



### **Developing Leadership Behaviour**

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### **DEVELOPING LEADERSHIP BEHAVIOUR**

THE IMPACT OF LEADERSHIP EDUCATION

BY PETER SØRENSEN

DISSERTATION SUBMITTED 2017

AALBORG UNIVERSITY Denmark

# **Developing Leadership Behaviour**

## The Impact of Leadership Education

By

Peter Sørensen

A Ph.D. dissertation submitted to the Doctoral School of Social Science, Doctoral Programme in Political Science, Aalborg University in partial fulfilment of the requirements of the Ph.D. degree in Political Science

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Im Verstehen der Überlieferung werden nicht nur Texte verstanden, sondern Einsichten erworben und Wahrheiten erkannt. Was ist das für eine Erkenntnis and was für eine Wahrheit?

H.G. Gadamer (1972)

#### Preface

Understanding a tradition in science requires reading, interpretation, insight and time – a lot of time. I have worked on gaining insight into the subject of this dissertation for four years. After gaining a master's degree in philosophy (mag.art. in Danish), I spent this time learning the craft of statistics – a 'terra incognita' to (most) philosophers – and working on understanding aspects of the tradition of political science. After four years I am still reading, interpreting and gaining insight, but I have no more time to work on the thesis, and am therefore submitting it as a 'status report' on my way to understanding. Hopefully my quest towards understanding will continue for many years to come. During these four years I have learned and received critique and help from various people whom I would like to thank.

First of all, I would like to thank my main supervisor, Professor Morten Balle Hansen of the Department of Political Science at Aalborg University. Morten believed in my ability to learn statistics and my project idea from day one. He kept me on track, introduced me to scientific norms in political science and guided me around potential pitfalls. He also introduced me to the research group COMA (Centre for Organization, Management and Administration) at Aalborg University, whose members I would like to thank for their direct and honest critique when I presented ideas and papers along the way.

I would also like to thank and acknowledge Professor Anders Ryom Villadsen of the Department of Management at Aarhus University for all his help. As my co-supervisor Anders has been my mentor in 'statistical craftsmanship' and has commented on my ideas, theoretical models and drafts. Thank you, Anders, for always being ready to comment and help me tackle my statistical challenges.

Besides my supervisors I am grateful to Associate Professor Nikolaj Stegeager of the Department of Learning and Philosophy at Aalborg University, who co-wrote one of the papers in this dissertation.

Professor Reid Bates of the School of Human Resource Education and Workforce Development made a stay as a visiting scholar at Louisiana State University possible. Furthermore, he allowed me to translate and test the Learning Transfer System Inventory (LTSI®) in a Danish context, which resulted in a paper co-authored by both Reid and Nikolaj Stegeager.

Professor Annie Hondeghem of the Public Governance Institute, KU Leuven allowed me a short stay as a visiting scholar in May 2017 and arranged a research group meeting in which I presented an early draft of one of my papers.

I would like to thank the staff in the five Danish municipalities Billund, Fredericia, Kolding, Middelfart and Vejle – especially Elsebeth Bloch, Stephan Raahede Kristiansen, Peter Nissen, Peter Tvebro and Søren Madsen – for allowing me to involve the employees in the municipalities and letting them spend time on my surveys. Without your interest and help this project would not have been possible.

Besides the people mentioned above, I owe a thanks to the Public Administration group in the Department of Political Science at Aarhus University for letting my present one of my papers. Thank you for spending time on reading and commenting on my paper.

Thanks to the workshop members and commenters of the conferences NorKom 2014, Det Danske Ledelsesakademi 2014 and EGPA 2017 for your critical comments on my conference papers during my Ph.D.

Last but not least, I would like to thank the two organizations who funded my studies. University College Lillebaelt invested in me and made it possible to work on the dissertation as part of my employment as a junior and later senior lecturer. Thanks to Hanne Vibeke Sørensen, Ulla Viskum, Poul Skov Dahl, Andre Barsøe Jensen and Steffen Svendsen for making it possible for me to work on this. Thank you Lis Holm Petersen for your encouragement and support. I owe my thanks to Morten Rasmus Puck for taking the time to answer all kinds of questions about statistics and for helping me tackling data file challenges. Thanks also to the National Academy for Government Management and Training (Center for Offentlig Kompetenceudvikling), which helped finance the project. Anya, Olivia and August, it all makes sense because of you. Thank you!

Though it is obvious, I will say it anyway: in spite of the help, advice and comments I have received during my work on this dissertation, none of the above can be held responsible for the content of this report. The text is mine and mine alone, and some of the people who have helped me might disagree with me, even quite strongly, about some aspects of the work.

Finally a linguistic note: The summary report has been written in British English while the papers have all been written in American English as requested by the journals in which the papers have been published or to which the papers have been submitted.

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### Resume på dansk (Summary in Danish)

Denne ph.d.-afhandling handler primært om effekt af formelle, kompetencegivende lederuddannelser. Formålet er at undersøge, hvilken effekt diplomuddannelsen i ledelse (DIL) har på kommunale lederes adfærd forstået som opgave-, relations- og forandringsorientering. Det teoretiske fundament for denne forståelse er den amerikanske ledelsesforsker Gary Yukl (2002; 2012; 2013). Sekundært handler afhandlingen om de organisatoriske forudsætninger for at opnå effekt af uddannelser. Nogle af disse forudsætninger studeres i transfer-forskning, hvor en grundtanke er, at transfer er en forudsætning for effekt.

Transfer handler egentlig om at overføre læring fra en kontekst, fx en uddannelse, til en anden kontekst, fx en arbejdsplads. Men transfer handler også om at implementere og vedligeholde læring over tid. Grundtanken er den, at en studerende sagtens kan lære noget, fx lære en række nye begreber, metoder og modeller. Når den studerende har lært noget, kan man sige, at undervisning har haft en effekt. Dette kan betragtes som effekt på et individniveau, men det behøver ikke samtidig at være en effekt på hverken organisations- eller samfundsniveau. Det fordrer nemlig transfer. Hvis der ikke er transfer, så forbliver læring, populært sagt, 'inde i hovedet' på den studerende, hvorfor det forbliver en effekt på individniveau. Hvis det lærte derimod overføres til og implementeres på en arbejdsplads, og hvis det ydermere vedligeholdes over tid, er der sket transfer, hvilket kan resultere i organisatoriske effekter. Det kræver dog yderligere, at det overførte og implementerede kan registreres af andre på arbejdspladsen. Når dette sker, og hvis man, som en følge deraf, begynder at arbejde på måder, der eksempelvis reducerer antallet af sygemeldte medarbejdere, kan læring også have en samfundsmæssig effekt, idet læringen reducerer det offentliges udgifter til sygedagpenge.

Transfer og effekt er altså nært forbundne. Derfor er det vanskeligt at undersøge effekter af en uddannelse uden også at beskæftige sig med transfer. Så selvom effekt er det begreb, der har min primære interesse, så må jeg nødvendigvis også beskæftige mig med transfer i afhandlingen. Det gør jeg ved at undersøge, hvilke organisatoriske forudsætninger en række kommunale ledere har for transfer.

Afhandlingen består af fire separate artikler, der ud fra hver deres forskningsspørgsmål belyser forskellige aspekter af transfer og effekt.

I den første artikel undersøges det, hvorvidt det amerikansk-udviklede og globalt anvendte spørgeskemakoncept Learning Transfer System Inventory (LTSI<sup>©</sup>) kan anvendes i en dansk uddannelseskontekst? LTSI er et generisk koncept, der prætenderer at kunne kortlægge forudsætninger for transfer på enhver type arbeidsplads og i forbindelse med en hvilken som helst type uddannelse/ kursus uafhængigt af kulturelle, historiske og politiske forhold. For første gang er dette koncept afprøvet i en dansk uddannelseskontekst under arbeidet med denne ph.d.-afhandling. Samtidig er konceptet for første gang i verden afprøvet i relation til fire forskellige uddannelsesniveauer. Undersøgelsen blev gennemført som en elektronisk spørgeskemaundersøgelse efter at spørgeskemaet i en omfattende oversættelsesproces var blevet oversat fra (amerikansk) engelsk til dansk og retur til engelsk. Oversættelsen blev kontrolleret og godkendt af de amerikanske opretshavere, hvorefter undersøgelsen kunne gennemføres blandt studerende på fire forskellige uddannelsesniveauer i Danmark (Arbejdsmarkedsuddannelser (AMU), akademi-, diplom- og masterniveau). Det umiddelbare resultat af spørgeskemaundersøgelsen er, at LTSI, fra en rent statistisk synsvinkel udmærket kan anvendes i en dansk uddannelseskontekst. Faktorstrukturen i det statistiske materiale ligner i høj grad faktorstrukturen i den amerikanske version (og i øvrigt også strukturen i de fleste af de 24 andre lande, der har testet LTSI). På trods af dette er den samlede konklusion på artiklen, at såfremt LTSI skal anvendes i en dansk uddannelseskontekst, bør det tilrettes den danske kultur og uddannelsestradition. Årsagen til denne konklusion er, at 15-20 respondenter bagom det statistiske materiale sendte kommentarer via e-mail til mig som afsender af spørgeskemaet. Af kommentarerne fremgik det, at respondenterne havde undret sig over ordlyden af og formuleringerne i nogle af spørgsmålene. Disse kommentarer inddrog og diskuterede jeg og mine medforfattere i artiklen efter præsentationen af de statiske fund. Ydermere og med særlig relevans for internationale læsere konkluderede vi i artiklen, at LTSI synes mere anvendelig i forbindelse med korte kurser (fx AMU) end for længerevarende egentlige uddannelser (fx diplom og master). Den danske version af spørgeskemaet og den datadokumentationsrapport, som blev udarbejdet på baggrund af undersøgelsen i 2016 er kun tilgængelig for bedømmelsesudvalget af ph.d.-afhandlingen pga. copyright, LTSI 2012<sup>©</sup>.

I den anden artikel undersøges det, hvordan 128 kommunale ledere i fem danske kommuner (Middelfart, Fredericia, Vejle, Kolding og Billund) vurderer transfer-forhold, som henholdsvis fremmer og hæmmer effekt af en uddannelse (i dette tilfælde, en formel kompetencegivende lederuddannelse). Transfer betragtes som en forudsætning for effekt. Artiklen tager udgangspunkt i ni transfer-faktorer. Blandt disse er nogle af de faktorer, der indgår i LTSI (undersøgt i afhandlingens første artikel), men også en række andre faktorer, som transfer-forskningen har beskæftiget sig med. Konklusionen på undersøgelsen er, at de danske kommunale ledere generelt vurderer, at de har gode forudsætninger for transfer, og dermed for at implementere og bringe ny viden i spil i de fem kommuner. I undersøgelsen vises det dog også, at kommunerne kan forbedre forholdene vedrørende tre af de ni faktorer. Hvis kommunerne begynder at arbejde mere struktureret og systematisk med chefmæssig opbakning/sparring, kollegial opbakning/sparring og begynder at evaluere effekter af lederuddannelser, viser transfer-forskningen, at den potentielle effekt af en uddannelse kan forbedres.

I den tredje artikel undersøger jeg, hvordan kommunale ledere selv vurderer den adfærdsmæssige effekt af at deltage i diplomuddannelsen i ledelse. Artiklen er baseret på paneldata, som er genereret i årene 2014, 2015 & 2016. Data er genereret via et selvudviklet spørgeskema, som er inspireret af Yukls taksonomi for lederadfærd. Spørgeskemaet indeholder 42 spørgsmål indenfor de tre adfærdskategorier: opgave-, relations- og forandringsorientering. Spørgsmålene stilles til kommunale ledere, som er beskæftiget i 17 forskellige beskæftigelsesområder, men hvor størstedelen er beskæftiget indenfor skole-, daginstitutions-, samt ældre og handikapområdet. På baggrund af analyserne finder jeg, mod forventning, at kun opgave-orientering udvikler sig signifikant positivt og kun for de ledere, der har afsluttet en diplomuddannelse i ledelse. Effekterne for relations- og forandrings-orientering er også positive, men in-signifikante. Ydermere vises det vha. deskriptiv statistik, at to ud af de tre adfærdstyper udvikler sig negativt fra 2014 til 2015 medens de udvikler sig positivt fra 2015 til 2016. Endelig vises det i artiklen, at indenfor alle tre adfærdskategorier vurderer ledere, der har afsluttet deres uddannelse, sig selv mere positivt (på en skala fra helt enig til helt uenig), end de ledere, der ikke har afsluttet deres uddannelse.

I den fjerde artikel søges svar på forskningsspørgsmålet om, hvordan offentligt ansatte opfatter udviklingen af lederadfærd gennem tid. Til besvarelse af spørgsmålet inddrages spørgeskemadata fra tre grupper af kommunalt ansatte, der arbeider sammen med ledere, der er under uddannelse (diplom i ledelse). De tre medarbejdergrupper omfatter chefer, ansatte og sideordnede lederkolleger. Tre hypoteser (H) leder analyserne i artiklen. H1: Chefer, ansatte og sideordnede lederkolleger til en leder under uddannelse vil vurdere, at lederens opgave-, relations- og forandringsorienterede lederadfærd vil udvikle sig positivt over tid, når lederen deltager i en formel lederuddannelse. H2: Når en offentlig leders adfærd vurderes, vil lederens ansatte vurdere adfærden lavere end lederens chef og sideordnede kolleger gør. H3: Når en leders adfærd vurderes, korrelerer alderen på dem, der vurderer, negativt med vurderingen af en høj scorer på lederadfærd. I artiklen finder vi, at lederadfærden udvikler sig positivt gennem den treårige periode. Den største positive udvikling sker fra år et til år to, medens der sker en mindre stigning eller ovenikøbet et lille fald fra år to til år tre. Alt i alt betyder det, at H1 kan bekræftes. H2 bekræftes også, idet ansatte til en leder under uddannelse vurderer lederadfærden signifikant lavere end vurderingen fra både chefer og sideordnede lederkolleger. Samtidig finder vi, at der ikke er signifikant forskel på, hvordan chefer og sideordnede vurderer lederens adfærd. Endelig bekræftes H3 delvist, idet alderen på respondenten (frem til midt i 50'erne) korrelerer negativt med vurderingen af relations- og forandringsorienteret lederadfærd. Derimod korrelerer alder ikke med opgaveorienteret adfærd.

Samlet set bidrager afhandlingen med viden om, hvordan kommunale ledere i fem danske kommuner vurderer organisatoriske forhold der hhv. fremmer og hæmmer transfer. Derudover bidrager afhandlingen med viden om, hvilke effekter en formel kompetencegivende lederuddannelse har på kommunale lederes adfærd. Sidst men ikke mindst bidrager afhandlingen med viden om og et kritisk perspektiv på spørgeskemakonceptet LTSI i en dansk uddannelseskontekst.

Spørgeskemaet, som jeg har anvendt til at generere longituditionelle paneldata i årene 2014, 2015 og 2016 findes i to versioner. 2014-udgaven er den mest omfattende, idet den indeholder en del spørgsmål udover adfærdsspørgsmålene. 2015 og 2016-versionen er forkortet og fokuserer på spørgsmål, der vedrører lederadfærd. Begge versioner kan findes i <u>UC Viden</u>.<sup>1</sup> Det samme kan de tre datarapporter, som jeg har udarbejdet på baggrund af datagenereringen for de tre år.

<sup>&</sup>lt;sup>1</sup> Spørgeskemaerne findes desuden i afhandlingens appendiks.

## **Summary in English**

The purpose of this dissertation is to do examine the impact of formal leadership education on developing public leadership behaviour. The entire dissertation consists of this summary which binds the entire dissertation together as well as it contains theoretical discussions. Besides the report, the dissertation consists of four empirical papers and two questionnaire surveys: one questionnaire is used once while the other questionnaire is used three times in a longitudinal perspective.<sup>2</sup> In addition, four data reports document the data generated from the questionnaire surveys. These data reports are not included in this report. The first paper is based on data reported in the data report titled *Learning Transfer System Inventory (LTSI) – Datarapport for* en dansk version af LTSI i relation til fire uddannelsesniveauer.<sup>3</sup> The second, third and fourth papers are based on data reported in numbered data reports: number one (2014), two (2015) and three (2016). Three of the four data reports and the two versions (see footnote) of one of the questionnaires can be found at UC Viden. The two versions of the questionnaire are also available in the appendix. For copyright reasons, the other questionnaire and the data report belonging to it are only accessible to the members of the Ph.D. assessment committee.

The first paper (referred to as "A Danish version of the LTSI") reports on the use of a Danish version of the Learning Transfer System Inventory (LTSI ©) in relation to four types of adult continuing education (data reported in one data report). The LTSI is recognized as a global standard for testing organizational transfer conditions. The inventory is supposed to be just as relevant for one-day practical courses (e.g. a course on how to operate a forklift truck) as for long-term university programmes (e.g. a master's programme in Public Governance or European Politics and Policy). In addition, the inventory is supposed to be independent of cultural differences. These presumptions are tested and discussed in relation to four different types of Danish educational programmes. The conclusion of the

<sup>&</sup>lt;sup>2</sup> There are two versions of one of the questionnaires. One version, used in 2014, is far more comprehensive than the second version, which was used in 2015 and 2016.

<sup>&</sup>lt;sup>3</sup> Data report for a Danish version of the LTSI in relation to four different levels of education.

paper is that, from a statistical point of view, the inventory is applicable to a Danish educational context. However, from a qualitative point of view, the inventory needs thorough linguistic elaboration and cultural translation in order to add value to Danish organizations. There are simply too many terms and phrases in the inventory that do not apply in a Danish context.

The second paper (referred to as "Research on learning transfer") explores the conditions of training/learning transfer among public managers in Denmark. Nine transfer conditions are drawn from a much longer list found in the literature on transfer research. 128 public managers from five different municipalities are included in an electronic questionnaire survey in which it is found that the managers in general feel they have quite good transfer conditions. These managers, as well as their superiors, subordinates and peer managers, make up a panel, which means that they have been studied throughout the entire Ph.D. project. Thus, their views on the organizations in which they work are important for studying the impact of leadership education. The reason for this is that, according to transfer research, the transfer conditions are considered prerequisites for the effectiveness of training and learning activities. Thus, from a theoretical point of view, the managers included in the current research project should be able to perceive an impact of leadership training and development.

Paper three (referred to as "Formal education in leadership") analyses and discusses how the Danish public managers self-report the development of leadership behaviour over time while the managers participate in a formal leadership education (Diploma of Leadership). The findings indicate that among three types of leadership behaviour (task-, relations- and change-oriented), task-oriented leadership behaviour is the only type that is significantly affected by formal leadership training. And the effect is only found among managers who have completed training. Neither relations- nor change-orientated leadership behaviour is significantly affected over time. These findings are discussed in relation to the existing research literature.

Paper four (referred to as "Leadership Education in Public Administration") uses descriptive statistics to show how the perception of the public managers' behaviour develops over time. Furthermore, manager fixed-effects analysis is used to find a statistically significant correlation between the perception of leadership behaviour and the type of staff (superiors, employees and peers) assessing a manager who is in an educational programme. Employees under a manager who is undertaking an educational programme rate their leadership behaviour significantly lower than do the superiors and peer managers. In addition, it is found that the age of the rater corresponds negatively with the perception of relations- and change-oriented leadership behaviour. But it is also found that the negative relationship tapers off around the mid-50s of the raters.

In this dissertation, I have attempted to answer the overall question of whether an education in leadership makes an impact on the development of public leadership behaviour. This topic is underexposed in both the national and international research literature.

### **Chapter 1: Introduction**

Managers in the public sector act in a political context full of dilemmas. Nevertheless, they must show courage, efficiency, make difficult decisions, prioritize and produce results for the citizens. They will only succeed if they are really competent (Ministry of Finance 2017). These are some of the words with which the Danish Ministry of Finance launched the Leadership Commission (Ledelseskommissionen) on 15 March 2017 in order to renew the Danish public sector.<sup>4</sup> Improved leadership is a central element in this commission, and the Danish government aims to develop leadership of "the highest quality" when compared internationally as well as across sectors (ibid.). The slogan used by the Government is "Better leadership results in better welfare" (my translation).<sup>5</sup> With this aim and slogan the Danish politicians speak out and revitalize the OECD (2011) debate on how to innovate the public sector. At the same time the Danish politicians place themselves in the centre of a long-lasting and widespread discussion on leadership development. The obvious questions to the Government are of course: what does better leadership mean, and how can it be promoted? How can leadership be developed? The latter question is at the core of this dissertation, as the dissertation's theme is to explore whether formal education in leadership can be used to develop leadership behaviour. The existing research literature on this topic paints a somewhat blurred picture of answers to this question. But it is certainly a fact that leadership development, education and training are some of the 'tools' which are often

<sup>&</sup>lt;sup>4</sup> The two terms 'management' and 'leadership' are ambiguous. Both relate to the process of steering someone/something or achieving a goal via someone. But they stem from different cultures and rely on different relations between the persons involved, and therefore must be separated. Later in chapter 1 I will define the two terms, and in chapter 3 I will show that there is not only a terminological difference between them but also a difference in meaning. Primarily I will use the term manager when I refer to the formal position a person has, though I would have used the term leader (*leder*) if I had been writing in Danish. But the English term management is also used in Danish today, e.g. in relation to New Public Management.

<sup>&</sup>lt;sup>5</sup> In Danish: *Bedre ledelse giver bedre velfærd*, Sammenhængsreformen (Regeringen & Finansministeriet 2017).

used to renew, rethink and restructure leadership as well as management (Yukl 2013). But still, the question is how.

The leadership development literature suggests multiple techniques and methods used to promote leadership development. These include feedback, classroom education, coaching and mentoring, experience and hardships (Seidle, Fernandez, and Perry 2016), storytelling (Ray and Goppelt 2011), action learning (Varela, Burke, and Michel 2013; D. V. Day et al. 2014) and a combination of methods (Seidle et al. 2016). Besides these different techniques and methods, leadership development may have different formats: from short informal training workshops that focus on a narrow set of skills and last only a few hours, to formal programmes that cover a range of knowledge, skills and competencies. Such programmes may last from days, weeks and months to several years (Yukl 2013).

"Implicit in most leadership development programs is the assumption that if individual leaders improve, they will create improved performance for those who follow them and accordingly the organizations will have improved performance" (Ray and Goppelt 2011, p. 58). This rationale seems to be implicit in the Danish Leadership Commission as well.<sup>6</sup> If the public Danish managers are educated more, they may be able to promote and support changes required by politicians, the media, organizations, markets, reforms, citizens, budgets and the law – nationally as well as internationally.

There is another relevant assumption at stake which is more general and not limited to national Danish needs. This assumption is about leadership development, education and training, and it explains why public (as well as private) organizations invest in management and leadership development, and why leadership development has become such a large and growing industry. Leadership development has become a billion dollar industry in the United States (Yukl 2013; Kaiser and Curphy 2013) and a multi-million kroner business in Denmark, in which hundreds of millions are invested in further education, continuing vocational training and work-based training for both private sector and public managers. The Danish as well as the American investments cover a variety of both short intensive courses and longer formal educational programmes, from undergraduate, graduate to

<sup>&</sup>lt;sup>6</sup> The Danish Leadership Commission is my translation of the Danish name *Ledelseskommissionen*.

postgraduate programmes. Bearing in mind the fact that leadership development programmes as well as formal leadership educational programmes make up a very large industry, we might expect that research into the impact of these development activities would be developed to the same extent as the number of courses and types of education offered, investments made, and people and companies involved. However, Yukl (2013), Black and Earnest (2009), Collins and Holton (2004) and Frank (2010), among others, claim that this is not the case. Very often, the effects of the investments are not even evaluated. Sogunro (in Collins and Holton 2004) writes that research "indicate[s] that organizations are spending little time evaluating the effectiveness of their interventions and more specifically, evaluating whether those programs improve the organization's performance" (op.cit., p. 218). Despite researchers claiming there is a lack of evidence about the positive impact of leadership development, many corporations, professional management associations and consultants are apparently not interested in this lack of evidence. They seem to take it for granted that leadership development programmes and education result in improved leadership skills (Collins and Holton 2004). As Collins and Holton write, "[...] many companies naively assume that leadership development interventions improve organizational goals" (Ibid, p. 218). But actually, companies do not have to rely only on assumptions. Some (though not many) studies have analysed, discussed and reported on the impact of nonformal leadership development programmes. A good overview of some of these effects is given by Collins and Holton (2004), who review the findings of studies between 1982 and 2001, as well as Aguinis and Kraiger (2009), who review studies between 2000 and 2009.

Among the most recent studies, Getha-Taylor et al. (2015) analyse data from a local US government leadership development programme. With the aim of considering the effects of time on leadership development, they find that leadership training is an important factor in the development and effectiveness of conceptual as well as interpersonal leadership skills. Getha-Taylor et al. (ibid.) find that time does not have an effect on interpersonal leadership skill development. The "effects of training are positive and persistent, as no training effect decay was noticed during the course of this study" (ibid., p. 310). However, the positive effect on conceptual leadership skills diminishes as the recency of the training diminishes. After eight months, the effects of the training had disappeared (ibid.). Another recent study by Hasson et al. (2016) aims at evaluating whether management training can improve organizational learning. During a two-year study using pre- and post-tests in a private forestry company, they found "that managers' ratings of continuous learning and the employees' ratings of empowerment and embedded systems improved significantly as a result of the training" (ibid., p. 115).

Though some studies have explored the effects of both formal and non-formal training programmes, the public sector is largely ignored in most of this research (Seidle et al. 2016). And as leadership is fundamentally different in the public and private sectors we cannot just apply knowledge from one sector onto the other sector (Francois 2000; Pollitt 2016).<sup>7</sup> Seidle, Fernandez et al. (2016) write:

[T]here are several features of the public sector that act as constraints on a leader's ability to lead and be effective. These constraints can diminish or even neutralize the impact of leadership on subordinates and organizations, making the role of leadership more challenging compared with the private sector. For example, in the public sector, there tends to be greater goal ambiguity and goal conflict [...]. This makes it more challenging for public sector leaders to set direction, motivate employees, and measure achievements. (op.cit., p. 604)

Thus, with greater goal ambiguity, goal conflicts, and challenges to set direction, motivate and measure performances, it becomes even more important to educate the public managers. It is important to train them in coping with these challenges – a training that should emphasize the complex public and political context in which they work. Among other themes, public managers need to learn about the political processes and how to work with elected politicians, and to learn how to foster public service motivation (PSM). They must learn what motivates civil servants and, more broadly, personnel delivering public services in the different institutions of the public

<sup>&</sup>lt;sup>7</sup> The difference between public and private is basically the main argument for Public Service Motivation theory (PSM) (Hondeghem and Perry 2009). How sharp the difference is may be debatable, however (see e.g. Boyne 2002).

sector (see Perry, Hondeghem, and Wise 2010 for a good overview of PSM literature). A final example of what public managers must learn about is public behaviour – that "citizens are not only customers, but also citizens, taxpayers and voters" (Pollitt 2016, p. 14).

Besides focusing on the important differences between the public and private sectors, the researchers mentioned above focus on non-formal programmes. This raises another question: what do we know about the impact of formal leadership development programmes, that is, the impact of the kind of leadership education conducted by universities, colleges and business schools? This question about the impact of formal leadership development programmes in relation to public managers is one of the main focus points of this dissertation. The focus is limited to the assessment of behavioural impact, primarily on the individual level. Thus, for example, the impact of formal leadership programmes will not be explored in relation to financial factors (e.g. ROI), psychological aspects (e.g. self-esteem) or employability (e.g. managers' improved ability to change jobs and positions). The focus is on leadership behaviour, defined as task-, relationsand change-orientated behaviour. Furthermore, the impact is neither assessed on the organizational nor on the societal level, but is kept to the individual level. The pros and cons of these limitations are discussed in chapter 2, Methods and data.

In this report's four chapters and the four papers I have written as part of the Ph.D. dissertation, I will shed light on different aspects of the behavioural impact of formal leadership educational programmes. I have structured the report as follows.

The remaining part of this introductory chapter (chapter 1) is a presentation of the research questions and the main contributions of the dissertation. Following this, the dissertation's main terms are defined. These are development, impact, leadership and behaviour – four terms which I will show are not easily defined in a clear and distinct way.

Chapter 2 presents the methods and data. Here the research design, consisting of two different research settings, is described. In this chapter I also describe the structure and content of the Diploma of Leadership, which is the formal educational programme around which most of the data for this dissertation have been generated. The last part of chapter 2 is a presentation of the operationalization and measurement of variables I have used.

Chapter 3 is called Discussion and perspectives. Here I describe and discuss the primary terms defined in chapter 1. I discuss the differences between the terms administration, management and leadership – three terms which are 'misformed' in some parts of the research literature and thus often used synonymously. I will show that they have quite different meanings, stem from different cultures and refer to different phenomena, and for that reason are not synonymous. I will also discuss causality and how effects are studied. Finally, I will discuss whether we are actually able to observe behaviour, as some scholars believe, or only perceptions of behaviour, as I as will argue.

Chapter 4 is a short presentation of each of the four papers in the dissertation. A one-page overview of the papers and a brief presentation of the main findings conclude this chapter.

### **Research questions and contributions**

The purpose of this dissertation is to research the impact of formal leadership education on developing public managers' leadership behaviour. The aim is to add knowledge to the gap in the literature pointed out by e.g. Yukl (2012; 2013), Seidle et al. (2016) and Andersen et al. (2017). But as the potential impact of education depends in part on organizational conditions (Yukl 2013, p. 368), which have been studied in transfer research, e.g. by Burke et al. (1986), Rouiller and Goldstein (1993), Collins and Holton (2004) and Bates et al.(2012), these conditions are also researched in the dissertation.

The dissertation is based on four different papers. For this reason, no single research question is presented and answered. Instead, each paper contains its own research question(s), adding perspectives to the dissertation's overall theme: "Developing leadership behaviour: The impact of leadership education."

In the first paper, titled "Applying a Danish version of the Learning Transfer System Inventory and testing it for different types of education" (Soerensen, Stegeager, and Bates 2017), my co-authors and I explore whether the generic and globally recognized Learning Transfer System Inventory (LTSI) is applicable to the Danish education system. Two research questions are raised. The first question asks: will an exploratory factor analysis of a Danish version of the Learning Transfer System Inventory (LTSI) result in a factor structure similar to the original American LTSI factor structure? The second question asks: does the mean score in the factor analysis vary in a statistically significant way across different types of educational programmes? (ibid.)

In the second paper, titled "What research on learning transfer can teach about improving the impact of leadership-development initiatives (Sørensen 2017), I explore how managers in the Danish public sector perceive their organizations in terms of nine transfer conditions identified in the literature on transfer of training and learning.

In the third paper, titled "Does Formal Education in Leadership Improve Public Managers' Leadership Behaviour? A Panel Study" I ask whether a formal education in leadership improves leadership behaviour.

In the fourth paper, titled "Leadership Education in Public Administration: A Longitudinal Panel Study of Education Impact", the overall research question is how subordinates, peers, and superiors rate a manager's outcome after the manager has participated in a formal leadership educational programme. The paper also asks how the ratings develop over time. In order to explore these questions, three hypotheses are proposed. H1: A public manager's participation in a leadership educational programme is in general associated with higher degrees of task-, relations- and changeoriented leadership behaviour over time as perceived by superiors, peers and employees. H2: When assessing a manager's leadership style, the employees of a manager tend to ascribe lower leadership qualities to the manager, than the superiors and peers of the manager. H3: When assessing a manager's leadership style, an increasing age of the individuals tends to be negatively related to the ascription of high leadership qualities.

Though the four papers have their own research question(s) and are complete works in themselves, their research topics are connected and aim at contributing to the following research areas.

In transfer research it is well known that the potential impact of a human resource development activity, e.g. a formal education in leadership, depends on individual as well as organizational factors (Rouiller and Goldstein 1993; E. F. Bates, Holton, and Hatala 2012). The individual factors concern the individual's ability to learn (Stegeager 2014). The organizational factors, by others called "the learning environment" (Yukl 2013), "the climate to support development" (Avolio & Hannah 2008) or "organizational transfer climate" (Baldwin 1988; Boyatzis and Saatcioglu 2008; S. B. Dav, Dav, and Goldstone 2012; Peters 2014), are a "whole set of workplace conditions required to unleash that learning in the organization" (E. Holton 1999, p. 103).<sup>8</sup> Taken together, these factors are related to the process of transferring knowledge and/or skills learned during a training programme to the workplace and applying it over time (Baldwin 1988). The function of the factors is either to inhibit or enhance the implementation, application and continuing use of new knowledge at the workplace. The idea is that if an organization has good transfer conditions, the application and use of new knowledge is enhanced. If the transfer conditions are poor, the transfer of knowledge is inhibited. According to much of the transfer research, whether the transfer conditions are inhibiting or enhancing is a matter which is measurable (e.g. L. A. Burke and Hutchins 2007; Salas et al. 2012). One way of measuring this is via the Learning Transfer System Inventory (LTSI), which is done in paper one ("A Danish version of the LTSI"). In this paper, as well as in chapter 3 of this dissertation, a critical perspective is added to the inventory. The critique is that even though the LTSI might work in relation to short courses offering training in specific skills, it is less suitable for educational programmes with more complex content. In addition, it is pointed out that while the LTSI might work from a statistical point of view, it might not work from a cultural point of view. Besides adding knowledge to the LTSI measurement tool, which is used worldwide, the dissertation narrows its focus in paper 2 as it explores how Danish public managers from five municipalities perceive the transfer conditions in the institutions in which they work. This is an area of the Danish public sector which has not been given much attention in the research so far.

Though learning and training transfer is a well-established research area which was first proposed around 1955 when Fleishman, Harris and Burtt wrote *Leadership and supervision in industry; an evaluation of a supervisory training program* (Fleishman, Harris, and Burtt 1955), it is a research area which has only been studied in Denmark for about 10 years. Wahlgren (2009; 2013), Stegeager (Stegeager 2014) and Laursen and

<sup>&</sup>lt;sup>8</sup> In paper two, "Research on Learning Transfer" (p. 3), I argue that these conditions can be referred to as 'Transfer conditions'. I propose this instead of prioritizing one term and therefore one theoretical approach over another.

Stegeager (2017) are among the few who have explored this topic in a Danish context.<sup>9</sup> Paper two adds knowledge to this 'new' research field in a Danish context.

Besides examining transfer conditions as the preconditions for ensuring the effectiveness of educational programmes, the dissertation also adds knowledge to research on how formal education in leadership affects public managers' leadership behaviour. This is a largely overlooked research area in the existing literature (Seidle et al. 2016). In so doing the dissertation aims to add research-based knowledge to the research areas of leadership development, public administration, general management as well as management and leadership education. Hopefully, this will also contribute to the further development of leadership in the Danish public sector.

### **Definitions of the main terms**

A major problem in much research, e.g. on the impacts of formal leadership education, is the lack of agreement about which terms and concepts to use to describe phenomena and build theories. A relevant example is impact, which is sometimes called outcome, sometimes effect. Another example is leadership, which is sometimes called management and sometimes administration. Educational programmes are sometimes called development programmes, development activities or development interventions. Furthermore, in relation to behaviour theory or behaviour taxonomies, Yukl (2002) points out that different taxonomies have emerged from different theories and that it is therefore difficult to translate one set of concepts and terms into another. Thus, different terms are used to describe the same phenomenon. This might cause ambiguity, misunderstandings, misinterpretations or even errors. This is of course a problem in science, since science aims to achieve valid and reliable results which allow for generalizations and accumulation of knowledge in order to approach to the

<sup>&</sup>lt;sup>9</sup> It is important to emphasize that the researchers (Andersen and others 2017) working on the Danish research project LEAP mention and discuss some of the same conditions and/or factors which are called transfer conditions/factors in transfer research, but they do so without using the transfer term and without referring to transfer theory.

truth.<sup>10</sup> Hence the accumulation of knowledge is made more difficult (Bøgh Andersen, Møller Hansen, and Klemmensen 2012). Whether the ambiguity can be solved if we, as researchers, strive to define our terms and concepts in a clear and distinct manner, or whether science is necessarily full of what Gallie (1956) calls essentially contested concepts which cannot be clearly defined, is not a question that will be dealt with here. In any case, when doing a literature review on this dissertation's topic (which has been done with different aims in the four papers) the ambiguity and terminological diversity must be taken into account. Most terms have a linguistic or lexical definition as well as a theoretical definition – or sometimes several theoretical definitions. The lexical and theoretical definitions are not necessarily identical.

The following paragraphs will provide as clear definitions as possible of the main terms used in this dissertation. This will be done by studying the etymology of the terms. I will also look at how the terms are typically used in research on the behavioural impacts of formal leadership educations.<sup>11</sup> I have tried to make the definitions and overview of the theoretical terms used as short and precise as possible. Later, in chapter 3, I will elaborate on the terminological differences and discuss the use of some of the terms and concepts.

### Development

In much theory and research, the term development is used as a synonym for training and education (Brungardt 1997). Burke and Day (1986), for

<sup>&</sup>lt;sup>10</sup> The background of this statement is that I affiliate myself with the kind of realistic paradigm in the philosophy of science called direct critical realism (see Favrholdt 1999 for an introduction to this). This paradigm is in opposition to a constructivist paradigm in which it is considered impossible to talk about an objective truth. Referring to Favrholdt (Favrholdt 1994), I define truth as something which is true across time and place and regardless of whether anyone perceives it or is thinking about it. The truth is therefore independent of time, place and consciousness.

<sup>&</sup>lt;sup>11</sup> An exception is leadership. I will not try to account for how leadership is used in theory, since such an account would exceed the aim and limitations of this dissertation.

example, write about managerial training, whereas Collins and Holton (2001) write about managerial leadership development, although they are actually writing about the same topic. But looking at the terminological definitions, both the similarities and differences become clear. Development means "growth or becoming more advanced or elaborate" (Oxford English Dictionary 2016). The term relates to a process in which something is advancing (ibid.). Training means teaching, instructing and practising, whereas education means, "The culture or development of personal knowledge or understanding, growth of character, moral and social qualities, etc." (ibid.). Education refers to "systematic instruction or teaching" (ibid.). Thus, from a common sense point of view it might make sense to use the terms interchangeably. On the other hand it can be argued, as Brungardt does (1997), that when using the terms in relation to management/leadership, then, instead of viewing development, education and training as synonyms the concepts ought to be split up and viewed as describing different levels of conceptual extension, ranging from a general to a specific level. According to Brungardt (op.cit.), leadership development can be defined as "every form of growth or stage of development in the life cycle that promotes, encourages, and assists in one's leadership potential "(Brungardt 1997, p. 83). According to this definition, leadership development includes formal and structured as well as informal and unstructured learning activities (ibid., p. 83). Leadership education is used more narrowly than leadership development, as leadership education "includes those learning activities and educational environments that are intended to enhance and foster leadership abilities" (ibid., p. 83). Examples of leadership educations are Majors and Minors in leadership (primarily found in America), Master of Business Administration, Master of Public Governance, Diploma of Leadership, etc. that is, education programmes run by business schools, colleges and universities. Following Brungardt, leadership education is just one component of leadership development. Finally, leadership training is even narrower still, as it normally refers to learning for a specific leadership role or job (ibid., p. 84). Leadership training is very often non-degree development.

#### Impact

Impact, outcome and effect are also used interchangeably. But let us look at each of these terms by turn, starting with outcome.

The Oxford English Dictionary (2016) gives two relevant meanings of the word outcome. One of them (3.a.) explains outcome as: "A state of affairs resulting from some process; the way something turns out (spec. in early use: the ending of a story); a result (of a test, experiment, measurement, etc.), a consequence; a conclusion or verdict" (ibid). The other meaning of the word (3.b.), as used in medicine and psychology, is "the result or effect of treatment" (ibid.). Neither of these descriptions of the meaning bring us much closer to being able to conclude whether the terms are synonymous or distinct. It can be argued that the leadership development, education and training bring about results or effects. In that case the process (meaning 3.a.) or treatment (meaning 3.b.) is the development, education or training activity which brings about results or effects. This meaning is in line with how the term intervention is used in modern evaluation research (see e.g. Vedung 2009 or; Hansen and Vedung 2010).

The noun impact has a Latin root (*impactus*) which means "the act of impinging" (Oxford English Dictionary 2016). Now impact is commonly used to mean "the effective action of one thing or person upon another; the effect of such action; influence; impression" (ibid.). Again we see that one of the words used to explain impact is effect, as was the case with outcome. Thus from an etymological point of view we are not much closer to being able to distinguish between the two words. Now we turn to research on development, education and training in order to see how different researchers use the words.

According to Reinelt, Foster et al. (2002) outcomes and impact can be defined in the following way. "Outcomes are the specific changes in attitudes, behavior, knowledge, skills, status, or level of functioning expected to result from program activities. Outcomes may be short-term (1-3 years) or long-term (4-6 years)" whereas "[i]mpact refers to the results expected 7-10 years after an activity is underway – the future social change a program is working to create" (op.cit, p. 6). Neither of these definitions includes the terms training or learning. But training and learning are what leads to outcomes as well as impacts. A student trains (and maybe even learns) something during a leadership education. If the term outcome refers to the changes that occur in one to three years, or if we are looking at changes that happen in a seven-to-ten-year period (impact), the question is, what shall we call the changes which occur immediately and up to one year after the training? According to the Oxford English Dictionary (2016), we might call it an output because in its extended use output means "that which is produced by mental effort, artistic endeavour, etc." (ibid.). Though we are not able to conclude that this terminological use is correct, we do have some insight into how outcome, output and impact may be defined theoretically. But we are left with the term effect, which has not been dealt with so far.

Effect has multiple origins, including French (*effecte*) and Latin (*effectus*). In French and Latin effect means result or consequence (Oxford English Dictionary 2016). But the modern meaning of effect also has an Anglo-Norman root which adds the meaning of legal force (ibid.). But in practice as well as in an etymological perspective it is difficult (maybe even impossible) to maintain a distinction between the words outcome, output, impact and effect. All these words are used synonymously, apparently with the same meaning: result, consequence, success, but also changes in attitudes, behaviour, knowledge, etc.

No matter which of the terms is used – outcome, output, impact and effect that is used – it can be assessed at different levels. These levels are described in chapter 2, Methods and data. For the sake of simplicity, I will primarily use the words impact or effect in the rest of this dissertation.

To conclude this section, I find it important to emphasize that I study behavioural effects, or effects in the form of changes in behaviour (elaborated in chapter 2). This method is theory-driven, which means that there may very well be other kinds of effects (e.g. financial effects, personal and/or psychological effects or effects related to the employability and mobility of the workforce) which have not been examined and thus are not found in this study.

#### Leadership

As we have seen regarding the terms development, training and education, as well as with effect, outcome and impact, different terms are used more or less synonymously. The same is the case for administration, management and leadership.

The term administration is a borrowing from the French *administracion* and from Latin *administrātiōn*, *administrātiō* (Oxford English Dictionary 2016). For the French etymon, dating back to the late 12<sup>th</sup> century, the following definition is given:

action of taking care, looking after (late 12th cent. in Old French), action of managing, management (mid 13th cent.), management of another's estate, etc. (a1319 or earlier), right of executing (a will) (1319 or earlier), action of supplying or giving (1361; earlier as *amenestraison* in sense 'portion served at table', 11th cent. in Rashi), action of managing a polity, governance (1372), action of dispensing (justice) (a1403 or earlier), execution (of a will) (a1443 or earlier), action of dispensing (a sacrament) (1446), management of public affairs (1549). (ibid.)

The term's Latin etymon means "operation, handling, means of carrying out, practical application, performance, conduct, management (of an operation), management, government (of a country or estate), administrative functions or services, official duties" (ibid). Both the French and Latin etymons refer to an act or an action whereby a person takes care of functions, services or estates defined or owned by someone other than the one administering.

In English, the term management is formed from manage. The etymology of manage is Italian, from the etymon *maneggiare* (Oxford English Dictionary 2016). *Maneggiare* means "to be able to use skilfully, to manage, to direct or exercise a horse" (ibid). The meaning of the word management was influenced by its association with Middle French in the 17th and 18th centuries as "household economy (1551), measure in one's actions (17th cent.), consideration and constraint towards others (1665)" (ibid). One of the meanings of the term management in particular, household

economy has a strong resemblance to the term administration. A manager must take care of a household economy as an administrator must take care of functions, services or estates. This lexical meaning draws a demarcation between administration and management on the one hand and the remaining term leadership on the other.

Leadership is developed from the term lead, whose etymon is German with roots from "Frisian *lêda*, Old Saxon *lêdian* [...], Old High German leiten, Old Norse leiða" (ibid). The meaning of the term lead is road or journey. The meaning of the derived term leadership is: "The dignity, office, or position of a leader, esp. of a political party; ability to lead; the position of a group of people leading or influencing others within a given context; the group itself; the action or influence necessary for the direction or organization of effort in a group undertaking" (ibid). Because the meaning of the term is 'to influence people', because it means 'ability' and because the meaning refers to the action or direction/organization of effort, leadership differs from both administration and management. Leadership may influence others to take care of the household economy, functions, services and/or estates. Metaphorically speaking, leadership will show the road that management and administration have to travel. Besides the terms' etymologies and lexical definitions, administration, management and leadership are defined theoretically within different research areas, schools and paradigms in which they are used. For an introduction to and overview of the theoretical definitions and use of the terms in relation to the public sector it is recommended to consult Lynn (2006), Kettl (2005) or Pollitt (2016). Furthermore, Bøgh Andersen et al. (2017) and Greve (2009) are recommended if the Danish public sector is of specific interest.

#### Behaviour

There seems to be more agreement on the meaning of the term behaviour among scholars than on the terms discussed above. Thus even when it comes to leadership behaviour, neither Yukl (2002; 2012; 2013) nor Bass (2008) finds it relevant to define the term behaviour. Nevertheless, according to the Oxford English Dictionary, behaviour means "conduct, general practice, course of life; course of action towards or to others, treatment of others". It also means "handling, management, disposition of (anything); bearing (of body)", as well as "the manner in which a thing acts under specified conditions or circumstances, or in relation to other things" (Oxford English Dictionary 2016). Behaviour is a term used for what people actually do when they act. Therefore leadership behaviour theories emphasize what leaders actually do (Brungardt 1997).

Behaviour theory is one of the main approaches to the study of leadership, along with the traits approach and the power-influence approach (Yukl 2013).<sup>12</sup> The behaviour approach to leadership theory was first proposed in the early 1950s (Yukl 2013, p. 28). Yukl (2013) writes about this approach that "one line of research examines how managers spend their time and the typical pattern of activities, responsibilities, and functions of managerial jobs", while another line of research "focuses on identifying leader actions or decisions with observable aspects and relating them to indicators of effective leadership" (ibid., p. 28). Yukl also mentions that some of the methods used most often are descriptive, for example "direct observation, diaries, job description questionnaires, and anecdotes obtained from interviews", as well as survey field studies with behaviour description questionnaires (ibid., p. 28). In this dissertation I have chosen another method, namely electronic questionnaires – as self-rating from the managers who are being educated and 'other-ratings' from superiors, peers and employees. This is elaborated in the next chapter, Methods and data. To conclude this chapter it is important to mention that it is not unproblematic to take a behaviour approach to the study of leadership. Hansen (1997) discusses the problem, pointing out that the same behaviour might be ascribed quite different meanings (ibid., p. 82). This means that behaviour might be interpreted in quite different ways according to who the observer is.<sup>13</sup> I discuss the same problem in chapter 3, Discussion and perspectives,

<sup>&</sup>lt;sup>12</sup> Yukl also mentions the situational approach and the integrative approach, but emphasizes that it is common practice to limit the focus to traits, behaviour or power (Yukl 2013).

<sup>&</sup>lt;sup>13</sup> Bryman (Bryman 2012) writes, that: "The distinction is sometimes drawn between a focus on behaviour and a focus on meanings" (ibid., p. 620). In other words, some people believe that it is either or: you are either interested in behaviour or in meaning. What is assumed here is a sharp distinction between quantitative and qualitative research. "However, quantitative research frequently
and reach more or less the same conclusion, but from another perspective. I argue that perceiving behaviour is bound to be subject-dependent because perceptions always – by definition – depend on a subject perceiving something.

involves the study of meanings in the form of attitude scales" (ibid). See Bryman for a brief elaboration of this (op.cit).

### **Chapter 2: Methods and data**

The purpose of this chapter is to describe the overall research design, research settings, data sources and variables used in the papers. A detailed description of the research designs and methods used in each paper is given in the papers themselves. This chapter describes and argues for the overall approach and points out some of the advantages and weaknesses of the research design, data and methods.

### **Research design: Two different settings**

Two different research settings are used in this dissertation. First, students from four different levels of adult continuing education are included in an email questionnaire about learning transfer. Second, staff from public institutions in five Danish municipalities are included in another email questionnaire, which was sent out over three years, resulting in a longitudinal survey study. The two settings are described separately in the following.

### Setting one: Four levels of adult continuing education

Setting one consists of students from four different levels of adult continuing education in the Region of Southern Denmark and the North Jutland Region. The study has generated data from an email questionnaire survey in order to test the use of the Learning Transfer System Inventory (LTSI) in a Danish context.

The LTSI was developed by Holton and Bates (2000; 2003; 2012) in the US in order to measure students' expectations for a course or educational programme as well as the students' views on their organization's general attitude to the application of new knowledge, skills and competencies. The LTSI is supposed to be a generic, context-free inventory applicable to all kinds of human resource development interventions: from short, informal courses to long-term formal educational programmes (Soerensen et al. 2017). In order to test the use of the LTSI in a Danish context it was translated into Danish in a rigorous translation process before it was distributed to 411 students on four different educational levels: adult vocational training programmes (*arbejdsmarkedsuddannelse*), <sup>14</sup> academy profession programmes (*akademiuddannelse*), diploma programmes (*diplomuddannelse*) and master's degree programmes (*masteruddannelse*).

Using a measure like the LTSI has some clear advantages as it is a well-established and thoroughly validated measure. The LTSI was developed after more than 30 years of educational research, and so far it has been validated in 24 countries around the world (Hall, Smith, and Dare 2014). It seems to be a clear advantage of a measure that the potential problems of face validity, construct and convergent validity have been dealt already in different cultures. But actually it is not without problems to take a construct developed in one culture and use it in another. The LTSI was developed for the American training, learning and workplace culture. But the Danish culture (or more broadly the Scandinavian culture) is quite different. The Danish and Scandinavian perspectives on didactics, educational theory (pedagogy) and their workplace cultures differ from those of the US in many respects. These differences require a thorough cultural translation of the entire measure. But as this was not allowed in relation to the LTSL its use has some clear drawbacks. Basically, it must be questioned how reliable a 'one-size-fits-all measure' like the LTSI really is. From a quantitative and purely statistical perspective the LTSI can be validated in a Danish culture. But from a qualitative perspective the measure would benefit from a thorough linguistic modification. Modifying the inventory would probably strengthen both its validity and reliability, whereby the entire measure would be strengthened. But of course, modifying the measure might potentially mean developing an alternative or completely new measure, and then the benefits of a well-established and validated measure would be lost. This problem is also discussed briefly in chapter 3 as well as in the paper "A Danish version of the LTSI" (2017).

### Setting two: Public institutions in five Danish municipalities

Setting two consists of public institutions in the five Danish municipalities of Vejle, Middelfart, Fredericia, Kolding and Billund. On 1 January 2014 these

<sup>&</sup>lt;sup>14</sup> Danish names in brackets.

municipalities launched a joint four-year educational programme which means that all decentralized level-three managers (e.g. school principals, managers of daycare centres, managers of elderly homes, etc.) are expected to take the programme and graduate with a Diploma of Leadership.<sup>15</sup> The managers working at the front line of the Danish welfare service institutions span the 17 different service areas listed in table 1.

Service area	2014	2015	2016
	% (n)	% (n)	% (n)
1. Childcare	24.1 (26) <sup>b</sup>	27.3 (24)	23.0 (14)
2. Elderly and disability services	19.4 (21)	14.8 (13)	21.3 (13)
3. School	17.6 (19)	23.9 (21)	19.7 (12)
4. Family	8.3 (9)	6.8 (6)	4.9 (3)
5. Employment	7.4 (8)	9.1 (8)	11.5 (7)
6. Other areas <sup>c</sup>	6.5 (7)	3.4 (3)	3.3 (2)
7. Technical	5.6 (6)	4.5 (4)	3.3 (2)
8. Health	5.6 (6)	4.5 (4)	8.2 (5)
9. Other social security	4.6 (5)	8.0 (7)	3.3 (2)
10. Water and energy	2.8 (3)	1.1 (1)	1.6 (1)
11. Environment	2.8 (3)	4.5 (4)	1.6 (1)
12. The central administration	2.8 (3)	5.7 (5)	4.9 (3)
13. Economy	1.9 (2)	1.1 (1)	1.6 (1)
14. Human resources	1.9 (2)	1.1 (1)	3.3 (2)
15. Public services	0.9 (1)	1.1 (1)	1.6 (1)
16. Leisure	0.9 (1)	1.1 (1)	0 (0)
17. Culture	0 (0)	3.4 (3)	3.3 (2)
Total	108	88	61

**Table 1 Overview of the service areas in which the participating managers work** (completed surveys)<sup>a</sup>

<sup>a</sup> The list is prioritized according to the number of respondents in the 2014 survey.

<sup>b</sup> The first number is the percentage of managers participating. The actual number of managers who have completed the survey is given in brackets.

<sup>c</sup> Other areas: kitchens, security, kitchen management, daycare, mental health, harbours or ports.

<sup>&</sup>lt;sup>15</sup> The structure and content of the education is presented in the following paragraph.

As the table shows, the number of managers in each service area differs over the three years. This change is due to the fact that the table is based on completed surveys. Some managers only participated in one or two of the three years.

The managers, their superiors, employees and peers who are included in the project were followed over a three-year period, from 2014 to 2016.

In order to study the impact of the Diploma of Leadership on public managers' behaviour, I developed an email questionnaire in the beginning of 2014 and distributed it every autumn in 2014, 2015 and 2016.<sup>16</sup>

Unlike the first research setting where the LTSI was used, this research setting is explored via a self-developed questionnaire. Not using a well-established and thoroughly validated measure first of all prompts concern about the face validity. Does the measure reflect the content of the concept in question (Bryman 2012, p. 171)? I have dealt with this question by asking six public managers (similar to those included in the survey) and five public HR consultants (one from each of the five municipalities included in the survey) to test the questionnaire and give me feedback on whether they found that the measure seemed to be getting at the concept that is the focus of attention. This method, recommended by Bryman (2012), is basically intuitive. After having received their feedback I made a few necessary adjustments, mainly regarding the wordings of the sentences in the questionnaire. The construct validity was evaluated in two rounds. First on a small scale when the pilot test had been carried out, and then after the final questionnaire had been distributed and data had been generated. The way it was evaluated was by examining the correlations of the measure in regard to

<sup>&</sup>lt;sup>16</sup> At the beginning of the project the idea was to include a control group of public managers from other Danish municipalities than the five municipalities included. The idea was to find similar public managers to the ones included. Though a small (N=37) control group was established in 2014, and despite the fact that the control group was included in the first survey, the idea of having a control group was dropped in 2015 and 2016. It turned out to be very difficult to find a 'real' control group as almost all Danish public managers in 2014 already had a diploma degree in leadership (DIL), a diploma degree in public leadership (DOL) or something similar. Thus, making comparisons between managers who were being educated with a Diploma of Leadership and managers without a specific leadership education proved not to be possible.

variables that are known from theory (Yukl 2013) to be related (Bryman 2012).

As research setting two is the main setting in the dissertation, the following sections will give an overview of the structure and content of the Diploma of Leadership programme.

### **Diploma of Leadership**

The Diploma of Leadership programme is a formal leadership educational programme (assigned 60 ECTS credits<sup>17</sup>) estimated as a one-year full-time study programme. The programme consists of six compulsory modules, three elective modules and a compulsory final thesis. The compulsory modules are:

- 1. Leadership communication (5 ECTS)
- 2. Professional leadership (5 ECTS)
- 3. Professional relations (5 ECTS)
- 4. Learning and competence development (5 ECTS)
- 5. Organization and processes (5 ECTS)
- 6. Management and strategy (5 ECTS)

The 27 elective modules are all described in the curriculum (Danish Ministry of Higher Education and Science 2016).<sup>18</sup>

Most students take the Diploma of Leadership programme on a part-time basis while in employment, either as managers or as pre-

<sup>&</sup>lt;sup>17</sup> The ECTS (European Credit Transfer System) is a credit system designed to make it easier for students to move between different countries within the European Union. The system is based on the learning achievements and describes the workload of a course and/or entire educational programme (European Commission, 4 May 2017).

<sup>&</sup>lt;sup>18</sup> Examples of elective modules: Project management, Leadership and competence development, Leadership and philosophy, Team management , Network management, Knowledge and innovation leadership, Strategic leadership, Quality development and evaluation, Communication and organization, Change management, Leadership and law.

managers.<sup>19</sup> The Diploma of Leadership programme is continuing vocational training at a bachelor level. In Denmark the programme is conducted by the university colleges.

University colleges are committed to offering practice-based educational programmes, which means programmes combining theory and practice. And according to University College Lillebælt (which conducts the specific programme being studied in this dissertation), this obligation is fulfilled. On its website, it writes the following about the Diploma of Leadership programme:

The programme will provide students with theoretical knowledge of leadership at a high level while the academic content is linked closely to the student's own practical experience. By studying the theory, the student will learn tools to analyse the challenges in their own and in other organizations. The students will have their own leadership roles clarified, so they will be able to independently carry out leadership duties and be part of the leadership process from a strategic to an operational level. Throughout the programme, theory will be related to the participants' practical experience and in many training modules the student will work on studying organizations.<sup>20</sup>

Thus the programme is by nature application-oriented, as Conger (2013) characterizes leadership education in general. The joint educational programme is an intervention applied to the five municipalities, an intervention in which impacts are analysed and discussed in regard to developing leadership behaviour. An intervention theory can be defined as:

<sup>&</sup>lt;sup>19</sup> I have decided to call the participants in the programme students, though the term is most often used to describe young people studying for a bachelor or master's degree. I call them students as I would like to emphasize that people enrol in an adult vocational training programme in order to receive a diploma or master's degrees study just as young people study in order to achieve a bachelor degree.

<sup>&</sup>lt;sup>20</sup> My translation of the Danish text on <u>www.ucl.dk</u>, accessed May 2015.

presuppositions (notions, conceptions, and assumptions) of how an intervention (a program, a policy, a treatment, and an organizational change) may have an impact on a given situation and change it or preserve it in ways that are preferable or not preferable to the situation without the intervention or with another intervention (Hansen and Vedung 2010).

Thus it is hypothesized that the implicit intervention theory in the Diploma of Leadership programme is that the programme will develop the managers' behaviour and performance when the managers generate new knowledge. Whether this hypothesis can be supported is basically what this dissertation is trying to throw light on.

### Data

As described in the sections above, two different research settings have been used to generate questionnaire survey data. Since not only the settings but also the data sources and variables are different, data from the two will be described separately in the following. Table 2 gives an overview of the entire set of data (from settings one and two). This includes four questionnaire surveys covering the period from 2014 to 2016.

Data type	Description	Year	Data source	Ν	Response rate in %	Data report
Survey	LTSI on four levels of adult continuing education	2016	Email questionnaire	590	74	Yes <sup>d</sup>
Survey <sup>a</sup>	Leadership behaviour	2014	Email questionnaire	127/1679 <sup>b</sup>	100/56 <sup>c</sup>	<u>No. 1</u> e
Survey <sup>a</sup>	Leadership behaviour	2015	Email questionnaire	111/1344 <sup>b</sup>	83.8/62 <sup>c</sup>	<u>No. 2</u> e
Survey <sup>a</sup>	Leadership behaviour	2016	Email questionnaire	104/1320 <sup>b</sup>	62.5/51 <sup>c</sup>	<u>No. 3</u> e

#### Table 2 Overview of data (inspired by Jacobsen (2012))

<sup>a</sup> Part of panel data generation.

<sup>b</sup> The first of the two numbers is the number of public managers on which the paper has focused. The second number is the total number of respondents in the survey.

<sup>c</sup> The first response rate is for the managers, the second is for the entire sample.

<sup>d</sup> The data report is only available to the Ph.D. assessment committee.

<sup>e</sup> The data report can be found at UC Viden (follow the inserted link).

Data from setting one (four levels of education) are used to measure transfer system factors to test a Danish version of the LTSI. 78.7 per cent of the respondents are employed in the public sector, 19.7 per cent in the private sector and 1.6 per cent in the non-profit sector. 66.4 per cent are female while 33.6 are male. The number of students from the four different levels of education is seen in table 3.

	Adult vocational training, % (n)	Academy profession programme, % (n)	Diploma programme, % (n)	Master's degree programme, % (n)	Sum,% (n)
Percentage of sample	10.1 %	8.4 %	56.1 %	25.4 %	100 %
Female	35.7 % (15)	65.7 % (23)	71.4 % (167)	67.9 % (72)	66.4 % (277)
Male	64.3 % (27)	34.3 % (12)	28.6 % (67)	32.1 % (34)	33.6 % (140)
In total	100 % (42)	100 % (35)	100 % (234)	100 % (106)	100 % (417)

 Table 3 Setting one: Overview of the respondents from the four levels of education<sup>21</sup>

The study making use of these data aims at exploring the applicability of the LTSI in a Danish educational context and in relation to four types of adult continuing education. The generated data are analysed using principal component analysis (PCA) and factorial ANOVA.

The data from setting two are used with two different overall purposes. The first purpose is to explore the organizational transfer conditions in the five Danish municipalities. The second purpose is to study the impact of the Diploma of Leadership programme on leadership behaviour. Leadership behaviour is studied in two different ways: through the public managers' self-assessments and through analysing data from three different groups of public personnel working with and around the public managers. These groups are the managers' superiors, employees and peers. The development of leadership behaviour is studied from a longitudinal perspective as change over time. The type, number and gender of the respondents in the longitudinal survey are shown in table 4.

<sup>&</sup>lt;sup>21</sup> The same table is used in the data report from "A Danish version of the LTSI".

	Managers	Superiors	Employees	Peers	Sum
2014	70 (127)ª	37 (104)	554 (1282)	52 (166)	713 (1679)
Female	74 %	41 %	84 %	73 %	
Male	26%	59 %	16 %	27 %	
2015	89 (111)	50 (92)	446 (902)	85 (239)	670 (1344)
Female	80,9 %	44 %	85 %	71.8 %	
Male	19.1 %	56 %	15 %	28.2 %	
2016	61 (104)	35 (65)	385 (884)	87 (267)	568 (1320)
Female	75.4 %	48.6 %	85.5 %	78.2 %	
Male	24.6 %	51.4 %	14.5 %	21.8 %	
Number of resp. in total	220 (342)	122 (261)	1385 (3068)	224 (672)	N/A

 Table 4 Setting two: Overview of the respondents from the public institutions in five Danish municipalities

<sup>a</sup> The first number is the number of respondents who have completed the survey. The number in brackets is the number of respondents to whom the survey has been distributed (N).

The respondents are between 20 and 74 years old. Around 5 % of the respondents have no other education than the compulsory primary and lower secondary school for 6- to 16-year-olds.

When the data are structured as longitudinal panel data the number of respondents and their percentage of the panel are seen in table 5.

Panel no: year	Freq.	Per cent	Cum.
1: 2014	391	17.17	17.70
2: 2015	440	19.32	36.50
3: 2014 & 2015	231	10.14	46.64
4: 2016	284	12.47	59.11
5: 2014 & 2016	223	9.79	68.91
6: 2015 & 2016	337	14.80	83.71
7: 2014, 2015 &	371	16.29	100
2016			
Total	2,277	100	

 Table 5 Overview of the panel data in setting two (adapted from Stata, output is without missing observations/data)

Panel data are used in paper three ("Formal education in leadership") and paper four ("Leadership Education in Public Administration"), in which I have chosen to use unbalanced/weakly balanced panels. The reason for this is that the number of respondents participating in all three years is limited, especially the group of managers who are being educated. The number of respondents from the four groups of personnel in the seven different panels is seen in table 6.

	Staff				
Panel	Managers	Superiors	Employees	Peers	Total
1: 2014	32	33	280	46	391
2: 2015	39	46	283	72	440
3: 2014 & 2015	57	9	152	13	231
4: 2016	16	28	188	52	284
5: 2014 & 2016	17	8	172	26	223
6: 2015 & 2016	47	26	192	72	337
7: 2014, 2015	72	16	264	19	371
& 2016					
Total	280	166	1,531	300	2,277

 Table 6 Overview of panels including the four types of personnel (balanced panels)

As the table shows, if I had wanted to work with strongly balanced panels covering all three years (panel 7) I would only have 72 managers, 16 superiors, 264 employees and 19 peers.

### **Operationalization and measurement of variables**

The variables in the dissertation papers are of two different kinds: latent variables, constructs or factors (latent variables in the following) and observed measures or items (items in the following). The latent variables are theoretical constructs which cannot be observed directly, as the items can (Brown 2015). Thus the latent variables must be observed indirectly as represented or reflected by the items. But the "measurement of latent variables is not uncontroversial since the operationalization may have significant impacts on the results" (Bøtcher Jacobsen 2012, p. 46). The questionnaires used in both research settings make use of both latent variables and items. While the questionnaire used in setting one is a wellestablished and generally recognized measure, the questionnaire used in setting two was developed as part of this Ph.D. project. The variables as well

as how I have dealt with the potentially controversial measurement challenges and biases are briefly described in the following.

### Variables in setting one

In setting one, 48 items are divided into two domains. This division follows the theory behind the LTSI and ascribes 33 items to a training-specific domain and 15 items to a training-general domain (E. F. Bates et al. 2012). In the original American inventory the 48 items are represented by 16 latent variables (called factors or scales in the LTSI). Because the LTSI is a well-established theory which has been validated in 24 countries around the world (Hall et al. 2014), the operationalization of the latent variables is considered less problematic than operationalization of latent variables from less established theories. Endogeneity bias is avoided as the inventory has undergone several revisions in which the phrasing of the items has been changed to ensure that the dependent variables and their definitions are shown in table  $7.^{22}$ 

<sup>&</sup>lt;sup>22</sup> Latent variables are called scales in the LTSI. For copyright reasons the exact items cannot be shown in this report. The assessment committee will receive the LTSI questionnaire.

# **Table 7 Scale name and definitions of the LTSI, version 4** (adapted from (Çifci 2014, p. 34))

# Scale name	Scale definition
1 Perceived Content Validity	The extent to which the trainees judge the training content to accurately reflect job requirements.
2 Transfer Design	The extent to which training has been designed to give trainees the ability to transfer learning to job application.
3 Personal Capacity for Transfer	The extent to which individuals have the time, energy and mental space in their work lives to make changes required to transfer learning to the job.
4 Opportunity to Use Learning	The extent to which trainees are provided with or obtain resources and tasks on the job enabling them to use the skills taught in training.
5 Motivation to Transfer Learning	The direction, intensity and persistence of effort toward utilizing in a work setting skills and knowledge learned in training.
6 Learner Readiness	The extent to which individuals are prepared to enter and participate in a training program.
7 Supervisor/Manager Support	The extent to which managers support and reinforce the use of learning on- the-job.
8 Supervisor/Manager Opposition	The extent to which individuals perceive negative responses from managers when applying skills learned in training.
9 Peer Support	The extent to which peers reinforce and support use of learning on-the-job.

10 Personal Outcomes-Positive	The degree to which applying training on the job leads to outcomes that are positive for the individual.
11 Personal Outcomes-Negative	The extent to which individuals believe that if they do not apply new skills and knowledge learned in training that it will lead to outcomes that are negative.
12 Performance Self-Efficacy	An individual's general belief that they are able to change their performance when they want to.
13 Transfer Effort-Performance Expectations	The expectation that effort devoted to transferring learning will lead to changes in job performance.
14 Performance-Outcomes Expectations	The expectation that changes in job performance will lead to outcomes valued by the individual.
15 Performance Coaching	Formal and informal indicators from an organization about an individual's job performance.
16 Resistance to Change	The extent to which prevailing group norms are perceived by individuals to resist or discourage the use of skills and knowledge acquired in training.

Scales in the shaded area belong to the training-in-general domain.

The Danish version of the LTSI is an exact translation of the American questionnaire; therefore all questions and possible answers are pre-defined. All latent variables in both the American and Danish versions of the LTSI are represented by a five-item Lickert-type scale. The possible answers are: 1: Strongly disagree, 2: Disagree, 3: Neither agree nor disagree, 4: Agree, 5: Strongly agree.

### Variables in setting two

The respondents in the longitudinal survey study are managers from five Danish municipalities on the Diploma of Leadership programme. These managers have different educational backgrounds and levels of experience; they belong to different age groups and are employed in various municipal sections, organizations and institutions. In addition to this group of respondents, the managers' superiors, subordinates and peers are also part of the survey. Thus, the entire group of respondents consists of four groups of public personnel from the five municipalities.

The leadership behaviour categories are represented by a five-item Lickert-type scale ranging from 5 ("To a very high degree") to 1 ("Not at all"). This questionnaire is based on a well-developed theory by Yukl (2002; 2012; 2013) but, in contrast to the LTSI questionnaire, the specific survey and questionnaire are self-developed and have not been validated in previous studies. This means that I have had to reflect on both their reliability and validity, which I have done in the following ways.

When developing the questionnaire I worked with the face validity of the measures by asking the Ph.D. supervisor whether the measure seemed to be getting at the concept that was the focus of attention, as suggested by Bryman (2012, p. 171). The next step in the process of developing the measure was to distribute a test version of the questionnaire to eight respondents from three of the five municipalities that were going to be included in the study. These respondents were informed that the purpose of the pilot test of the questionnaire was to ensure that the people who were going to receive the questionnaire understood the meaning of the questions.<sup>23</sup> When the comments from the pilot test respondents were received, a few adjustments were made to the wordings before the questionnaire was considered ready for distribution. After having sent out the questionnaire the first time in 2014, I had the opportunity to reflect upon the convergent validity of the measure by comparing my items with the ones that Yukl formulated in his MPS 2012<sup>©</sup>.<sup>24</sup> The comparison showed that my

<sup>&</sup>lt;sup>23</sup> This is the problem of meaning (Bryman 2012, p. 228).

<sup>&</sup>lt;sup>24</sup> Clearly this should have been done as a first step in the developmental process. But as I was not aware of the fact that Yukl had developed his own questionnaire I was not able to do this. Therefore I distributed the questionnaire the first time in

questionnaire was very similar to Yukl's in many aspects. Therefore this comparison did not result in any changes regarding the leadership behaviour items in the following two surveys, in 2015 and 2016. Finally, having generated the data in the three rounds (2014, 2015 and 2016) and in order to construct the latent variables, I tested the internal reliability by calculating the Cronbach's alpha values for each of the latent variables. The variables, item definitions and examples of the items are shown in table 8.

<sup>2014</sup> before I got the opportunity to compare the items and wording in the two questionnaires. I was sent the MPS questionnaire from Yukl after having corresponded with him in the autumn of 2014.

Latent		
variables	Item definitions	Items (examples)*
Task- oriented behaviour	Clarify task objectives and role expectation	a. Keeps the employees informed about aims and plans Holder medarbejderne orienteret om mål og planer
		b. Clarifies aims for each employee Opstiller mål for den enkeltes præstationer
	Plan short-term activities	j. Explains the task priority Forklarer prioriteter for arbejdsopgaver
	Monitor operations and performance	h. Makes it clear which results are expected for each task Gør det klart, hvilke resultater, som forventes opnået for de enkelte arbejdsopgaver
Relations- oriented behaviour	Provide support and encouragement	a. Supports and encourages employees doing difficult tasks Støtter og opmuntrer medarbejdere
	Develop member skills and confidence	med vanskelige opgaver
	Provide recognition for achievements and contributions	c. Recognizes actions and results Anerkender handlinger og resultater
	Empower members to take initiative in problem solving	h. Coaches employees/colleagues on making decisions on task solutions <i>Coacher medarbejdere/kolleger til at</i> beslutte mulige løsninger på opgaver
	Consult with members when making decisions	g. Consults with the employees/colleagues who will be affected by decisions Drøfter beslutninger med de medarbejdere/kolleger, som berøres af beslutningerne
Change- oriented behaviour	Propose an innovative strategy or new vision	g. Develops new ideas to solve the primary tasks of the organization/institution Udvikler nye ideer til varetagelsen af organisationens/institutionens kerneopgaver

### **Table 8 Latent variables and items in the longitudinal leadership behaviour survey** (inspired by Yukl (2013))

Encourage innovative thinking	h. Encourages innovative thinking in the organization/institution Faciliterer innovation og entrepenørskab i organisationen/institutionen
Monitor the external environment	a. Monitors the external environment to discover potential threats and options Holder sig orienteret om forandringer i de eksterne omgivelser for at opdage trusler og muligheder
Take risks to promote necessary changes	j. Experiments with new ways of realizing goals Eksperimenterer med nye måder for at realisere målsætninger

\* Note: The letters refer to the questions in the Danish questionnaire

The 2014 survey included several items regarding the municipal transfer conditions and organizational work climate in addition to the leadership behaviour questions. Special attention was given to the questions and data on the transfer conditions in order to explore the students' general view on the learning transfer conditions within the institutions where they work. These data were analysed using correspondence analysis (CA). The remaining parts of the 2014 survey and the entire 2015 and 2016 surveys focused on the progression in the data on leadership behaviour, which were analysed using descriptive statistics, confirmatory factor analysis and fixed effects regressions analysis.

# Assessing or evaluating the impact of leadership education

Leadership education seeks to promote learning of new knowledge, skills and competencies/abilities via lectures, training, feedback, coaching, etc. (Seidle et al. 2016). Whether this goal is achieved can be assessed through an evaluation.

"Evaluation is a process of inquiry for collecting and synthesizing information or evidence" (Leviton and others 2007, p. 6). Though information or evidence may be collected and synthesized in numerous ways, an evaluation of leadership education culminates in conclusions about e.g. the significance, quality, worth or value of the education.<sup>25</sup>

The worth or value is often described as an effect or an impact, and the effect or impact of a leadership education may be studied on different levels (ibid.). A classic and still widely used evaluation framework is proposed by Kirkpatrick (1979). He describes four different evaluation levels:

1. Reaction: assessing what the delegates thought of a particular activity or programme

2. Learning: measuring the learning of principles, facts, skills and attitudes.

3. Behaviour: measuring changes in aspects of job performance

4. Results: changes in criteria of organizational effectiveness (cited from Bramley 1999, p. 145)

These four evaluation levels can again be differentiated. That means that there are "different domains of impact where results from leadership development interventions can be measured or captured" (Leviton and others 2007, p. 10). There are the individual level, group or team level, organizational level, community level, fields, networks and societies/social systems (ibid.). Instead of distinguishing between seven levels as Leviton et al. do (2007), I find it sufficient to work with three levels: the individual, organizational and societal levels. The reason for this is that the team/group level may be argued as being part of the organizational level, while the community level, fields and networks are all part of either the organizational or societal level. Whether it is one or the other is to be specified when they are analysed and discussed.

Working with such a three-level evaluation model and comparing it to the classic Kirkpatrick model, I view reactions and learning as being on the individual level, behaviour as being on both the individual and organizational level, and results as being on the organizational and/or societal level.<sup>26</sup> With this distinction in mind it is emphasized that since the

<sup>&</sup>lt;sup>25</sup> The term value is found in the root of the term e<u>valua</u>tion.

<sup>&</sup>lt;sup>26</sup> I am fully aware that we are also talking about and doing research on organizational learning. But strictly speaking: an organization does not learn.

focus of this dissertation is on behaviour I am focusing on the individual and organizational levels. No effects on the societal level are assessed. Furthermore, it must be emphasized that I focus on behavioural effects/impacts only. That means that I do not analyse and discuss financial effects (e.g. ROI), psychological effects (e.g. self-esteem or self-confidence) or employability effects (e.g. increased mobility of the workforce).

Finally it must be stressed that, because the effect or impact of leadership education may occur at different levels (individual, organization and/or societal), different perspectives may have to be included in an evaluation. If the primary interest of an evaluation is to find out what a public manager has learned during a course it may be sufficient only to include the actual individual. This is what is done in oral and written exams. But if an evaluator is interested in finding out how the manager who has been educated applies what they have learned at work, then it is recommended to include stakeholder perspectives, e.g. the superiors, peers and/or the employees working with the manager who has been educated. The latter is done in paper 4 ("Leadership Education in Public Administration") to find out how the behavioural impact of the Diploma of Leadership programme is perceived by the manager's organizational surroundings. This has some clear advantages, because if we only include the managers who are being educated we get a less accurate assessment or evaluation, since we know there is a "remarkable lack of coherence between how managers perceive their own leadership and how their employees perceive it" (own translation from Danish in Andersen and others 2017, p. 60). A consequence of this self-other assessment challenge is that the entire evaluation or assessment depends on the type of respondent involved. Andersen et al. (2017) find – and refer to other studies where the same has been found – that the assessments by managers and their employees differ systematically. What if the assessments by superiors and peers differ systematically from managers as well? The assessments by the superiors may be important as they very often 'speak the same (management) language' as the managers in education. At the same time they are as familiar with the organizational structures, strategies, and processes etc. as the managers. This might affect what the superiors see when they assess the impact of an education.

Individuals working in organizations learn. Thus, strictly speaking it is misleading to use the phrase learning organizations.

Similarly, the peers are most often the 'nearest' colleague to a manager being educated. They have similar positions and struggle with more or less the same challenges, although of course in other institutions. But all this might affect how they assess the effect or impact of a leadership education. Thus it becomes extremely important to be aware of the different types of respondents who are or should be included in an assessment or evaluation.

In paper 3 ("Formal education in leadership") I have done the opposite, as the managers' self-reports were used to measure the leadership behaviour of the managers who are being/have been educated. Although this is the most obvious way to study the managers' perceptions of their own behaviour (it is difficult to study this in another way), self-reporting has its limits. This kind of self-assessment may be flawed because managers view themselves in a more positive light than the rest of the organization (Andersen and others 2017), but also because of social desirability (Bryman 2012) and negative affectivity (Hasson et al. 2016). These two sources of error are discussed briefly in paper 3 ("Formal education in leadership") as well as in paper 4 ("Leadership Education in Public Administration").

### Working with surveys and quantitative research

As shown, the dissertation is based on survey data. The term 'survey' actually covers all types of quantitative inquiries in which a group of respondents answer questions from a researcher (Bøgh Andersen and others 2012, p. 288). It covers interviews (done by phone, visits and/or meetings) and questionnaires (sent out by email, post or handed out by the researchers). Here, an email questionnaire survey is the method chosen to research learning transfer (paper one) and leadership behaviour (papers three and four). The latter is researched based on a longitudinal design.

Like other methods, longitudinal surveys have advantages and disadvantages. One advantage is "that data are collected in at least two waves on the same variables on the same people" (Bryman 2016, p. 57). This makes it possible to study social change and to explore causal influences over time (ibid.). On the other hand, it is a disadvantage that respondents are affected by participation in several rounds/waves of surveys. This is known as the 'panel effect', and can mean that surveys lose their representation (Bøgh Andersen and others 2012). Another well-known problem is what Andersen et al. (2012) call 'panel mortality', which happens when respondents drop out of a long-term panel (ibid.).<sup>27</sup> I have tried to deal with both potential problems by encouraging the respondents to participate (stressing that their participation is important) and by minimizing the amount of time they have to spend on the surveys. This has also been a way of trying to raise the response rate in each of the surveys.

No matter how high a response rate I have been able to secure, it is an interesting question what kind of value the generated data have. This is not only interesting in relation to this specific project but in relation to survey research in general. The question is, when people answer the questions they are asked to answer, do they answer in a reliable and honest way? For example, do the managers who are included in the survey answer questions about their own behaviour as they really perceive their own behaviour – that is as they really believe they behave – or do they answer according to how they would like to be perceived? In fact, it is not possible to know this, but by including the views or perceptions of the managers' superiors, employees and peers we might be able to get a balanced picture of how public managers actually behave. This is what I have done in papers three and four.

Finally, when working with electronic surveys it is not possible for the researcher to ensure that the questions and possible answers are understood in the same way by all respondents. The only way to try to ensure that the respondents understand the questions and answers in the way they are intended is by doing a pilot test before starting the actual survey. This has been done in the present project, as described previously (pp. 39-40).

<sup>&</sup>lt;sup>27</sup> Panel mortality is my own translation of the Danish term *paneldødelighed* used by Andersen et al. (Bøgh Andersen et al. 2012). Bryman refers to this phenomenon as non-response. He distinguishes between "unit non-response" and "item nonresponse". The former is used when members of a sample refuse to participate. The latter is the kind of non-response that occurs when people from a sample agree to participate but fail to do so anyway – either deliberately or accidentally (Bryman 2016, p. 184).

## **Chapter 3: Discussion and perspectives**

In the following sections I will critically discuss central concepts and parts of the theories used in the report and the papers. First, I will discuss the concept of misformation in relation to the terms management and leadership.<sup>28</sup> This will show that the two terms are not synonymous, but must be distinguished. Second, I will show how some of the terms and concepts used in the dissertation travel. I will focus on the term management, which stems from English-speaking countries but has travelled to Scandinavia. Third, I will discuss cause and effect in relation to this dissertation. Finally, I will discuss whether we are actually able to observe leadership behaviour, as claimed by some researchers, or whether we need to confine ourselves to observing perceptions of behaviour, as I will claim.

### **Concept misformation**

As written previously (Chapter 1) the terms management and leadership are very often used as synonyms in theory as well as in practice. But is that really a problem? Referring to Sartori (1970) we might, on the one hand, say that no harm necessarily follows if it pleases us to use the word management as a synonym for the word leadership or administration for that matter.<sup>29</sup> But on the other hand it does matter whether one uses one term or the other. Rephrasing Sartori (ibid.) we can say that "we are only deluding ourselves if we really believe that by saying [management] we have ... [management]."<sup>30</sup> Two comments must be made on this. One, neither Sartori nor I believe in ontological social constructivism. An entity or a phenomenon does not arise or is not constructed just because we say so. Two, though there may seem to be a fundamental difference between the meaning and application of a word, they are closely interconnected. Thus, we cannot apply whatever word we

<sup>&</sup>lt;sup>28</sup> Misformation is not a common term, but one coined by Sartori (1970) to define words which have been misinterpreted over time.

<sup>&</sup>lt;sup>29</sup> Instead of management and leadership/administration, Sartori wrote: "No harm necessarily follows if it pleases us to use the word variable as a synonym for the word concept" (Sartori 1970, p. 1037).

<sup>&</sup>lt;sup>30</sup> Ibid., p. 1037

like to whatever entity or phenomenon we like. We have to follow linguistic rules – at least if we are communicating with and would like to be understood by others. These rules originate in the etymology of our words and terms. But let us now turn to management and leadership in order to see why it does matter to distinguish between the two.

By studying the etymology of the terms management and leadership, we see that there are differences which must have theoretical implications. Nienaber (2010) discusses the two terms and concludes that they refer to the same phenomenon and that it does not make sense to distinguish between the two since, "essentially [...] these words are synonymous" (Nienaber 2010, p. 661). Nienaber writes:

Both terms existed early in history – although they originated in different languages – and are deemed to be synonyms. Both refer to a hierarchical position in the firm that requires special qualities of the incumbent. These terms have been used interchangeably since those early days and are still being used interchangeably today (ibid., p. 669).

Nienaber is right to claim that the terms have been and are still used interchangeably. But this does not make the use of the terms correct. As the etymology has shown (in chapter 1), the etymons of the terms are different and the historical developments of the terms' meanings are distinct. Therefore it is not correct when Nienaber claims that these terms are essentially synonymous. Furthermore it is not correct when she writes that leadership comes from Greek and Latin around the 800s, whereas management has French roots and was incorporated into English around the 1500s (Nienaber 2010, p. 663). Management does come from French but leadership has its origin in German and Old Norse (Oxford English Dictionary 2016). The etymons and development of the terms is not just a matter of philosophical pedantry. It is a matter of meaning, application and cultural heritage. If we take the etymology into consideration we see that management and leadership basically refer to two different phenomena, or more precisely, that management and leadership connote different perspectives on interactions with other people. We saw in chapter 1 that management basically means to take care of a household economy or to

direct/exercise (a horse), whereas leadership basically means to influence people (not horses). Thus, management and leadership view 'the others' from different perspectives: as objects (horses) to direct/exercise and as subjects (people) to influence. This difference has been articulated by the Danish philosopher Kirkeby (1998), with the following ideal types shown in table 9.

Management	Leadership
Subject-object: Asymmetrical	Subject-subject: Symmetrical
relationship	relationship
Metaphors: <sup>31</sup>	Metaphors:
Improve (opdrage), master	Dialogue (samtale), education
(beherske), rule/govern (styre),	(undervisning), request (anmodning),
conduct (føre), obey (adlyde),	appeal (appel), promise/commitment
belief in authority (autoritetstro),	(tilsagn), empathy (indlevelse),
submission (underkastelse),	understanding (forståelse),
inequality (ulighed), little	reciprocity (gensidighed),
opportunity to question legitimacy	community/solidarity (fællesskab),
(ringe mulighed for at betvivle	absolute demands for legitimacy
legitimitet).	(absolutte krav til legitimitet).

Table 9 Ideal types of management and leadership (Kirkeby 1998)

Except for one reference in a footnote to Bennis (Kirkeby 1998, p. 29), it is not immediately clear how Kirkeby has derived his ideal types of management and leadership. But knowing the etymon of the terms, it seems reasonable to conclude that the distinction basically refers to the linguistic differences between the terms – differences which are also cultural. In the 1980s, Hofstede made a distinction between large and small power distance

<sup>&</sup>lt;sup>31</sup> The metaphors in English are my own translations; the words in brackets are Kirkeby's Danish words.

cultures (1984; 2000; 2011). This distinction is relevant to describing the difference between the meanings and the possible applications of the terms.

Hofstede defines power distance as "the extent to which the members of a society accept that power in institutions and organizations is distributed unequally" (G. Hofstede 1984, p. 83). He describes the differences regarding power as follows:

> People in Large Power Distance societies accept a hierarchical order in which everybody has a place which needs no further justification. People in Small Power Distance societies strive for power equalization and demand justification for power inequalities (G. Hofstede 1984, p. 83).

Applied to our analysis of management and leadership, and with Kirkeby's ideal types in mind, we may say that management belongs to large power distance cultures whereas leadership belongs to small power distance cultures. Thus, when many small power distance and large power distance cultures use the word management, with all its connotations, we either empty the term of its actual meanings or we infer ways of thinking, processes and paradigms from different cultures without even being aware of the original contexts of the terms. An example is the application of the term management, which has travelled from the English-speaking parts of the world to Scandinavia.

### **Travelling concepts**

Denmark, Norway and Sweden, which are all small power distance cultures according to Hofstede (1984; 2000), and which have a high level of confidence according to Andersen et al. (2017), have adopted many aspects of management from large power distance cultures, though the three Scandinavian countries are classic leadership cultures.<sup>32</sup> The adoption results

<sup>&</sup>lt;sup>32</sup> From my point of view the Scandinavian welfare systems are closely connected to the leadership culture in the sense that welfare state principles are more in line with the ideal types of leadership than with the ideal types of management (see the sections above).

in an incorporation of a different view of the relation between the employer and employee: from a symmetrical subject-subject relation to an asymmetrical subject-object relation (Kirkeby 1998). This change in the relation may not be a problem if it is done based on deliberate consideration in order to change the leadership and entire workplace culture. But it is a problem if the change in the relation between the employer and employee is caused by a more or less blind adoption of the English term management. The problem is that a blind adoption may let the metaphors of management into the traditional leadership culture 'in through the back door', as it brings with it other forms of behaviour, e.g. steering. A relevant example is the introduction of New Public Management and Performance Management, whereby quantification/quantitative indicators are introduced and used to steer behaviour while previous efforts of quantification mainly aimed to understand and control (Bouckeart and Halligan 2010; Hood and Dixon 2015). What we see here is that management in the form of NPM has travelled from some English-speaking countries (England, New Zealand, Australia and the US) to Scandinavia. This journey or travelling was caused by what Donald F. Kettl called the 'Global Public Management Revolution' (Kettl 2005). The global public management revolution is a label for a global change in which managerial practice in the public sector began to mimic business-oriented private management (Lynn 2006; Bouckeart and Halligan 2010). The global public management revolution is basically a label for the process that re- and transformed the public sector from classic bureaucratic administration to modern market-oriented management (Lynn 2006; Greve 2009; Bouckeart and Halligan 2010; Bøgh Andersen 2017). Thus, a journey of a term or a concept has taken place.<sup>33</sup> The term 'management' has travelled and caused reforms on its way. Pollitt and Bouckaert (in Greve 2009, p. 83) even refer to this as the "public management reform". As a result of this reform Lynn proclaimed that: "The bureaucratic paradigm is dead; long live quasi-markets and quangos, flattened hierarchies and continuous improvement, competitive tendering and subsidiary" (Lynn 2006, p. 2). What follows from this is that there used to be a bureaucratic paradigm

<sup>&</sup>lt;sup>33</sup> It should be obvious, but of course the concept in itself is not travelling. Travel is used as an expression for the process whereby a term is taken from one context/culture and used in another.

which is no longer.<sup>34</sup> Thus we have experienced the travelling of a concept which has resulted in a paradigmatic change whereby roles, relations and power have changed. Marketization and continuous movements define the new condition. Whether this new condition actually represents a new paradigm with an underlying, more or less fixed set of values or whether it is more correct simply to label the change as a change in conditions is not of interest here (see e.g. Kettl 2005; Hood and Dixon 2015 for a discussion about this). But as pointed out by Donald F. Kettl, the new 'post-paradigmatic' condition is characterized by productivity, service-orientation, decentralization, policy and accountability (Kettl 2005, p. 1). Kettl (2005), Hood and Dixon (2015) and several others were describing global changes in the public sector, but they might have overlooked the fact that the new post-paradigmatic condition does not necessarily apply everywhere.

Bearing the etymons in mind – that is, remembering the actual meaning of the concepts of administration, management and leadership – we see that introducing New Public Management and Performance Management in Scandinavia is also an introduction and implementation of a specific, asymmetrical relation between employers and employees. Therefore, when politicians, civil servants and researchers in the Scandinavian welfare states began to talk about and use managerial concepts they started transforming and reforming the entire workplace cultures of the institutions in the welfare states – the core of the welfare states were actually affected by NPM (Greve 2009).

Administration, management and leadership are derived from different cultures and refer to different phenomena. But an attempt to clarify the ambiguity of the concepts/terms of administration, management and leadership cannot count on getting help from a leading linguistic source such as Oxford English Dictionary. The dictionary only feeds the conceptual confusion, because looking up each of the concepts of administration, management and leadership, and listing and comparing them, reveals the following (see table 10).

<sup>&</sup>lt;sup>34</sup> In a Danish context this paradigmatic change is well described and discussed in Bøgh Andersen et al. (2017) as a change in steering paradigm from steering based on bureaucracy and profession to New Public Management.

 Table 10 Synonyms of administration, management and leadership (adapted from the Oxford English Dictionary)

Administration	Management	Leadership
orchestration,	ruling, command,	headship, directorship,
management, guidance,	supervision, conduct,	power, mastery,
direction, care, command,	handling, operation,	domination, dominion,
regiment, control,	board of directors,	premiership, sovereignty,
government, cabinet,	governance, guidance,	guidance, direction,
ministry, regime,	board, administration,	authority, control,
executive, authority,	running, organization,	management,
provision, application,	charge, care, direction,	supervision, organization,
discharge, distribution,	leadership, control,	government,
apportionment, bestowal,	directorate,	orchestration, initiative,
infliction, imposition,	administration, top brass	influence, direction,
directorate, council,		governorship,
leadership, management,		governance, control,
parliament, congress,		administration,
rule, incumbency, top		jurisdiction, captaincy,
brass, dispensation,		ascendancy, rule,
charge, conduct,		command
operation, regulation,		
handling, running,		
leadership, government,		
supervision, oversight,		
allotment, disbursement,		
enforcement, execution,		
exercise		

Administration is listed as a synonym of both management and leadership. Management is listed as a synonym of both administration and leadership and leadership is listed as a synonym of administration and management. Thus, even the Oxford English Dictionary mixes up the meanings of the terms by referring to them as synonyms. What is also notable is the actual selection of the synonyms of each of the main terms when these are compared to the etymons of the terms. Words like power, domination and authority are listed under leadership though it seems more obvious to list them under management, since management refers to the direction/exercising of horses, which depends on a direct, asymmetrical power relation from subject to object. Finally, it is worth noting that rule/ruling, control and command are the only words listed under all three main terms. Thus it seems reasonable to conclude that administration, management and leadership have ruling, controlling and commanding in common, but (bearing the etymology in mind) that ruling, controlling and commanding are done in different ways according to different, culturally conditioned views on 'the others' being influenced/affected. The influence can take place in a symmetrical or asymmetrical relation, depending on the cultural context.

We have seen that NPM is one example of what happens if a term or concept is adopted from one context and applied to another context without modification and cultural translation. Another example is the use of the Learning Transfer System Inventory (LTSI). In paper one I discuss what happens when the LTSI is applied to a Danish education system without being culturally translated and modified to fit Danish culture. But no reflections on cultural 'misfit' are found in any of the papers that have tested and validated the LTSI in any of the other 24 countries around the world. None of the papers discuss the point that, even though the LTSI might work from a purely statistical point of view, it might not work from a cultural or linguistic point of view. It seems as if respondents around the world answering the questions and providing data to the researcher, and the researcher analysing and discussing factor loadings, factor structures, the number of factors, etc., is enough to discuss the usefulness of LTSI in different cultures. The point is that different terms (e.g. management) and/or concepts (e.g. NPM or the LTSI) might very well be applicable to and even useful in other countries and cultures than where they are developed, but adopting them blindly cannot be done without consequences. The introduction of the term management (as in New Public Management) in Scandinavia has started changing the culture, moving it away from a traditional leadership culture towards a management culture. The use of the LTSI in a Danish context would give a misleading description of the transfer conditions in Danish organizations and of Danish students.

### On cause and effect

A dissertation on developing leadership behaviour naturally leads to the question of causality, since *ex nihilo nihil fit.*<sup>35</sup> Thus, when leadership behaviour development is studied as an effect, the question is what has caused the effect – because nothing comes from nothing. Throughout this dissertation and the dissertation papers I have suggested that formal education in leadership is this cause. I will shortly return to this in order to discuss the presumed causal relation between education and leadership behaviour development. But before I do so, a few notes must be made on the problem of causality itself.

"The problem of determining cause and effect is one of the oldest in the social sciences" (Moffitt 2005, p. 91). The Scottish philosopher David Hume (1711-1776) wrote about cause and effect as early as in 1748:

> When we look about us towards external objects, and consider the operation of causes, we are never able, in a single instance, to discover any power or necessary connection; any quality which binds the effect to the cause, and renders the one an infallible consequence of the other (Hume 2013 (1748), p. 39).

This has been heavily criticized and discussed by others and Hume later modified his view on this. I will not go into this discussion any further here (see e.g. Honderich 2005 for an overview). But I refer to Hume because he states the problem very clearly: how can we be sure that an effect is an infallible consequence of a certain cause? Hume concludes that we cannot be sure, and that neither rationally nor empirically can we confirm a necessary relation between cause and effect. Instead, a mental disposition makes us relate an effect to a certain cause. But as causality is basically at the core of all sciences, we must aim at a definition which satisfies modern scientific standards. An attempt at this is made by Andreß, Golsch and Schmidt (2013). They write:

<sup>&</sup>lt;sup>35</sup> Nothing comes from nothing (Poul Lübke (red.) 1983).

(i) two variables X and Y should correlate with each other, when they are causally related. (ii) This correlation should not be spurious in the sense that the correlation between X and Y is due to the correlation of both variables with some other (third) variables. (iii) Finally, whether X has a causal effect on Y (and not Y a causal effect on X) should be demonstrated by manipulating X and analysing the changes of Y. At least, changes of X should precede changes of Y (Andreß and others 2013, p. 6).

Now this is a relatively clear definition which says that two variables, X and Y, must correlate. The correlation between the two must not be due to the correlation with a third variable. Finally, X must precede Y in terms of time.<sup>36</sup> If this definition is applied to research on how a formal education in leadership makes an impact on leadership behaviour development, it means that: (i) participation in formal education should correlate with leadership behaviour development; (ii) the correlation should not be due to other correlations; and (iii) the formal education should precede changes in leadership behaviour. The formal education in leadership studied in relation to this dissertation, as well as most other similar studies and research projects, do not fulfil this second premise. When correlations are found, we very often cannot dismiss the possibility that they are due to other correlations. It is extremely difficult to "distinguish the effects of training from the effects of context and conditions" (Jinnet and Kern in Leviton and others 2007, p. 337). This challenge is called the challenge of causal attribution and concerns the lack of sufficient control (ibid., p. 323). Swanson and Holton (1999) state that, when assessing the effect of a training programme with a span of several years, it is virtually impossible to know whether there is a direct causal relationship (ibid., p 242). The problem is that there might be many intervening events, as is always the case in practice. For example, formal educational programmes in leadership like the Diploma of Leadership or Master of Public Governance programmes last

<sup>&</sup>lt;sup>36</sup> This regards internal validity. The value of the independent variable must be known before the value of the dependent value is found (Bøgh Andersen and others 2012, p. 105).
from two to six years, during which all sorts of events happen that can potentially influence the development of leadership behaviour. When I, as a researcher, study the impact of leadership education on leadership behaviour, it is practically impossible to isolate the effects of the training from the effects of changed budgets, policies, reforms, changed strategies, new supervisors, etc.<sup>37</sup> In such a case, researchers like Swanson and Holton (op.cit.) conclude that when it is not possible to operate with sufficient controls we might have to accept correlational data instead of causal analysis (E. Holton 1999). On the one hand, this means that we have to violate the definition of causality as proposed by Andreß, Golsch and Schmidt (2013). On the other hand, it means that we might have to accept what Kirkpatrick wrote in 1977: "evidence is much easier to obtain than proof" (Kirkpatrick 1977, p. 12). Following this, finding correlations without being able to isolate the intervening events is finding evidence, not proof. Finding this kind of evidence allows us to do correlation analysis but not causal analysis.

An example of a project which aims to find proof of the effects of training and education is the Danish LEAP project.<sup>38</sup> The research design of LEAP includes a treatment group and a control group. This design makes it possible to assess and compare effects between a group which has received a treatment (leadership training) and a control group which has not received the treatment. This method approaches randomized controlled trial methods and respects the definition of causality by Andreß, Golsch and Schmidt (2013).

I will conclude this section by saying that, in spite of the differences in research design as well as in the number of researchers working on the two projects (the LEAP project and this Ph.D. dissertation), they have at least two things in common. One, they are both in line with the NPM idea of measuring, evaluating and documenting and two, they both acknowledge the principle of *ex nihilo nihil fit*. That means both projects find it relevant to explore the chain linking cause and effect: either leading

<sup>&</sup>lt;sup>37</sup> This is another aspect of internal validity. Bøgh Andersen et al. (ibid.) write about unexpected situations which might affect the level of a variable or the effect of certain stimuli.

<sup>&</sup>lt;sup>38</sup> LEAP – Leadership and Performance: <u>http://ps.au.dk/en/research/research-projects/leap-leadership-and-performance/</u>

from cause to effect (as is done in the LEAP project) or backwards from effect to cause. This dissertation studies effects as the impact formal leadership education has on developing leadership behaviour over time. From assessing these changes the dissertation tries to argue for the evidence that the changes are caused by a public manager's participation in formal education in leadership. I suggest that one causes the other. The different kinds of analysis which I conduct in the papers, common sense and theoretical ideas are the evidence from which I infer causality.

#### Behaviour or perceptions of behaviour?

Though the actual meaning of the term behaviour, as seen in chapter 1, might be relatively straightforward, when used in relation to the study of leadership behaviour the picture is somewhat more blurred.

Within the last ten years there has been a discussion about whether researchers study leadership behaviour or rather perceptions of leadership behaviour. Researchers like Avolio (2007), Van Knippenberg (2013), Dinh (2014) and Behrendt et al. (2017) have criticized scholars working with leadership behaviour taxonomies for confusing leadership behaviour with followers' perceptions of leadership behaviour. I acknowledge this critique and agree that perceptions of leadership behaviour differ from the behaviour itself. But this is not different from most other perceptions. A phenomenon is one thing; a perception of the phenomenon is another. This distinction is relevant both from a theoretical and practical perspective.

In empirical research it is not and will never be possible to observe the behaviour in itself. We only have access to studying behaviours when we perceive them. Though behaviour and behaviour studies is a topic in recognized books on social science research methods – e.g. *The SAGE Encyclopedia of Social Science Research Methods* (2003), *Basic Research Methods: An Entry to Social Science Research* (Guthrie and Guthrie 2010) or *Social Research Methods* (Bryman 2012) – none of them mention or take up this distinction. But as research from a positivistic and/or direct critical realistic point of view aims to generate objective knowledge, it is important to be aware of the distinction between the behaviour in itself and the perception of the behaviour. Therefore I will take up this discussion in the following. Perceptions are by definition diverse and subject-dependent. Think of a red car. Most people will be able to classify the car as red. But people will perceive the red colour differently: some will see a darker red than others and some will see more white or vellow in the red. And colour-blind people might not see the red at all, but might see it as grey. The point is that when critics such as those mentioned above contend that survey or interview answers are bound to depend on personal perceptions, the counter answer must be: of course, what else could a personal answer (and perceptions) depend on if not the person? Though this is not mentioned by any of the critics, the problem is that there is no objective standard to compare one's own perceptions with. And even if there were, then interpreting the standard and comparing one's own perceptions with it would be a matter of personality. The closest one can get to an objective standard is to operate with a distinct definition of a term. And even then, interpreting and using this standard would be a question of personal perceptions. The difference between behaviour and perceptions of it makes Behrendt, Matz et al. (2017) conclude that "leadership behaviour models developed solely on the basis of interviews and surveys share a major flaw" (Op.cit., p. 231). They argue that the flaw is caused by the failure to differentiate between the leadership behaviour and the perceptions of it. They further argue that:

> the reliable and valid observation of behavior is an art. A reliable behavior rating can only be mastered by highly trained observers who are equipped with rating manuals and specific descriptions of the intended behaviors and are intentionally focused on observing these behaviors (ibid.).

It might be counter-argued that personal perceptions by 'ordinary people' are just as reliable as the perceptions of highly trained observers. The meaning of the word perception is: "The process of becoming aware or conscious of a thing or things in general; the state of being aware; consciousness" (Oxford English Dictionary 2016). Highly trained observers are not necessarily more aware or conscious of a thing than non-trained observers. Trained observers might be instructed and trained to observe something in particular, but as mentioned earlier, anyone observing/perceiving something encounters the problem of comparing a perception with an objective standard. Thus, highly trained observers encounter exactly the same reliability and validity problems as laypeople, e.g. subordinates being interviewed or answering a survey questionnaire about a leader's behaviour. Perceptions are perceptions. This means that perceptions are subject-dependent – no matter who the observer is. Now critics could claim that this would result in relativism, but it results in neither ontological nor epistemological relativism. It is not ontological relativism because the reality exists independent of perceiving human beings. But how the reality is perceived differs from person to person (Favrholdt 1999). And it is not epistemological relativism because what one person perceives is not necessarily the truth about the reality.<sup>39</sup> Rather, how one perceives something is subject-dependent (remember the red car and the colour-blind observer). What does this mean when it comes to the problem of the perceptions of behaviour? It means that behaviour can never be studied in itself. Therefore a well-known problem in behaviour research is the gap between stated and actual behaviour (Bryman 2012), real and ideal behaviour (Bledsoe, Brown, and Dalton 1980). As this problem is discussed in the papers 3 and 4, I will not discuss it further here in the dissertation report.

In conclusion, because we only have access to the perceptions of behaviour, we need to follow sound scientific principles when aiming to develop e.g. a leadership behaviour model and when doing leadership behaviour research. We need to work with a representative sample of a population as well with transparency and reproducibility as key principles. Last but not least, we need to take critique seriously – thinking critically ourselves and allowing peers to criticize our work. Thus, only by noticing, thinking about, describing, criticizing and discussing behaviour (as we perceive it individually) are we able to approach the truth about behaviour – not as it is in itself but as we are able to perceive it.

<sup>&</sup>lt;sup>39</sup> I follow Favrholdt's definition of truth: that something is true means that it is true independently of who is claiming it and when it is claimed. And independently of whether anyone is claiming it at all, thinks it, means it or knows it. The truth is therefore independent of time, thought or consciousness (Own translation of Favrholdt 1994, p. 11).

# **Chapter 4: The four papers**

The following chapter provides short introductions to each of the four papers. At the end of the chapter there is a one-page/table overview of the papers followed by a brief elaboration of the main findings and some concluding remarks.

# Paper one: Applying a Danish version of the Learning Transfer System Inventory and testing it for different types of education

With participation rates around 50 per cent, Denmark is one of the most active countries in the world when it comes to adult continuing education (Kristensen and Skipper 2009). Many of these education activities are wholly or partly publicly financed. But studies have found that the effects of the programmes are quite limited, and furthermore that the effects are in no way commensurate with the costs (Ugebrevet A4 2009). That is of course a problem. It seems as if new knowledge, skills and competencies learned during educational programmes do not transfer to a satisfactory extent to the organizations in which the Danes are working. This is a well-known problem in the research area called transfer of training and learning. And within the same area, international studies suggest that when systematically designed and based on scientific knowledge of learning and training, training yields positive results (Arthur Jr et al. 1998; Ballot, Fakhfakh, and Taymaz 2006; Collins and Holton 2004; Dearden, Reed, and Van Reenen 2006; Phillips and Phillips 2005; Powell, Skylar Powell, and Yalcin 2010). The American Learning Transfer System Inventory concept was developed to measure individual perceptions of transfer-related factors which either inhibit or enhance transfer of learning from work-related training. The LTSI has been tested and in general found useful in 24 countries around the world. In this paper we seek to elaborate our knowledge about the LTSI by testing whether the inventory is applicable to both short courses and degree programmes lasting up to several years. At the same time we ask whether the LTSI is applicable to the Danish educational context. By using principal component analysis (PCA) and factorial ANOVA, we find that, from a statistical point of view, the LTSI can be used in a Danish context. But because we received 15-20 comments by email outside of the electronic questionnaire we also

found the inventory would gain from linguistic modifications. Too many questions do not fit the Danish educational context, but clearly stem from an American culture. Besides this finding we also found that the LTSI is better suited to measuring transfer systems and promote training/learning transfer in relation to short-term courses offering training in specific skills than in relation to long-term continuing education. In its current form, the LTSI is less useful in the latter type of case.

# Paper two: What research on learning transfer can teach about improving the impact of leadership development initiatives

It is well known that the potential effect of an education depends on a series of organizational factors (Fleishman et al. 1955; Rouiller and Goldstein 1993; Avolio & Hannah 2008; Yukl 2013). In this paper these factors are called transfer conditions, which are interesting to study as they may either inhibit or enhance effects. A brief practical review of the literature on learning transfer and the conditions that make it possible for people to apply in the workplace what they learn from a development initiative is provided. This is followed by a report on a study of how managers in the Danish public sector perceive their organizations in terms of nine key transfer conditions identified in the review. The findings reveal that the managers in general find they have good transfer conditions. But as shown in the paper, three specific areas would benefit from further development. These are supervisor support, peer support and evaluation. The interesting fact about this is that managers across different municipalities and different areas of occupation, of different genders and ages, and with different educational backgrounds, uniformly seem to perceive these three transfer conditions as relatively absent in their organizations. In order to explore this finding, a correspondence analysis (CA) - a technique for exploring categorical data was used. The analysis showed no correspondence between the independent variables fields of occupation, age, and gender and the three transfer conditions (the dependent variables): supervisor support, peer support and evaluation. This finding indicates that the fields of occupation, age, or gender do not determine how these three conditions are perceived. However,

there was a relationship between length of service in the current position and all three conditions (supervisor support, peer support and evaluation), which is briefly discussed in the paper.

The paper concludes with a discussion of the implications of the review and study for current practice and future research, with the goal of gaining a better understanding of the ways in which learning-transfer conditions affect the learning outcomes of formal leadership-development activities.

## Paper three: Does Formal Education in Leadership Improve Public Managers' Leadership Behavior? A Panel Study

Decades of research on leadership has discussed what constitutes effective leadership behaviour (Yukl 2012). However, few studies have combined substantive knowledge on leadership behaviour with knowledge on formal educational programmes in administration, management and leadership, which is done in this paper. But knowledge about the effects of both formal and non-formal programmes is important, because many public and private organizations are committed to education and training to develop managers' knowledge, skills and competencies (Collins and Holton 2004). This commitment to education and training has spawned a growth in the market for leadership-development programmes (formal as well as non-formal), and many private and public organizations invest great effort and resources in leadership-development activities (Elmholdt et al. 2016).

Using confirmatory factor analysis (CFA) and panel data analysis with fixed effects on data from a study of public managers in five Danish municipalities in 2014, 2015 and 2016, the paper discusses whether and how leadership behaviour – defined by Yukl (2002; 2013) as task-, relations- and change-orientation – is influenced by a formal education in leadership. The study finds that completing a formal education in leadership has a significant positive effect on task-orientation. It also finds that the three types of leadership behaviour do not increase equally over time as it was expected. These findings are discussed in relation to the existing literature before it is concluded that studies with a larger sample and improved statistical power are needed. At the same time it is recommended to include data from the personnel surrounding the manager instead of relying on self-reported data as was done in the present study.

## Paper four: Leadership Education in Public Administration: A Longitudinal Panel Study of Education Impact

The main expectation behind this paper is that a formal education in administration, management or leadership affects leadership behaviour and that this development is perceivable by the people around the manager. In order to explore this expectation, theory on leadership behaviour and formal educational programmes in leadership are linked to longitudinal panel studies.

There is "a need for development of leadership competencies to manage the changeability of goals, strategies and structures" (Holten, Bøllingtoft, and Wilms 2015, p. 1107), and formal leadership development is often used as a tool to create this development (Yukl 2013). Yukl's taxonomy of leadership behaviour (defined as task-, relations- and change-orientation) constitutes the theoretical framework behind this paper. For data generation, a longitudinal survey questionnaire was developed and distributed to four groups of personnel (n=3,208) from five Danish municipalities. Three of these four groups are included in the paper. These are superiors, employees and peer managers.

Via descriptive statistics it is found that the personnel working together with a manager who is taking a Diploma of Leadership programme do perceive changes in leadership behaviour over a three-year period. It is also found that there are significant differences between how superiors, employees and peers perceive the development of leadership behaviour over time. The employees rate all three types of leadership behaviour significantly lower than the superiors and peers do. Following this, manager fixed-effect analysis is used to test whether the gender and age of the people assessing the manager play any role in the assessment. While gender is not found to be of importance, it is shown that the younger the rater is, the more positive the assessment of relations- and change-orientation is. This negative correlation seems to taper off when the rater is around the mid-50s. The assessment of the manager's task-orientation is apparently not affected by the age of the rater. The study is novel in two ways. One, the study contributes to the development of research on leadership training, education and development in the public sector, and two, by utilizing panel data methods the paper adds to the very few longitudinal studies focusing on leadership training in the public sector (Ployhart, Holtz, and Bliese 2002; Seidle et al. 2016).

# **Overview of the papers and the main findings**

	Dependent	Explanatory	Main	Findings
Paper one: Applying a Danish version of the Learning Transfer System Inventory and testing it for different types of education	<b>variables</b> 48 items on training transfer	variables Education level: adult vocational training, academy profession programme, diploma programme, master's degree	argument LTSI has only been validated in relation to short training- based courses, not long-term educational programmes and never before in Denmark.	LTSI needs to be modified to fit the Danish culture and is more useful in relation to short courses than longer and more complex educational programmes.
Paper two: What research on learning transfer can teach about improving the impact of leadership development initiatives	Nine transfer- conditions	Occupation, age, gender and length of service in the current position	Good transfer conditions are a prerequisite of effect of an educational programme.	The municipalities would benefit (improve the potential effect of a leadership education) if the conditions concerning peer support, supervisor support and evaluation were improved.
Paper three: Does Formal Education in Leadership Improve Public Managers' Leadership Behavior? A Panel Study	Leadership behaviour	Leadership training, span of control, age, agency tenure	Participation in a formal leadership educational programme is assumed to have an impact on public managers' leadership behaviour.	Completing a formal education in leadership has a significant positive effect on task orientation. It also finds that the three types of leadership behaviour do not increase equally over time as expected.

## Table 11 Overview of the papers

				Span of control, age and agency tenure are not found to have an effect on how leadership behaviour is assessed.
Paper four: Leadership Education in Public Administration - A Longitudinal Panel Study of Education Impact	Leadership behaviour	Position and age	Superiors, employees and peers rate the outcome of leadership training and development in different ways. The age of a rater plays an important role in the assessment of impact.	Data from three groups of staff show an overall positive development in leadership behaviour. Moreover, it is found that employees assess the behavioural effects of a leadership education significantly lower than do superiors and peers. The age of the rater affects the assessment too.

The information given in the table above is elaborated briefly in the next and final section.

# Summing up and concluding remarks

In this dissertation I have researched the impact of formal education in leadership on public managers' leadership behaviour. I have argued that the impact on an organizational level depends on organizational transfer conditions. Furthermore, I have argued that the behavioural impact of an education is perceivable by the superior, employees and/or peers working with the managers who are being educated. The following is a final summary of the main findings and concluding remarks about the research I have done in the dissertation.

### In paper one ("A Danish version of the LTSI") we have found that:

- The LTSI could be used in a Danish context, but it is not equally suitable to all kinds of educational programmes, as it is intended to be. The inventory is better suited to measuring transfer systems and promote training/learning transfer in relation to short-term courses offering training in specific skills than in relation to long-term continuing education.
- The inventory would gain from linguistic and cultural modifications in order to suit the Danish education system and culture.

#### In paper two ("Research on learning transfer") I found that:

- Among nine key transfer conditions, the public managers in five Danish municipalities in general find they have good transfer conditions.
- Three specific areas would benefit from further development: supervisor support, peer support and evaluation.
- Managers across different municipalities and different service areas, of different genders and ages, and with different educational backgrounds uniformly seem to perceive the transfer conditions regarding supervisor support, peer support and evaluation as relatively absent in their organizations.
- No correspondence between the independent variables fields of occupation/service area, age, and gender and the three transfer conditions (the dependent variables) of supervisor support, peer support and evaluation are found.

• A relationship between length of service in the current position and supervisor support, peer support and evaluation is found.

#### In paper three ("Formal education in leadership") I found that:

- The assessment of the effect of the Diploma of Leadership programme depends on whether the managers have graduated or not.
- Completing the Diploma of Leadership programme has a significant positive effect on task-orientation.
- The Diploma of Leadership programme has an insignificant positive effect on relations- and change-orientation.
- The three types of leadership behaviour (task-, relations- and changeorientation) do not increase equally over time.
- Span of control, age and agency tenure are found to have an insignificant effect on leadership behaviour.

# In paper four ("Leadership Education in Public Administration") we found that:

- There are significant differences between how superiors, employees and peers perceive the development of leadership behaviour over time. Employees rate the leadership behaviour significantly lower than the peers and superiors. There is no significant difference between superiors and peer managers. Raters in formal management positions seem to take a more positive view of the leadership behaviour of managers being educated.
- Besides positional differences, the rater's age apparently shape the assessment. For relations- and change-oriented leadership behaviour, the assessments are most positive among younger employees, and become less positive with age. The minimum point is in the mid-50s, after which the negative relation tapers off.

All in all, from research on training and learning transfer (e.g. Rouiller and Goldstein 1993; Aguinis and Kraiger 2009; Stegeager 2014) and the Danish large-scale research project LEAP (Andersen and others 2017), we know that when educating managers with a formal education in leadership, knowledge generation is not sufficient in itself. Leadership training must be organized and structured in such a way that the managers practise and

develop new skills that are applicable to their workplace. The research in this dissertation supports those studies.

It has been found that the public managers in the five Danish municipalities in general have quite good transfer conditions. Thus, from a theoretical point of view the managers should be able to apply new skills to their workplace. This means that the impact of training and education on the managers' leadership behaviour could be expected. Summing up the main findings, behavioural impact of the Diploma of Leadership programme specifically has been found, but only the coefficient of task-orientation is proven statistically significant when self-assessment is made by the managers who are being educated. Relations- and change-oriented leadership behaviour are also developed over the three-year period, but the coefficients are not proven statistically significant.

Turning back to the LEAP project (Andersen and others 2017), one of the conclusions is that it is possible to train transformational, transactional and a combination of the two leadership styles, and that the training does have positive effects on the employees (ibid., p. 210). A conclusion of the current Ph.D. project is that, even though the Diploma of Leadership programme has a very broad and generic approach to leadership theory and includes instruction in different approaches to leadership (including both transformational and transactional leadership as well as other styles), the programme does have an impact on the development of public managers' leadership behaviour. Another conclusion is that the way leadership and the impact of training and education in leadership is perceived depends on who is asked. Managers, superiors, subordinates and peers perceive the exercise of leadership, and thus leadership behaviour, differently. This conclusion highlights the importance of assessing the impact of leadership education on different levels.

Though I have aimed to add knowledge to the existing gap in the research literature on the impact of leadership education, I am fully aware that I have neither filled the gap nor exhausted the need for other studies. Therefore my hope is that, as I terminate this Ph.D. project, I will be able to pick up and start further studies from where I leave now.

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# Appendix

Abstract of paper one: Applying a Danish version of the Learning Transfer System Inventory and testing it for different types of education

• (Published)

Abstract of paper two: What research on learning transfer can teach about improving the impact of leadership-development initiatives

• (Published)

Paper three: Does Formal Education in Leadership Improve Public Managers' Leadership Behavior? A Panel Study

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Paper four: The Impact of Leadership Education in Public Administration - A Longitudinal Panel Study

• (Submitted to Public Administration Review, 17 Dec. 2017)

Leadership Behaviour-survey 2014 (In Danish)

Leadership behaviour-survey 2015/2016 (In Danish)

**Paper one**: Applying a Danish version of the Learning Transfer System Inventory and testing it for different types of education

Authors: Peter Sørensen, Aalborg University, Nikolaj Stegeager, Aalborg University & Reid Bates, Louisiana State University

## Abstract

The purpose of this study was to answer two research questions. First, will an exploratory factor analysis of a Danish version of the Learning Transfer System Inventory (LTSI) result in a factor structure which is consistent with the original American LTSI factor structure? Second, does the mean score in the factor analysis vary in a statistically significant way across different types of education, suggesting that the LTSI may be more suitable a measure in some educational contexts than others? To answer these questions survey data from 411 students following four different types of formal education – adult vocational training, academy profession programs, diploma programs and master's degree programs – were analysed. Principal component analysis was used to answer research question one. Factorial ANOVA was used to answer question two. The analysis resulted in fewer factors than in the original American LTSI. The study also found that the mean score differs in a statistically significant way between the different types of education. Specifically, LTSI may be more suitable in measuring transfer systems and therefore promoting transfer in relation to short courses offering training in specific skills than in relation to long-term continuing education.

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**Paper two**: What research on learning transfer can teach about improving the impact of leadership-development initiatives

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#### Abstract

The worldwide effort to improve organizational performance through leadership development has been impressive, with huge sums of money being devoted to it each year. Unfortunately, the evaluation of the impact of leadership development has not kept pace, resulting in little evidence-based guidance for creating programs and interventions. There is a significant and relevant area of research that can contribute to evaluation but that has often been neglected in the leadership-development field: the work on learning transfer. This article provides a brief practical review of the literature on learning transfer and the conditions that make it possible for people to apply in the workplace what they learn from a development initiative. This is followed by a report on an initial study of how managers in the Danish public sector perceive their organizations in terms of 9 key transfer conditions identified in the review. The article closes with a discussion of the implications of the review and study for current practice and for future research, with the goal of gaining a better understanding of the ways learning-transfer conditions affect the learning outcomes of formal leadership-development activities.

Keywords: training, learning transfer, leadership development, evaluation

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# Does Formal Education in Leadership Improve Public Managers' Leadership Behavior?

A Panel Study

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Keywords: Leadership behavior, public managers, panel data analysis, formal education

# Does Formal Education in Leadership Improve Public Managers' Leadership Behavior? A Panel Study

#### Abstract

Participation in formal leadership education is assumed to have an impact on public managers' leadership behavior. However, there is a gap in the literature exploring whether this assumption can be supported. This study aims to contribute in filling this gap. Using descriptive statistics and a panel data analysis with fixed effects on data from a three-year study of public managers in five Danish municipalities, the study discusses if and how leadership behavior defined as task, relations and change orientation is improved by participation in a formal education in leadership. The study finds that completing formal education in leadership has a significant positive effect on task orientation. It also finds that the three types of leadership behavior do not increase equally over time as expected. The key contribution of the study is the use of panel data to examine if and how leadership behavior is related to formal education in leadership.

Keywords: Leadership behavior, public managers, panel data analysis, formal education

# Does Formal Education in Leadership Improve Public Managers' Leadership Behavior? A Panel Study

### Introduction

For decades, research in leadership has explored and discussed what constitutes effective leadership behavior (Yukl 2012, Behrendt, Matz & Göritz 2017). Recently, leadership behavior has become a prominent issue in human resource management (HRM) research (Knies, Leisink 2014), and since the introduction of New Public Management - with its focus on targets, performance and businessoriented management - leadership behavior has been linked to public sector performance (Vermeeren, Kuipers & Steijn 2014). However, in spite of the advances in these research areas, few studies have combined the substantive knowledge on leadership behavior and HRM with knowledge on formal education in administration, management and leadership. Seidle, Fernandez & Perry (2016), who are among the few scholars to have made this combination, point out that there is a notable gap in the research into the understanding of the impact of training and development on leadership and organizational performance. Thus, while knowledge from leadership research is often used to "help screen candidates, scholars have rarely explored whether leadership training and development programs are effective, and the limited empirical evidence that is available paints a mixed picture" (Seidle et al. 2016, p. 603). This is a problem, because as most organizations are committed to training and development in order to increase performance, this has spawned growth in the marketing of leadership development programs (Sørensen 2017). Today, many private and public organizations invest great effort and many resources in leadership training and development activities (Elmholdt et al. 2016). But with limited knowledge of the effects of the programs, the organizations' commitment to education and training may be based on mere beliefs in their effectiveness and on indications within the leadership development literature about the potential financial payoff among companies that emphasize education and training (Collins, Holton 2004, Sørensen 2017). Basically, what is indicated and therefore believed and expected is that leadership

development will cause changes on individual, team/group and organizational levels. An example is that leadership development causes changes in the knowledge, skills, and competencies in the individual learners, and if the individual is able to transfer what they have learned, teams or groups with which the individual is working are expected to see changes in performance, collaboration and work climate. This might cause changes in the entire organization, such as the organization becoming more aligned in their vision and strategy (Gentry, Martineau 2010). But without solid knowledge, all this might rest on assumptions and hope. It seems that in spite of massive investments of time and money, commitments, beliefs, presumptions and expectations, organizations spend little time evaluating the effectiveness of the leadership development activities (Collins, Holton 2004, Soerensen, Stegeager & Bates 2017). Some leadership development literature explains the lack of evaluation, arguing that it is simply too challenging to assess the impact of leadership development activities (M. R. Day et al. 1986, Elmholdt et al. 2016, Hannum, Hannum & Craig 2010, D. V. Day et al. 2014), while other literature acknowledges the complexity and tries to design measuring processes which take this complexity into consideration (Craig, Hannum in Leviton et al. 2007). Despite the obvious fact that assessing the impact of leadership development activities on a manager is a complex matter, researchers, consultants, scholars and educators should not refrain from doing so and this paper was written from the point of view that leadership development assessment is possible and that effects can indeed be measured.

Aiming to combine leadership and HRM research with research on training and development, this paper examines the research question as to whether formal education in leadership improves leadership behavior, defined by Yukl as task, change and relations orientation (Yukl 2002, 2012, 2013). As stated by Craig & Hannum, "Positive behavioral change is an expected outcome of leadership development" (in Leviton et al. 2007, p. 28), and this study explores whether this expectation can be supported. The study reports results from a three-year panel study including 127 Danish public managers who are or have been participating in formal education in leadership on a bachelor's level. This type of evidence is novel in that it combines a long tradition of research on leadership behavior with research on training and development.

The paper is structured as follows: First, the theoretical framework is outlined; this provides a review of the literature on existing knowledge of the effects of leadership training and development. This is followed by a definition of the terms of training, development and education and a brief overview of different approaches to leadership development evaluation. Second, the research setting as well as the data, variables and analysis are described in the methods section. Third, the findings of the panel data analysis are presented, and finally, conclusions are drawn up about the research question as well as reflections on the limitations of the study.

## **Theoretical framework**

### Development, training and education

Many public and private organizations are committed to education and training in order to develop the knowledge, skills and competencies of their managers (Collins, Holton 2004). Yukl (2013, p. 368) writes about this commitment, that "Most large organizations have management training programs of one kind or another, and many organizations send their managers to outside seminars and workshops".

Since the existing knowledge about the effects of both formal and non-formal programs and courses is sparse and diverse, it is important to continue to conduct research in this area, and this study therefore rests on solid ground. The existing knowledge on the subject is reviewed in the following paragraphs, but first terminological clarification will be provided When exploring the literature related to this study, it is important to be aware that the terms leadership development, leadership training and leadership education are sometimes used interchangeably, and sometimes used with different meanings. In the following, the distinction made by Brungardt (1997) who defines each term separately and ascribes different meanings to each term, is followed.

Leadership development is a very wide term as it refers to almost every form of increase in or stage of development in the leadership life cycle (Brungardt 1997). Leadership development is a lifelong learning process which can be formal and structured as well as informal and unstructured (Brungardt 1997). Leadership education is more narrowly defined as those learning activities that are intended to enhance and foster leadership skills. Leadership study programs are normally quite structured and formal. They are normally offered by universities, colleges or business schools and result in a degree or a certificate, and most importantly, they are generally accredited by the state in which they are offered and are recognized as part of a country's educational system. Finally, leadership training is narrower, yet as it refers to "(...) learning activities for a specific leadership role or job" (Brungardt 1997, p. 84). Leadership training activities are considered to be components of leadership study programs. The primary focus of this article is on study programs in formal education, but as not everyone makes use of Brungardt's distinctions, the literature needs to include all three terms; development, training and education.

#### Literature review

Seung-Ho An et al (2016) explore whether the leadership training offered by a public university has an equal effect leadership behavior among managers in the public and private sectors. This study finds that the effectiveness of transformational and transactional leadership training varies from one sector to another. Posner (2009) investigates the impact of a leadership development program offered at a private university. He finds that leadership behavior measured on five types of behavior increases over time (The behaviors are classified as: Modeling the way; Inspiring a Shared Vision; Challenging the Process; Enabling Others to Act; Encouraging the Heart). Andersen et al. (2015) investigate leadership training programs aiming at affecting employee-perceived transformational and/or transactional leadership and find that these have a significant effect on the leaders' behavior in the intended direction.

Though our knowledge on the effects of formal education on leadership behavior is limited, we do know quite a lot about other types of effects, i.e. effects not related directly to behavior.

A study by Rosch and Caza (2012) and another by McGurk (2010) focus on how formal education develops the participants' understanding of leadership as a phenomenon. Other studies by Getha-Taylor et al.(2015), Pang and Hung (2012), Connector/Conmoto (2012), Brungardt (2011) and Niemec et al. (1992) focus on how formal programs conducted by universities or colleges contribute in developing different managerial/leadership skills such as reflection, communication, coordination and decision making. Studies by Weinreich (2014), Dahler and Hansen (2013), Lämsa and Savela (2014), The Danish Evaluation Institute (2012) and Camuffo et al. (2009) find that formal education in administration, management and/or leadership develops the participants' competencies in, for instance, coping with change, supporting organizational learning, planning, result orientation, networking, organizational awareness and systems thinking. Finally, Warhurst (2012) studies identity development, Quigly (2013) explores confidence development and The Danish Evaluation Institute (2017) studies the effect of leadership education on teachers' absence due to illness as well as its effect on pupils' scores in reading and mathematics. As seen, these studies are quite diverse and contribute with different perspectives on the effectiveness of formal education and development programs in administration, management and leadership.

In addition to studies on the effectiveness of formal programs and education, numerous researchers have reported positive effects of non-formal programs. For a comprehensive overview of some of these effects, reference is made to Collins & Holton (2004), who review the findings of studies between 1982 and 2001, or Aguinis, Kraiger (2009), who review studies between 2000 and 2009. In more recent studies, Abrell (2011) revealed that training improved transformational leadership, performance and organizational citizenship behavior. Barch, Harris et al. (2012) observe that leadership training has an impact on the participants' confidence and self-awareness, as well as on the development of interpersonal relationships and commitment to serving the community. Finally, Hasson, Holmstrom et al. (2016, p. 115) find that leadership training has "positive effects on managers' perceptions of individual-level and on employees' perceptions of organizational-level aspects of organizational learning". However, as the primary focus of this study is on the impact of formal education, and especially if and how education in leadership improves public managers' leadership behavior, the focus will now be directed towards behavior and ways in which to assess development in leadership behavior.

#### Yukl on leadership behavior

Yukl (2002, 2012, 2013) has developed a hierarchical taxonomy of leadership behavior which "describes leadership behaviors used to influence the performance of a team, work unit, or organization" (Yukl 2012, p. 368). This taxonomy summarizes the findings from five decades of research and also "integrates diverse leadership behaviors in a parsimonious and meaningful conceptual framework" (Borgmann 2016, p. 1351). Yukl's taxonomy divides leadership behavior into three different meta-categories, each of which has a different primary objective. The primary objective of the task-oriented behavior is to accomplish work in an efficient and reliable way (Yukl 2012). The primary objective of the relations-oriented behavior is to increase the quality of human

resources and relations, the human capital (Yukl 2012). The primary objective of the changeoriented behavior is to increase innovation, collective learning, and adaptation to the external environment (Yukl 2012). Based on these meta-categories, Yukl defined 12 specific component behaviors, as shown in table I.

#### Insert table I about here

This hierarchical taxonomy of leadership behavior is used as the main theoretical basis of this research, and will therefore be elaborated in the research design section below, following a description of the methods and research setting.

## Methods

As the purpose of this study is to explore whether formal education in leadership improves public managers' leadership behavior, this section describes the methods by which this question was explored and also presents the research setting in which the study was conducted.

While several possible methods of evaluating change over time exist, e.g. repeated measures ANOVA, OLS regression, multivariate repeated measures (MRM), structural equation modeling (SEM), or hierarchical linear modeling (HLM) as suggested by Gentry and Martineau (2010), change over time can also be analyzed via a panel data analysis, which will be used in this study. HLM and panel data analyses share some similarities as they are both suitable for testing complicated behavioral hypotheses and/or assumptions which involve at least two dimensions, i.e. a cross-sectional dimension and a time series dimension, and allow for accurate predictions about individual outcomes caused by a pooled/clustered data strategy (Hsiao 2007, Snjiders, Bosker 2012).
## **Research setting**

A joint municipal education program in five Danish small to medium-sized municipalities has been studied. The five municipalities are Middelfart, Fredericia, Kolding, Billund and Vejle. They have between 26,000 (Billund) and 110,000 inhabitants (Vejle). In the organizations of these municipalities it is mandatory for all decentralized level three managers (e.g. school principals, managers of day care centers and elderly homes) to attend a leadership course and graduate with a Diploma of Leadership (unless the managers already have a diploma or a master's degree in public administration, leadership, management or similar). The managers represent 17 different public service areas. The majority (around 70%) work in five areas: Childcare, Elderly and Disability Services, School, Family and Occupation<sup>1</sup>.

The Diploma degree is awarded after 2 years of part-time study (60 ECTS<sup>2</sup>). The Diploma of Leadership consists of six compulsory modules (of 5 ECTS each), three elective modules (5 ECTS) and a compulsory Final Project (15 ECTS). The compulsory modules are:

- 1. Leadership Communication
- 2. Professional Leadership
- 3. The Professional Relation
- 4. Learning and Competence Development
- 5. Organization and Processes
- 6. Management and Strategy

Most students attend the Diploma of Leadership on a part-time basis while minding their ordinary jobs, as either managers or pre-managers. The Diploma of Leadership is a formal bachelor-level vocational training program within further and continuing education. In Denmark, the Diploma of Leadership is offered by the university colleges, and all colleges are committed to conducting their teaching based on the same curriculum.

The main aims are to develop multiple 'leadership lenses' that qualify the students to analyze different leadership situations, teach them how to accommodate employees with a multicultural background as well as to teach them how to communicate in an effective way (Ministry of Higher Education and Science 2013). The curriculum of the Diploma of Leadership includes subjects that seek to qualify candidates for analyzing, communicating, problem solving, and decision making in order to develop people and processes in the public and private sectors. An extensive evaluation of the Diploma of Leadership from The Danish Evaluation Institute (2012) based on both quantitative and qualitative methods reported that 98 % of the students participating in the Diploma of Leadership found the program relevant for their daily work. 93 % of the participants estimated that they, made use of what they had learned during the education in their daily work. Finally, 92 % found that the education had improved their ability to manage changes within their organization The Danish Evaluation Institute (2012)

As the Diploma of Leadership is a generic leadership education targeting present managers as well as staff who would like to become managers, Yukl's taxonomy of leadership behaviors is generic in that it captures decades of previous behavior research (Borgmann 2016). Yukl focuses on "leadership behaviors intended to improve performance" (Borgmann 2016, p. 79), which is needed when students at Diploma of Leadership wish to develop people and processes in organizations. Consequently, this paper suggests that the task, change and relations-oriented behavior will develop in a positive manner over time as the managers participate in and complete the Diploma of Leadership.

### **Research design**

The linkage between the development of leadership behavior and formal leadership education is operationalized and explored in this study with repeated measures over three years: 2014, 2015 & 2016. The study makes a clear cut between two specific dates: 1 January 2014 (when the education program started) and 1 October 2016 (when the final questionnaire was distributed). All managers

enrolled in the study program between these two dates are included. Some managers were already participating in the Diploma of Leadership before the joint municipal program started because of their own ambitions or needs for education. Including these managers in the study together with managers starting Diploma of Leadership training during the program period makes it possible to study potential differences between managers who have completed the study and managers who are still studying. The difference is operationalized as an independent variable called 'Leadership Training' (described below).

Data for the study were generated using the same self-developed electronic questionnaire during the three years. The questionnaire contains 42 items inspired by Yukl (2013). The items aim at representing the three overall meta-categories task, relations and change orientation from Yukl's 2002 & 2013 works<sup>3</sup>. The questionnaire contains 12 items in the task orientation scale, 16 items in the relations orientation scale and 14 items in the change orientation scale.

As the intention of this survey was neither to test Yukl's own Managerial Practices Survey (MPS) © 2012 in a Danish context nor to make use of the exact same component- specific categories, the questionnaire was not intended to be comparable to each other.

Each of the 42 items has five frequency choices with ratings from 1 to 5 (Lickert scale). The possible choices range from 'To a very high degree' (5) to 'Not at all' (1). Before the questionnaire was sent out for the first time, it was pilot tested by a Human Resource Manager from each of the five municipalities and five municipal managers. Following this, the questionnaire was sent out to the same group of public managers in the five municipalities each autumn in 2014, 2015 & 2016. Participation in the survey was voluntary, and the participants were guaranteed anonymity.

The survey was sent out to 127 public managers in 2014, 111 in 2015 and 104 in 2016. The number decreased during the time period because people retired, changed jobs and/or became ill. Most managers answered the questionnaire partly or participated for only one or two years,

resulting in an unbalanced panel. The number of managers participating in the longitudinal survey, the number of responses received, the response rate and the percentage of participants who also responded in previous year(s) are seen in table II.

## Insert table II about here

## Variables

When the data are analyzed in order to explore the effect of the education the three types of leadership behavior (Task, Relations and Change orientation) are used as dependent variables. It is important to note that what is actually being explored is the managers' perceptions of their own leadership behavior. But whether the managers rate their own real or ideal leadership behavior is unknown (Bledsoe, Brown & Dalton 1980). It is well worth discussing whether the actual behavior can be observed, or if observers (in this case the managers attending the education) adhere to their perceptions of behavior. But this discussion will not be conducted here (see e.g. Behrendt et al. 2017 for an introduction for this discussion). During the rest of the paper reference is simply made to the behavior as if it were the behavior 'in itself'.

The primary independent variable is leadership training, a binary variable coded as 1 if the managers have completed training/the leadership education and 0 otherwise. The Danish Evaluation Institute (2012) found that 98% of managers who have completed the Diploma of Leadership have experienced impacts of the education, while only 90% of the managers who are still following the education experience the same. The variable leadership training is included in this study in order to explore whether the education has an impact on leadership behavior. Moreover, the analysis includes span of control as a control variable. This variable is measured as the number of employees referring to the manager. An increase in this variable is expected to have a negative effect on the development of the perception of leadership behavior. Seidle (2016, p. 610) found that "A one-

person increase in organization size leads to a -0.02 decrease in leader performance". Seidle defines organization size as the total number of employees in the organization and links organizational size to leader performance. Although organization size and span of control are not quite the same, it can be argued that span of control may have the same significance as organization size. Leader performance is related to leadership behavior, and leader performance is one aspect of a manager's behavior.

Besides span of control, age is included as a control variable. Age is expected to lead to a decrease in leadership behavior. Seidle (2016) found that a one-year increase in age leads to a -0.11 decrease in leader performance. Finally, agency tenure is included as the third control variable. Seidle found (op. cit., p. 610) that a one-year increase in tenure leads to a 0.07 increase in leader performance. This variable is included in the present study in order to explore if the amount of time a manager has spent in the same position has an impact on leadership orientation. The measures and descriptive statistics of the included variables are shown in table III.

## Insert table III about here

Fixed effects are used in order to compare the managers' behavior during the three time periods. By using fixed effects, all person specific and time-invariant aspects are held constant (Brænder, Bøgh Andersen 2014). Thus, all factors that do not vary over time are excluded from the analysis.

## Results

The first step in the analysis is to carry out a confirmatory factor analysis (CFA) in order to see whether the 42 items (inspired by Yukl) are well represented by three factors (task, relations and change orientation). The eigenvalue larger than 1 is the control criterion and the analysis confirms that a model with three latent variables (task, relations and change) is suited for these data. The second step in the analysis is to form three scales reflecting the meta-categories (task, relations and change orientation). In a reliability test of the scales they show the following Cronbach's alpha values: Task 0.82; Relations 0.76; Change 0.89, which are all above the recommended 0.70 (Nunnally 1975), or 0.60 if the number of items is low (Peterson 1994). Therefore the reflective scale is considered acceptable for further analysis.

The next step in the analysis is to explore the development of the three different leadership behaviors from 2014 to 2016.

As the panel includes both managers who are being trained and managers who have completed training, the development is analyzed separately for the two groups. Table IV displays the means over the three years as well as the average means. The latter is used later for comparing the means (in table VI).

## Insert table IV about here

A graphical representation of the development of the perceptions is seen in figure I.

## Insert figure I about here

Following exploration of the perceptions of the development for the groups of managers being trained, the same analyses are conducted for the managers who have completed training (Table V)

## Insert table V about here

A graphical representation is seen in figure II.

Insert figure II about here

Although this is not easily discernible in the two figures, a small difference is found between the two groups, which is more apparent in table VI and graphically shown in figure III.

Insert table VI about here

## Insert figure III about here

A marginal difference is seen in this figure. The managers who have completed training have a slightly higher mean for all three behavior categories – highest for task-orientation. In the analysis of the perceptions of the development in leadership behavior in the panel over time, fixed effects are used. All of the following analyses are regressions with the three meta-categories of leadership behavior (task, relations and change orientation) as dependent variables and leadership training, age, organizational size and agency tenure as the independent variables. The results of this analysis are seen in table VII.

## Insert table VII about here

Starting with task orientation (model 1), the variable leadership training is significant at the p<.05 level. The result indicates that leadership training leads to a .16-unit increase in task orientation if measured on a yearly basis. This finding should encourage municipal organizations to train and educate their managers and also support and encourage the managers to complete their training and graduate. At the same time, the analysis shows some insignificant results. Leadership training leads to an insignificant .01-unit increase in relations orientation and an insignificant .02-unit increase in change orientation. Also, the results indicate that a one-person increase in span of control leads to a .01 increase in both task and change orientation and a .02-increase in relations orientation, all else

being equal. A one-year increase in age results in a .002 increase in relations orientation, while task orientation as well as change orientation decreases by -.01. Finally, the results show that a one-year increase in agency tenure leads to a .01 increase in task orientation, but an insignificant -.001 decrease in relations orientation and a slightly larger decrease in change orientation of -.04. However, it is important to be aware that these findings are insignificant and might be coincidental; therefore they will not be commented on or discussed any further in this article.

## Discussion

This research set out to examine the research question if formal education in leadership improves leadership behavior defined by Yukl as task, change and relations orientation. According to Craig and Hannum (in Leviton et al. 2007, p. 28), this can be expected. They argue that positive behavioral change is an expected outcome of leadership development. As reviewed in the introduction, this expectation is supported by a few other previous studies, e.g. Posner (2009), Andersen et al. (2015) and Seung-Ho An et al. (2016). They all found behavioral effects of formal education. This study took these studies as its starting point, aiming at examining the research question by exploring the development of the three types of leadership behavior (task, relations and change orientation) among Danish public managers from 2014-2016. The analysis was divided into two by splitting the data between managers who have completed training and managers who are still attending leadership training. As appears from the descriptive statistics, both groups show the same pattern: Change orientation has the highest mean scores, followed by task orientation and relations orientation. At the same time, both groups show the same pattern of development over the three years. Task orientation is the only type of behavior that has a constant positive development over time. Both relations and change orientation show a decrease from 2014-2015 and an increase from 2015-2016. The data itself does not explain this development. However, reflection on the data indicates that a possible explanation is that most managers in the study are working in the front line of Danish welfare institutions. These are managers working with childcare, elderly and disability services, schools, family and occupation. In 2013 a large-scale labour market conflict took place between the Danish school principals and the teachers. The conflict resulted in a lockout of the teachers from the schools and no teaching for almost three weeks before it was ended by legislative intervention by the Danish government. The agreement that followed reformed the organization of the Danish school system, causing changes to the work life of the school teachers. This agreement was forced upon the schools in 2013, but was implemented fully from August 2014. The following year, from 2014-2015, was characterized by a great deal of frustration, debate and discussion in the media, among researchers, unions, central and local government politicians.

The work environment of the Danish schools has always been characterized by dialogue, understanding and respect. Thus, when the Danish government took action, supported the school principals, they ignored the tradition for dialogue, understanding and respect, and forced through reforms which affected the working day of all teachers as well as other related work areas like daycare, elderly and disability services. This might be what is seen in the development of the managers' perceptions of their behavior. All these managers seem to be negatively affected as regards their relations and change orientation. Both types of behavior concern interpersonal relations, which were greatly affected when the Government took action and reformed the school system.

Another interesting finding is a difference on all three types of behavior between managers who have completed training and managers who are still being trained. Managers who have completed training assess their behavior slightly more positively compared to the managers who are still being trained. The largest difference is on task orientation. This finding initiated the panel analysis in order to study if completing training has a significant effect on any of the three types of leadership behavior. Whereas both relations orientation and change orientation show insignificant effects, completing leadership training has a significant positive effect on task-orientation. Based on the analysis and findings in this research, the conclusion of the research question is then that the formal Diploma of Leadership has a significant effect on task orientation, but no (significant) effect on relations and change orientation. This conclusion does not support the evaluation by The Danish Evaluation Institute (2012), which found that 92 % of the participants estimate that the Diploma of Leadership improves their ability to manage changes. This study found no effects on change orientation. Consequently, it is only partly possible to support the assumption expressed by Craig & Hannum (in Leviton et al. 2007, p. 28) that "Positive behavioral change is an expected outcome of leadership development". To conclude; Positive behavioral change is the outcome in relation to task orientation when a manager has completed leadership training.

Of course this study has certain limitations. A longitudinal study with only three panels, 2014, 2016 and 2016 is a limitation. It would have been desirable to have several more panels in order to explore both mid- and long-term effects of leadership education. According to Reinelt, Foster & Sullivan (2002) short-term outcomes can be expected in 1-3 years, long-term outcomes in 4-6 years, whereas impact can only be expected after 7-10 years. As most of the public managers in the current study who have completed their training did so between 2014 and 2016, it is not possible to draw any conclusions about the long-term outcomes or even longer-term impact of the leadership education.

Another limitation is the size of the sample. This study was based on an average of 95 respondents (126 in 2014, 93 in 2015 and 65 in 2016), which might affect the results of the analyses. Studies with a larger sample are needed in order to improve the statistical power. At the same time, studies including more than self-reported data are needed as the latter might be flawed. Andersen et al. (2015) found that leadership training affects employee perceptions of leaders'

behavior. Therefore it is recommended to conduct studies which include views and perspectives from the employees as well as their peers and superiors in a 360-degree perspective. This would provide an opportunity to compare the managers' self-evaluations with the evaluations (perceptions) made by the three other types of staff. Finally, quantitative studies with more statistical power, or a combination of quantitative and qualitative methods, would probably allow a deeper understanding of the effects of formal leadership programs, which is needed in order to guide organizations investing in leadership development as well as educators and consultants conducting training and development.

## Notes

- 1 The rest of the managers work in the Technical, Health, Other social security, Water & energy, Environment, The central administration, Economy, Human resource, Public service, Leisure or Culture areas.
- 2 ECTS (European Credit Transfer System) is a credit system designed to make it easier for students to move between different countries within the European Union. The system is based on the learning achievements and describes the workload of a course and/or entire education (European Commission, 4 May 2017).
- 3 The 42 items were developed without being aware of the fact that Yukl already had developed his own Managerial Practices Survey (MPS) © 2012 which contains 60 items.

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Behavior categories	12 component behaviors
Task-oriented behavior	Clarify task objectives and role expectations
	Plan short-term activities
	Monitor operations and performance
Relations-oriented behavior	Provide support and encouragement
	Develop member skills and confidence
	Provide recognition for achievements and contributions
	Empower members to take initiative in problem solving
	Consult with members when making decisions
Change-oriented behavior	Propose an innovative strategy or new vision
	Encourage innovative thinking
	Monitor the external environment
	Take risks to promote necessary changes

## Table I. Hierarchical Taxonomy of Leadership Behaviors (Yukl 2002)

	Number of managers invited to participate in the survey	Number of responses	Response rate	Percentage who also responded in previous year(s)
2014	127	126	99	n/a
2015	111	93	83.8	51.6 %
2016	104	65	62.5	79.1 %
Avera	ge	95	n/a	n/a

Table II. Number of managers, responses, response rate and percentage of participation in the surveys

Variable	Measure	Mean	SD	Min	Max.
Training	Whether the individual has completed training				
	(1=yes, 0=no)	.452381	.5037605	0	1
Span of contr	ol Number of employees referring to the manager	9.5	11.70725	1	60
Age	The manager's age, measured in years	47.875	6.380239	37	59
Agency tenur	e Amount of time the manager has worked in				
- •	their current position, in years	2.577465	2.658044	.2	13

Table III. Variables, measures, and summary statistics

	2014	2015	2016	Average mean
Task orientation	3.56	3.66	3.79	3.67
Relations orientation	2.75	2.71	2.79	2.75
Change orientation	3.88	3.79	3.86	3.84

Table IV. Development of mean 2014-2016 among managers who are being trained (Training=0)



Figure I. Graphical representation of the development of the perceptions among managers who are being trained (Training=0)

	2014	2015	2016	Average mean
Task orientation	3.56	3.70	3.83	3.70
Relations orientation	2.75	2.70	2.83	2.76
Change orientation	3.88	3.78	3.87	3.84

Table V. Development of mean 2014-2016 among managers who have completed trained (Training=1)



Figure II. Graphical representation of the development among managers who have completed training (Training=1)

Table VI. Comparing the means between managers who are being trained (Training=0) and managers who have completed training (Training=1)

	Training=1	Training=0
Task orientation	3.70	3.63
Relations orientation	2.76	2.74
Change orientation	3.84	3.83



Figure III. Representation of the main differences between managers who are participating in training and managers who have completed training

Variable	Coefficient (Task) Model 1	Coefficient (Relation) Model 2	Coefficient (Change) Model 3
Leadership training	.16 <sup>*</sup>	.01	.02
Leadership training	.10	.01	.02
Span of control	.01	.02	.01
Age	01	.002	01
Agency tenure	.01	001	04
Constant	4.06	2.58	3.96
Observations	105	102	109
over the three years			
* significant at the p<.05 l	evel		
Model 1			
$R^2$ : within = .0739			
overall = $0811 F(4.99)$	P = 1.98  prob > F = 1040		

Table VII. Fixed-Effects models (dependent variables = Task-, Relations- and Change-orientation).

 $\frac{\text{Model 1}}{\text{R}^2: \text{ within = .0739}}$ overall = .0811 *F*(4,99) = 1.98, prob.> *F* = .1040  $\frac{\text{Model 2}}{\text{R}^2: \text{ within = .0266}}$ overall = .0263 *F*(4,96) = .66, prob.> *F* = .6240  $\frac{\text{Model 3}}{\text{R}^2: \text{ within = .0243}}$ overall = .0236 *F*(4,103) = .64, prob.> *F* = .6336

## The Impact of Leadership Education in Public Administration – A Longitudinal Panel Study

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# The Impact of Leadership Education in Public Administration - A Longitudinal Panel Study

## Abstract

Does leadership behavior (measured as task-, relations-, and change-orientation) change as public managers develop and train their skills through formal education? This question is addressed in a longitudinal large-n study (n=3,208) over three years. Data from five public-sector organizations form a panel including employees, superiors of, and peers of public-sector managers. All the managers participate in mandatory leadership education. Descriptive statistics and manager-fixed effects are used to answer the research question. The findings show a substantial short-term perceived impact of formal leadership education. Findings further show that superiors, employees, and peers tend to be very similar in their perceptions of the changes of a given manager, though at different levels. Employees tend to ascribe lower levels of impact than superiors and peers. Finally, age is found to be negatively related to perceived impact of formal leadership education. The study suggests that assessing leadership development is very subjectively based.

Keywords: Leadership behavior, Panel data, Fixed effects

## **Evidence for Practice**

- There is (almost) always some kind of effect of leadership development.
- Generic formal leadership education does affect public-sector managers' leadership behavior.
- How leadership behavior is assessed depends on the position and the age of the rater.

## Introduction

Using panel data, this study examines how public-sector managers' participation in a two-year leadership education program is associated with changes in three types of leadership practices broadly recognized as important to organizational efficiency: Task-, relations- and change-oriented leadership behavior. Focusing on these three dimensions, an analysis is presented of how subordinates, peers, and superiors rate a manager's outcome from participating in formal leadership education, and how the ratings develop over time. As suggested in recent studies within public administration (Lee and Suh 2016; Seidle, Fernandez, and Perry 2016), huge investments in public-sector leadership education have been made in recent decades yet there is a paradoxical gap between these investments and our knowledge about their impact. Avoiding common source bias by using panel survey responses from significant collaborators, this study fills an important gap in our knowledge about the outcome of such programs.

The logic of leadership development initiatives is that the participants will learn, grow, and change throughout the process (Gentry and Martineau 2010). Thus, training and learning activities are implemented in the hope that they will produce some kind of results (Sørensen 2017). But if hope is not enough, researchers must aim at measuring and documenting change over time – "one of the toughest and most important issues for the design, implementation and evaluation of leadership development" (Gentry and Martineau 2010, 645). In particular, studies on initiatives and programs in the public sector are needed as this sector is largely ignored in the discussion on training, learning, and development of leaders (Seidle et al. 2016). This is a paradox, as public administration, management, and leadership have become increasingly important as research areas and research has convincingly showed that management matters (O'Toole Jr and Meier 1999; O'Toole Jr and Meier 2011; Walker and Andrews 2015; Hansen and Nørup 2017). This increasing importance might be due to a number of factors including the continuing changes and complex

conditions of the public (but also the private) sector, which "creates a need for the development of leadership competencies to manage the changeability of goals, strategies and structures" (Holten, Bøllingtoft, and Wilms 2015, 1107). These changing conditions suggest a need for leadership training and development that provides managers with meta-skills in translation, communication, and implementation of new organizational practices in order to engage employees towards goal attainment (Holten et al. 2015).

Although leadership development, training, and education continue to grow, research on the effects of the developmental activities has not kept pace (Sørensen 2017). Consequently, the impacts of a program are very often questioned (Broucker 2015). Thus, critical voices claim that leadership development has nil or limited effect (Kaiser and Curphy 2013). A reaction to this claim is that assessing outcomes of leadership training, education, and development is never a question of effect or no effect. There is (almost) always some effect on either the individual, organizational, or society level (Van Wart 2003: Seidle et al. 2016). Taken to the extreme, the obvious and most simple example of an individual level effect is if an individual during a training program has learned just one new word. Of course, this is neither a satisfying goal nor a sufficient reason to invest large sums in training and development. Instead, what is needed is thorough documentation that investments in development programs will provide "oxygen to organizations in order to introduce new ways of working, processes and delivering services" (Bouckaert in Broucker 2015, 2). More studies documenting the outcome of different programs are needed in order to increase our understanding of this important area. This article aims at contributing to this research gap by exploring how different groups of organizational actors perceive the effect of formal leadership education on public-sector managers' leadership behavior.

Leadership behavior theories are part of a long tradition of leadership research, for which Van Wart, among others, has provided an excellent overview (e.g. in his works of 2003; 2013). He

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describes the dominant leadership theories of the last 150 years and their foci, going from "great man" and traits theories, through contingency theories and theories about transformational leadership, to servant and multifaceted theories. Underneath these theories, one of the popular research topics which have been much debated over the years is leadership style which is "really just an aggregation of traits, skills and behavior" (Van Wart 2003, 222). In this article, the focus is on the behavior part of leadership style theories, and it will be seen that during the last 100 years our understanding of effective leadership behavior has advanced substantially. Especially during the last 50 years, several researchers have developed taxonomies describing different leadership behaviors, e.g. Burke, Stagl et al. (2006), Derue (2011), Yukl (2012) and Behrendt et al. (2017). Following this, other researchers, e.g. Avolio (2007), Van Knippenberg (2013) and Dinh (2014), have criticized such taxonomies for confusing actual leadership behavior with followers' perceptions of leadership behavior. Acknowledging this critique and agreeing that, from a terminological point of view, perceptions of leadership behavior differ from the behavior itself, it must be noted, that this perception is no different from other perceptions. A concept (such as "behavior") is one thing; the perception of entities or phenomena covered by the concept is another. Perceptions are by definition subject-dependent. Thus, when for example Behrendt et al. (2017) write that survey or interview answers are bound to depend on personal perceptions and therefore we must distinguish between the behavior and perceptions thereof, the counter-answer must be: Of course, what else could a personal answer (and perceptions) depend on if not the person? Though not mentioned by Behrendt et al. (2017), the problem is fundamental: there is no objective standard to compare one's own perceptions with. Were there, then interpreting the standard and comparing one's own perceptions with the standard would be a question of personality. The closest one can get to an objective standard is to operate with a clear, distinct definition of a term or concept. Even then, understanding, interpreting, and using the definition in relation to entities depends on personal

perceptions. Therefore, criticizing scholars for mixing up behaviors and perception of behaviors is irrelevant. It is not and never will be possible to observe the behavior itself: we only have access to different perceptions of a behavior. This being a methodological-philosophical problem which is beyond the scope both of Behrendt et al. (2017) and this article, the question will not be further elaborated. What will be elaborated, though, are the aim, research question, and structure of the article.

The aim of this article is to take the discussion a step further than described above by linking theories of leadership behavior with the processes in which leadership behavior is developed in order to study how leadership behavior is perceived as developing. The specific area of interest is the public sector. Therefore, when, in the second half of the article, the findings of an empirical study are discussed, these are from the public sector. The following research question is explored:

Does leadership behavior (measured as task-, relations- and change-orientation) change as public-sector managers develop and train their skills through formal education?

The study contributes to research on public-sector leadership training, education, and development in two significant ways. First, it contributes by focusing on a formal educational program. Much leadership training is provided ad hoc by internal and external consultants. Formal programs are prevalent in many countries as they are easier to roll out on a larger scale and constitute an opportunity to train larger groups of leaders. Second, it contributes because the focus is on the effect of the program, namely, exploring how different groups of organizational actors perceive the leadership exercised by an individual who has enrolled in a formal leadership education program. Thus, the study is able to explore how the program affects managers and their organizations in complex ways and whether some actors are more affected than others. Moreover, this study relies on panel data with annual measurements throughout the educational program. Thus, the study adds to the very few longitudinal studies focusing on leadership training in the public

sector, more of which are needed, according to Ployhart, Holtz el al. (2002), Van Wart (2003) as well as Seidle et al. (2016). Finally, the frequent use of potentially dubious self-reported data in studies on leadership training is avoided as the self-assessments of the managers being educated are not included. All in all, the number of empirical research-based studies documenting the effect of formal education based on a combination of multiple leadership training methods is very limited, and the aim of the current study is to increase that limited number.

The research question is investigated in a longitudinal study including data from a threeyear period in which 297 Danish public-sector managers participated in a formal leadership education program (Diploma of Leadership, henceforth DoL). A survey instrument, inspired by Yukl (2002; 2013), was used for this purpose. The panel includes data from superiors, employees, and peers, but not the managers being educated. The findings suggest that the personnel do perceive differences in the leadership-orientation of a manager participating in an educational program, and that effects can be seen across different leadership dimensions. Interestingly, perceptions of leader development, at least to some degree, seem to vary systematically with the position and age of the observer. As such, the study suggests that assessing leader development is very subjectively based.

The article is structured as follows. First, the literature on leadership behavior theory is reviewed and a link to leadership education is established via a Danish case study. Second, the methods used for data analysis are described. Third, the results of the data analysis are presented, which (fourth) will be discussed in relation to the reviewed literature. Fifth, conclusions to the research questions are drawn and limitations of the study are discussed. Finally, perspectives for future studies on this topic are pointed out.

## Theory

As elaborated above, the main purpose of this article is to explore whether and how a formal leadership education affects leadership behavior. To investigate this question, initially the behavior-term is defined in this section and the way the term is used in the leadership behavior literature is described. Subsequently, how leadership behavior is linked to formal leadership education is discussed.

First of all, "Positive behavioral change is an expected outcome of leadership development" (in Leviton and others 2007, 28), and formal training programs (from universities, colleges, and business schools) are widely used to improve leadership and leadership behavior in organizations (Yukl 2013). But in most curricula for education in administration, management, and leadership, the word "behavior" is not used. Instead, educational curricula most often describe the aims and learning outcomes of the education with words like "generating new knowledge," "training skills," and "developing capabilities/competencies."

Whether the aims and learning outcomes are achieved is evaluated in the oral and written exams and in different kinds of surveys that most (if not all) institutions offering such types of education use, during and after courses and lectures. Such an assessment is ill-equipped to gauge the effects of education on leadership outcomes. These evaluations most often focus on individual level results and are unable to assess the effect of an educational program as no pre-education measurement is conducted. Participants can enter an educational program with greatly varying backgrounds and pre-existing knowledge which may affect their final exam results, but these variations are not recorded.

Another way to study learning is via behavior research. Researchers in administration, management, and leadership with an interest in training and learning study behavior because behavior is understood as a way to investigate whether what has been learned during training and education is also applied to and used in the workplace. Examples of behavior studies are Leviton et al (2007), Andersen et al. (2015) and Seidle et al. (2016). The assumption behind behavior studies is that if something has been learned and if this is relevant to the manager/workplace, then it will be used in practice. Furthermore, if it is used, it is perceivable. In this process, where learning is transferred from a training setting to the workplace, the outcome of learning is transformed as well. When an individual has learned something, there is an individual effect. When the learning is applied to and used in organizational practice, it can be viewed as an organizational effect (March and Olsen 1975). With a leadership behavior approach, researchers can study how learning outcomes are interpreted, applied to, and used in organizational practice. Yukl writes about this approach that "Thousands of studies on leader behavior and its effects have been conducted over the past half century, but the bewildering variety of behavior constructs used for this research makes it difficult to compare and integrate the findings" (Yukl 2012, 66).

Bass (2008) provides an overview of theories of leadership behavior. He mentions scholars like Tubbs and Schulz, Selznick, Katz and Kahn, Wofford, Mintzberg, Stogdill, Quinn, Senge and Schein, among others. In this study, Yukl (2002, 2013) will be used as the theoretical framework.

## A Framework for Leadership Behavior

Yukl developed his taxonomy by looking back over a half-century of research (Yukl 2012, 66). In this taxonomy, behavior is understood as "a mental agenda of short-term and long-term objectives and strategies. The agenda is used to guide their [sc. the leaders'] actions, manage their time, and help them become more proactive" (Yukl 2013, 390).

Yukl's taxonomy "describes leadership behaviors used to influence the performance of a team, work unit, or organization" (Yukl 2012, 68). The taxonomy divides leadership behavior into

three different meta-categories (task-, relations- and change-orientation) – each having a different primary objective.

The primary objective of the task-oriented behavior is to accomplish work in an efficient and reliable way (Yukl 2012, 66). The primary objective of the relations-oriented behavior is to increase the quality of human resources and relations, i.e., the human capital (Yukl 2012). The primary objective of the change-oriented behavior is to increase innovation, collective learning, and adaptation to the external environment (Yukl 2012). Based on these meta-categories, Yukl defined the 12 specific component behaviors shown in table 1.

## [Insert table 1 here]

It is useful to adopt Yukl's hierarchical model of leadership behavior for the field of public administration. The argument is that since behavior, as mentioned in the introduction, is an aspect of leadership style, and style has been debated widely through most leadership and management eras (Van Wart 2003), and since Yukl has provided a comprehensive and well-structured theory on leadership behavior (Behrendt et al. 2017), it makes sense to apply his generic management theory to public administration.

## Bridging the Gap between Leadership Education and Behavior Development – a Danish Case Study

While leadership behavior might be classified theoretically using Yukl's taxonomy, the question is: How is leadership behavior developed in practice during a specific course of formal education?
A joint municipal education program in five Danish small- to medium-sized municipalities will be presented in what follows to link leadership education to processes in which leadership behavior is developed.

The five municipalities each have between 26,000 and 110,000 inhabitants. In these municipalities, it is mandatory for all decentralized level three managers (e.g. School principals, managers of day care centers, of elderly and disability services, etc.) to participate in and graduate with a DoL (unless the managers already have a diploma degree or a master's degree in leadership, management, administration, or something similar). The managers, their superiors, employees, and peers work in 17 different welfare service areas. Childcare, Elderly care and disability services and Schools cover almost half (46.7%) of the study population.

The diploma degree is awarded after two years' part-time study (60 European Credit Transfer System (ECTS<sup>1</sup>) units). The DoL consists of six compulsory modules (of 5 ECTS each), three elective modules (5 ECTS each) and a compulsory final project (15 ECTS). The compulsory modules are:

- 1. Leadership Communication
- 2. Professional Leadership
- 3. The Professional Relation
- 4. Learning and Competence Development
- 5. Organization and Processes
- 6. Management and Strategy

Students are advised to follow the modules in that order.

Most students study for the DoL part-time and concurrently with their normal job as managers or pre-managers. The DoL is continuing vocational training at bachelor's degree level.

Training is structured as a combination of coaching, classroom instruction, feedback, and action learning. Thus, the DoL is structured similarly to the training program researched by Seidle et al. (2016). They found that a combination of coaching, classroom instruction, feedback, and experiential training (in this case, action learning) can improve leaders' performance and "result in higher performance for public organizations that adopt them" (Seidle et al. 2016, 603).

The DoL is a generic leadership education course targeting current managers as well as personnel who would like to become managers. At the same time, Yukl's taxonomy of leadership behaviors is generic. It captures decades of prior behavior research and aims at capturing leadership styles relevant to both private and public administration and management (Borgmann 2016). Yukl focuses on "leadership behaviors intended to improve performance" (Borgmann 2016, 79) which is what is needed when DoL students would like to develop people and processes in organizations.

## **Findings from Previous Empirical Research**

There is a small number of studies on the effect of training and developing public managers. These are described next, as they provide empirical background for three hypotheses.

The study by Seidle et al. (2016) found that leadership training and development in the public sector improves leader and organizational performance. Andersen et al. (2017) studied the impact of training in transformational or transactional leadership styles and a combination of the two. They found that leadership can be learned, and that the impact of training and development is perceivable by people working with the manager being trained. Furthermore, they found that teaching new skills is insufficient vis-à-vis organizational impact. Organizational effects are only perceivable if it is possible for the manager to apply at work what has been learned during training (Andersen and others 2017).

Lee and Suh (2016) found that executives' participation in general management and administration training is positively associated with financial, client-service, and performance accountability.

Finally, Hirst et al. (2004, 315-316) found evidence that a manager's learning has a significant impact on facilitative leadership and team performance eight to ten months after program completion.

#### Hypotheses

The aforementioned studies all find that training and development affect leaders and leadership performance, and that the impact of a program is perceivable to staff working with the manager being trained. While previous studies focus on specific tailored training programs, the current study analyzes a broad state-approved formal education program for public managers. It is hypothesized that

H1: A public manager's participation in a leadership education program is in general associated with higher degrees of task-, relations- and change-oriented leadership behavior as perceived by superiors, peers and employees.

While an overall effect of leadership training on perceptions by others of leadership behavior is expected, this effect likely differs between different groups of observers. As already discussed, perception of behavior is inherently subjective. This means that differences in individuals' exposure to the person being trained as well as their own knowledge and experiences will likely affect their perceptions. Here the focus is on how perceptions vary between different groups of personnel and between individuals with different levels of experience.

Because of the practice-orientation of the DoL and training based on instruction, feedback, and action learning, it is expected that managers will not only achieve new knowledge, but also

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change behavior. This is a general expectation applicable to most kinds of leadership development. Craig and Hannum (in Leviton and others 2007, 28) state, that "Positive behavioral change is an expected outcome of leadership development." But not all people will perceive the development equally. Superiors and peers themselves often have either a diploma degree or a master's degree in administration, management, or leadership. This means that they "speak the same language," tackle the same challenges, and are met with the same expectations as the managers being trained. They may therefore perceive the managers' leadership behavior from different and more positive perspectives than subordinates. Thus, it is hypothesized that

H2: When assessing a manager's leadership style, employees of a manager tend to ascribe lower leadership qualities to the manager than do that manager's superiors and peers.

But, even though the three types of personnel differ in how they assess a manager's leadership style, older and more experienced people are expected to be more likely to assess what is "real" and what is pure "staffage." Experienced personnel are not necessarily impressed by formal education. Previous studies show mixed results about this. Hirst, Mann, and Bain (2004, 315-316) noted that "experienced leaders with concretized beliefs and strong associations assembled over the years of experience will be less likely to change; they will refine their leadership behavior rather than significantly alter it" (Hirst et al. 2004, 315-316). On the other hand, Seidle et al. (2016) quote studies showing a positive link between leadership experience and performance. This make them hypothesize that agency tenure should have a positive influence on the change in organizational effectiveness. In the current study it is hypothesized that

H3: When assessing a manager's leadership style, the age of the individuals tends to be negatively related to the ascription of high leadership qualities

## Method

In this study we are interested in how a person's leadership behavior is perceived in his/her workplace both while and after he/she participates in formal leadership education. As such, we collected data on 297 Danish public-sector managers who were being trained with the DoL in the period 2014–2016. The study makes a clear cut-off between two specific dates: 1 January 2014 (when the education program started) and 1 October 2016 (when the final questionnaire was distributed). The personnel working with the managers enrolled in the study program between these two dates are included. Some managers were already participating in the DoL before the joint municipal program started because of their personal ambitions or need for education. Thus, these managers graduated early in the program period. Others started during the education program period and had not yet graduated by the end of 2017. For that reason, the managers were at different stages of their education. However, the interest is not in the managers themselves, but rather in how they are perceived by the people working around them in their organizations either while they engage in part-time education or when they have just graduated from the education program. The focus is on the managers' immediate superiors, employees, and peers from five Danish municipalities (N=3.208; see table 2 with descriptive statistics of the sample). Twenty-three percent of the sample are male; 77 percent are female. The respondents' ages range from 20 to 74, with a mean of 49 years.

### [Insert table 2 here]

*Dependent variable.* Our dependent variable is assessment of leadership behavior. Data were generated using the same electronic questionnaire over the three years.<sup>2</sup> The questionnaire contains

42 items based on Yukl's framework (2002; 2013). The questionnaire was sent out electronically annually in October. Though the 42 items are not exactly the same as the ones Yukl uses in his Managerial Practices Survey<sup>®</sup> (MPS, 2012), which contains 60 items, they represent the three meta-categories task-, relations- and change-orientation from his 2002 and 2013 works. The questionnaire used contains 12 items in the task-orientation scale, 16 in the relations-orientation scale and 14 in the change-orientation scale (see also table 1 in the theory section). As the intention with this survey was neither to test the applicability of Yukl's MPS in a Danish context nor to make use of the exact same component specific categories, the questionnaire was not intended to be completely comparable to Yukl's.

Each of the 42 questionnaire items has five choices on a 5-point Likert scale. The possible choices range from "To a very high degree" (5) to "Not at all" (1). The questionnaire was sent out to the same group of public-sector personnel in the five municipalities each autumn in 2014, 2015 and 2016. These personnel groups were all uniquely connected to a manager enrolled on the leadership education course. Some were superiors, others peer managers at the same level in the organization, while most were employees working below the manager. The questionnaire asked respondents to answer questions about a specific, named manager. Participation was voluntary and the participants were guaranteed anonymity.

*Independent variables.* To test hypothesis 1 about the development of leadership behavior, we use year dummies that reflect the progression of the program. Each respondent indicates whether they are a superior, a peer manager, or an employee vis-à-vis the manager being trained. We use this to test hypothesis 2. To assess the role of age and whether older individuals are more conservative in their assessment of leadership changes, we include age as well as age squared to assess possible non-linearity.

Data analysis. The first step in the data analysis was to provide basic information about respondents' characteristics. Second, an exploratory factor analysis (EFA) was carried out to reduce the number of items to a limited number of factors. An eigenvalue greater than 1 as well as a scree plot were the criteria used to decide how many factors are able to represent the 42 items. The third step was to form a scale reflecting the factors of the leadership categories. Finally, regression analysis was used to answer the research questions about how subordinates, peers, and superiors rate a manager's outcome from undergoing formal leadership education, and how the ratings develop over time. In the analysis, the fact that each respondent answered the questionnaire about a specific, identifiable manager is an advantage. Therefore, manager-fixed effects are included. This means that the responses of individuals assessing the same manager who differ on characteristics including position and age are compared. By including the manager-fixed effects it is also possible to control for all non-varying manager characteristics including the service area of work, organization size, political influences, etc. Unfortunately, it is only possible to include these manager-fixed effects for data collected in 2015 and 2016. Besides the independent variables, respondents' gender and indicator of whether this is the same as the manager being trained are included. All estimations are OLS regressions with robust standard errors to mitigate concerns about heteroscedasticity.

## Results

The EFA suggested a three-factor structure consisting of task-, relations- and change-orientation. Thereby, it supported Yukl's underlying leadership behavior. Following this, the three scales (factors) were formed. In this process, missing observations were imputed as the mean values of the data from non-missing observations. Afterwards, the scales were tested for validity. This test resulted in high Cronbach Alpha values: Task-orientation 0.91; Relations-orientation 0.86; Change-

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orientation 0.94, which are all above the recommended 0.70 (Nunnally 1975). Thus, the three factors were found to be appropriate for further analysis. But when the factor loadings were calculated for the items within each of the three factors, three items were removed because they turned out to have negative loadings (the factor loadings of the remaining items can be seen in the appendix).

To provide an initial assessment of hypotheses 1 and 2, the development over time of the mean values for each type of leadership behavior, as perceived by the leaders' collaborators, is shown graphically in figures 1–3.

[Insert figure 1 here]

[Insert figure 2 here]

[Insert figure 3 here]

The three figures generally display the same pattern: among the different types of staff, peers assess the three types of behavior higher than superiors and employees. This suggests that employees referring to a manager who is being educated assess the behavior lowest of the three types of staff. In figure 1 it can also be seen that peers perceive a manager's task-orientation in a way that results in a straight increasing line over the three years. The other graphs for superiors and employees as well as the graphs for relations-, and change-orientation all have a bend in 2015. They all show an increase from 2014 to 2015 in the first year of the education program and a smaller increase or even a decrease from 2015 to 2016 (employees on task-orientation in figure 1, and peers and superiors on change-orientation in figure 3). The development of change-orientation (figure 3) as perceived by superiors show the largest decrease from 2015 to 2016, from a mean of 3.68 to a mean of 3.60. It might have been expected that the behavior would show a steady positive development (increase) over time, which most of the graphs have supported.

Common sense might explain the tendency in these three figures. It is not surprising that peers perceive the three types of behavior more positively—that is with higher mean scores—than superiors and employees, because peers are most often the closest colleague to the manager being educated. Peers face the same challenges as employees and superiors, they have the same organizational position, participate in the same networks, some of them have the same superiors, and the peers themselves very often participate in the same kind of leadership education as the manager being assessed. But common sense is not able to answer the question of whether the tendencies are coincidental or represent a more solid relationship. Thus, to scrutinize our hypotheses more robustly we ran three regression models, one for each dependent variable. The three models are presented in table 3.

#### [Insert table 3 here]

In table 3, three models concerning the three kinds of leadership-orientation are presented. They all have r-square values over 0.4, indicating that the included variables including the managers' fixed effects are able to explain a fair part of the variation in the data.

The first hypothesis involved the overall effect of leadership training. For none of the models is the 2016 dummy significant. This indicates that the leadership behavior two years into the program is not perceived significantly differently compared to one year into the program. It should be remembered here that it is not possible to include the baseline measurement in 2014 in this analysis, and that the descriptive graphs above indicated an overall positive development from the baseline.

Hypothesis 2 speculated that perceptions of leadership development varied between different groups of observers. Compared to superiors (reference category), in all models employees of a manager rate the leadership behavior lower. This supports hypothesis 2. There is no significant difference between managers who are superiors and those who are peers. This indicates that individuals who are themselves in formal management positions are more positive about the leadership behavior of managers being trained.

Finally, hypothesis 3 was interested in the effect of age. Model 3 suggests that age is not important in relation to perceptions of task-oriented leadership. Conversely, the effects of the age variables are significant in models 1 and 2. To better assess these effects the results are illustrated in figure 4 below.

## [Insert figure 4 here]

The graphs reveal highly similar pictures for change-oriented leadership and relations-oriented leadership. For both types of leadership behavior, assessments are most positive among younger employees and decrease with age. The minimum point is in the mid-50s, after which the negative relation wears off.

Taken together, the results highlight the nuances involved in assessing leadership development. Managers may themselves be biased, yet turning to ratings by others also involves complexities. This study indicates that the hierarchical position of a rater as well as his/her age may have an important role in shaping the assessment. Thus, the study suggests that assessing leadership development is very subjectively based. We will elaborate these and other points in the discussion that follows.

## Discussion

In this section, the theoretical implications of the study are first discussed. Following this, the strengths and weaknesses of the study are evaluated before recommendations for future research are presented.

In the introduction, the aim of measuring and documenting change over time was claimed as important in order to add knowledge to a gap in the literature documenting the effects of leadership development programs. This study has been driven by this aim, and has shown how three groups of public-sector personnel perceive the development of their managers' leadership behavior over the course of three years.

The current study has confirmed the insight gained by Seidle et al. (2016) that a combination of coaching, classroom instruction, feedback, and experiential learning leads to improved performance. In this case, the improved performance has higher mean scores on a leadership behavior scale.

Perhaps the most important finding in relation to this study is that there are statistically significant correlations between the perception of leadership behavior and the type of staff perceiving the behavior. This means that there are significant differences between how superiors,

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employees, and peers perceive the development of leadership behavior over time. Employees rate leadership behavior significantly lower than the peers and superiors.

Leviton, Hannum et al. (2007) claim that positive behavioral change is an expected outcome of leadership development. This claim is supported to some degree by the descriptive statistics in this study. In figures 1 and 2 and in figure 3, the mean scores are higher by the end than in the beginning of the education program. But in relation to change-oriented behavior (figure 3), not all types of staff perceive (or at least report) the development as continuously increasing over time. Superiors as well as peers perceived the change-orientation as less high (with lower mean scores) from 2015 to 2016 than they did from 2014 to 2015. While the authors cannot currently account for this, as there is nothing in the data that might explain this decrease, a possible explanation might be found by looking at the order and structure of the modules. As described previously, the proper leadership/management modules are placed at the beginning of the educational program – not at the end. This structure might explain the small decrease in the assessments from the second to the third year. Another possible interpretation might be that the changes most visible to the colleagues of the leaders come in the short term, when the leaders bring novel ideas into the organization, while the more medium- and long-term effects of evolving leadership maturity and learning by doing, while equally important, are less visible to colleagues.

Yukl (2013) states that people undergoing education are more positive about the effects than people working with them. If this is true and if leadership behavior development can be counted as an effect of an education program (as asserted in this study), it implies that if the managers (undergoing education) had been included in this study too, then the graphs displaying their self-perceptions would have shown higher mean scores than the three other groups of publicsector personnel.

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A finding in figures 1–3 requiring special attention is that peers might be biased. It is not obvious that peers perceive the task-orientation more positively than employees. Items in the task-orientation scale are closely connected to the everyday practice of each workplace (e.g. a local school, day care center, or elder home). And as a manager's peers most often work somewhere else (they have their own institutions) as opposed to the manager's employees (who work in the same institutions as the managers), it might be expected that peers would find it more difficult to perceive and therefore assess the task-oriented behavior. If this was so, then peers would rate the orientation differently, probably resulting in a lower mean score on this factor. Furthermore, but for the same reason, it is noticeable that the mean scores of the superiors are higher than the employees' mean scores. The superiors are not present in the actual workplaces.

Besides differences in job position, the rater's age also seems to shape the assessment. As noted earlier, Hirst et al. (2004, 315-316) and Seidle et al. (2016) hypothesized, but could not confirm a link between age and performance. Supporting hypothesis 3, this study did find a link. It found that for relations- and change-oriented leadership behavior, assessments are most positive among younger employees and decrease with age. But the minimum point is in the mid-50s, after which the negative relation wears off. Conversely, age was not found to be correlated with task-orientation.

#### **Limitations and Future Research**

As previously described, the professional education provided by the Diploma of Leadership aims at developing leadership in general, and the analyses in this study have shown that at least one aspect of leadership, namely behavior, seems to be developed. Of course, it is important to be aware that this study has not documented strict causal relations, but only rendered them probable. While this study has found some statistical significant correlations and while it has been argued that these

correlations can be linked to the fact that a group of public managers in the five municipalities have been educated, it is possible that the same kind of correlations could be found in other municipalities which do not participate in the education program. It is even possible that the same kind of correlations and development could have been found in the exact same municipalities if they had not started the program.

Though this study has aimed at adding knowledge to the body of research on leadership training, education, and development in the public sector, other studies are needed. This study has only studied a time period of three years. For that reason, it is only possible to analyze short-term or immediate effects. But if the effects of education do not show immediately but require some time, e.g. 6–10 years as suggested by Leviton, Hannum et al.(2007), then studies with a much longer time horizon are needed. It is also advisable to include more objective measures, e.g. performance measures, or to make use of direct observations as a supplement to the survey data. Assessing behavior as was done in the current study is subject-dependent, and there is basically no objectively "correct rating." Combining the subjective ratings with more objective measures would therefore improve both the validity and the reliability of a study like this.

## Conclusions

This study aimed at exploring the research question about how subordinates, peers, and superiors rate a manager's outcome from participating in a formal leadership education course, and how the ratings develop over time. First, it found that leadership behavior develops over time, but how it is rated as developing depends on the type of staff and the age of the rater. It seems that assessing leadership development is a very subjectively based matter. This emphasizes the importance of including more than one perspective when assessing outcomes of leadership development.

Very often, when discussing the effects of training and development, it seems as if the question about effect is a dichotomy. But discussing the effects of a formal educational course is

(probably) never a question of effect or no effect. There is always an effect on either the individual, the organization, or at society level, and within these there are numerous kinds of effects – only behavioral effects have been studied in this article.

<sup>&</sup>lt;sup>1</sup> ECTS (European Credit Transfer System) is a credit system designed to make it easier for students to move between different countries within the European Union. The system is based on the learning achievements and describes the workload of a course and/or an entire education (European Commission, 4 May 2017).

<sup>&</sup>lt;sup>2</sup> The first year the questionnaire included several more questions than the questionnaires used in 2015 and 2016. The extra questions in the 2014 version were about learning transfer conditions, communication, and decision-making.

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## Appendix

Factor loadings (pattern matrix) and unique variances, maximum likelihood (unrotated)

Variable	Factor 1	Uniqueness	Factor 2	Uniqueness	Factor 3	Uniqueness
Task_a	0.7221	0.4785				
Task_b	0.7571	0.4267				
Task_c	0.8338	0.3047				
Task_d	0.8351	0.3025				
Task_e	0.7383	0.4549				
Task_f	0.1433	0.9795				
Task_g	0.4577	0.7905				
Task_h	0.7829	0.3870				
Task_i	0.6749	0.5445				
Task_j	0.7895	0.3767				
Task_k	0.7344	0.4606				
Task_1	0.7135	0.4909				
Rel_a			0.8505	0.2765		
Rel_b			0.7919	0.3728		
Rel_c			0.8182	0.3305		
Rel_d			0.2343	0.9451		
Rel_e			0.0913	0.9917		
Rel_f			0.7608	0.4212		
Rel_g			0.8060	0.3504		
Rel_h			0.7711	0.4054		
Rel_k			0.3803	0.8554		
Rel_m			0.7672	0.4115		
Rel_n			0.7625	0.4186		
Rel_o			0.3861	0.8510		
Rel_p			0.8025	0.3560		
Chan_a					0.6612	0.5628
Chan_b					0.6552	0.5707
Chan_c					0.7483	0.4401
Chan_d					0.7488	0.4393
Chan_e					0.7791	0.3929
Chan_f					0.8100	0.3439
Chan_g					0.8054	0.3514
Chan_h					0.7514	0.4354
Chan_i					0.7537	0.4319
Chan_j					0.7394	0.4534
Chan_j					0.5382	0.7104
Chan_l					0.8082	0.3469
Chan_m					0.8329	0.3063
Chan_n					0.7430	0.4480

Factor 1 (Task)	Factor 2 (relations)	Factor 3 (Change)
Number of obs = 1,656	Number of obs = 1,615	Number of obs = 1,599
Number of params. = 12	Number of params. = 13	Number of params. = 14
Schwartz's BIC = 697.497	Schwartz's BIC = 1788.1	Schwartz's BIC = 1452.53
(Akaike's) AIC = 632.551	(Akaike's) AIC = 1718.07	(Akaike's) AIC = 1377.25

3 behavior categories	12 component behaviors
Task-oriented behavior	Clarify task objectives and role expectations
	Plan short-term activities
	Monitor operations and performance
Relations-oriented behavior	Provide support and encouragement
	Develop member skills and confidence
	Provide recognition for achievements and contributions
	Empower members to take initiative in problem solving
	Consult with members when making decisions
Change-oriented behavior	Propose an innovative strategy or new vision
	Encourage innovative thinking
	Monitor the external environment
	Take risks to promote necessary changes

Type of staff	Frequency	Percentage	Cumulative percentage
Superiors	297	9.26	9.26
Employees	2,332	72.69	81.95
Peers	579	18.05	100.00
Total	3,208	100.00	

Table 2: Descriptive statistics of the three types of personnel included in the panel.







Figure 2: Perception of the development of relations-orientation over time



Figure 3: Perception of the development of change-orientation over time

	Model 1	Model 2	Model 3
	Change-	<b>Relations-</b>	Task-
	orientation	orientation	orientation
Superiors	ref.	ref.	ref.
Employees	-0.28***	-0.19**	-0.37***
	(0.08)	(0.06)	(0.07)
Peers	0.09	0.09	0.08
	(0.09)	(0.06)	(0.07)
Age	-0.05*	-0.05**	-0.03
	(0.02)	(0.01)	(0.02)
Age squared	0.00*	0.00**	0.00
	(0.00)	(0.00)	(0.00)
Gender	-0.17**	-0.08	-0.26***
	(0.07)	(0.05)	(0.07)
Gender match	-0.03	-0.04	0
	(0.07)	(0.05)	(0.07)
2015	ref.	ref.	ref.
2016	-0.09	-0.06	-0.07
	(0.05)	(0.04)	(0.04)
Constant	5.57***	4.48***	5.65***
	-0.51	-0.38	-0.46
Ν	908	896	937
R-square	0.401	0.412	0.454
-			

Table 3: Regression analyses predicting leadership behavior of managers taking part in the educational program  $^{a}$ 

<sup>a</sup> Robust standard errors in parentheses. Two-sided tests. \* p<0.05, \*\* p<0.01, \*\*\* p<0.001 Fixed effects for managers undergoing training are included in all models.



## Figure 4: The relation between age and leadership perception





Spørgeskema

## UDVIKLING AF EFFEKTIV LEDERADFÆRD – OM VIRKNINGEN AF FORMELLE LEDERUDDANNELSER

# Spørgeskemaundersøgelse blandt ansatte i fem danske kommuner, 2014

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## Del A - I gang med spørgeskemaet

Du skal nu i gang med at besvare et spørgeskema, som handler om effekter af lederuddannelsen 'Diplom i ledelse'.

Spørgeskemaet er en del af et forskningsprojekt (ph.d.), som gennemføres i samarbejde med kommunens HR-afdeling. Men kommunen ser ikke dine svar og det er udelukkende den ph.d.-studerende forsker, som har adgang til at se dine svar.

Det første spørgsmål handler om, hvilken personale-/stillingskategori du tilhører.

God fornøjelse!

#### Hvilken personale-/stillingskategori tilhører du?

- (1) Chef for en eller flere ledere, som følger diplom i ledelse. Fx. forvaltningschef, afd.chef el.
  lign.(Niveau 1/2)
- (2) Leder/medarbejder, som følger diplom i ledelse. Fx. skoleleder, institutionsleder el. lign. (Niveau 2/3)
- (3) 🔲 Sideordnet leder, hvis lederkollega følger diplom i ledelse
- (4) 🛛 Medarbejder/ansat, hvis leder følger diplom i ledelse

## Velkommen til dig, der som leder eller medarbejder uddanner

## dig med diplom i ledelse.

## Hvornår er du påbegyndt diplom i ledelse?

- (1) 🔲 Januar 2014
- (2) **D** August 2014
- (7) Andet tidspunkt

Har du taget nogen former for kursus og/eller uddannelse i ledelse inden du påbegynder diplom i

ledelse?

- (1) 🛛 Ja
- (2) 🛛 Nej

#### Hvilke former for lederkurser/-uddannelser har du taget eller er ved at tage?

- (1) Interne kurser i ledelse korte forløb, der overvejende er tilrettelagt af og afholdt hos arbejdsgiveren
- (2) Eksterne kurser i ledelse korte forløb, der overvejende er tilrettelagt af udd.institutioner eller konsulentfirmaer
- (3) 🛛 Eksterne lederuddannelsesforløb, fx. fra videregående udd.institutioner eller konsulentfirmaer

- (4) Den grundlæggende lederuddannelse (Erhvervsskoler/AMU)
- (5) Akademiuddannelse i ledelse (Erhvervsakademier)
- (7) Dasteruddannelse i ledelse (universiteter/handelshøjskoler)

Hvor mange ansatte har du personaleansvar for?

I hvor mange år (inkl. tidligere ansættelser) har du i alt været leder? (Er det dit første år som leder, bedes du skrive 0,antal måneder, fx. 0,8) Antal år

Hvad er din anciennitet i din nuværende stilling? (Er det eksempelvis 2 år og 8 måneder, bedes du skrive 2,8) Antal år

Hvor mange arbejdstimer udgør en gennemsnitlig arbejdsuge for dig?

- (1) **30-34 timer**
- (2) 35-40 timer
- (3) **41-45** timer
- (4) 46-50 timer
- (5) **1** 51-55 timer
- (7) **D** 56-60 timer
- (6) Andet timetal (skriv gerne ca. timetal)

## Er du alt i alt tilfreds med dit nuværende job?

- (4) Tilfreds
- (3) Urverken tilfreds eller utilfreds
- (2) Ikke tilfreds
- (6) Ønsker ikke at besvare spørgsmålet
- (7) Grow Kommenter gerne

Herunder følger en række spørgsmål, som søger at afdække dit forhold til og samarbejde med kolleger og eksterne parter.

Hvor hyppigt er du normalt i kontakt (telefonisk, pr. mail eller 'ansigt til ansigt') med følgende personer/grupper?

	Dagligt	2-4 gange om ugen	1 gang om ugen	1-3 gange om måneden	Mindst 2 gange om året	s Sjældent/aldrig	Ved ikke/irrelevant
Nærmeste chef/overordnede	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Lederkolleger/sideordnede ledere i egen kommune	(1)	(2)	(3)	(4)	(5) 🗖	(6)	(7)
Andre ansatte i egen kommune	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Borgere/brugere/klienter	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Lederkolleger i anden kommune	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andre ansatte i anden kommune	(1)	(2)	(3)	(4)	(5) 🗖	(6)	(7)
Journalister	(1)	(2)	(3)	(4)	(5) 🗖	(6)	(7)
Fagforeningsrepræsentanter	(1) 🗖	(2)	(3)	(4)	(5) 🗖	(6)	(7)
Statslige aktører	(1) 🗖	(2)	(3)	(4)	(5)	(6)	(7)
Andre ledende repræsentanter (fx. fra frivillige organisationer og foreninger)	(1) 🗖	(2)	(3) 🗖	(4)	(5) 🗖	(6) 🗖	(7)
Virksomhedsledere eller andre aktører fra den private sektor	(1)	(2)	(3)	(4)	(5) 🗖	(6)	(7)
Udenlandske samarbejdspartnere	(1)	(2)	(3)	(4)	(5)	(6) 🗖	(7)

## Hvem søger du råd og vejledning hos, når du står over for ledelsesmæssige udfordringer/problemer?

	Altid	For det meste	Nogen gange	Sjældent	Aldrig	
Min chef/overordnede	(5)	(4)	(3)	(2)	(1)	(6) 🗖
Ledelseskolleger/sideordnede kolleger i egen kommune	(5)	(4)	(3)	(2) 🗖	(1)	(6) 🗖
Ledernetværk i anden/andre kommune/r	(5)	(4)	(3)	(2) 🗖	(1)	(6) 🗖
Betroede medarbejdere	(5)	(4)	(3)	(2) 🗖	(1)	(6) 🗖
Min fagforening	(5)	(4)	(3)	(2) 🗖	(1)	(6) 🗖
Konsulenter	(5)	(4)	(3)	(2) 🗖	(1)	(6) 🗖
Coach, mentor eller lignende	(5)	(4)	(3)	(2) 🗖	(1)	(6) 🗖
Andre professionelle netværk	(5)	(4)	(3)	(2) 🗖	(1)	(6) 🗖
Familien	(5)	(4)	(3)	(2) 🗖	(1)	(6) 🗖
Andre	(5)	(4)	(3)	(2)	(1)	(6) 🗖

De næste spørgsmål handler primært om rammevilkår i din kommune og forholdet mellem politikere, embedsmænd og ledelsen af de enkelte afdelinger/institutioner

Hvordan synes du, at politikerne og forvaltningen i din kommune forholder sig til det faglige område du er leder af?

	Helt enig	Enig	Hverken / eller	Uenig	Helt uenig
De lokale politikere ytrer stor interesse for vores arbejdsområde	(5)	(4)	(3)	(2)	(1)
Kommunens politikere er gode til at forklare borgere og brugere, hvorfor vi arbejder som vi gør indenfor vores fagområde	(5)	(4)	(3)	(2)	(1) 🗖
Kommunens politikere er ikke modtagelige for faglige argumenter, når de træffer beslutninger for vores fagområde	(5)	(4)	(3)	(2)	(1) 🗖
Topledelsen i kommunen ytrer kun sjældent forståelse for de problemer vi har indenfor vores fagområde	(5)	(4)	(3)	(2)	(1)
Forvaltningen/direktionen tænker primært på økonomi	(5)	(4)	(3)	(2)	(1)

Angiv venligst i hvilken grad du mener kommunen systematisk vurderer følgende forhold vedrørende driften i dit fagområde.

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
Faglige målsætninger	(5)	(4)	(3)	(2)	(1)
Borger- og brugerrettede målsætninger	(5)	(4)	(3)	(2)	(1)
Økonomiske målsætninger	(5)	(4)	(3)	(2)	(1)
Målsætninger for organisation og	(5) 🗖	(4)	(3) 🗖	(2)	(1)
medarbejdere		(ד)		(2)	(')

Herefter følger nogle udsagn om din motivation for at følge diplom i ledelse og om forventet læringsudbytte af uddannelsen.

(Alle spørgsmålene på denne side bedes venligst besvares, inden du fortsætter ).

	Helt enig	Enig	Neutral/ved ikke	Uenig	Helt uenig
Jeg har lyst til at lære noget nyt	(5)	(4)	(3)	(2)	(1)
Jeg savner viden/kompetencer for at bestride mit nuværende job	(5)	(4)	(3)	(2)	(1)
Jeg føler egentlig ikke behov for at lære mere/nyt	(5)	(4)	(3)	(2)	(1)
Jeg er tvunget til at deltage og synes/tror det er spild af tid	(5)	(4)	(3)	(2)	(1)
Jeg er blevet opfordret til at deltage og synes det er spændende	(5)	(4)	(3)	(2)	(1)
Ledelse er ikke noget man kan lære via uddannelse	(5)	(4)	(3)	(2)	(1)
Ledelse er et fag man kan lære bl.a. via uddannelse	(5)	(4)	(3)	(2)	(1)

## Du bedes angive i hvilket omfang du er enig/uenig i følgende udsagn
Fra forskning om efter- og videreuddannelse ved man, at det højner den studerendes læring, hvis den studerende har aftalt med sin chef/organisation, hvordan den studerende understøttes undervejs og hvordan der efter uddannelsen følges op på uddannelsesforløbet.

Er det aftalt mellem dig og din chef/organisation, hvordan du understøttes og hvordan der følges op på din deltagelse i uddannelsen?

(5) U Vi har drøftet det indgående og aftalt, hvordan vi understøtter og følger op (kommenter gerne)

- (4) U vi har drøftet det, men der er ingen egentlig aftale om, hvordan vi gør det (kommenter gerne)
- (3) Jeg/vi ved godt, at det bør drøftes, men det er ikke blevet gjort (kommenter gerne)
- (6) Jeg/vi vidste ikke at det bør gøres af hensyn til at højne læringen (kommenter gerne)

Har du og din chef/organisation forud for uddannelsens start talt om, hvordan din nye viden, de nye færdigheder og kompetencer kan anvendes i praksis?

- kommenter gerne dit svar

- (4) 🛛 I høj grad \_\_\_\_\_
- (3) I nogen grad
- (2) I mindre grad
- (1) Slet ikke

Er der på din arbejdsplads udpeget en kollega/nogle kolleger, som kan understøtte en praktisk implementering af dine nye kvalifikationer?

(1) 🛛 Ja

(2) 🛛 🗖 Nej

Fra uddannelsesforskningen ved vi, at det højner effekten af en uddannelse, hvis den studerende forud for og undervejs i uddannelsen overvejer nogle enkelte spørgsmål. Du bedes venligst vurdere, hvorvidt du er bevidst om:

	l høj grad	l nogen grad	I mindre grad	Slet ikke
Hvad du skal blive bedre til vha.	(4)	(3)	(2)	(1)
uddannelsen	(4)	(3) 🗖	(2) 🗖	(1) 🖵
Hvorfor det er vigtigt for dig	(4)	(3)	(2)	(1)
Hvorfor det er vigtigt for				άΩ
institutionen/organisationen	(4)	(3)	(2)	(1)

Har du og din chef/organisation talt om, hvordan udbyttet af uddannelsens kvalificering skal registreres og eventuelt måles i din organisation?

(1) 🛛 Ja (kommenter gerne)

## Del B - Organisatoriske forhold (lederniveau)

Herunder følger en række spørgsmål om organisatoriske forhold

Forskere inden for organisationsteori karakteriserer organisationer/institutioner på mange forskellige måder. Hvordan vil du umiddelbart (dvs. på nuværende tidspunkt) karakterisere din organisation/institution?

#### Min organisation/institution

	l høj grad	l nogen grad	I mindre grad	Slet ikke
Arbejder ud fra overbevisningen om, at der findes én bedste måde at organisere, lede og udføre opgaverne på	(4)	(3)	(2)	(1)
Foretager helst kun de forandringer, som er direkte forenelige med organisationens kultur, kerneværdier og - opgaver	(4)	(3)	(2)	(1) 🗖
ldentificerer, analyserer og løser problemer efterhånden som de opstår	(4)	(3)	(2)	(1)
Er præget af eksperimenter/innovation, åben kommunikation, kontruktiv dialog, videndeling og erfaringsudveksling	(4)	(3)	(2)	(1)

Nedenfor listes en række egenskaber og karakteristika fra forskellige organisationer. Du bedes vurdere i hvor høj grad de passer på din organisation/institution (ikke på dig personligt)

	l meget høj grad	l høj grad	l nogen grad	l mindre grad	Slet ikke	Ved ikke
Nytænkende/innovativ	(5)	(4)	(3)	(2)	(1)	(6)
Læringsorienteret	(5)	(4)	(3)	(2)	(1)	(6)
Effektivitetsorienteret	(5)	(4)	(3)	(2)	(1)	(6)
Målorienteret	(5)	(4)	(3)	(2)	(1)	(6)
Værdiorienteret	(5)	(4)	(3)	(2)	(1)	(6)
Eksperimenterende	(5)	(4)	(3)	(2)	(1)	(6)
Stærk korpsånd/kultur	(5)	(4)	(3)	(2)	(1)	(6)
Præget af tillid	(5)	(4)	(3)	(2)	(1)	(6)
Præget af anerkendelse	(5)	(4)	(3)	(2)	(1)	(6)
Lægger vægt på refleksion	(5)	(4)	(3)	(2)	(1)	(6)
Stærk fagprofessionel kultur	(5)	(4)	(3)	(2)	(1)	(6)
Tydelige formelle magtforhold	(5)	(4)	(3)	(2)	(1) 🗖	(6)
Tydelige informelle/uformelle magtforhold	(5)	(4)	(3)	(2)	(1)	(6)

## Del C - Ledelseskompetencer (lederniveau)

Herunder følger en række emner om din ledelsespraksis og dine ledelseskompetencer. Der stilles en række spørgsmål, som - inden for nogle overordnede kategorier- søger at afdække, hvad der rent faktisk sker i din organisation. Du bedes vurdere, hvorvidt udsagnene generelt passer hen over de seneste 6 måneder.

#### (Om arbejdsopgaver)

Du bedes angive i hvilket omfang du er enig i følgende udsagn.

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Holder medarbejderne orienteret om mål og planer	(5)	(4)	(3)	(2)	(1) 🗖
b. Opstiller mål for den enkeltes præstationer	(5) 🗖	(4)	(3)	(2)	(1) 🗖
c. Definerer/drøfter standarder for kvalite i opgaverne	et (5) 🗖	(4)	(3)	(2)	(1) 🗖
d. Definerer det faglige niveau for opgavevaretagelsen	(5) 🗖	(4)	(3)	(2)	(1) 🗖
e. Reorganiserer arbejdsgange for at forbedre effektivitet	(5) 🗖	(4)	(3)	(2)	(1) 🗖
f. Har en kort planlægningshorisont	(5)	(4)	(3)	(2)	(1) 🗖
g. Uddelegerer arbejdsopgaver til enkeltpersoner og/eller grupper	(5) 🗖	(4)	(3)	(2)	(1) 🗖
h. Gør det klart, hvilke resultater, som forventes opnået for de enkelte	(5)	(4)	(3)	(2)	(1) 🗖

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
arbejdsopgaver					
i. Prioriterer ved at vælge til og fra bland organisationens/institutionens opgaver	t (5) 🗖	(4)	(3)	(2)	(1)
j. Forklarer prioriteter for arbejdsopgave	r (5) 🗖	(4)	(3)	(2)	(1)
k. Styrer og koordinerer opgaveløsningen	(5) 🗖	(4)	(3)	(2)	(1)
<ol> <li>Løser opståede problemer, som ellers ville forstyrre arbejdsopgaverne</li> </ol>	(5)	(4)	(3)	(2)	(1)

#### (Om relationer)

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Støtter og opmuntrer medarbejdere med vanskelige opgaver	(5)	(4)	(3)	(2)	(1) 🗖
b. Udtrykker tillid til at personer og/eller grupper formår at løse vanskelige opgaver	(5)	(4)	(3)	(2)	(1) 🗖
c. Anerkender handlinger og resultater	(5)	(4)	(3)	(2)	(1)
d. Leder ud fra regler og retningslinjer	(5)	(4)	(3)	(2)	(1)
e. Anvender åbenlyst min formelle ledelsesret	(5)	(4)	(3)	(2)	(1) 🗖
f. Anvender coaching og/eller fungerer som mentor, når der er behov for det	(5) 🗖	(4)	(3)	(2)	(1) 🗖
g. Drøfter beslutninger med de medarbejdere/kolleger, som berøres af beslutningerne	(5)	(4)	(3)	(2)	(1)
h. Coacher medarbejdere/kolleger til at	(5) 🗖	(4)	(3)	(2)	(1)

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
beslutte mulige løsninger på opgaver					
i. Benytter overtalelse som ledelsesredskab	(5)	(4)	(3)	(2)	(1)
j. Benytter pres og tvang som ledelsesredskaber	(5)	(4)	(3)	(2)	(1)
k. Appellerer til værdier, idealer og følelser	(5) 🗖	(4)	(3)	(2)	(1)
I. Benytter 'noget for noget-principper' som en del af min ledelsespraksis	(5) 🗖	(4)	(3)	(2)	(1)
m. Holder medarbejdere/kolleger orienteret om beslutninger, som vedrøre dem	er (5) 🗖	(4)	(3)	(2)	(1)
n. Hjælper til med at løse konflikter mellem medarbejdere/kolleger	(5) 🗖	(4)	(3)	(2)	(1)
o. Anvender symboler, ceremonier, ritualer og historier for at opbygge team /gruppeidentitet	- (5) 🗖	(4)	(3)	(2)	(1)
p. Opmuntrer til gensidig tillid og samarbejde i organisationen/institutione	(5) 🗖	(4)	(3)	(2)	(1)

#### (Om forandringer)

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Holder mig/sig orienteret om forandringer i de eksterne omgivelser fo at opdage trusler og muligheder	r (5) 🗖	(4)	(3)	(2)	(1) 🗖
b. Analyserer og fortolker bevidst aktiviteter med henblik på at forklare behov for forandring	(5)	(4)	(3) 🗖	(2)	(1)
c. Lærer af kolleger og eksterne interessenter for at få ideer til forbedringer	(5)	(4)	(3)	(2)	(1) 🗖
d. Kommunikerer strategisk/målrettet (fx med medarbejdere, lederkolleger og eksterne interessenter)	(5)	(4)	(3)	(2)	(1)
e. Drøfter nye muligheder for organisationen/institutionen med medarbejdere/lederkolleger og/eller che	(5) 🗖	(4)	(3)	(2)	(1)
f. Opmuntrer medarbejdere og/eller lederkolleger til at se problemer og udfordringer i et nyt lys	(5)	(4)	(3)	(2)	(1)
g. Udvikler nye ideer til varetagelsen af organisationens/institutionens kerneopgaver	(5)	(4)	(3)	(2)	(1) 🗖
h. Faciliterer innovation og entrepenørskab i organisationen/institutionen	(5)	(4)	(3)	(2)	(1)
i. Understøtter kollektiv læring i organisationen/institutionen	(5)	(4)	(3)	(2)	(1) 🗖
j. Eksperimenterer med nye måder for a realisere målsætninger	t (5) 🗖	(4)	(3)	(2)	(1) 🗖
k. Laver symbolske forandringer, som	(5)	(4)	(3)	(2)	(1)

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
understreger nye visioner og/eller strategier					
I. Gør forandringer meningsfulde for medarbejderne	(5) 🗖	(4)	(3)	(2)	(1)
m. Opmuntrer til og understøtter initiativer for at implementere større forandringer	(5) 🗖	(4)	(3)	(2)	(1)
n. Italesætter og fejrer fremgang/progression i forandringsprocesser	(5) 🗖	(4)	(3)	(2)	(1)

#### (Om beslutninger)

Når der skal træffes en beslutning for at løse et problem, kan det foregå på flere måder. Vurder venligst, i hvilken grad de følgende udsagn generelt passer til din organisation/institution.

Der tænkes ikke på et specielt problem, hvorfor du bedes vurdere, hvad du generelt gør.

	l meget høj grad	l høj grad	l nogen grad l	mindre grad	Slet ikke	Ved ikke
Løser selv problemet eller tager selv en beslutning på baggrund af de informationer jeg har til rådighed på det pågældende tidspunkt	(5) 🗖	(4)	(3)	(2)	(1)	(0) 🗖
Indsamler den nødvendige information fra medarbejderne/kollegerne og tager derefter selv en beslutning for at løse problemet	(5) 🗖	(4)	(3)	(2)	(1)	(0) 🗖
Orienterer individuelt de relevante medarbejdere/kolleger om problemet (dvs. uden at samle dem som gruppe/team) for at få deres ideer og forslag til løsning af problemet. På den baggrund træffer jeg selv beslutning om løsning på problemet.	(5) 🗖	(4)	(3)	(2)	(1)	(0) 🗖
Orienterer kollektivt medarbejder- /lederteamet om problemet for at få deres kollektive ideer og forslag. På den baggrund træffer jeg en beslutning som evt. afspejler medarbejdernes/kollegernes holdninger.	(5) 🗖	(4)	(3)	(2)	(1)	(0) 🗖
Orienterer om og deler problemet med medarbejderne/kollegerne som team/gruppe. I fællesskab drøftes forskellige løsningsforslag og konsensus om et løsningsforslag søges opnået.	(5) 🗖	(4)	(3)	(2)	(1)	(0) 🗖

## Del D - Baggrundsoplysninger (lederniveau)

Der afsluttes med en række personlige spørgsmål om din baggrund og

nuværende stilling

I hvilket årstal er du født?

#### Hvad er dit køn?

- (1) 🛛 Mand
- (2) 🛛 🗖 Kvinde

#### Hvilket område arbejder du inden for?

Sæt evt. flere krydser

- (1) 🛛 Kommunale værker
- (2) Diljøområdet
- (3) Det tekniske område
- (4) Dagtilbud børn
- (5) 📮 Familieområdet
- (6) Eldre- og handikapområdet
- (7) Andre sociale opgaver
- (8) 🛛 Sundhedsområdet
- (9) 🛛 Beskæftigelsesområdet
- (10) D Borgerservice
- (11) Skoleområdet
- (12) Det kulturelle område

- (13) 🛛 Fritids- og idrætsområdet
- (14) 🛛 Økonomiområdet
- (15) Dersonaleområdet/HR
- (16) Centralforvaltningen
- (17) 🗖 Andet

Har du gennemført anden skoleuddannelse udover folkeskolen?

- (1) 🗖 Ja
- (2) 🛛 Nej

#### Hvilke uddannelsesniveauer har du gennemført udover folkeskolen?

- (1) Ungdomsuddannelse (fx. erhvervsuddannelse, gymnasial uddannelse el. lign.)
- (2) Kort videregående uddannelse (fx. kommunal elevuddannelse, social- og sundhedsassistent el.
   lign.)
- (3) I Mellemlang videregående uddannelse (fx. lærer, pædagog, sygeplejerske, ergo-/fysioterapeut el. lign.)
- (4) 🛛 Lang videregående uddannelse (fx. universitets- eller handelshøjskoleuddannelse)
- (5) Anden uddannelse (skriv gerne hvilken)

## Del B (Chefniveau)

Velkommen til dig som er chef for en leder/medarbejder, der uddannes med diplom i ledelse. Selvom der sagtens kan være tale om, at medarbejdere som er før-ledere deltager på diplom i ledelse, vil der i det følgende kun stå 'leder' (og ikke leder/medarbejder).

Der indledes med en række spørgsmål om læring og organisatoriske forhold.

#### Om læring og anvendelse af ny viden

(Spørgsmålene på denne side bedes venligst alle besvares før du kan fortsætte)

Fra forskning om efter- og videreuddannelse ved man, at det højner den studerendes læring, hvis den studerende har aftalt med sin chef/organisation, hvordan den studerende understøttes undervejs i uddannelsen og hvordan der efter uddannelsen følges op på uddannelsesforløbet.

Er det aftalt mellem dig og din leder, hvordan lederen under uddannelse understøttes og hvordan der følges op på deltagelsen i uddannelsen?

- (5) U Vi har drøftet det indgående og aftalt, hvordan vi understøtter og følger op (kommenter gerne)
- (4) U vi har drøftet det, men der er ingen egentlig aftale om, hvordan vi gør det (kommenter gerne)
- (3) Jeg/vi ved godt, at det bør drøftes, men det er ikke blevet gjort (kommenter gerne)
- (6) Jeg/vi vidste ikke at det bør gøres af hensyn til at højne læringen (kommenter gerne)

Har du og din leder forud for uddannelsens start talt om, hvordan lederens nye viden, de nye færdigheder og kompetencer kan anvendes i praksis?

- kommenter gerne dit svar

- (4) 🛛 I høj grad
- (3) I nogen grad
- (2) I mindre grad
- (1) Slet ikke

Er der udpeget en kollega/nogle kolleger i organisationen, som kan understøtte en praktisk implementering af lederens nye kvalifikationer?

- (1) 🛛 Ja
- (2) 🛛 🗖 Nej

Fra uddannelsesforskningen ved vi, at det højner effekten af en uddannelse, hvis den studerende og nærmeste chef har afklaret nogle enkelte spørgsmål. Du bedes venligst besvare, hvorvidt følgende er afklaret:

	l høj grad	l nogen grad	I mindre grad	Slet ikke
Hvad lederen/den studerende				
skal blive bedre til vha.	(4)	(3)	(2)	(1)
uddannelsen				
Hvorfor det er vigtigt for				(n <b>D</b>
lederen/den studerende	(4)	(3)	(2)	(1)
Hvorfor det er vigtigt for	(4)	(3)	(2)	(1)

institutionen/organisationen

#### (Organisatoriske forhold)

Som chef for en leder, der følger diplom i ledelse, ønskes der en vurdering af nogle organisatoriske forhold.

Herunder er en række egenskaber og karakteristika fra forskellige organisationer nævnt. Du bedes venligst vurdere, i hvilken grad de enkelte egenskaber og karakteristika generelt passer på den organisation/institution som lederen er leder af.

	l meget høj grad	l høj grad	I nogen grad I	mindre grad	Slet ikke	Ved ikke / ikke relevant
Nytænkende/innovativ	(5)	(4)	(3)	(2)	(1) 🗖	(0)
Læringsorienteret	(5)	(4)	(3)	(2)	(1)	(0)
Effektivitetsorienteret	(5)	(4)	(3)	(2)	(1)	(0)
Målorienteret	(5)	(4)	(3)	(2)	(1)	(0)
Værdiorienteret	(5)	(4)	(3)	(2)	(1)	(0)
Eksperimenterende	(5)	(4)	(3)	(2)	(1)	(0)
Stærk korpsånd/kultur	(5)	(4)	(3)	(2)	(1)	(0)
Præget af tillid	(5)	(4)	(3)	(2)	(1)	(0)
Præget af anerkendelse	(5)	(4)	(3)	(2)	(1)	(0)
Lægger vægt på refleksion	(5)	(4)	(3)	(2)	(1)	(0)

	l meget høj grad	l høj grad	l nogen grad l	mindre grad	Slet ikke	Ved ikke / ikke relevant
Stærk fagprofessionel kultur	(5)	(4)	(3)	(2)	(1)	(0)
Tydelige formelle magtforhold	(5)	(4)	(3)	(2)	(1)	(0)
Tydelige informelle/uformelle magtforhold	(5)	(4)	(3)	(2)	(1)	(0)

### (Om netværk)

Hvor hyppigt er du normalt i kontakt (telefonisk, pr. mail eller 'ansigt til ansigt') med følgende personer/grupper?

	Dagligt	2-4 gange om ugen	1 gang om ugen	1-3 gange om måneden	Mindst 2 gange om året	Sjældent/al drig	Ved ikke/irrelev ant
Nærmeste chef/overordnede	(1)	(2)	(3)	(4)	(7)	(5) 🗖	(6)
Chefkolleger/sideordnede chefer i egen kommune	(1)	(2)	(3)	(4)	(7)	(5) 🗖	(6)
Kommunaldirektøren	(1) 🗖	(2)	(3)	(4)	(7)	(5) 🗖	(6)
Forvaltningschefer	(1)	(2)	(3)	(4)	(7)	(5)	(6)
Daglige ledere (dvs. de ledere, som du er chef for og som deltager i diplom i ledelse)	(1) 🗖	(2)	(3)	(4)	(7)	(5) 🗖	(6) 🗖
Borgere/brugere/klienter	(1)	(2)	(3)	(4)	(7)	(5)	(6)
Chefkolleger i anden	(1)	(2)	(3)	(4)	(7)	(5) 🗖	(6) 🗖

	Dagligt	2-4 gange om ugen	1 gang om ugen	1-3 gange om måneden	Mindst 2 gange om året	Sjældent/al drig	Ved ikke/irrelev ant
kommune							
Andre ansatte i anden kommune	(1) 🗖	(2)	(3) 🗖	(4) 🗖	(7)	(5) 🗖	(6)
Journalister	(1) 🗖	(2)	(3)	(4)	(7)	(5)	(6)
Fagforeningsrepræsentanter	(1)	(2)	(3)	(4)	(7)	(5)	(6)
Statslige aktører	(1)	(2)	(3)	(4)	(7)	(5)	(6)
Regionale aktører	(1)	(2)	(3)	(4)	(7)	(5)	(6)
Andre ledende repræsentanter (fx. fra frivillige organisationer og foreninger)	(1)	(2)	(3)	(4)	(7)	(5) 🗖	(6) 🗖
Virksomhedsledere eller andre aktører fra den private sektor	(1)	(2)	(3) 🗖	(4)	(7)	(5)	(6) 🗖
Udenlandske samarbejdspartnere	(1) 🗖	(2)	(3) 🗖	(4) 🗖	(7)	(5) 🗖	(6)

De næste spørgsmål handler primært om rammevilkår i din kommune og forholdet mellem politikere, embedsmænd og ledelsen af de enkelte afdelinger/institutioner

Hvordan synes du, at politikerne og forvaltningen i din kommune forholder sig til det faglige område du er chef for?

	Helt enig	Enig	Hverken / eller	Uenig	Helt uenig
De lokale politikere ytrer stor					
interesse for vores	(5)	(4)	(3)	(2)	(1)
arbejdsområde					
Kommunens politikere er					
gode til at forklare borgere og					
brugere, hvorfor vi arbejder	(5)	(4)	(3)	(2)	(1)
som vi gør indenfor vores					
fagområde					
Kommunens politikere er ikke					
modtagelige for faglige					
argumenter, når de træffer	(5) 🗖	(4)	(3)	(2)	(1)
beslutninger for vores					
fagområde					

	Helt enig	Enig	Hverken / eller	Uenig	Helt uenig
Topledelsen i kommunen					
ytrer kun sjældent forståelse				(m 🗖	
for de problemer vi har	(5)	(4)	(3)	(2)	(1)
indenfor vores fagområde					
Forvaltningen/direktionen					
tænker primært på økonomi	(5)	(4)	(3)	(2)	(1) 🕌

Angiv venligst i hvilken grad du mener kommunen systematisk vurderer og følger op på følgende forhold vedrørende driften i dit fagområde

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
Faglige målsætninger	(5)	(4)	(3)	(2)	(1)
Borger- og brugerrettede målsætninger	(5)	(4)	(3)	(2)	(1)
Økonomiske målsætninger	(5)	(4)	(3)	(2)	(1)
Målsætninger for organisation og medarbejdere	n (5) 🗖	(4)	(3)	(2)	(1)

## Del C - Ledelseskompetencer

I nogle tilfælde kan der være uoverensstemmelse mellem en chefs og en leders opfattelse af, hvordan ledelsesopgaven faktisk prioriteres hos de enkelte ledere.

Herunder følger en række emner om ledelsespraksis og ledelseskompetencer i din leders institution.

Du bedes vurdere, hvorvidt udsagnene generelt passer hen over de seneste 6 måneder.

## (Om arbejdsopgaver)

# I hvor høj grad oplever du, ud fra en generel betragtning, at lederen:

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Holder medarbejderne orienteret om mål og planer	(5)	(4)	(3)	(2)	(1)
b. Opstiller mål for den enkelte ansattes præstatione	(5) 🗖 r	(4)	(3)	(2)	(1)
c. Definerer/drøfter standarder for kvalitet i opgaverne	(5)	(4)	(3)	(2)	(1)
d. Definerer det faglige niveau for opgavevaretagelsen	(5) 🗖	(4)	(3)	(2)	(1) 🗖
e. Reorganiserer arbejdsgange for at forbedre effektivitet	(5) 🗖	(4)	(3)	(2)	(1) 🗖
f. Har en kort planlægningshorisont	(5)	(4)	(3)	(2)	(1)
g. Uddelegerer arbejdsopgaver til	(5)	(4)	(3)	(2)	(1) 🗖

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
enkeltpersoner og/eller					
grupper					
h. Gør det klart, hvilke					
resultater, som forventes	(5)	(4)	(3)	(2)	(1)
opnået for de enkelte	(3)	(4)	(3)		
arbejdsopgaver					
i. Prioriterer ved at vælge til					
og fra blandt	(5)	(4)	(3)	(2)	(1)
organisationens/institutionens	.,	(+)	(3)	(2)	
opgaver					
j. Forklarer prioriteter for	(5) 🗖	(4)	(3)	(2)	(1)
arbejdsopgaver	(5)	(4) 🗖	(3)	(2) 🗳	
k. Styrer og koordinerer					
opgaveløsningen	(5) 🗖	(4)	(3)	(2)	(1)
I. Løser opståede problemer,					
som ellers ville forstyrre	(5)	(4)	(3)	(2)	(1)
arbejdsopgaverne					

## (Om relationer)

I hvor høj grad oplever du, ud fra en generel betragtning, at lederen:

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Støtter og opmuntrer	(5) 🗖	(4)	(3)	(2)	(1)

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
medarbejdere med					
vanskelige opgaver					
b. Udtrykker tillid til at					
personer og/eller grupper	(5) 🗖	(4)	(3)	(2)	
formår at løse vanskelige	(5) 🗖	(4)	(3)	(2) 🖵	(1)
opgaver					
c. Anerkender handlinger og					(n <b>D</b>
resultater	(5) 🗖	(4)	(3)	(2)	(1)
d. Leder ud fra regler og					
retningslinjer	(5)	(4)	(3)	(2)	(1)
e. Anvender åbenlyst min/sin					
formelle ledelsesret	(5) 🗖	(4)	(3)	(2)	(1)
f. Anvender coaching og/eller					
fungerer som mentor, når de	r (5) 🗖	(4)	(3)	(2)	(1)
er behov for det					
g. Drøfter beslutninger med					
de medarbejdere/kolleger,					(n) 🗖
som berøres af	(5) 🗖	(4)	(3)	(2)	(1) 🗖
beslutningerne					
h. Coacher					
medarbejdere/kolleger til at	(5) 🗖	(4)	(3)	(2)	(1)
beslutte mulige løsninger på	(5)	(4) 🖵	(3) 🖵	(2) 🖵	(1) 🖵
opgaver					

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
i. Benytter overtalelse som ledelsesredskab	(5) 🗖	(4)	(3)	(2)	(1)
j. Benytter pres og tvang son ledelsesredskaber	ו (5) 🗖	(4)	(3)	(2)	(1)
k. Appellerer til værdier, idealer og følelser	(5) 🗖	(4)	(3)	(2)	(1)
I. Benytter 'noget for noget- principper' som en del af sin ledelsespraksis	(5) 🗖	(4)	(3)	(2)	(1) 🗖
m. Holder medarbejdere/kolleger orienteret om beslutninger, som vedrører dem	(5) 🗖	(4)	(3)	(2)	(1)
n. Hjælper til med at løse konflikter mellem medarbejdere/kolleger	(5) 🗖	(4)	(3)	(2)	(1)
o. Anvender symboler, ceremonier, ritualer og historier for at opbygge team /gruppeidentitet	(5) 🗖	(4)	(3) 🗖	(2)	(1) 🗖
p. Opmuntrer til gensidig tillio og samarbejde i organisationen/institutionen	(5) 🗖	(4)	(3)	(2)	(1)

## (Om forandringer)

### I hvor høj grad oplever du, ud fra en generel betragtning, at lederen:

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
<ul><li>a. Holder sig orienteret om</li><li>forandringer i de eksterne</li><li>omgivelser for at opdage</li><li>trusler og muligheder</li></ul>	(5) 🗖	(4)	(3)	(2)	(1) 🗖
<ul> <li>b. Analyserer og fortolker</li> <li>bevidst aktiviteter med</li> <li>henblik på at forklare behov</li> <li>for forandring</li> </ul>	(5) 🗖	(4)	(3)	(2)	(1) 🗖
c. Lærer af kolleger og eksterne interessenter for at få ideer til forbedringer	(5) 🗖	(4)	(3)	(2)	(1) 🗖
d. Kommunikerer strategisk/målrettet (fx. med medarbejdere, lederkolleger og eksterne interessenter)	(5) 🗖	(4)	(3) 🗖	(2)	(1) 🗖
e. Drøfter nye muligheder for organisationen/institutionen med	(5) 🗖	(4)	(3)	(2)	(1)

medarbejdere/lederkolleger

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
og/eller chef					
f. Opmuntrer medarbejdere					
og/eller lederkolleger til at se	(5) 🗖	(4)	(3)	(2)	(1)
problemer og udfordringer i e		(-)		(2)	
nyt lys					
g. Udvikler nye ideer til					
varetagelsen af	(5) 🗖	(4)	(3)	(2)	(1)
organisationens/institutionen		() —	(-)	(-/	())
kerneopgaver					
h. Faciliterer innovation og					
entrepenørskab i	(5) 🗖	(4)	(3)	(2)	(1)
organisationen/institutionen					
i. Understøtter kollektiv lærin	g (5) 🗖	(4)	(3)	(2)	(1)
i organisationen/institutionen		(+)	(3)	(2)	(1)
j. Eksperimenterer med nye					
måder for at realisere	(5) 🗖	(4)	(3)	(2)	(1)
målsætninger					
k. Laver symbolske					
forandringer, som	(5) 🗖	(4)	(3)	(2)	(1) 🗖
understreger nye visioner	(3)	(4)	(3)	(2)	
og/eller strategier					
I. Gør forandringer			(2) 🗖		
meningsfulde for	(5) 🗖	(4)	(3)	(2)	(1) 🗖

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
medarbejderne					
m. Opmuntrer til og					
understøtter initiativer for at					
implementere større	(5)	(4)	(3)	(2)	(1)
forandringer					
n. Italesætter og fejrer					
fremgang/progression i	(5)	(4)	(3)	(2)	(1)
forandringsprocesser					

#### (Om beslutninger)

Når der skal træffes en beslutning for at løse et problem, kan det foregå på flere måder. I det følgende tænkes der ikke på et specielt problem, hvorfor du bedes graduere dit generelle indtryk.

I hvor høj grad oplever du, ud fra en generel betragtning, at lederen:

	l meget høj grad	l høj grad	l nogen grad	l mindre grad	Slet ikke	Ved ikke
selv løser problemet eller selv						
tager en beslutning på						
baggrund af de informationer	(5)	(4)	(3)	(2)	(1)	(0)
lederen har til rådighed på det	:					
pågældende tidspunkt						
indsamler den nødvendige	(5)	(4)	(3)	(2)	(1)	(0)

	l meget høj	l høj grad	I nogen grad I mindre grad		Slet ikke	Ved ikke
	grad					
information fra						
medarbejderne/kollegerne og						
derefter selv tager en						
beslutning for at løse						
problemet						
individuelt orienterer de						
relevante						
medarbejdere/kolleger om						
problemet (dvs. uden at						
samle dem som gruppe/team)						
for at få deres ideer og	(5)	(4)	(3)	(2)	(1) 🗖	(0)
forslag til løsning af						
problemet. På den baggrund						
træffer lederen selv						
beslutning om løsning på						
problemet.						
kollektivt orienterer						
medarbejder-/lederteamet om						
problemet for at få deres						
kollektive ideer og forslag. På	(5) 🗖					
den baggrund træffer lederen	(5) 🖵	(4)	(3)	(2)	(1) 🗖	(0)
selv en beslutning som evt.						
afspejler						
medarbejdernes/kollegernes						

	l meget høj grad	l høj grad	l nogen grad l	mindre grad	Slet ikke	Ved ikke
holdninger.						
orienterer om og deler						
problemet med						
medarbejderne/kollegerne						
som team/gruppe. I	(5)	(4)	(3)	(2)	(1)	(n) 🗖
fællesskab drøftes forskellige	(3)	(4)	(3)	(2) 🖵	(1)	(0)
løsningsforslag og konsensus						
om et løsningsforslag søges						
opnået.						

## Del D - Baggrundsoplysninger (chefniveau)

Der afsluttes med en række personlige spørgsmål om din

baggrund og nuværende stilling

I hvilket årstal er du født?

Hvad er dit køn?

- (1) 🛛 Mand
- (2) 🛛 🗖 Kvinde

## Hvilket område arbejder du inden for?

#### Sæt evt. flere krydser

- (1) Grow Kommunale værker
- (2) Diljøområdet
- (3) Det tekniske område
- (4) Dagtilbud børn
- (5) 📮 Familieområdet
- (6) Eldre- og handikapområdet
- (7) Andre sociale opgaver
- (8) 🛛 Sundhedsområdet
- (9) 🛛 Beskæftigelsesområdet
- (10) D Borgerservice
- (11) Skoleområdet
- (12) 🛛 Det kulturelle område
- (13) 🛛 Fritids- og idrætsområdet
- (14) 🛛 Økonomiområdet
- (15) Dersonaleområdet/HR
- (16) Centralforvaltningen
- (17) Andet \_\_\_\_\_

#### Har du gennemført anden skoleuddannelse udover folkeskolen?

- (1) 🛛 Ja
- (2) 🛛 Nej

#### Hvilke uddannelsesniveauer har du gennemført udover folkeskolen?

(1) Ungdomsuddannelse (fx. erhvervsuddannelse, gymnasial uddannelse el. lign.)

- (2) Gradien Kort videregående uddannelse (fx. kommunal elevuddannelse, social- og sundhedsassistent el.
   lign.)
- (4) 🛛 Lang videregående uddannelse (fx. universitets- eller handelshøjskoleuddannelse)
- (5) Anden uddannelse (skriv gerne hvilken)

## Del B - Organisatoriske forhold (medarbejder-/ansatniveau)

## Velkommen til dig, hvis leder følger diplom i ledelse.

De første spørgsmål søger at afdække en række organisatoriske forhold på din arbejdsplads/institution. Derefter følger en række spørgsmål om, hvordan din leder bedriver ledelse (Alle svar behandles med fuld fortrolighed). Forskere inden for organisationsteori karakteriserer organisationer/institutioner på mange forskellige måder. Hvordan vil du umiddelbart (dvs. på nuværende tidspunkt) karakterisere din arbejdsplads/institution?

## Min arbejdsplads/institution

	l høj grad	l nogen grad	I mindre grad	Slet ikke
Arbejder ud fra				
overbevisningen om, at der				
findes én bedste måde at	(4)	(3)	(2)	(1)
organisere, lede og udføre				
opgaverne på				
Foretager helst kun de				
forandringer, som er direkte				
forenelige med	(4)	(3)	(2)	(1)
organisationens kultur,				
kerneværdier og -opgaver				
Identificerer, analyserer og				
løser problemer efterhånden	(4)	(3)	(2)	(1)
som de opstår				

	l høj grad	l nogen grad	I mindre grad	Slet ikke
Er præget af				
eksperimenter/innovation,				
åben kommunikation,	(4)	(3)	(2)	(1)
kontruktiv dialog, videndeling				
og erfaringsudveksling				

Nedenfor listes en række egenskaber og karakteristika fra forskellige organisationer. Du bedes vurdere i hvor høj grad de passer på din arbejdsplads/institution (ikke på dig personligt)

	l meget høj grad	l høj grad	l nogen grad l	mindre grad	Slet ikke	Ved ikke
Nytænkende/innovativ	(5) 🗖	(4)	(3)	(2)	(1)	(6)
Læringsorienteret	(5)	(4)	(3)	(2)	(1)	(6)
Effektivitetsorienteret	(5)	(4)	(3)	(2)	(1)	(6)
Målorienteret	(5)	(4)	(3)	(2)	(1)	(6)
Værdiorienteret	(5)	(4)	(3)	(2)	(1)	(6)
Eksperimenterende	(5)	(4)	(3)	(2)	(1)	(6)
Stærk korpsånd/kultur	(5)	(4)	(3)	(2)	(1)	(6)
Præget af tillid	(5)	(4)	(3)	(2)	(1)	(6)
Præget af anerkendelse	(5)	(4)	(3)	(2)	(1)	(6)
Lægger vægt på refleksion	(5)	(4)	(3)	(2)	(1)	(6)
Stærk fagprofessionel kultur	(5)	(4)	(3)	(2)	(1)	(6)

grad	l høj grad	I nogen grad I	mindre grad	Slet ikke	Ved ikke
(5) 🗖	(4)	(3)	(2)	(1)	(6) 🗖
(5)	(4)	(3)	(2)	(1)	(6)
	grad (5) 🗖	(5) (4) (4)	grad (5) (4) (3) (3)	(5) (4) (3) (2) (2)	(5) (4) (3) (2) (1) (1)

## Del C - Ledelseskompetencer (medarbejder-

/ansatniveau)

I det følgende er en række emner om ledelsespraksis og ledelseskompetencer hos din leder. Der stilles spørgsmål, som - inden for nogle overordnede kategorier- søger at afdække, hvad der rent faktisk sker på din arbejdsplads. Du bedes vurdere, hvorvidt udsagnene generelt passer hen over de seneste 6 måneder.

#### Fortrolighed

Der er fuld fortrolighed om dine svar og de vil under ingen

## omstændigheder blive gengivet i en form, som kan henføres til

dig.

Det er kun den ph.d.-studerende forsker, som har adgang til dine svar.

## (Om arbejdsopgaver)

Du bedes angive i hvilket omfang du er enig i følgende udsagn.

## Min leder:

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Holder medarbejderne orienteret om mål og planer	(5)	(4)	(3)	(2)	(1) 🗖
b. Opstiller mål for den enkeltes præstationer	(5)	(4)	(3)	(2)	(1)
c. Definerer/drøfter standarder for kvalitet i opgaverne	(5) 🗖	(4)	(3)	(2)	(1) 🗖
d. Definerer det faglige niveau for opgavevaretagelsen	(5) 🗖	(4)	(3)	(2)	(1) 🗖
e. Reorganiserer arbejdsgange for at forbedre effektivitet	(5) 🗖	(4)	(3)	(2)	(1)
f. Har en kort	(5) 🗖	(4)	(3)	(2)	(1)

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
planlægningshorisont					
g. Uddelegerer					
arbejdsopgaver til	(5) 🗖	(4)	(3)	(2)	(1)
enkeltpersoner og/eller	(5) 🗖	(4)	(3)	(2) 🖵	
grupper					
h. Gør det klart, hvilke					
resultater, som forventes	(5) 🗖	(4)	(3)	(2)	(1)
opnået for de enkelte	(3)	(4)	(3)	(2)	
arbejdsopgaver					
i. Prioriterer ved at vælge til					
og fra blandt				(2)	
organisationens/institutionen	(5) 🗖 S	(4) 🗖	(3)	(2)	(1)
opgaver					
j. Forklarer prioriteter for					
arbejdsopgaver	(5) 🗖	(4)	(3)	(2)	(1) 🗖
k. Styrer og koordinerer					
opgaveløsningen	(5)	(4)	(3)	(2)	(1) 🗖
I. Løser opståede problemer,					
som ellers ville forstyrre	(5)	(4)	(3)	(2)	(1)
arbejdsopgaverne					
### (Om relationer)

I hvor høj grad oplever du, ud fra en generel betragtning, at din leder:

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Støtter og opmuntrer medarbejdere med vanskelige opgaver	(5) 🗖	(4)	(3)	(2) 🗖	(1)
<ul> <li>b. Udtrykker tillid til at</li> <li>personer og/eller grupper</li> <li>formår at løse vanskelige</li> <li>opgaver</li> </ul>	(5) 🗖	(4)	(3)	(2)	(1)
c. Anerkender handlinger og resultater	(5)	(4)	(3)	(2)	(1) 🗖
d. Leder ud fra regler og retningslinjer	(5)	(4)	(3)	(2)	(1) 🗖
e. Anvender åbenlyst min/sir formelle ledelsesret	(5)	(4)	(3)	(2)	(1)
f. Anvender coaching og/elle fungerer som mentor, når de er behov for det		(4)	(3) 🗖	(2)	(1) 🗖
g. Drøfter beslutninger med de medarbejdere/kolleger, som berøres af beslutningerne	(5) 🗖	(4)	(3)	(2)	(1) 🗖
h. Coacher	(5) 🗖	(4)	(3)	(2)	(1)

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
medarbejdere/kolleger til at					
beslutte mulige løsninger på					
opgaver					
i. Benytter overtalelse som	(5) 🗖	(4)	(3)	(2)	(1)
ledelsesredskab	(3)	(4)	(3)	(2)	
j. Benytter pres og tvang som	(5)	(4)	(3)	(2)	(1)
ledelsesredskaber	(3)	(4)	(3)	(2) 🛥	
k. Appellerer til værdier,	(5) 🗖	(4)	(3)	(2)	(1)
idealer og følelser	(5)	(4)	(3)	(2) 🗳	
I. Benytter 'noget for noget-					
principper' som en del af sin	(5) 🗖	(4)	(3)	(2)	(1)
ledelsespraksis					
m. Holder					
medarbejdere/kolleger	(5)	(4)	(3)	(2)	(1)
orienteret om beslutninger,	(5)	(4)	(3)	(2) 🖵	(1)
som vedrører dem					
n. Hjælper til med at løse					
konflikter mellem	(5)	(4)	(3)	(2)	(1)
medarbejdere/kolleger					
o. Anvender symboler,					
ceremonier, ritualer og	(5)	(4)	(3)	(2)	(1)
historier for at opbygge team	.,	(4)	(3) 🛏	(2) 🛥	(1) 🛥
/gruppeidentitet					

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
p. Opmuntrer til gensidig tillio	1				
og samarbejde i	(5)	(4)	(3)	(2)	(1)
organisationen/institutionen					

### (Om forandringer)

#### Min leder:

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
<ul><li>a. Holder sig orienteret om</li><li>forandringer i de eksterne</li><li>omgivelser for at opdage</li><li>trusler og muligheder</li></ul>	(5) 🗖	(4)	(3)	(2)	(1) 🗖
<ul> <li>b. Analyserer og fortolker</li> <li>bevidst aktiviteter med</li> <li>henblik på at forklare behov</li> <li>for forandring</li> </ul>	(5) 🗖	(4)	(3)	(2)	(1) 🗖
c. Lærer af kolleger og eksterne interessenter for at få ideer til forbedringer	(5) 🗖	(4)	(3)	(2)	(1)
<ul> <li>d. Kommunikerer</li> <li>strategisk/målrettet (fx. med medarbejdere, lederkolleger</li> <li>og eksterne interessenter)</li> </ul>	(5) 🗖	(4)	(3)	(2)	(1)

	l meget høj grad	l høj grad	l nogen grad	l mindre grad	Slet ikke
e. Drøfter nye muligheder for					
organisationen/institutionen					
med	(5)	(4)	(3)	(2)	(1) 🗖
medarbejdere/lederkolleger					
og/eller chef					
f. Opmuntrer medarbejdere					
og/eller lederkolleger til at se	(5) 🗖	(4)	(3)	(2)	(1)
problemer og udfordringer i e		(+) -	(3)	(2)	
nyt lys					
g. Udvikler nye ideer til					
varetagelsen af	(5) 🗖	(4)	(3)	(2)	(1)
organisationens/institutionen	.,	(-) —		(2)	
kerneopgaver					
h. Faciliterer innovation og					
entrepenørskab i	(5)	(4)	(3)	(2)	(1) 🗖
organisationen/institutionen					
i. Understøtter kollektiv lærin					<b>D</b>
i organisationen/institutionen	(5) 🗖	(4)	(3)	(2)	(1) 🗖
j. Eksperimenterer med nye					
måder for at realisere	(5) 🗖	(4)	(3)	(2)	(1)
målsætninger					
k. Laver symbolske					
forandringer, som	(5) 🗖	(4)	(3)	(2)	(1)
understreger nye visioner					

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
og/eller strategier					
I. Gør forandringer					
meningsfulde for	(5)	(4)	(3)	(2)	(1)
medarbejderne					
m. Opmuntrer til og					
understøtter initiativer for at					ω 🗖
implementere større	(5) 🗖	(4)	(3)	(2)	(1) 🗖
forandringer					
n. Italesætter og fejrer					
fremgang/progression i	(5)	(4)	(3)	(2)	(1)
forandringsprocesser					

#### (Om beslutninger)

Når der skal træffes en beslutning for at løse et problem, kan det foregå på flere måder. Vurder venligst, i hvilken grad de følgende udsagn generelt passer til din arbejdsplads/institution. Der tænkes ikke på et specielt problem, hvorfor du bedes vurdere, hvad dit generelle indtryk er.

#### Min leder:

	l meget høj grad	l høj grad	I nogen grad	mindre grad	Slet ikke	Ved ikke
Løser selv problemet eller						
tager selv en beslutning på	(5)	(4)	(3)	(2)	(1)	(0)
baggrund af de informationer						

	l meget høj grad	l høj grad	l nogen grad l	mindre grad	Slet ikke	Ved ikke
lederen har til rådighed på det						
pågældende tidspunkt						
Indsamler den nødvendige						
information fra						
medarbejderne/kollegerne og	(5)	(4)	(3)	(2)	(1)	(0)
tager derefter selv en	(3)	(4)	(3)	(2)		(0)
beslutning for at løse						
problemet						
Orienterer individuelt de						
relevante						
medarbejdere/kolleger om						
problemet (dvs. uden at						
samle os som gruppe/team)	(5)	(4)	(3)	(2)	(1)	(0)
for at få vores ideer og forslag		(+) -	(3)	(2)		(0)
til løsning af problemet. På						
den baggrund træffer lederen						
selv beslutning om løsning på						
problemet.						
Orienterer kollektivt						
medarbejderteamet om						
problemet for at få vores	(5)	(4)	(3)	(2)	(1)	(0)
kollektive ideer og forslag. På		(7) 🛥		(2) 🛏		
den baggrund træffer lederen						
en beslutning som evt.						

	l meget høj grad	l høj grad	l nogen grad l	mindre grad	Slet ikke	Ved ikke
afspejler vores holdninger.						
Orienterer om og deler						
problemet med						
medarbejderne/kollegerne						
som team/gruppe. I	(5)	(4)	(3)	(2)	(1)	(0)
fællesskab drøftes forskellige	(5)	(4) 🖵	(3) 🖵	(2) 🖵		(0)
løsningsforslag og konsensus						
om et løsningsforslag søges						
opnået.						

## Del D - Baggrundsoplysninger (medarbejder-

/ansatniveau)

Der afsluttes med en række personlige spørgsmål om

din baggrund og nuværende stilling

I hvilket årstal er du født?

#### Hvad er dit køn?

- (1) 🛛 Mand
- (2) 🛛 Kvinde

### Hvilket område arbejder du inden for?

#### Sæt evt. flere krydser

- (1) Grow Kommunale værker
- (2) Diljøområdet
- (3) Det tekniske område
- (4) Dagtilbud børn
- (5) 📮 Familieområdet
- (6) Eldre- og handikapområdet
- (7) Andre sociale opgaver
- (8) 🛛 Sundhedsområdet
- (9) 🛛 Beskæftigelsesområdet
- (10) D Borgerservice
- (11) Skoleområdet
- (12) Det kulturelle område
- (13) 🛛 Fritids- og idrætsområdet
- (14) 🛛 Økonomiområdet
- (15) Dersonaleområdet/HR
- (16) Centralforvaltningen
- (17) 🗖 Andet \_\_\_\_\_

#### Har du gennemført anden skoleuddannelse udover folkeskolen?

(1) 🛛 Ja

(2) 🛛 Nej

#### Hvilke uddannelsesniveauer har du gennemført udover folkeskolen?

- (1) Ungdomsuddannelse (fx. erhvervsuddannelse, gymnasial uddannelse el. lign.)
- (2) Gradien Kort videregående uddannelse (fx. kommunal elevuddannelse, social- og sundhedsassistent el. lign.)
- (3) Allemlang videregående uddannelse (fx. lærer, pædagog, sygeplejerske, ergo-/fysioterapeut el.
   lign.)
- (4) Lang videregående uddannelse (fx. universitets- eller handelshøjskoleuddannelse)
- (5) Anden uddannelse (skriv gerne hvilken)

### Del B - Organisatoriske forhold (sideordnet leder-

/kolleganiveau)

Velkommen til dig, som er sideordnet kollega til en, som følger diplom i ledelse.

Dette spørgeskema søger at afdække dit syn på din kollegas afdeling/institution og hvordan din kollega bedriver ledelse. Forskere inden for organisationsteori karakteriserer organisationer/institutioner på mange forskellige måder. Hvordan vil du umiddelbart (dvs. på nuværende tidspunkt) karakterisere din kollegas afdeling/institution?

# Min kollegas arbejdsplads/institution

	l høj grad	l nogen grad	I mindre grad	Slet ikke
Arbejder ud fra				
overbevisningen om, at der				
findes én bedste måde at	(4)	(3)	(2)	(1)
organisere, lede og udføre				
opgaverne på				
Foretager helst kun de				
forandringer, som er direkte				
forenelige med	(4)	(3)	(2)	(1)
organisationens kultur,				
kerneværdier og -opgaver				
Identificerer, analyserer og	_	_	_	_
løser problemer efterhånden	(4)	(3)	(2)	(1)



Nedenfor listes en række egenskaber og karakteristika fra forskellige organisationer. Du bedes vurdere i hvor høj grad de passer på din kollegas afdeling/institution (ikke for dig personligt)

	l meget høj grad	l høj grad	l nogen grad l	mindre grad	Slet ikke	Ved ikke
Nytænkende/innovativ	(5) 🗖	(4)	(3)	(2)	(1)	(6)
Læringsorienteret	(5)	(4)	(3)	(2)	(1) 🗖	(6) 🗖
Effektivitetsorienteret	(5) 🗖	(4)	(3)	(2)	(1)	(6)
Målorienteret	(5) 🗖	(4)	(3)	(2)	(1)	(6)
Værdiorienteret	(5) 🗖	(4)	(3)	(2)	(1)	(6)
Eksperimenterende	(5)	(4)	(3)	(2)	(1)	(6)
Stærk korpsånd/kultur	(5)	(4)	(3)	(2)	(1)	(6)
Præget af tillid	(5) 🗖	(4)	(3)	(2)	(1)	(6)
Præget af anerkendelse	(5)	(4)	(3)	(2)	(1)	(6)
Lægger vægt på refleksion	(5)	(4)	(3)	(2)	(1)	(6)

	l meget høj grad	l høj grad	I nogen grad I	mindre grad	Slet ikke	Ved ikke
Stærk fagprofessionel kultur	(5)	(4)	(3)	(2)	(1)	(6)
Tydelige formelle magtforhold	(5)	(4)	(3)	(2)	(1)	(6)
Tydelige informelle/uformelle magtforhold	(5) 🗖	(4)	(3) 🗖	(2) 🗖	(1)	(6)

# Del C - Ledelseskompetencer (sideordnet leder-

/kolleganiveau)

Herunder følger en række emner om ledelsespraksis og ledelseskompetencer hos din kollega. Der stilles spørgsmål, som - inden for nogle overordnede kategorier- søger at afdække, hvad der rent faktisk sker på din kollegas arbejdsplads. Du bedes vurdere, hvorvidt udsagnene generelt passer hen over de seneste 6 måneder.

### Fortrolighed

Der er fuld fortrolighed om dine svar og de vil under ingen omstændigheder blive gengivet i en form, som kan henføres til dig.

Det er kun den ph.d.-studerende forsker, som har adgang til dine svar.

(Om arbejdsopgaver)

Du bedes angive i hvilket omfang du er enig i følgende udsagn.

### Min lederkollega:

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Holder medarbejderne	(5) 🗖	(4)	(3)	(2)	(1)
orienteret om mål og planer	(3)	(4)	(3)		
b. Opstiller mål for den	(5) 🗖	(4)	(2)		
enkeltes præstationer	(5)	(4) 🖵	(3)	(2)	(1)
c. Definerer/drøfter					
standarder for kvalitet i	(5)	(4)	(3)	(2)	(1)
opgaverne					
d. Definerer det faglige					
niveau for	(5)	(4)	(3)	(2)	(1) 🖵

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
opgavevaretagelsen					
e. Reorganiserer					
arbejdsgange for at forbedre	(5) 🗖	(4)	(3)	(2)	(1)
effektivitet					
f. Har en kort	(5) 🗖	(4)	(3)	(2)	(1) 🗖
planlægningshorisont	(5)	(4) 🖵	(3) 🖵	(2) 🖵	(1)
g. Uddelegerer					
arbejdsopgaver til	(5) 🗖	(4)	(3)	(2)	(1)
enkeltpersoner og/eller	(0) —	(.) —	(3) —	(2) —	(.) —
grupper					
h. Gør det klart, hvilke					
resultater, som forventes	(5) 🗖	(4)	(3)	(2)	(1)
opnået for de enkelte					
arbejdsopgaver					
i. Prioriterer ved at vælge til					
og fra blandt	(5) 🗖	(4)	(3)	(2)	(1) 🗖
organisationens/institutionen	S				
opgaver					
j. Forklarer prioriteter for	(5)	(4)	(3)	(2)	(1) 🗖
arbejdsopgaver					
k. Styrer og koordinerer	(5) 🗖	(4)	(3)	(2)	(1)
opgaveløsningen	. /	、 /	. ,	、,	、 /
I. Løser opståede problemer	(5)	(4)	(3)	(2)	(1)

som ellers ville forstyrre

arbejdsopgaverne

### (Om relationer)

I hvor høj grad oplever du, ud fra en generel betragtning, at din lederkollega:

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Støtter og opmuntrer			(3)	(2)	<b>6 D</b>
medarbejdere med vanskelige opgaver	(5)	(4)	(3)	(2)	(1)
b. Udtrykker tillid til at					
personer og/eller grupper	(5) 🗖	(4)	(3)	(2)	(1)
formår at løse vanskelige					
opgaver					
c. Anerkender handlinger og resultater	(5)	(4)	(3)	(2)	(1)
d. Leder ud fra regler og retningslinjer	(5)	(4)	(3)	(2)	(1)
e. Anvender åbenlyst min/sin formelle ledelsesret	(5) 🗖	(4)	(3)	(2)	(1)
f. Anvender coaching og/elle	r				
fungerer som mentor, når de	r (5) 🗖	(4)	(3)	(2)	(1)
er behov for det					

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
g. Drøfter beslutninger med de medarbejdere/kolleger, som berøres af beslutningerne	(5) 🗖	(4)	(3)	(2)	(1) 🗖
h. Coacher medarbejdere/kolleger til at beslutte mulige løsninger på opgaver	(5) 🗖	(4)	(3) 🗖	(2)	(1) 🗖
i. Benytter overtalelse som ledelsesredskab	(5)	(4)	(3)	(2)	(1)
j. Benytter pres og tvang son ledelsesredskaber	n (5) 🗖	(4)	(3)	(2)	(1)
k. Appellerer til værdier, idealer og følelser	(5) 🗖	(4)	(3)	(2)	(1)
I. Benytter 'noget for noget- principper' som en del af sin ledelsespraksis	(5) 🗖	(4)	(3) 🗖	(2)	(1) 🗖
m. Holder medarbejdere/kolleger orienteret om beslutninger, som vedrører dem	(5) 🗖	(4)	(3)	(2)	(1) 🗖
n. Hjælper til med at løse konflikter mellem	(5)	(4)	(3)	(2)	(1)

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
medarbejdere/kolleger					
o. Anvender symboler,					
ceremonier, ritualer og					
historier for at opbygge team	(5) 🗖	(4)	(3)	(2)	(1)
/gruppeidentitet					
p. Opmuntrer til gensidig tillio	i				
og samarbejde i	(5)	(4)	(3)	(2)	(1)
organisationen/institutionen					

### (Om forandringer)

#### Min lederkollega:

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Holder sig orienteret om					
forandringer i de eksterne					<i>ш</i> П
omgivelser for at opdage	(5)	(4)	(3)	(2)	(1) 🗖
trusler og muligheder					
b. Analyserer og fortolker					
bevidst aktiviteter med		(n 🗖			
henblik på at forklare behov	(5) 🗖	(4)	(3)	(2)	(1) 🗖
for forandring					
c. Lærer af kolleger og			_	_	
eksterne interessenter for at	(5)	(4)	(3)	(2)	(1) 🗖

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
få ideer til forbedringer					
d. Kommunikerer					
strategisk/målrettet (fx. med	(5) 🗖	(4)	(3)	(2)	(1)
medarbejdere, lederkolleger	(3)	(4)	(3)	(2) 🛥	
og eksterne interessenter)					
e. Drøfter nye muligheder for					
organisationen/institutionen					
med	(5)	(4)	(3)	(2)	(1) 🗖
medarbejdere/lederkolleger					
og/eller chef					
f. Opmuntrer medarbejdere					
og/eller lederkolleger til at se	(5) 🗖	(4)	(3)	(2)	(1)
problemer og udfordringer i e		(4)	(3)		
nyt lys					
g. Udvikler nye ideer til					
varetagelsen af	(5) 🗖	(4)	(3)	(2)	(1)
organisationens/institutionen		(+)	(3)	(2)	
kerneopgaver					
h. Faciliterer innovation og					
entrepenørskab i	(5)	(4)	(3)	(2)	(1) 🗖
organisationen/institutionen					
i. Understøtter kollektiv lærin					
i organisationen/institutionen	(5) 🗖	(4)	(3)	(2)	(1)

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
j. Eksperimenterer med nye måder for at realisere målsætninger	(5) 🗖	(4)	(3)	(2)	(1) 🗖
k. Laver symbolske forandringer, som understreger nye visioner og/eller strategier	(5) 🗖	(4)	(3)	(2)	(1) 🗖
I. Gør forandringer meningsfulde for medarbejderne	(5) 🗖	(4)	(3)	(2)	(1) 🗖
<ul> <li>m. Opmuntrer til og</li> <li>understøtter initiativer for at</li> <li>implementere større</li> <li>forandringer</li> </ul>	(5) 🗖	(4)	(3)	(2)	(1)
n. Italesætter og fejrer fremgang/progression i forandringsprocesser	(5) 🗖	(4)	(3)	(2)	(1) 🗖

#### (Om beslutninger)

Når der skal træffes en beslutning for at løse et problem, kan det foregå på flere måder. Vurder venligst, i hvilken grad de følgende udsagn generelt passer til din arbejdsplads/institution. Der tænkes ikke på et specielt problem, hvorfor du bedes vurdere, hvad dit generelle indtryk er.

#### Min lederkollega:

	l meget høj grad	l høj grad	I nogen grad	mindre grad	Slet ikke	Ved ikke
Løser selv problemet eller						
tager selv en beslutning på						
baggrund af de informationer	(5)	(4)	(3)	(2)	(1)	(0)
lederen har til rådighed på del						
pågældende tidspunkt						
Indsamler den nødvendige						
information fra						
medarbejderne/kollegerne og	(5)	(4)	(3)	(2)	(1)	(0)
tager derefter selv en	(5)	(4) 🖵				(0)
beslutning for at løse						
problemet						
Orienterer individuelt de						
relevante						
medarbejdere/kolleger om						
problemet (dvs. uden at						
samle os som gruppe/team)	(5)	(4)	(3)	(2)	(1)	(0)
for at få vores ideer og forslag		(4)	(3)	(2)		(0)
til løsning af problemet. På						
den baggrund træffer lederen						
selv beslutning om løsning på						
problemet.						
Orienterer kollektivt	(5)	(4)	(3)	(2)	(1)	(0)

	l meget høj grad	l høj grad	l nogen grad l	mindre grad	Slet ikke	Ved ikke
medarbejderteamet om						
problemet for at få vores						
kollektive ideer og forslag. På						
den baggrund træffer lederen						
en beslutning som evt.						
afspejler vores holdninger.						
Orienterer om og deler						
problemet med						
medarbejderne/kollegerne						
som team/gruppe. I	(5)	(4)	(n) 🗖	(2)		
fællesskab drøftes forskellige	(5)	(4) 🖵	(3)	(2)	(1) 🗖	(0) 🗖
løsningsforslag og konsensus						
om et løsningsforslag søges						
opnået.						

### Del D - Baggrundsoplysninger (Sideordnet leder-

/kolleganiveau)

## Der afsluttes med en række personlige spørgsmål om

### din baggrund og nuværende stilling

I hvilket årstal er du født?

Hvad er dit køn?

- (1) 🛛 Mand
- (2) 🛛 🗖 Kvinde

### Hvilket område arbejder du inden for?

#### Sæt evt. flere krydser

- (1) Grow Kommunale værker
- (2) Diljøområdet
- (3) 🛛 Det tekniske område
- (4) Dagtilbud børn
- (5) 📮 Familieområdet
- (6) Eldre- og handikapområdet
- (7) Andre sociale opgaver
- (8) 🛛 Sundhedsområdet
- (9) 🛛 Beskæftigelsesområdet

(10)	Borgerservice
(11)	Skoleområdet
(12)	Det kulturelle område
(13)	Fritids- og idrætsområdet
(14)	Økonomiområdet
(15)	Personaleområdet/HR
(16)	Centralforvaltningen

(17) Andet \_\_\_\_\_

#### Har du gennemført anden skoleuddannelse udover folkeskolen?

- (1) 🛛 Ja
- (2) 🛛 Nej

#### Hvilke uddannelsesniveauer har du gennemført udover folkeskolen?

- (1) Ungdomsuddannelse (fx. erhvervsuddannelse, gymnasial uddannelse el. lign.)
- (2) Gradien Kort videregående uddannelse (fx. kommunal elevuddannelse, social- og sundhedsassistent el. lign.)
- (4) 🛛 Lang videregående uddannelse (fx. universitets- eller handelshøjskoleuddannelse)
- (5) Anden uddannelse (skriv gerne hvilken)

Du har nu afsluttet spørgeskemaundersøgelsen

(tryk venligst 'Afslut' herunder for at forlade skemaet)

#### Mange tak for din deltagelse!

Har du spørgsmål eller kommentarer til undersøgelsen, kan du kontakte:

Adjunkt, mag. art & stud.ph.d. Peter Sørensen Mail: peso@dps.aau.dk/peso@ucl.dk Telefon: 29 36 83 90

Aalborg Universitet, Institut for statskundskab & University College Lillebælt, LedelsesAkademiet





### Spørgeskema

### UDVIKLING AF EFFEKTIV LEDERADFÆRD – OM VIRKNINGEN AF FORMELLE LEDERUDDANNELSER

# Spørgeskemaundersøgelse blandt ansatte i fem danske kommuner

2015 & 2016

#### Peter Sørensen

Adjunkt, mag.art & ph.d.-studerende

Aalborg Universitet, Institut for Statskundskab & University College Lillebælt, Ledelsesakademiet

### I gang med spørgeskemaet

Du skal nu i gang med at besvare et spørgeskema, som handler om effekter af lederuddannelsen 'Diplom i ledelse'.

Spørgeskemaet er en del af et Ph.d.-projekt (dvs. et forskeruddannelsesprojekt), som gennemføres af undertegnede, der er underviser ved University College Lillebælt, Ledelsesakademiet og Ph.d.-stipendiat ved Aalborg Universitet, Institut for Statskundskab.

Temaet for undersøgelsen har stor interesse for danske og internationale forskere såvel som for din kommunes HR-afdeling. Men der er fuld fortrolighed om undersøgelsen, hvilket betyder, at det udelukkende er den Ph.d.-studerende, som har adgang til og mulighed for at se, hvad du har svaret på de enkelte spørgsmål. Der vil ikke blive gengivet svar fra undersøgelsen, som på nogen måde kan henføres til dig, som har medvirket.

God fornøjelse med spørgeskemaet og på forhånd tak for din medvirken

Med venlig hilsen

Peter Sørensen Adjunkt, mag. art & stud.ph.d. Mail: <u>peso@ucl.dk / peso@dps.aau.dk</u> Telefon: 29 36 83 90

University College Lillebælt, LedelsesAkademiet & Aalborg Universitet, Institut for Statskundskab Spørgeskema til ledere under uddannelse

#### 1. Hvornår er du påbegyndt diplom i ledelse?

Januar 2012 August 2012 Januar 2013 August 2013 Januar 2014 August 2014 Januar 2015 August 2015 Andet tidspunkt \_\_\_\_\_

2. Har du taget nogen former for kursus og/eller uddannelse i ledelse inden du påbegynder diplom

#### i ledelse?

Ja

Nej

Spring, hvis ja

#### 2.1. Hvilke former for lederkurser/-uddannelser har du taget?

- (1) Interne kurser i ledelse korte forløb, der overvejende er tilrettelagt af og afholdt hos arbejdsgiveren
- (2) Eksterne kurser i ledelse korte forløb, der overvejende er tilrettelagt af udd.institutioner eller konsulentfirmaer
- (3) 🛛 Eksterne lederuddannelsesforløb, fx. fra videregående udd.institutioner eller konsulentfirmaer
- (4) Den grundlæggende lederuddannelse (Erhvervsskoler/AMU)
- (5) Akademiuddannelse i ledelse (Erhvervsakademier)
- (7) Dasteruddannelse i ledelse (universiteter/handelshøjskoler)

#### 3. Har du personaleansvar?

Ja

Nej

Spring, hvis ja

3.1. Hvor mange ansatte har du personaleansvar for?
1-10
11-20
21-30
31-40
41-50
51-60
61-70
71-80
Flere end 80 men færre end 100
Flere end 100

4. I hvor mange år (inkl. tidligere ansættelser) har du i alt været leder?

0-5 år

6-10 år

11-15 år

16-20 år

21-25 år

26-30 år

Mere end 30 år

#### 5. Hvad er din anciennitet i din nuværende stilling?

0-5 år

6-10 år

11-15 år

16-20 år

- 21-25 år
- 26-30 år
- Mere end 30 år

6. Hvor mange arbejdstimer udgør en gennemsnitlig arbejdsuge for dig?

- (1) **30-34 timer**
- (2) 35-40 timer
- (3) 41-45 timer
- (4) 46-50 timer
- (5) **1** 51-55 timer
- (7) **D** 56-60 timer
- (6) Andet timetal (skriv gerne ca. timetal)

#### 7. Er du alt i alt tilfreds med dit nuværende job?

- (4) Tilfreds
- (3) U Hverken tilfreds eller utilfreds
- (2) Ikke tilfreds
- (1) **D** Meget utilfreds
- (6) Ønsker ikke at besvare spørgsmålet
- (7) Grand Kommenter gerne

# Herunder følger en række udsagn om forskellige ledelsesopgaver og lederadfærd. Vurder venligst udsagnene ved hjælp af fem kategorier:

- 5 I meget høj grad
- 4 I høj grad
- 3 I nogen grad
- 2 I mindre grad
- 1 Slet ikke

#### 8. Om arbejdsopgaver

Jeg:

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Holder medarbejderne orienteret om mål og planer	(5)	(4)	(3)	(2)	(1)
b. Opstiller mål for den enkeltes præstationer	(5)	(4)	(3)	(2)	(1)
c. Definerer/drøfter standarder for kvalite i opgaverne	et (5)	(4)	(3)	(2)	(1) 🗖
d. Definerer det faglige niveau for opgavevaretagelsen	(5)	(4)	(3)	(2)	(1)
e. Reorganiserer arbejdsgange for at forbedre effektivitet	(5)	(4)	(3)	(2)	(1)
f. Har en kort planlægningshorisont	(5)	(4)	(3)	(2)	(1)
g. Uddelegerer arbejdsopgaver til enkeltpersoner og/eller grupper	(5)	(4)	(3)	(2)	(1) 🗖
h. Gør det klart, hvilke resultater, som forventes opnået for de enkelte arbejdsopgaver	(5) 🗖	(4)	(3)	(2)	(1)
i. Prioriterer ved at vælge til og fra bland organisationens/institutionens opgaver	t (5) 🗖	(4)	(3)	(2)	(1)
j. Forklarer prioriteter for arbejdsopgave	r (5) 🗖	(4)	(3)	(2)	(1)
k. Styrer og koordinerer	(5)	(4)	(3)	(2)	(1)

I meget høj grad I høj grad I nogen grad I mindre grad Slet ikke opgaveløsningen I. Løser opståede problemer, som ellers ville forstyrre arbejdsopgaverne

#### 9. Om relationer

Jeg:

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Støtter og opmuntrer medarbejdere med vanskelige opgaver	(5) 🗖	(4)	(3)	(2)	(1)
b. Udtrykker tillid til at personer og/eller grupper formår at løse vanskelige opgaver	(5) 🗖	(4)	(3)	(2)	(1)
c. Anerkender handlinger og resultater	(5)	(4)	(3)	(2)	(1)
d. Leder ud fra regler og retningslinjer	(5) 🗖	(4)	(3)	(2)	(1)
e. Anvender åbenlyst min formelle ledelsesret	(5)	(4)	(3)	(2)	(1)
f. Anvender coaching og/eller fungerer som mentor, når der er behov for det	(5)	(4)	(3)	(2)	(1)
g. Drøfter beslutninger med de medarbejdere/kolleger, som berøres af beslutningerne	(5) 🗖	(4)	(3)	(2)	(1)
h. Coacher medarbejdere/kolleger til at beslutte mulige løsninger på opgaver	(5)	(4)	(3)	(2)	(1)
i. Benytter overtalelse som ledelsesredskab	(5) 🗖	(4)	(3)	(2)	(1)
j. Benytter pres og tvang som ledelsesredskaber	(5)	(4)	(3)	(2)	(1)
k. Appellerer til værdier, idealer og	(5)	(4)	(3)	(2)	(1)

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
følelser					
I. Benytter 'noget for noget-principper' som en del af min ledelsespraksis	(5)	(4)	(3)	(2)	(1)
m. Holder medarbejdere/kolleger orienteret om beslutninger, som vedrører dem	· (5) 🗖	(4)	(3)	(2)	(1)
n. Hjælper til med at løse konflikter mellem medarbejdere/kolleger	(5)	(4)	(3)	(2)	(1)
o. Anvender symboler, ceremonier, ritualer og historier for at opbygge team- /gruppeidentitet	(5)	(4)	(3)	(2)	(1)
p. Opmuntrer til gensidig tillid og samarbejde i organisationen/institutioner	(5) 🗖	(4)	(3)	(2)	(1)

#### 10. Om forandringer

Jeg:

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
a. Holder mig/sig orienteret om forandringer i de eksterne omgivelser fo at opdage trusler og muligheder	r (5) 🗖	(4)	(3)	(2)	(1)
b. Analyserer og fortolker bevidst aktiviteter med henblik på at forklare behov for forandring	(5) 🗖	(4)	(3)	(2)	(1) 🗖
c. Lærer af kolleger og eksterne interessenter for at få ideer til forbedringer	(5)	(4)	(3)	(2)	(1) 🗖
d. Kommunikerer strategisk/målrettet (fx med medarbejdere, lederkolleger og	(5)	(4)	(3)	(2)	(1)

	l meget høj grad	l høj grad	l nogen grad	I mindre grad	Slet ikke
eksterne interessenter)					
e. Drøfter nye muligheder for organisationen/institutionen med medarbejdere/lederkolleger og/eller che	(5) 🗖	(4)	(3)	(2)	(1)
f. Opmuntrer medarbejdere og/eller lederkolleger til at se problemer og udfordringer i et nyt lys	(5)	(4)	(3)	(2)	(1)
g. Udvikler nye ideer til varetagelsen af organisationens/institutionens kerneopgaver	(5)	(4)	(3)	(2)	(1)
h. Faciliterer innovation og entrepenørskab i organisationen/institutionen	(5)	(4)	(3) 🗖	(2)	(1)
i. Understøtter kollektiv læring i organisationen/institutionen	(5)	(4)	(3)	(2)	(1)
j. Eksperimenterer med nye måder for a realisere målsætninger	tt (5) 🗖	(4)	(3)	(2)	(1) 🗖
k. Laver symbolske forandringer, som understreger nye visioner og/eller strategier	(5) 🗖	(4)	(3)	(2)	(1)
I. Gør forandringer meningsfulde for medarbejderne	(5)	(4)	(3)	(2)	(1)
m. Opmuntrer til og understøtter initiativer for at implementere større forandringer	(5) 🗖	(4)	(3)	(2)	(1)
n. Italesætter og fejrer fremgang/progression i forandringsprocesser	(5) 🗖	(4)	(3)	(2)	(1)

#### Baggrundsoplysninger

Der afsluttes med en række personlige spørgsmål om din baggrund og nuværende stilling

#### 11. I hvilket årstal er du født?

#### 12. Hvad er dit køn?

- (1) 🛛 Mand
- (2) 🛛 🗖 Kvinde

#### 13. Hvilket område arbejder du inden for?

Sæt evt. flere krydser

- (1) Grow Kommunale værker
- (2) Diljøområdet
- (3) Det tekniske område
- (4) Dagtilbud børn
- (5) 🖵 Familieområdet
- (6) Ældre- og handikapområdet
- (7) Andre sociale opgaver
- (8) 🛛 Sundhedsområdet
- (9) 🛛 Beskæftigelsesområdet
- (10) D Borgerservice
- (11) Skoleområdet
- (12) Det kulturelle område
- (13) 🛛 Fritids- og idrætsområdet
- (14) 🛛 Økonomiområdet
- (15) Dersonaleområdet/HR
- (16) 🖵 Centralforvaltningen
- (17) Andet\_\_\_\_\_

#### 14. Har du gennemført anden skoleuddannelse udover folkeskolen?

- (1) 🛛 Ja
- (2) 🛛 Nej

Spring, hvis ja

#### 14.1. Hvilke uddannelsesniveauer har du gennemført udover folkeskolen?

- (1) Ungdomsuddannelse (fx. erhvervsuddannelse, gymnasial uddannelse el. lign.)
- (2) Kort videregående uddannelse (fx. kommunal elevuddannelse, social- og sundhedsassistent el.
   lign.)
- (4) Lang videregående uddannelse (fx. universitets- eller handelshøjskoleuddannelse)
- (5) Anden uddannelse (skriv gerne hvilken)\_\_\_\_\_

#### Du har nu afsluttet spørgeskemaundersøgelsen

Tryk venligst 'Afslut' herunder for at forlade skemaet

Mange tak for din deltagelse!

Har du spørgsmål eller kommentarer til undersøgelsen, er du velkommen til at kontakte:

Adjunkt, mag. art & stud.ph.d. Peter Sørensen Mail: peso@dps.aau.dk/peso@ucl.dk Telefon: 29 36 83 90 Aalborg Universitet, Institut for Statskundskab & University College Lillebælt, LedelsesAkademiet

#### SUMMARY

Managers in the public sector act in a political context full of dilemmas. Nevertheless, they must show courage, efficiency, make difficult decisions, prioritize and produce results for the citizens. This seems to demand new and/or better ways of leading the public sector.

Leadership development, education and training are some of the 'tools' which are often used to renew, rethink and restructure leadership as well as management.

The purpose of this dissertation is to do examine the impact of formal leadership education on developing public leadership behaviour.

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