e.g. "I talk to employees" instead of "The person talks to employees"). Also small adjustments in wording were needed to adapt to the context of NGO's (e.g. using colleague instead of employee).

Lastly, the seven point Likert scale was reduced to a five point Likert scale, to ensure the same structure (five point Likert Scale) throughout the entire questionnaire.

A conforming principal components analyses (with oblimin rotation) was used to validate the items of each scale. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO=.75 (Field, 2013). Also Bartlett's Test of Sphericity was significant (.00). An initial analysis was run to obtain eigenvalues for each factor in the data. Five factors had eigenvalues over Kaiser's criterion of at least one and in combination explained 56.35% of the variance. The scree plot was unclear and showed inflexions that would justify retaining one, three or five factors. Therefore a fixed factor analysis was conducted which resulted in two factors explaining 33.62% of the variance. Appendix four shows the factor loadings after rotation. This resulted in a large decrease in the number of items to eleven. Questions three, four, seven, eight, ten and fifteen were removed as they were not loading on the corresponding factor. Four questions were measuring transactional leadership; two questions were measuring transformational leadership.

Reliability analysis showed that the transformational subscale had an acceptable reliability, Cronbach's α = .71. However, the transactional subscale had a relatively low reliability, Cronbach's α = .61 (Field, 2013). This is possibly due to the low number of items for both subscales.

Perception on Distributed Leadership. Perception on DL was measured through the perception of distributed leadership practices instrument (Hairon & Goh, 2015). Originally, the questionnaire contained 18 items, divided over four scales measuring bounded empowerment, developing leadership, shared decision and collective engagement. The authors use a five point Likert scale where one means 'Strongly disagree' and five 'Strongly agree'.

A sample question of bounded empowerment is: "I give my staff opportunities to assume informal leadership responsibilities". A sample question of developing leadership is: "I assure staff that as their leader I accept ultimate accountability for the outcome of any shared decisions they make". A sample question of shared decision is: "I go out of my way to demonstrate the benefits of shared decision making". Lastly, a sample question of collective engagement is: "I encourage staff engagement in all key organization-wide decisions.". The questionnaire was aimed at a school context. Therefore the wording was adjusted where needed to fit the right context (e.g. NGO instead of school and leader instead of principal).

A conforming principal components analysis (with oblimin rotation) was used to validate the items of each scale. A principal components analysis was conducted on the eighteen items with oblique rotation (direct oblimin). The Kaiser-Meyer-Olkin measure

verified the sampling adequacy for the analysis, KMO=.76 (Field 2013). Also Bartlett's Test of Sphericity was significant (.00). An initial analysis was run to obtain eigenvalues for each factor in the data. Six factors had eigenvalues over Kaiser's criterion of at least one and in combination explained 57.56% of the variance. The scree plot was unclear and showed inflexions that would justify retaining two or three factors. Therefore a fixed factor analysis was conducted which resulted in four factors explaining 45.64% of the variance. Appendix four shows the factor loadings after rotation.

The PCA resulted in a decrease in the number of items to thirteen. Questions five, six, ten, eleven and fourteen were removed as they were not loading to the corresponding factors.

The bounded empowerment, developing leadership, shared decision and collective engagement subscales all had relatively low reliabilities, respectively Cronbach's $\alpha = .47$, $\alpha = .68$, $\alpha = .53$, and $\alpha = .53$. In the subscale bounded empowerment question one was removed since it increased the reliability of the subscale. This lead to Cronbach's $\alpha = .56$. Due to this low reliability it was decided that separate questions were used in the regression analysis instead of the original scales.

Control variables. Even though the research is rather limited, there are studies which have measured perception on distributed leadership before. Research of Mullick, Sharma, and Deppeler (2013) was aimed at teacher perceptions in Bangladesh. The same demographic factors were used in this research. Qualification was not relevant for this research. Therefore gender, age, level of education, leadership experience and training on leadership were taken into account as control variables

Age, NGO and leadership experience were included in the questionnaire as open questions. Leadership experience includes the years in which an individual has been active in a formal leadership position, both within and outside the NGO. The training on leadership was measured using a yes or no question.

Analysis

Before the principal components analysis and the reliability analysis were conducted assumptions were tested. The assumption of normality was checked by drawing a histogram with normal curve for each factor of leadership style. For perception on distributed leadership this was done for each item separately. This resulted in the removal of 6 outliers.

After this, three control variables (training, educational level & gender) were recoded into dummy variables to assure the right measurement scale. Together with the other control variables (experience and age) the items were inserted in the analysis as independent

variables. Two new variables were created measuring the average total score of all items measuring transactional leadership and transformational leadership. These two variables were also added as independent variables.

Results

Descriptive statistics

In Table 1 the number of responses (N) averages (M) and standard deviations (SD) can be found for each construct. A remarkable outcome is that all constructs of DL and both leadership styles have high averages scores (between M=1.52 and M=2.39). The question "I ensure that the competencies of shared leadership are incorporated in our staff development programmes. " (PercDL23DL) had a relatively low number of responses (N=136) due to the fact that some NGO's did not have any staff development programmes.

Tables 5a to 5d show the correlations (r) between the constructs and can be found in appendix seven. The tables show that in 38 cases a significant relation (either p <.005 or p <.001) between different questions from the DL questionnaire. Remarkable here is that question PercDL3BE ("I create opportunities for my staff to take initiatives to improve organization processes and outcomes") is positively significantly correlated with ten other items of the DL scale. Another remarkable result is that there is a significant positive correlation between all items of DL and transformational leadership. Lastly, a significant positive correlation can be found between age and experience (p<.001)

Table 1

Averages and standard deviates of constructs and control variables

Construct	N	Mean	S.D.
PercDL2BE	152	1.70	.61
PercDL3BE	152	1.63	.71
PercDL4BE	151	1.52	.62
PercDL7CE	151	1.93	.85
PercDL8CE	143	1.95	.97
PercDL9CE	150	1.87	.64
PercDL10SD	150	1.59	.70
PercDL18SD	148	1.92	.81
PercDL19SD	148	2.08	.85
PercDL21DL	148	2.09	.93

PercDL22DL	147	2.29	.99
PercDL23DL	136	2.39	.87
Trans. leadership	151	1.54	.58
Transf. leadership	146	1.86	.46
GenderOther*	152	.49	.50
Male*	152	.50	.50
SecondaryEduc.**	152	.03	.16
VocationalEduc.**	152	.07	.08
Bachelorsdegree**	152	.64	.48
EduOther**	152	.31	.46
Doctoratedegree**	152	.07	.08
Trainingyes***	152	.61	.49
Age	152	23.19	2.76
Experience	150	2.38	2.10

*Compared to Female

** Compared to Master's degree

*** Compared to no training

Multiple linear regression

A multiple linear regression was conducted to predict perception on DL based on the score on transformational leadership and the score on transactional leadership. The regression was conducted for each item of distributed leadership separately. As shown in the previous tables the assumptions of regression were not violated. The results are sorted per category of DL and shown in table 2a to 2d.

Table 2a

Results Multiple regression analysis for the perception on bounded empowerment

	Model	PercDL2BE		PercDL3BE		PercDL4BE	
		1	2	1	2	1	2
Age		.05	.05	.01	.01	-.03	-.04
Experience		-.05	-.04	-.03	-.01	.01	.02
GenderOther[1]		-.19	-.46	-.25	-.52	-,76	-,99
Male[1]		-.28	-.54	-.20	-.46	-.74	-,96
SecondaryEduc. [2]		.16	.15	.22	.09	-.29	-.32
VocationalEduc[.2]		-.42	-.39	-.44	-.63	-.64	-.67
Bachelorsdegree[2]		.18	.24	.17	.11	-.12	-.10
Doctoratedegree[2]		1.19	1.10	.44	.24	.44	.34
EduOther[2]		.067	.13	.13	.12	-.03	..00
Trainingyes[3]		-.09	-.06	.09	.10	.09	.07
Trans. leadership			-.09		.09		-.03
Transf. leadership			.28*		.56**		.30*
Constant		.84	.65	1.43	.65	3.19**	2.89
R^2		.08	.12	.15	.41	.03	.08
F change		1.16	3.00	.29	11.36**	.46	3.25*

*Note * $p < .05$, ** $p < .01$

[1] = compared to Women

[2] = compared to Master's Degree

[3] = compared to no training

Table 2b

Results Multiple regression analysis for the perception on shared decision

	Model	PercDL10SD		PercDL18SD		PercDL19SD	
		1	2	1	2	1	2
Age		.01	-.00	.00	-.00	-.05	-.06
Experience		-.03	.00	-.03	-.01	.02	-.05
GenderOther[1]		0.1	.03	.93	.47	0.8	-.47
Male[1]		.13	.15	.95	.51	.28	-.26
SecondaryEduc. [2]		.57	.33	-.15	-.23	.23	.12
VocationalEduc[.2]		-.39	-.86	-1.01	-1.06	-1.05	-1.14
Bachelorsdegree[2]		.14	-.10	-.33	-.29	-.10	-.06
Doctoratedegree[2]		.40	.18	.44	.23	.82	.55
EduOther[2]		.03	-.11	-.22	-.15	.06	.14
Trainingyes[3]		.02	-.04	-.44**	-.39**	-.28	-.23
Trans. leadership			.34**		-.07		-.05
Transf. leadership			.53**		.61**		.79**
Constant		1.28	.15	1.53	.93	3.26*	2.44
R^2		.04	.28	.11	.22	.06	.23
F change		.49	21.73**	1.67	9.02**	.84	14.21**

*Note * p < .05, ** p < .01*

[1] = compared to Women

[2] = compared to Master's Degree

[3] = compared to no training

Table 2c

Results Multiple regression analysis for the perception on developing leadership

	Model	PercDL21DL		PercDL22DL		PercDL23DL	
		1	2	1	2	1	2
Age		-.04	-.05	.02	.01	.04	.03
Experience		-.01	.02	-.02	.01	-.05	-.03
GenderOther[1]		-.75	-1.35	1.14	.59	-.27	-.63
Male[1]		-.79	-1.38	.81	.28	-.32	-.67
SecondaryEduc. [2]		-.88	-.98	-.75	-.88	-.33	-.44
VocationalEduc[.2]		-1.26	-1.32	-1.78	-1.91	1.19	1.06
Bachelorsdegree[2]		-.13	-.07	-.36	-.35	.43	.42
Doctoratedegree[2]		1.89	1.61	.21	-.08	-.37	-.58
EduOther[2]		-.01	.08	-.56	-50	.33	.35
Trainingyes[3]		-.13	-.08	-.23	-.18	-.24	-.22
Trans. leadership			-.08		-.21		.02
Transf. leadership			.81**		.84**		.59**
Constant		4.00*	3.18*	1.51	.57	1.77	1.06
R^2		.07	.22	.08	.22	.06	.16
F change		1.04	12.29**	1.08	11.80**	.78	6.69**

*Note * $p < .05$, ** $p < .01$*

[1] = compared to Women

[2] = compared to Master's Degree

[3] = compared to no training

Table 2d

Results Multiple regression analysis for the perception on collective engagement

		PercDL7CE		PercDL8CE		PercDL9CE	
	Model	1	2	1	2	1	2
Age		.03	.02	-.05	-.06	-.01	-.01
Experience		-.03	-.02	.01	.04	.05	.07*
GenderOther[1]		.68	.51	-1.67	-1.84	.57	.49
Male[1]		.87	.70	-1.44	-1.61	.56	.48
SecondaryEduc. [2]		1.31	1.24	1.06	.86	.70	.59
VocationalEduc[2]		.76	.66	-.61	-.94	-.97	-1.17
Bachelorsdegree[2]		.63	.60	.34	.19	-.01	-.10
Doctoratedegree[2]		.32	.20	.38	.16	.18	.06
EduOther[2]		.23	.23	.27	.21	-.22	-.26
Trainingyes[3]		-.02	-.02	-.12	-.14	-.06	-.07
Trans. leadership			.04		.20		.12
Transf. leadership			.33*		.59**		.32**
Constant		.14	-.30	4.46*	3.47*	1.46	.90
R^2		.08	.12	.08	.19	.09	.17
F change		1.18	2.53	1.15	8.07**	.13	6.05**

*Note * p < .05, ** p < .01*

[1] = compared to Women

[2] = compared to Master's Degree

[3] = compared to no training

Hypotheses

The score on transformational leadership was a significant predictor of the score on DL for all questions (B is between .28 and .54). The control variables only showed significant results in three occasions. Leadership experience was a significant predictor of the score on DL for question nine (B= .49, p<.01). The score on transactional leadership was a significant predictor of the score on DL for question ten (B= .49, p <.01). Training on leadership was a significant predictor of the score on DL for question eighteen (B= .49,p

<.01). A summary of the significant results of each question can be found in appendix five.

Because all questions of perception on DL showed a significant positive effect for transformational leadership, the first hypothesis can be confirmed. There is a positive association between transformational leadership and the individual perception on distributed leadership. On the other hand, no significant negative effect for transactional leadership was found in most questions. Only question ten showed a positive significant association between transactional leadership and the perception on DL. Therefore the second hypothesis cannot be confirmed. This means that no negative association can be found between transactional leadership and the individual perception on distributed leadership.

Discussion

Conclusion

The goal of this research was to discover if leadership style predicts the individual perception on distributed leadership. A questionnaire measuring leadership style and perception on DL was conducted using a sample of 170 international NGO leaders from fifteen different NGO's. The most significant finding was that transformational leadership is a predictor for the perception on DL in all items of this study. Therefore it can be concluded that there is positive correlation between the perception on distributed leadership and transformational leadership. With respect to the research question, it can be concluded that transformational leadership style predicts the perception of NGO leaders on distributed leadership.

By contrast, little evidence was found that transactional leadership predicts the score on perception on distributed leadership. Only the question "I proactively build trusting relationships with and among my staff." showed a connection, but a positive one. A possible reason for this might be that the goals a transactional leader has, maximizing the gain for the individual and the organization, are easier to accomplish when you have trusting relationships with your staff. By building trusting relationships it might be easier to gain support to work together towards these goals. Therefore relations can serve as a tool, but not as a goal.

Some control variables also showed significant relations with items of DL. The question "I make the best use of staff talent by involving them in the shared organizational decision making." had a significant positive relation with leadership experience. This might be explained by that older managers consult more widely and prefer more participation in comparison with younger managers. (Oshagbemi, 2004). Since age and experience are significantly correlated in this research ($p<0.01$) it might explain this outcome.

Furthermore, the question ""I provide constructive feedback to staff to help develop their leadership competencies." had a significant negative relation with the training on leadership received. A possible explanation for this is that constructive feedback might be unfavorable. Unfavorable feedback, when not perceived as useful, results in a negative reaction and does not lead to an increased willingness of employees to change their behavior (London, 1995). Since trained leaders might be aware of these possible negative consequences it might influence their frequency of feedback giving.

These outcomes further support the idea of Nicolaides et al., (2014) that certain leadership styles and functional leadership behaviors may lend themselves better to sharing than others. In contrast to this idea, however, no evidence regarding the transactional leadership style and its relation with DL was detected. As this relation was not studied before, little data was available on the relation between leadership style and distributed leadership. This research therefore contributed to the understanding of this association.

Alternative explanations

A few alternative explanations for the found results are possible. Firstly, the somewhat extraordinary character of the sample might explain the positive relation found for the first hypothesis. Whereas most research takes place in schools (Tashi, 2015), this research focused on the context of NGO's. Most leaders that participated were volunteers. Leaders in voluntary organizations must earn the support from their followers, as they do not have any formal power. As a result they should be more transformational than paid leaders (Catano, Pond & Kevin Kelloway,2001).

Another characteristic of NGO leaders that might explain the results found is that the specific circumstances in which most of the participants work. . Research has shown different leadership competencies are appropriate for different types of projects (Müller & Turner, 2007). In case of multi-cultural, home-based project, like most projects of these leaders, motivation and managing resources is vital, which requires a more transformational leadership style (Müller & Turner, 2007).

In conclusion, these factors indicate that the positive relation found for the first hypothesis might be explained by the circumstances in which the NGO leaders operate. As these circumstances require a more transformational style it might explain why the scores for transformational are relatively high. It can therefore be argued that the results do not come from the actual perceptions of the leaders, but as a result from the circumstances in which leaders work. This means that the leadership style used by the NGO leaders might have been

adapted to these circumstances and might therefore not represent their leadership style in other contexts.

Another factor that might explain the results for both hypotheses is the social desirability bias. This means that people are more likely to respond positively to traits that are socially desirable and that make an individual look more favorable (Nederhof, 1985). Since distributed leadership is increasingly popular (Harris, 2013) it might explain the high average scores for the perception on distributed leadership. In the case of leadership styles it is researched that the characteristics of transformational leadership style are perceived more positively by people, regardless of their culture (Den Hartog et al., 1999). Therefore respondents might have wanted to be a transformational leader which perceived distributed leadership positively, instead of a transactional leader who does not. This might explain the results found for both hypotheses.

Another explanation for the lack of evidence for the second hypotheses might be given by the augmentation effect. This is defined by Bass (1985) as "the degree to which transformational leadership styles build on the transactional base in contributing to the extra effort and performance of followers (p. 5)". While Bass (1985) states that the two leadership styles represent opposite ends of a single continuum, Bass & Avolio (1993) states that transformational leadership adds to the effect of transactional leadership. This means that it would not be possible to measure transformational and transactional separately, since they are interconnected. This is also visible in the results, where a positive correlation between al items of DL and transformational leadership is found. Therefore the results might be dependent on each other which can explain the outcomes.

Limitations

There are a few limitations to this research. The most important limitation is the validity of the constructs used in research. The factor analysis did not confirm the existing structure of the two scales of distributed leadership and leadership style. As a result, a fairly large number of questions had to be removed. Because of this, the reliability of the different subscales was rather low, leaving the subscales unsuitable for further use throughout the research. It is plausible that the validity might have been violated because of this. Because only individual questions were used as indicators for a construct, the results need to be interpreted with caution.

A possible explanation for these arisen problems is that the construct of Hairon and Goh (2015), was originally used in different context. The original questionnaire was aimed at

school leaders in Singapore. The context of this research was very different in terms of culture and organization type. Because the scale was not successfully used in a different context, its value in operationalizing the concept of DL and offering opportunities for measuring DL might be limited. This might have explained the difficulties in the factor analysis and therefore the outcomes of this research.

Another limitation is the sample. Although the respondents are very diverse in terms of different nationalities and different organizations, some characteristics make it difficult to generalize the outcomes of this study. Not only were most leaders young and therefore rather unexperienced, they were very highly educated. Something that made it more complicated was that the type of leadership experience (e.g. number of followers, context in which the leadership tasks are executed) was very diverse, making it hard to determine if all leadership experiences were "equal". In future research it would be recommended to obtain more data on what the exact leadership practices are. In this way, the value of each respondent in terms of leadership experience can be assessed more precisely.

Another methodological limitation is the type of research used. Since a cross-sectional type of research was used, all data was gathered in one moment. This made it impossible to research development, but more important, increased the chances of contingency within the research (Neuman, 2016). A longitudinal study would be interesting for the future to enable research on how distributed leadership develops.

A last aspect which might have limited the research is the topic of distributed leadership itself. Despite the reasonable amount of research on this leadership form, a consensus has not been reached on what exactly distributed leadership is, how it can be defined and most important, how it can be operationalized. As a result, the earlier attempts from other researches have not lead to a common understanding of DL, making it challenging to research the concept. A clear understanding and well validated instruments would highly benefit the quality of research on this topic.

Suggestions for future research

As this research looked at a relation which was not investigated before, the outcomes have raised many new topics and fields that deserve further examination. Firstly, in order to move forward in the debate on distributed leadership, a better understanding of the concept needs to be developed. A validated instrument measuring distributed leadership, suitable for different contexts, would help to establish an agreement on this matter.

This research aimed to reveal a connection between the leadership style of an

individual and its perception on distributed leadership. Considerably more research will be needed in order to determine what characteristics of the leader influence this perception. More different leadership styles could be included if the research was to be repeated, in order to obtain more fine-grained results. To add up, future studies should also assess the impact of the perception on distributed leadership of followers in the team, as they also play an essential role in distributed leadership. Future research should therefore concentrate on the investigation of different personality traits and its effect on distributed leadership practices.

Regarding the sample of the study, future recommendations and starting points could be indicated as well. Because NGO leaders have some unique characteristics, comparative research might bring more understanding on the relative influence of these characteristics in distributed leadership. One of these characteristics and possible topics of future research is the role of payment. Since most respondents were volunteers in their leadership position, it might be interesting to compare them to paid employees. Another aspect worthy of future research is the role of power within this context. Because voluntary workers do not have the formal power to discipline members it has an effect on their use of a leadership style (Catano et al., 2001). For this reason it is relevant to determine its influence on how distributed leadership is perceived.

Practical Implications

The insights offered by the outcomes of this research could benefit organizations in the use of distributed leadership. The study showed that there is some influence of leadership style on how people perceive distributed leadership. A positive perception on distributed leadership of the leaders is important for organizations trying to implement this leadership type within their organizations. Therefore it might be beneficial for organizations to attract leaders with a more transformational leadership style. Since they will most likely perceive distributed leadership more positively, they will probably be more motivated and willing to implement this leadership style within the organization.

Also, for organizations where distributed leadership has not lead to the intended results yet, it might be beneficial to assess the characteristics of the leaders as it might potentially influence how DL is perceived.

Even though research on distributed leadership has not been a new phenomenon, the understanding and agreement of its concept and implications is still at an early stage. With an increasing popularity of distributed leadership (Harris, 2013) it is important to invest in

relevant and sufficient research on this topic, in order to support the increasingly widespread use of distributed leadership among society.

References

Avolio, B. J. (1999). *Full leadership development.* Thousand Oaks, CA:Sage.

Barkema, H. G., Baum, J. A., & Mannix, E. A. (2002). Management challenges in a new time. *Academy of Management Journal*, *45*(5), 916-930. doi: 10.2307/3069322

Bass, B. M. (1985).*Leadership and performance beyond expectations* .New York, NY: The Free Press

Bass, B. M., & Avolio, B. J. (1993). Transformational leadership and organizational culture. *Public administration quarterly*, 112-121.Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership.* Psychology Press. doi: 10.1080/01900699408524907

Bergman, J. Z., Rentsch, J. R., Small, E. E., Davenport, S. W., & Bergman, S. M. (2012). The shared leadership process in decision-making teams. *The Journal of social psychology*, 152(1), 17-42. doi: 10.1080/00224545.2010.538763

Burke, K. M. (2010). Distributed leadership and shared governance in post-secondary education. *Management in Education*, *24*(2), 51-54. doi: 10.1177/0892020610363088

Burns, J. M. (1978). *Leadership*. New York: Harper & Row

Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of management Journal*, *50*(5), 1217-1234.doi: 10.2307/20159921

Catano, V. M., Pond, M., & Kevin Kelloway, E. (2001). Exploring commitment and leadership in volunteer organizations. *Leadership & Organization Development Journal*, *22*(6), 256-263. doi: 10.1108/01437730110403187

Chartrand, T. L., Maddux, W. W., & Lakin, J. L. (2005). Beyond the perception-behavior link: The ubiquitous utility and motivational moderators of nonconscious mimicry. *The new unconscious*, 334-361. doi: 10.1093/acprof:oso/9780195307696.003.0014

Day, D. V., Gronn, P., & Salas, E. (2004). Leadership capacity in teams. *The Leadership Quarterly*, *15*(6), 857-880. doi: 10.1016/j.leaqua.2004.09.001

Den Hartog, D. N., House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A., Dorfman, P. W., Abdalla, I. A., ... & Akande, B. E. (1999). Culture specific and cross-culturally generalizable implicit leadership theories: Are attributes of charismatic/transformational leadership universally endorsed? *The Leadership Quarterly*, *10*(2), 219-256. doi: 10.1016/S1048-9843(99)00018-1

De Hoogh, A. H. B., Den Hartog, D. N., & Koopman, P. L. (2004). De ontwikkeling van de CLIO: een vragenlijst voor charismatisch leiderschap in organisaties. *Gedrag en Organisatie*, 17(5), 354-381.

Druskat, V. U., & Wheeler, J. V. (2003). Managing from the boundary: The effective leadership of self-managing work teams. *Academy of Management Journal*, *46*(4), 435-457.

Hailey, J. (2006). NGO Leadership Development. *Praxis Paper,* 10.

Hailey, J., & James, R. (2004). "Trees die from the top": International perspectives on NGO leadership development. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, 15(4), 343-353. doi: 10.1007/s11266-004-1236-8

Hairon, S., & Goh, J. W. (2015). Pursuing the elusive construct of distributed leadership: Is the search over? *Educational Management Administration & Leadership*, 43(5), 693-718. doi: 10.1177/1741143214535745

Harris, A. (2013). *Distributed school leadership: Developing tomorrow's leaders*. Routledge.

Hulpia, H., Devos, G., & Rosseel, Y. (2009). The relationship between the perception of distributed leadership in secondary schools and teachers' and teacherleaders' job satisfaction and organizational commitment. *School Effectivenessand School Improvement*, *20,* (3), 291–317.

Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: a meta-analytic test of their relative validity. *Journal of applied psychology*, *89*(5), 755. doi: 10.1037/0021-9010.89.5.755

Lewis, D. (2001).*Management of Non-Governmental Development Organisations: An Introduction*,Routledge, London.

Leithwood, K., Mascall, B., Strauss, T., Sacks, R., Memon, N., & Yashkina, A. (2007). Distributing leadership to make schools smarter: Taking the ego out of the system. *Leadership and Policy in Schools*, *6*(1), 37-67. doi: 10.1080/15700760601091267

London, M. (1995). Giving feedback: Source-centered antecedents and consequences of constructive and destructive feedback. *Human Resource Management Review*, *5*(3), 159-188.doi: 10.1016/1053-4822(95)90001-2

Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations* (Vol. 2). New York: Wiley.

McDaniel, C., & Wolf, G. A. (1992). Transformational Leadership in Nursing Service A Test of Theory. *Journal of Nursing Administration*, 22(2), 60-65. doi:10.1097/00005110-199202000-00027

Müller, R., & Turner, J. R. (2007). Matching the project manager's leadership style to project type. *International journal of project management*, *25*(1), 21-32. doi: 10.1016/j.ijproman.2006.04.003

Mullick, J., Sharma, U., & Deppeler, J. (2013). School teachers' perception about distributed leadership practices for inclusive education in primary schools in Bangladesh. *School Leadership & Management*, 33(2), 151-168.doi:10.1080/13632434.2012.723615

Nederhof, A. J. (1985). Methods of coping with social desirability bias: A review. *European Journal of Social Psychology.* 15 (3), 263–280. doi:10.1002/ejsp.2420150303.

Neuman, W. L. (2016). *Understanding research*. Pearson.

Nicolaides, V. C., LaPort, K. A., Chen, T. R., Tomassetti, A. J., Weis, E. J., Zaccaro, S. J., & Cortina, J. M. (2014). The shared leadership of teams: A meta-analysis of proximal, distal, and moderating relationships. *The Leadership Quarterly*, *25*(5), 923-942.doi: 10.1016/j.leaqua.2014.06.006

Oshagbemi, T. (2004). Age influences on the leadership styles and behaviour of managers. *Employee Relations*, *26*(1), 14-29. doi: 10.1108/01425450410506878

Pearce, C. L. (2004). The future of leadership: Combining vertical and shared leadership to transform knowledge work. *The Academy of Management Executive*, *18*(1), 47-57.

Robbins, R. H. (2005). *Global problems and the culture of capitalism* (3rd ed.). Boston: Allyn & Bacon

Sadeghi, A., & Pihie, Z. A. L. (2012). Transformational leadership and its predictive effects on leadership effectiveness. *International Journal of Business and Social Science*, 3(7).

Spillane, J.P., & Diamond, J. B. (Eds.).(2007). *Distributed leadership in practice.* New York, NY: Teachers College Press

Spreitzer, G. M., De Janasz, S. C., & Quinn, R. E. (1999). Empowerment to lead: The role of psychological empowerment in leadership. *Journal of Organizational Behavior*, 20, 511-526. doi: 10.1002/(SICI)1099-1379(199907)20:4

Tashi, K. (2015). A quantitative analysis of distributed leadership in practice: Teachers' perception of their engagement in four dimensions of distributed leadership in Bhutanese schools. *Asia Pacific Education Review*, *16*(3), 353-366. doi: 10.1007/s12564-015-9387-4

Uhl-Bien, M., Marion, R., & McKelvey, B. (2007). Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era. *The leadership quarterly*, *18*(4), 298-318. doi: 10.1007/978-90-481-9014-0_8

Warrilow, S. (2012). *Transformational Leadership Theory.* The 4 Key Components in Leading Change & Managing Change.

Yukl, G. (1999). An evaluation of conceptual weaknesses in transformational and charismatic leadership theories. *The leadership quarterly*, 10(2), 285-305. doi: 10.1016/S1048-9843(99)00013-2

Appendixes

Appendix 1: FETC Form

A. Formulier aanvraag goedkeuring ethische commissie

Deel 1 Samenvatting onderzoek

Onderzoeksvragen of hypothesen van het onderzoek
The hypotheses of this research are as following: *H1:Transformational leadership has a positive influence on the perception on distributed leadership*   *H2: Transactional leadership has a negative influence on the perception on distributed leadership*   *The responding research question is: To what extent does leadership style of NGO leaders predict their perception on distributed leadership?*

Onderzoeksmethode – type onderzoek met onderbouwing
In this research an evaluative quantitative survey study will be conducted. Hereby an expected relationship between leadership style and perception on distributed leadership is analyzed and tested based on theoretical grounds. This design is chosen since there is an expected relation between variables. This makes it a suitable design for the intended goals of the research.

Onderzoeksmethode – respondenten

Kruis aan, wie zijn de respondenten?
     X   18 jaar of ouder en wilsbekwaam;
     o   18 jaar of ouder en wilsonbekwaam;
     o   12 t/m 17 jaar en in staat tot het geven van geïnformeerde toestemming;
     o   12 t/m 17 jaar en niet in staat tot het geven van geïnformeerde toestemming;
     o   jonger dan 12 jaar.

The collection of data for this research is aimed at European leaders in Non-Governmental Organizations (NGO's). Hereby the respondents are leading in the position of board members, leaders of project or working groups or committees. The leaders are active in different NGO's which are all international and aimed at young people. All participating NGO's are a member of the Informal Forum of International Student Organizations (IFISO).

A convenience sample is used to obtain the largest possible sample. This is done through snowball sampling. This means personal connections are asked to spread the questionnaire further among their connections. These people are asked to fill out the questionnaire and help out by spreading the questionnaire further among their NGO colleagues. A passive consent letter which includes the link to the questionnaire is used for this in order to provide all potential respondents with the required information. During a specific time period, respondents will be invited to fill out the questionnaire, either online or on paper during a the congress. After this is completed, the data will be entered into SPSS to be analyzed afterword.

Onderzoeksmethode – dataverzameling

The data is obtained through a questionnaire. The questionnaire consists of 46 questions which can be filled out online through the program LimeSurvey. During the congress there will be a possibility to fill out the questionnaire on paper. The questionnaire measures transactional and transformational leadership and the perception on distributed leadership. Some control variables are included as well (age, gender, nationality, level of education, leadership experience and leadership training). The depended variable is perception on distributed leadership and the independent variable is leadership style. Leadership style will be measured through the CLIO Questionnaire (De Hoogh, Den Hartog & Koopman, 2004). Hereby only the items measuring transactional and transformational leadership will be taken into account. The questionnaire was translated from Dutch into English. Perception on distributed leadership will be measured through the perception of distributed leadership practices instrument (Hairon & Goh, 2015). This scale consists of 25 items measuring

bounded empowerment, developing leadership, shared decision and collective engagement.

There are no risks for the respondents during this research. The questionnaire does not contain very personal question and doesn't require a lot of effort to fill in. Participating in this research can therefore not harm the participant.

Onderzoeksmethode – verwerking gegevens

To ensure the reliability of the instruments, a principal component analysis and a reliability analysis will be conducted. The principal component analysis aims to describe the main components of the data. The reliability analysis aims to analyze the reliability of the different scales. Therefore this analysis will be conducted for transactional leadership, transformational leadership and distributed leadership separately . Before the regression analysis is conducted the assumptions of regression will be tested by creating a residual plot and , a scatterplot. Lastly, the relationship between the variables will be researched through a linear multiple regression, using the computer program SPSS. Hereby the assumptions of regression will be tested first by creating a residual plot, a scatterplot. After this, a regression analysis will be executed where perception on DL is the depend variable and leadership style the independent variable. Hereby the control variables will be taken into account.

Anonymity will be guaranteed by not asking any private information like names or addresses. Privacy will be guaranteed by not watching the respondents fill out the questionnaire. Hereby only people involved in the research will be allowed to access the fill out questionnaires.

Deel 2 Ethische toetscriteria

1. Belasting proefpersonen/ invasiviteit (max. 3 punten)	

Belasting proefpersonen/ invasiviteit moet niet té of onredelijk hoog zijn	**Er is sprake van een hogere mate van belasting/invasiviteit, naarmate:**
	• er meer (merkbaar of onmerkbaar) gevraagd van proefpersonen, in termen van:
	   - activiteit
	   - moeite
	   - persoonlijke/privacy-gevoelige informatie
	   - confrontatie
	   - pijn
	   - misleiding/achterhouden informatie

a. Risico-inschatting In hoeverre is dit punt van toepassing/aan de orde in het voorgesteld onderzoek?	*The questionnaire takes about 15 minutes to answer. Therefore there is no big effort asked from respondents. Furthermore the questionnaire does not address private or personal questions. Therefore no harm or confrontation will be caused for the participants. The respondents are informed beforehand that the questionnaire will be about leadership, however participants are not informed that distributed leadership will be questioned. This is to avoid socially desirable answers.*
b. Risico-dekking Hoe anticipeer je op deze risico's in het voorgestelde onderzoek? Denk aan a) spaarzaamheid in de opzet van het onderzoek (niet meer gegevens dan noodzakelijk),	*There are hardly any risk which need to be anticipated upon. The fact that participants are not informed about the specific topic of the questionnaire is anticipated upon by creating a handout of what the research was about. If participants are interested in learning more about the research they have participations, they can get all the information they want.*

2.Informatievoorziening en toestemming (max. 3 punten)	
Informatievoorziening en toestemming van proefpersonen moet voldoende en juist zijn	**Grotere zorgvuldigheid op het gebied van informatievoorziening en toestemming is vereist naarmate:** • de belasting/invasiviteit groter is • proefpersonen zelf kwetsbaarder zijn (bijv. in termen van leeftijd, geestelijke of lichamelijke toestand, afhankelijkheid)
a. Risico-inschatting In hoeverre is dit punt van toepassing/aan de orde in het voorgesteld onderzoek?	*This subject is not very relevant for this research since the respondents are not vulnerable (old enough to make their own decisions, independent and mentally and physically healthy) and the intensity of the research is low (just 15 minutes of filling out a questionnaire). Therefore there is no high risk.*

b. Risico-dekking Hoe anticipeer je op deze risico's in het voorgestelde onderzoek?	To ensure clear information provision the questionnaire will contain a passive content. Hereby the general topic of the research is shared. Also participants are informed about what will happen with the questionnaire so they are aware of what is going on. They will be informed beforehand to

3. Gegevens (max. 3 punten)	
3. Gegevens moeten vertrouwelijk en veilig worden behandeld en opgeslagen	**Grotere zorgvuldigheid op het gebied van omgang met gegevens is vereist naarmate:** • informatie gevoeliger/persoonlijker is • danwel op bepaalde manieren consequenties zou kunnen hebben wanneer dit niet veilig
a. Risico-inschatting In hoeverre is dit punt van toepassing/aan de orde in het voorgesteld onderzoek?	There is little potential danger regarding this topic since there is no personal or sensible information asked within the questionnaire.
b. Risico-dekking Hoe anticipeer je op deze risico's in het voorgestelde onderzoek? Denk aan zorgvuldige procedure en structuur voor opslag van ruwe en verwerkte data (bijv. conform data protocol FSW)	This topic will be anticipated upon by processing the data in such a way that anonymity will be guaranteed. This means that constructs are given a number (e.g. Dutch = 2) so that you cannot see right away which information is what. Hereby the explanation of the codes will be saved in a different document.

4. Data verzameling (max. 1 punt)	
4. Data verzameling moet noodzakelijk en voldoende relevant zijn	**Grotere zorgvuldigheid op het gebied van dataverzameling is vereist naarmate:** • steekproef minder representatief en/of kleiner is • de (precieze) uit te voeren analyses van de gegevens nog onduidelijk of onbepaald zijn • de mate en soort van opbrengst en/of waarde voor het wetenschappelijk of maatschappelijk veld beperkt of nog onduidelijk is
a. Risico-inschatting In hoeverre is dit punt van toepassing/aan de orde in het voorgesteld onderzoek?	*Based upon the expectations the sample will be representative and large enough. The analyses are decided upon and the importance for science and society is clear. Therefore there is no big risk regarding this topic.*

b. Risico-dekking Hoe anticipeer je op deze risico's in het voorgestelde onderzoek? Denk aan: - sample onderzoek, kans op uitval (attrition), generalisatie waarde, - pilots, bepalen van analysestappen, analyse modellen en poweranalyse om te zien of er voldoende (maar ook niet veel, zie 1) gegevens worden verzameld - inschatting gebruik onderzoeksrapport, impact op wetenschap/veld, plannen van valorisatie-activiteiten	*If it turns out that some factors have a small dispersion (e.g. nationally or level of education) they will be excluded in the research. This is because the generalization of the research would otherwise be in danger. Also a G power analysis is executed in order to determine how many people are needed. This ensures that enough respondents are approached.*

Appendix 2: Feedback FETC Form

FETC – Academic Professional 2016 – 2017

Beoordelingsformulier Aanvraag goedkeuring ethische commissie
Datum: 15 februari 2016 Naam student: Diede Oudenampsen Beoordeeld door: Sylvia Peters Eindcijfer: 6

| 1. Belasting proefpersonen/ invasiviteit (max. 3 punten)	Aantal punten
a. Risico-inschatting In hoeverre is dit punt van toepassing/aan de orde in het voorgesteld onderzoek?	1
b. Risico-dekking Hoe wordt geanticipeerd op deze risico's in het voorgestelde onderzoek?	1
Opmerkingen De risico's worden gesignaleerd en er wordt in voldoende mate op geanticipeerd.	

2. Informatievoorziening en toestemming (max. 3 punten)	Aantal punten
a. Risico-inschatting In hoeverre is dit punt van toepassing/aan de orde in het voorgesteld onderzoek?	1

b. Risico-dekking Hoe wordt geanticipeerd op deze risico's in het voorgestelde onderzoek?	1
Opmerkingen De risico-inschatting over de belasting rond de informatievoorziening is passend bij de doelgroep van het onderzoek. Er wordt een passive informed consent procedure voorgesteld.	

3. Gegevens worden vertrouwelijk en veilig behandeld en opgeslagen **(max. 3 punten)**	Aantal punten
a. Risico-inschatting In hoeverre is dit punt van toepassing/aan de orde in het voorgesteld onderzoek?	0
b. Risico-dekking Hoe wordt geanticipeerd op deze risico's in het voorgestelde onderzoek?	1
Opmerkingen De informatie is privacy-gevoelig. De data wordt geanonimiseerd. Er wordt verwezen naar het data procotol FSW. Over de opslag wordt verder geen informatie toegevoegd.	

4. Data verzameling moet noodzakelijk en voldoende relevant zijn **(max. 1 punt)**	Aantal punten
a. Risico-inschatting In hoeverre is dit punt van toepassing/aan de orde in het voorgesteld onderzoek?	1
b. Risico-dekking Hoe wordt geanticipeerd op deze risico's in het voorgestelde onderzoek?	
Opmerkingen Het onderzoek wordt beschouwd als representatief, maar niet duidelijk is hoe dit wordt bepaald, niet op grond van de g-power. De representativiteit wordt vooraf en tijdens de dataverzameling gecontroleerd. Er wordt melding gemaakt van de wetenschappelijke en praktische implicaties.	

Appendix 3: Conceptual framework
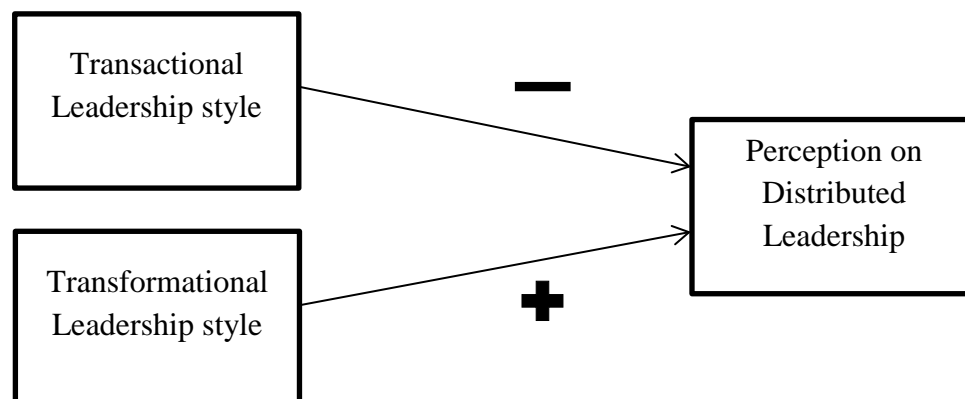
Appendix 4: Results Principe Components Analysis

Table 3a

Pattern Matrix Oblimin Principal Components Analysis Distributed Leadership

	Component*			
	1	2	3	4
PercDL1BE	-,381			
PercDL2BE			,725	
PercDL3BE			,639	
PercDL4BE			,739	
PercDL5SD		-,705		
PercDL6DL				
PercDL7CE		-,719		
PercDL8CE		-,363		
PercDL9CE		-,560		
PercDL10DLSD	,515			
PercDL11BE	,512			
PercDL14SD		-,602		
PercDL15SD		-,550		
PercDL18SD	,601			
PercDL19SD	,690			
PercDL21DL				-,723
PercDL22DL				-,861
PercDL23DL				-,679

Note. Loadings <.30 are not displayed in this table

*1 = shared decision, 2 = collective engagement, 3= bounded empowerment, 4= developing leadership

Table 3b

Pattern Matrix Oblimin Principal Components Analysis Leadership Style

	Component*	
	1	2
LS1CHAR	,503	
LS2CHAR	,508	
LS3CHAR		-,317
LS4TRANS	,572	
LS5CHAR	,532	
LS6CHAR	,661	
LS7TRANS	,464	
LS8TRANS	,392	-,392
LS9CHAR	,395	
LS10TRANS	,328	
LS11CHAR	,391	
LS12CHAR	,640	
LS13CHAR	,490	
LS14TRANS		-,811
LS15CHAR		-,734
LS16CHAR	,439	
LS17TRANS		-,735

Note. Loadings <.30 are not displayed in this table

*1=transformational leadership, 2= transactional leadership

Appendix 5: Summary Results of regression analysis

Table 4a

Summary of significant regression outcomes for bounded empowerment questions

Bounded empowerment		B	SE B	B	p
PercDL2BE	Transformational LS	.28	.12	.21	.016
PercDL3BE	Transformational LS	.56	.13	.26	.000
PercDL4BE	Transformational LS	.30	.12	.23	.013

a. $R^2 = .12$ for Q2 , $R^2 = .17$ for Q3, $R^2 = .79$ for Q4

Table 4b

Summary of significant regression outcomes for collective engagement questions

Collective engagement		B	SE B	B	P
PercDL7CE	Transformational LS	.33	.16	.18	.042
PercDL8CE	Transformational LS	.59	.18	.28	.001
PercDL9CE	Transformational LS	.32	.11	.23	.007
	Experience	.07	.03	.22	.031

a. $R^2 = .12$ for Q7, $R^2 = .19$ for Q8, $R^2 = .17$ for Q9

Table 4c

Summary of significant regression outcomes for shared decision questions

Shared decision		B	SE B	B	P
PercDL10SD	Transformational LS	.53	.12	.35	.000
	Transactional LS	.34	.10	.28	.001
PercDL18SD	Transformational LS	.61	.15	.35	.000
	Training	-.39	.14	-.24	.005
PercDL19SD	Transformational LS	.79	.15	.43	.000

a. $R^2 = .28$ for Q10, $R^2 = .22$ for Q18, $R^2 = .23$ for Q19,

Table 4d

Summary of significant regression outcomes for developing leadership questions

Developing Leadership		*B*	SE B	B	P
PercDL21DL	Transformational LS	.81	.17	.40	.000
PercDL22DL	Transformational LS	.84	.18	.39	.000
PercDL23DL	Transformational LS	.59	.17	.31	.001

a. R^2 = .22 for Q21, R^2 = .22 for Q22, R^2 = .16 for Q23

Appendix 6: Questionnaire

Research on leadership in international NGO's

Dear reader,

Thank you for your participation in this research. Goal of this research is to gain understanding of the leadership styles of NGO leaders and how this affects their perception on leadership. Since NGO's play an increasingly significant role in the current society, it is relevant to gain more knowledge on this topic.

By submitting this questionnaire you give permission to the use of the acquired data for the purpose of research. The data will not be evaluated for individual cases, only the results of the entire group are taken into account. Anonymity is guaranteed. No information about individual respondents will be shared with any third parties.

The questionnaire takes about 10 to 15 minutes to complete. Please remember that there are no right or wrong answers, your individual perception is what matters.

If you have any questions or remarks regarding this research, please contact Diede Oudenampsen (d.c.oudenampsen@students.uu.nl).

---

1. **In the last six months, I have fulfilled a leadership position within an international NGO/ I am currenly fulfilling a leadership position within an international NGO.**

Answer yes to this question if you are currently fullfilling a leadership position within an international NGO, or have fullfilled a leadership position in the last six months. You fulfill a leadership position when you are part of an international board, national board, local board or if you fullfill a leading position in project groups, working groups or commitees within an international NGO. In case of doubt, please contact Diede Oudenampsen (d.c.oudenampsen@students.uu.nl)

Please choose **only one** of the following:

- o   Yes
- o   No

Disclaimer: If you answered "No" to the last question, you are not a suitable respondent for this research. If this is the case you are kindly asked to <u>not continue</u> this questionnaire. Thank you for your participation.

2. In which NGO are you active? *

Indicate in which NGO you fulfill a leadership position. Please choose the NGO in which you are <u>most active</u> if it is more than one organization.

----

3. Gender *

Please choose **only one** of the following:

◯ Female
◯ Male
◯ Other

4. Age *

_____ years

5. Nationality *

----

6. Level of education *

Please indicate your level of education. Write down your current level of education if you are still studying. (e.g. if you are a Master student, choose "Master").

Please choose **only one** of the following:

◯ Primary Education
◯ Secondary Education
◯ Vocational Education
◯ Bachelor's degree
◯ Master's degree
◯ Doctorate degree
◯ Other

7. Did you receive any form of training or education specifically aimed at leadership? *

Please indicate whether you received any form of education aimed to improve your knowledge and skills on leadership. Please choose **only one** of the following:

◯ Yes
◯ No
◯ I don't know

8. How much experience do you have as a formal leader? *

Write down how many years of experience you have in a leadership position. This experience includes both experiences inside and outside NGO's.

---- years

9. Please indicate to what extent you agree with the following statements. *

These questions are about <u>yourself</u> as a leader within your NGO and about your opinion on leadership. The word ''staff' refers to the people you are working with. The word "organization" refers to the NGO.

	1 = Strongly agree	2 = Agree	3 = Undecided	4 = Disagree	5 = Strongly disagree	N.A = Not applicable
I relinquish control of some key operational decisions to my staff.	O	O	O	O	O	O
I give my staff opportunities to assume informal leadership responsibilities.	O	O	O	O	O	O
I create opportunities for my staff to take initiatives to improve organization processes and outcomes.	O	O	O	O	O	O
I encourage staff to make decisions within their work scope.	O	O	O	O	O	O
I go out of my way to demonstrate the benefits of shared decision making.	O	O	O	O	O	O
I assure staff that as their leader I accept ultimate accountability for the outcome of any shared decisions they make.	O	O	O	O	O	O
I encourage staff engagement in	O	O	O	O	O	O

	1 = Strongly agree	2 = Agree	3 = Undecided	4 = Disagree	5 = Strongly disagree	N.A = Not applicable
all key organization-wide decisions.						
I provide platforms for team members to work in teams to improve organizational processes.	O	O	O	O	O	O
I make the best use of staff talent by involving them in shared organization decision making.	O	O	O	O	O	O

10. Please indicate to what extent you agree with the following statements. *

These questions are about yourself as a leader within your NGO and about your opinion on leadership. The word ''staff' refers to the people you are working with. The word "organization" refers to the NGO.

	1 = Strongly agree	2 = Agree	3 = Undecided	4 = Disagree	5 = Strongly disagree	N.A = Not applicable
I proactively build trusting working relationships with and among my staff.	O	O	O	O	O	O
I coordinate to ensure alignment of decisions made by different staff.	O	O	O	O	O	O
I always take the competence of my staff into account when deciding whether to involve them in shared decision making.	O	O	O	O	O	O
I provide platforms for staff to build networks among colleagues to	O	O	O	O	O	O

	1 = Strongly agree	2 = Agree	3 = Undecided	4 = Disagree	5 = Strongly disagree	N.A = Not applicable
work collaboratively.						
I encourage my staff to consider all relevant stakeholders' viewpoints (team members and leaders) when making shared decisions.	○	○	○	○	○	○
I constantly affirm the importance of shared responsibility for decision making.	○	○	○	○	○	○
I constantly encourage staff to express their viewpoints about work to me.	○	○	○	○	○	○
I invest significant time and energy to build rapport with my staff.	○	○	○	○	○	○

11. Please indicate to what extent you agree with the following statements. *

These questions are about <u>yourself</u> as a leader within your NGO and about your opinion on leadership. The word ''staff' refers to the people you are working with. The word "organization" refers to the NGO.

	1 = Strongly agree	2 = Agree	3 = Undecided	4 = Disagree	5 = Strongly disagree	N.A = Not applicable
I provide constructive feedback to staff to help develop their leadership competencies.	○	○	○	○	○	○
I provide regular guidance to staff after giving them leadership	○	○	○	○	○	○

	1 = Strongly agree	2 = Agree	3 = Undecided	4 = Disagree	5 = Strongly disagree	N.A = Not applicable
responsibilities.						
I constantly develop leadership talents across all levels of my staff.	○	○	○	○	○	○
I am continuously looking to develop staff at all levels in my organization with leadership potential.	○	○	○	○	○	○
I exploit every opportunity for my staff to gain experience in developing their leadership competencies.	○	○	○	○	○	○
I ensure that the competencies of shared leadership are incorporated in our staff development programmes.	○	○	○	○	○	○
I provide opportunities for staff to work in teams as a means of developing their decision-making skills.	○	○	○	○	○	○
I often discuss organizational leadership problems and possible solutions with my staff as a way of developing their leadership skills.	○	○	○	○	○	○

12. Please indicate to which extend you agree with the following statements.*
These questions are about <u>your behavior as a leader</u> within your NGO and about your opinion on leadership. The word ''staff' refers to the people you are working with. The word "organization" refers to the NGO.

	1 = Strongly agree	2 = Agree	3 = Undecided	4 = Disagree	5 = Strongly disagree	N.A = Not applicable
I talk with staff about what is important to them.	○	○	○	○	○	○
I stimulate staff to address problems by thinking about them in new ways.	○	○	○	○	○	○
I have a vision and an image of the future.	○	○	○	○	○	○
I ensure that conditions are created in such a way that staff can do their job well.	○	○	○	○	○	○
I am always looking for new possibilities for the organization.	○	○	○	○	○	○
I encourage staff to think independently.	○	○	○	○	○	○
I highly value clear agreements and a fair reward.	○	○	○	○	○	○
I ensure that agreements are honored.	○	○	○	○	○	○
I am able to make others enthusiastic about my plans.	○	○	○	○	○	○

	1 = Strongly agree	2 = Agree	3 = Undecided	4 = Disagree	5 = Strongly disagree	N.A = Not applicable

13. Please indicate to which extend you agree with the following statements.*

These questions are about <u>your behavior as a leader</u> within your NGO and about your opinion on leadership. The word ''staff' refers to the people you are working with. The word "organization" refers to the NGO.

	1 = Strongly agree	2 = Agree	3 = Undecided	4 = Disagree	5 = Strongly disagree	N.A = Not applicable
I only criticize my staff for good reasons.	O	O	O	O	O	O
I involve staff in decisions which are important for their work.	O	O	O	O	O	O
I stimulate staff to develop their talents as well as possible.	O	O	O	O	O	O
I give my staff the feeling that they are working on important, common missions/assignments.	O	O	O	O	O	O
I am trustworthy, I keep one's promise.	O	O	O	O	O	O
I show conviction of my ideals, beliefs & values.	O	O	O	O	O	O
I delegate challenging responsibilities to staff.	O	O	O	O	O	O
I am reliable in fulfilling my obligations.	O	O	O	O	O	O

14. Please leave your email address if you wish to receive more information on this research.

In case you are interested to receive more information on this research, you can leave your email address. It will solely be used to send you the information. This is not mandatory.

15. If you have any final remarks, you can leave them here.

Thank you for participating in this research.

Table 5a

Correlations between different constructs

Constructs	1	2	3	4	5	6	7	8	9	10	11	12	13
PercDL1BE (1)	1												
PercDL2BE (2)	.11	1											
PercDL3BE (3)	.049	.278**	1										
PercDL4BE (4)	.12	.330**	.318**	1									
PercDL7CE (5)	.03	.103	.170*	.104	1								
PercDL8CE (6)	.10	.094	.189*	.156	.214*	1							
PercDL9CE (7)	.06	.123	.177*	.202*	.294**	.367**	1						
PercDL15SD (8)	-.02	.138	-.007	.017	.246**	.249**	.141	1					
PercDL18SD (9)	-.07	.102	.280**	.177*	.130	.196*	.152	.167*	1				
PercDL19SD (10)	-.09	.087	.163*	.140	-.003	.248**	.120	.192*	.392**	1			
PercDL21DL (11)	.04	.131	.249**	.169*	.052	.227**	.244**	.121	.256**	.287**	1		
PercDL22DL (12)	-.03	.132	.188*	.130	.150	.210*	.190*	.080	.089	.212*	.491**	1	
PercDL23DL (13)	.12	.114	.127	.202*	.223**	.123	.290**	.141	.179*	.187*	.326**	.433**	1

Table 5b

Correlations between different constructs

Constructs	14	15	16	17	18	19	20	21	22	23	24	25
PercDL1BE (1)	.058											
PercDL2BE (2)	.215**	-.031										
PercDL3BE (3)	.373**	.181*	.002									
PercDL4BE (4)	.212*	.022	-.093	-.072								
PercDL7CE (5)	.205*	.109	-.026	-.061	-.127							
PercDL8CE (6)	.300**	.208*	-.114	-.073	-.080	.050	.183*					
PercDL9CE (7)	.247**	.148	.001	.133	.005	-.008	.163*	-.113				
PercDL15SD (8)	.194*	.069	.100	-.086	-.165*	.141	.176*	-.017	-.010			
PercDL18SD (9)	.360**	-.028	.016	-.110	-.004	.019	-.035	-.094	-.039	.047		
PercDL19SD (10)	.417**	.041	-.060	-.063	-.062	.063	.033	-.106	-.013	.008	.090	
PercDL21DL (11)	.390**	.033	-.084	-.099	.039	-.038	-.106	-.097	.011	.015	.171*	-.092
PercDL22DL (12)	.395**	.047	-.039	-.042	.142	-.124	-.092	-.109	.094	-.062	.059	-.151
PercDL23DL (13)	.321**	.091	.010	-.082	.022	-.015	-.128	.061	.061	-.007	-.039	-.157

Table 5c

Correlations between different constructs

Constructs	1	2	3	4	5	6	7	8	9	10	11	12	13
avCHAR (14)	.058												
avTRANS (15)	-.037	-.031											
Age (16)	-.018	.090	.002										
Experience (17)	.089	-.097	-.075	-.072									
GenderOther (18)	.131	-.007	-.063	.017	-.127								
Male (19)	-.144	.000	.056	-.027	.126	.050							
SecondaryEd. (20)	-.001	.014	.028	-.004	.111	.183*	.163*						
VocationalEd.(21)	.175*	-.093	-.073	-.068	.006	-.082	-.113	-.017					
Bachelorsdegr (22)	-.019	.008	.014	-.002	.171*	.069	.110	-.010	-.039				
EduOther (23)	-.032	-.018	-.014	.006	-.204*	-.110	-.159	-.112	.047	.008			
Doctoratedegr (24)	-.026	.175*	.043	.064	.006	.004	.016	.066	.110	.090	.171*	.059	
Trainingyes (25)	.082	-.130	.043	-.067	-.030	-.040	-.029	.043	-.286**	-.153	-.092	-.151	-.157

Table 5d

Correlations between different constructs

Constructs	14	15	16	17	18	19	20	21	22	23	24	25
avCHAR (14)	1											
avTRANS (15)	.257**	1										
Age (16)	-.063	-.071	1									
Experience (17)	-.150	-.077	.515**	1								
GenderOther (18)	.014	-.068	-.298**	.004	1							
Male (19)	-.001	.046	.294**	.001	-.987**	1						
SecondaryEducation (20)	.002	.024	-.011	.019	.002	-.082	1					
VocationalEducation (21)	.026	.065	-.065	.024	.082	-.081	-.013	1				
Bachelorsdegree (22)	.046	.147	-.405**	-.119	-.024	.041	-.218**	-.108	1			
EduOther (23)	-.064	-.132	.393**	.100	.052	-.043	-.110	-.054	-.889**	1		
Doctoratedegree (24)	.087	-.076	.083	-.093	-.080	.081	-.013	-.007	-.108	-.054	1	
Trainingyes (25)	-.088	.184*	-.018	.146	-.078	.067	.047	.065	-.066	.036	-.102	1

Appendix 8: Coding of questions

Table 6

Coding of questions

Code of item	Dutch	English
PercDL1BE		I relinquish control of some key operational decisions to my staff.*
PercDL2BE		I give my staff opportunities to assume informal leadership responsibilities.
PercDL3BE		I create opportunities for my staff to take initiatives to improve organization processes and outcomes.
PercDL4BE		I encourage staff to make decisions within their work scope.
PercDL5SD		I go out of my way to demonstrate the benefits of shared decision making.*
PercDL6DL		I assure staff that as their leader I accept ultimate accountability for the outcome of any shared decisions they make.*
PercDL7CE		I encourage staff engagement in all key organization-wide decisions.
PercDL8CE		I provide platforms for team members to work in teams to improve organizational processes.
PercDL9CE		I make the best use of staff talent by involving them int he shared organizational decision making.
PercDL10DLSD		I proactively build trusting relationships with and among my staff.

PercDL11BE	I coordinate to ensure alignment of decisions made by different staff.*
PercDL12	I always take the competence of my staff into account when deciding whether to involve them in shared decision making.*
PercDL13	I provide platforms for staff to build networks among colleagues to work collaboratively.*
PercDL14SD	I encourage my staff to consider all relevant stakeholders' viewpoints (team members and leaders) when making shared decisions.*
PercDL15SD	I constantly affirm the importance of shared responsibility for decision making.*
PercDL16	I constantly encourage staff to express their viewpoints about work to me.*
PercDL17	I invest significant time and energy to build rapport with my staff.*
PercDL18SD	I provide constructive feedback to staff to help develop their leadership competencies.
PercDL19SD	I provide regular guidance to staff after giving them leadership responsibilities.
PercDL20	I constantly develop leadership talents across all levels of my staff.*
PercDL21DL	I am continuously looking to develop staff at all levels in my organization with leadership potential.
PercDL22DL	I exploit every opportunity for my staff to gain experience in developing their leadership competencies.
PercDL23DL	I ensure that the competencies of shared leadership are incorporated in our staff

		development programmes.
PercDL24		I provide opportunities for staff to work in teams as a means of developing their decision-making skills.*
PercDL25		I often discuss organizational leadership problems and possible solutions with my staff as a way of developing their leadership skills.*
LS1CHAR	Praat met medewerkers over wat voor hen belangrijk is.	I talk with staff about what is important to them.
LS2CHAR	Stimuleert medewerkers om op nieuwe manieren over problemen na te denken.	I stimulate staff to address problems by thinking about them in new ways.
LS3CHAR	Heeft visie en een beeld van de toekomst.	I have a vision and an image of the future.*
LS4TRANS	Zorgt ervoor dat de randvoorwaarden worden geschapen zodanig dat medewerkers hun werk goed kunnen doen.	I ensure that conditions are created in such a way that staff can do their job well.*
LS5CHAR	Is altijd op zoek naar nieuwe mogelijkheden voor de organisatie.	I am always looking for new possibilities for the organization.
LS6CHAR	Moedigt medewerkers aan om onafhankelijk te denken.	I encourage staff to think independently.
LS7TRANS	Hecht veel waarde aan heldere afspraken en een eerlijke beloning.	I highly value clear agreements and a fair reward.*
LS8TRANS	Ziet erop toe dat afspraken worden nagekomen.	I ensure that agreements are honored.*

LS9CHAR	Is in staat anderen enthousiast te maken voor zijn/haar plannen.	I am able to make others enthusiastic about my plans.
LS10TRANS	Bekritiseert medewerkers alleen met goede reden.	I only criticize my staff for good reasons.*
LS11CHAR	Betrekt medewerkers bij besluiten die van belang zijn voor hun werk.	I involve staff in decisions which are important for their work.
LS12CHAR	Stimuleert medewerkers hun talenten zo goed mogelijk te ontwikkelen.	I stimulate staff to develop their talents as well as possible.
LS13CHAR	Geeft medewerkers het gevoel aan een belangrijke, gemeenschappelijke missie/opdracht te werken.	I give my staff the feeling that they are working on important, common missions/assignments.
LS14TRANS	Is te vertrouwen, houdt zich aan zijn/haar woord.	I am trustworthy, I keep one's promise.
LS15CHAR	Laat zien overtuigd te zijn van zijn/haar idealen, opvattingen en waarden.	I show conviction of my ideals, beliefs & values.*
LS16CHAR	Delegeert uitdagende verantwoordelijkheden aan medewerkers.	I delegate challenging responsibilies to staff.
LS17TRANS	Is betrouwbaar in het nakomen van zijn/haar verplichtingen.	I am reliable in fulfilling my obligations.

* This item was removed after factor- and reliability analysis.