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Design leadership skills

Questioning the difference between design leadership and generic leadership in SME manufacturing organisations



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Date: Spring 14

Subject: Thesis

Level: Master (60hp)

Course code: 4FE66E

Abstract

Title: Design leadership skills - *Questioning the difference between design leadership and generic leadership in SME manufacturing organisations*

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Course: 4FE66E, Företagsekonomi IV, examensarbete, 15 hp

Purpose: The purpose of this study was to describe and develop what set of skills a design leader require and if these differentiate them from the generic leader in SME organisations.

Theory: The themes and concepts we have based the research on is first and foremost design leadership and skills. We have utilised studies by for example: Miller and Moultrie (2013), Joziasse (2011), Turner (2013) and Mumford et al. (2007) in order to develop an extensive theoretical framework.

Methodology: We have approach this research in a deductive and qualitative manner through a descriptive and somewhat exploratory design. We have conducted six semi-structured interviews with leaders at manufacturing SME organisations in 'Småland'.

Conclusion: Through this research we have established a set of skills that a design leader requires in manufacturing SME organisations. In conclusion we found that the design leader requires well developed generic leadership skills in form of; *learn/adapt, speak (convey information), listen (attentive), motivate, inspire, analyse, manage, problem solve, project manage, observe, plan and apprise* as well as design specific skills; *draw, synthesize, envision-imagine-visualise, edit, design and employ technology*. We also identified the difference between the design leader and generic leader, whereby we found a slight difference, even though most generic leaders interviewed utilise aspects of design leadership due to positions interlinking. On top of this we tried to clarify what a design leader really is in these types of organisations, as this was found to be slightly vague in previous literature.

Keywords: Design leadership, design skills, skills, leadership, generic leadership, design management, leadership development, SME.

Acknowledgement

We have seen this process as an opportunity to learn and gain new knowledge not only on the topic but also about teamwork and reflection. It has been a couple of challenging weeks that we could not have done without the support of each other and our supporting supervisor Olle Duhlin, who brought valuable feedback. We hope to have composed a text that you will enjoy and learn as much from as we have.

The most important part of this acknowledgement though is to thank the organisations and respondents that participated in this thesis, they gladly welcomed us at their head offices and allowed us to look around and ask difficult questions, so thank you;

- Thomas Gill and Manne Lindvall at Zero
- Henrik Blomdahl and Joachim Schill at LVI
- Niklas Hult and Lars Carlsson at DuoBad

We would not have been able to do this without you guys!

Last but not least we would like to thank our small but knowledgeable group of four L.I.K.E colleagues, who gave support and well formulated criticism. Not to forget Lars Lindkvist head of L.I.K.E, our program, for this past year of self reflecting tools. We will come out from L.I.K.E as better people thanks to you!

Jennifer Alnelind & Cecilia Alvéén

“Design leaders helps define the future,
design management provides the tools
for getting there”

(Turner 2013, p.72)

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1. Introduction



1.1 Background

This thesis is written for the sake of examining design leadership skills. In order to do so we want to lead you as a reader in to the subject, as we have identified several areas that need clarification before we get into what design leadership skills are or rather what skills one need for design leadership. That is actually the main question for this thesis and what we will hope to outline for you in our findings. As design is an integral part of this thesis we want to start off by describing how we view design. According to us the quote below embodies what we believe design to be, a comprehensive and rich subject.

“Design is a creative activity whose aim is to establish the multi-faceted qualities of objects, processes, services and their systems in whole life cycles. Therefore, design is the central factor of innovative humanization of technologies and the crucial factor of cultural and economic exchange”

(The International Council of Societies of Industrial Design, ICSID, 2014)

The overall awareness concerning design is growing (Borja de Mozota, 2003; Turner, 2013; Chiva & Alegre, 2009). All the way back in the 1980's Kotler and Rath (1984, p.16) stated that: *“design is a strategic tool that companies can use to gain a sustainable competitive advantage”*. Since then, Gloppen (2009) has recognised design as a tool for developing growth. Furthermore Gloppen (2009) claims that success in today's markets and those of the future depend increasingly upon market leadership via the use of design. Without purposeful design-work on all fronts, both major international groups and small local businesses end up lacking identity (Österlin, 2011).

A decade ago, the design community started to think more rationally and strategically about the importance of leadership and what leadership entails in regards to design (Joziassse, 2011a). As a matter of fact, Higgs (2003) claims that the organisational environment is changing and therefore new ways of viewing leadership is in order. However, the majority of leadership publications up to this date are devoted to the traditional views of leadership such as trait-, style- or situational theory (Svenningsson & Alvesson, 2010). New approaches are emerging though, among those are Higgs (2003) incorporation of design skills, which we describe further in the literature review, and Gloppen (2009) who describes design leadership as more of a strategic level of design as well as a method of running an organisation.

The term “design management” on the other hand emerged in the 1960s in the UK (Borja de Mozota, 2003; Cooper & Junginger, 2011). Soon thereafter UK design researchers and professionals became aware of the concept (Cooper &

Junginger, 2011). Whereas in Sweden the field of design management expanded from a rather closed network consisting of only a few scholars during the 1990s into a larger and more diversified network (Johansson & Woodilla, 2011). At the present time the concept is still a growing area of scholarly interest with evolving perspectives (Johansson & Woodilla, 2011). Therefore, in the research field of design management, growing attention has been paid to the area of design leadership (Lee & Cassidy, 2007; Joziasse, 2011a). Topalian and Turner (in Acklin, 2010; Joziasse, 2011b) coined the term design leadership in 2002, by differentiating the two concepts of design management and leadership through core responsibilities, which in this case entails: *“A design leader is occupied with the what of design and tells design managers where to go. Design management is more concerned with how to get there.”* (Joziasse, 2011a p. 399). This is what mainly differentiate the design leader from the design manager, in our understanding, and what we will clarify further in the next ‘section’. We will also try to pinpoint the problem we found in relation to this term and how we approach this.

1.2 Problem statement

According to Clayton (2012) employees do not appreciate the directive approach of the old heroic leadership styles, the command and control leaders are disappearing and new leadership teams are moving in, who collectively tackle wicked problems in organisations. For this to work, as stated by Sheard et al. (2009), it is crucial to know how to transform a group into a high-performing team. As a result of these new leadership teams, organisations have to depend upon new innovative approaches to collectively lead and bring together cross-functional teams and intelligence (Clayton, 2012). One way to do this is through design. In addition, according to Topalian (2012), no organisation will reach long-term success unless design is taken seriously. In agreement, Klenke (2008) claim that in order to incorporate design (a parallel between space) an element of design, and leadership can be drawn. This parallel can be described as a bridge, sort of like the artist who can create a psychological or metaphorical painting compared with the leader who can offer a passage between individuals and organisations (Klenke, 2008).

Although the importance of design is acknowledged today, business executives find it difficult to exploit design properly (Topalian, 2012; Topalian, 2011). Business leaders’ poor understanding and knowledge of design affect whole organisations, particularly the evaluation of design investment and the result of design investment (Topalian, 2011). When using design as a tool in organisations both design management and design leadership should be employed, as they depend upon each other (Joziasse, 2011a). One could claim that design

leadership is the process of using design as a management 'tool', which contradicts many other beliefs, which makes it even more important to distinguish between design management and design leadership (Gloppen, 2009; Stone, 2010).

In short, a design leader sees design as a transformative power, in contrast to the design manager that would focus on a more integrative type of design (Joziassse, 2011a). In other words design managers have the purpose of delivering design in an efficient and cost effective manner, whereas the design leader deals with envisioning an organisation's future and ensuring that design is used correctly in order to reach this vision (Best, 2006). In agreement Acklin (2010) describe design leaders as proactive in setting design agendas for an enterprise, whereas design management should be reactive in terms of dealing with resources, time, people, and money for design activities. This view could be connected to the previously mentioned quote by Joziassse (2011a), that the design manager is concerned with 'how to get there'. Research has so far been focused upon design management, Joziassse (2011a) therefore claims that focus should henceforward be placed on the concept of design leadership rather than design management, so that to understand both aspects.

We question the notion of design leadership as we at this stage cannot find a distinct difference between design management, the already acknowledge term, and design leadership. Which is also why the skills approach been added to the concept. This leads us to believe that our thesis might end up being the little child in the Emperor's new clothes, the one who dares to question what no one else does. Is design leadership just a term that is being thrown around or is it a concept worth the attention of the broad public? We know this is a rather unconventional acquisition nonetheless, we can declare and generalise a result that is applicable to the industry and area that we chose to focus upon. After that we would like to pass on the torch and allow for further testing on the subject based upon the result we can conclude. With this being said, we will continue by explaining the reason why we find this study valuable.

The role of the design leader is to raise awareness of the design process and the positive effects design generates (Topalian, 2011) such as competitive advantage, build and improve image, better return on investment, and customer satisfaction (Lockwood, 2008). However according to Joziassse (2011a) design leaders of today find it difficult to prove the value they create for the organisation they work in. This is where skills come in, as according to Mumford et al. (2000) skills can provide a valuable standpoint for understanding leaders. Even so little is still understood about the skills of the individuals responsible for leading design (Miller & Moultrie, 2013).

We have identified a few studies that discuss the skills of design leaders. Miller and Moultrie (2013) for instance state that it is necessary for those undertaking design leadership to possess design skills. Byrne et.al (2009) agree with Miller and Moultrie's claiming that leaders of creative functions, such as in design, need to have considerable knowledge and understanding of the field in which they operate. On the contrary Joziassse (2011a) argue that no prior design expertise or practice is required in order to be a design leader.

Nevertheless Miller and Moultrie (2013) argue that the generic leader and design leader require a similar set of skills. With generic leadership Miller and Moultrie (2013) refer to the generic leadership literature, however we view the generic leader as the leader with a position that does not include a design-related job description. The issue though is that there is no common or clear ground of what design or business skills that are required for leadership. Higgs (2013) for instance have identified areas that effective generic leaders need skills for, these are: *envisioning, engaging, enable, inquiring* and *develop* its followers and organisation. These are similar skills to what Miller and Moultrie (2013) recognised as necessary for the design leader, but added design skills or design knowledge. However, Gloppen (2009) argue that the design knowledge required is actually design thinking, which implies that design thinking and design leadership are connected, as for our understanding this means that design thinking is an integral part of design leadership as a form of design knowledge. Gloppen (2009) recognise the following skills as important for design thinking: *imagination, creativity, innovation, and value creation*, in other words these skills are likely to be required for design leadership. Which could be good to test although we are in the end though following the specific skills Miller and Moultrie (2013) identified. These are divided into five different categories: *design skills* (inspire, imagine, envision, design and edit), *cognitive skills, interpersonal skills, business skills* and *strategic skills*. We wanted to write design skills in brackets and by that clarify these skills, as these are according to Miller and Moultrie (2013) what makes a design leader stand out from the generic leader. What Miller and Moultrie (2013) specify as design skills does not include design thinking literally, although some of these design skills are part of design thinking and as we view it could be interpreted as the term design thinking and connected to Gloppen's (2009) argument.

Scholars have so far not agreed upon what specific skills are required for design leadership. One thing that is agreed upon though is that in order to utilise design skills, creativity as a skill is necessary and therefore also why we incorporated design thinking in the discussion to begin with (Miller & Moultrie, 2013; Gloppen, 2009; Turner, 2012). According to Puccio et al. (2011) creative thinking can be used as a core leadership competence where creative talent are

employed as skills and translated into effective leadership. Due to the design leaders creativity they are better set to handle so called wicked problems and uncertainties than the generic leader, something that significantly influence the skill set required for design leadership (Rajabalinejad & Spitas, 2012).

All things considered design leadership is a topic that has become increasingly recognised as a research area, however as mentioned still little is known and documented about the skills that design leaders requires (Miller & Moultrie, 2013). Therefore we want to probe more deeply into the subject in order to challenge or assert the so far developed skills theory not to mention the limited research conducted in Sweden on the subject. Our aim is therefore to evaluate what skill set is required for design leadership in design-related organisations in the Swedish region 'Småland'.

We came across an article by Miller and Moultrie (2013) where design leadership were explored and a set of skills for this was established. In the methodology we describe why we selected this article and how this thesis came to be kind of a methodological replica, which was recommended by Miller and Moultrie (2013). We have therefore taken upon us to carry the torch forward and subsequently aiming our purpose at testing their findings, still in a qualitative measure as the subject is of exploratory character. To differentiate ourselves we are bringing new light to the topic by focusing on manufacturing 'small and medium enterprises' (SME's) instead of Miller and Moultrie's (2013) fashion corporations. This is because of our curiosity in regards to SME's as these organisations typically are of different character than larger hierarchical organisations (Levy & Powell, 1998). The purpose and research questions we establish are based on the three organisations included in this thesis, which you will be able to read about in our methodology. From these we want to generalise our results in regards to 'Smålands' design-related manufacturing industry.

1.3 Purpose

The purpose of this study is to describe and develop what set of skills a design leader require and if these differentiate them from the generic leader in SME organisations.

1.4 Research questions

1. What is the difference between the design leader and the generic leader in the type of organisations included in this research?
2. Which of the previously explored design leadership skills are applied in these organisations and if so how?
3. How important are design skills for design leaders, specifically could the concept of design leadership be applied to generic leaders without design skills.

1.5 Delimitations

We believe that manufacturing industries has a greater natural relationship to design than many other types of organisations in the region. As design is an integral part of the manufacturing and production process we made this choice in order to simplify the process of finding suitable leaders and organisations. We have limited ourselves geographically to 'Småland' as the region is well known for design and it is also where we are based (Designregionsmaland, n.d). In order to thoroughly determine what skills a design leader require we wanted to confirm that there actually is a difference between the generic leader and the design leader in the organisations we incorporate. Therefore both types of leaders were to be interviewed. This comparison might lead to a different result from Miller and Moultrie's (2013) findings, which is why we choose to include the generic leaders. However the nature of these small organisations typically result in roles that intertwine, as we will further explain in the choice of subject section.

2. Literature review



2.1 Leadership

In order to gain a thorough understanding of design leadership a review of existing leadership literature is seen as valuable by us. We recognise two aspects, or rather quotes of leadership that we find valuable for this research that not only describe the concept of generic leadership but also share similarities with the concept of design leadership. What we mean with this is that a design leader, among other things, creates visions and influences others to contribute to group tasks. We find that these two definitions below therefore suit our standpoint. However in the second quote we focus on *vision* not trust, as it is the area we examine.

“A dynamic process in a group whereby one individual influences the others to contribute voluntarily to the achievement of group tasks in a given situation.” (Cole, 1996 p.51).

“The function of leadership is to create a vision for the future, establish strategic priorities, and develop an environment of trust within and between organizations. “ (Shaw, 2012 p.1).

Tamkin (2012) implies that exceptional leaders enable performance in others around them as they view these people the route to achievement. Furthermore Rickards and Clark (2012) identify that effective leaders require skills in dealing with challenges and people creatively, whereby they view creativity as the process of discovering or developing something new and useful. Tamkin (2012) adds that the successful leader also requires the ability to connect action and reaction to maximize employees engagement and performance. At the same time Clayton (2012) emphasises that the global business environment combined with logistical and cultural challenges create difficulties for leaders to balance between engaging and manage employees. Regardless of the difficulties Wellins and Weaver (2003) established that leadership development programs could improve *leadership capacity, competitive advantage and organisational structure*. In addition Higgs (2003) point out that because the business environment is changing we first and foremost require new ways of looking at leadership.

During the beginnings of the 20th century the focus of leadership research was directed to trait theory (Yukl, 2010). Svenningsson and Alvesson (2010) concur that the majority of leadership publications are devoted to the traditional leadership theories. Trait theory as mentioned is one of these, which according to Bertocci (2009) is based on eight identifiers; *intelligence, dominance, self-confidence, energy, tolerance, integrity, honesty and emotional maturity*. These

identifiers differ from scholar to scholar, especially in terms of what makes someone successful and therefore scholars have now moved on to new theories for example self-development focus, which entails skill development (Berard, 2013)

There are however other theories that have been influencing leadership. Rickards and Clark (2012) reported that in the 80's the second era of leadership theory *came to evolve*, whereby transformative leadership became focus, which was a clear difference to contingency and style theories. The transformational leadership theory builds on four factors: *idealised influence and charisma, inspirational motivation, intellectual stimulation and individualised considerations* (Winkler, 2010). The transactional leader on the other hand influence subordinates through management by expectation and enables followers to reach individual and organisational goals simultaneously (Boddy, 2002). The transactional leaders also tend to have a box approach with a distinctive focus on strategic change (Johnson et al., 2005). Although this may be true as scholars are moving away from the old heroic leadership theories and even the design community is starting to concern themselves with leadership theories, especially design leadership and what this entails (Joziassse, 2011a). We describe these somewhat 'old' theories just to show why skills still might be used as a research subject besides the followership, which is typically used in leadership studies today.

2.2 Design

We are exploring design leadership, not simply leadership. We therefore find it important for you as a reader to understand our viewpoint of design and its importance in today's organisations.

First of all the concept of design sometimes cause uncertainty since it has more than one meaning it can both refer to a process or the result of a process (Clark & Brody, 2009). In design terms Gorb and Dumas (2011, p54) define design as: "*a course of action for the development of an artefact or a system of artefacts; including the series of organisational activities required to achieve that development*". We interpret the artefact as a product and that the organisational *activities* are what the design leader is responsible for. As we attempt to clarify design leadership and skills throughout the text, we ask you to please bare this view on design in mind.

This is however our chosen definition and as mentioned there is uncertainty among researchers over what design actually entails. Either way Turner (2013) state that it is impossible to dodge design and that the design leadership and

management are indispensable parts in the development of successful organisations. Although Gloppen (2009) observes that in order for organisations to reach long-term organisational improvements 'creativity through design' attitude is necessary. Furthermore Turner (2013) implies that design is a process that we are all constantly surrounded by. In a similar manner Gloppen (2009) explains that design is what links creativity and innovation.

However, design is a collective term for several categories such as *product design, graphic design, environmental design, information design* and *corporate identity design* (Best, 2006). No matter what type of design an organisation choose to incorporate the process is challenging, nonetheless in the long run it is worth the difficulties as design bring long-term benefits (Turner, 2013).

2.3 Design management

We attempt to briefly clarify what design management is, in order to understand the link between design management and design leadership as well as the difference between the two concepts (Cooper & Junginger, 2011).

According to Farr (2011, p48) *"Design management is the function of defining a design problem, finding an appropriate designer, and making it possible for that designer to solve the design problem on time and within budget"*.

In agreement Best (2006) details that the central function of design management is to manage design projects that is in the end carried out by a designer, a design team or consultancy. However design management is not a project rather an approach or a process. Chiva and Alegre (2007) have a somewhat broader view on design management, still as a process, but focus on the managerial and organisational skills or activities that are used in order to enhance this process. After all, design management have been of scholarly interest for a longer period of time then design leadership but according to Lee and Cassidy (2007) growing attention is focused on design leadership and therefore at the basis of our choice.

2.4 Design leadership

As mentioned the specific literature on this subject is scarce (Joziassse, 2011b). We are hence somewhat limited, however we have conducted an as thorough examination of related published material as possible.

Turner (2013) believes that there are some fundamental differences between design management and design leadership. Although according Joziasse (2011a) the two concepts depend heavily on each other. To begin with as remarked by Acklin (2010) design leadership derives from the concept of design management whereby design management was subdivided into these two dimensions. Design leadership is now the most advanced position out of the design responsibilities (Miller & Moultrie, 2013). To specify further, the design leader is engaged in the 'what' of design and points out the direction for the manager who then deals with how to get there (Joziasse, 2011a). Acklin (2010) puts it even more concrete and appoints the design leader the strategic activities as they envision the future and the competitive advantages. However Han and Bromilow (2010) argue that the design leadership term is in need of a more distinct definition, as the concept is becoming increasingly more important.

Let us explain the design leaders function further. Gloppen (2009) state that the strategic function of design leadership is related to the vision for how design might be used within the organisation to reach the collective goals. Which is somewhat agreed upon by Topalian (2011) who note that the design leader should direct non-design and design colleagues through the design process and communicate fundamental advantages with design. Which Miller and Moultrie (2013) explain in other words saying that the design leaders promote the adoption of the design process as a way of thinking in the organisation. Whereas Sherwin (2012) on the other hand believe that the design leaders function is to plan and satisfy the desired outcome of the organisation's customers as well as contribute to the growth of designers. So based on all of this we believe that the design leader has more or less the final say. They are responsible for the broader vision and motivating those involved to work towards the vision. Whereas the design manager has a more hands on approach, dealing with the everyday decisions and details in relation to design.

Then again a visionary design leader can contribute to the delivery of an organisation's philosophy and create a design-focused culture within the organisation, at least according to Joe Ferry, Head of Design at Virgin Atlantic Airways, (in Best, 2006). Precisely as Topalian (2011) view one of the fundamental roles of the leader; to encourage associates to be different, expand the organisation's network and change attitudes towards design. As concurred by Turner (2013) who believe that design leadership is about incorporating design into the core DNA of an organisation, with other words, making sure design becomes a mainstream activity in a business where all employees can contribute creatively. Miller and Moultrie (2013) also view the design leader as the source for encouraging design implementation, especially the process and methodology as a way of thinking, even for the non-designer. Moreover Turner and Topalian, (in Gloppen, 2009; Miller & Moultrie, 2013) provides additional

understanding to design leadership with a list that compromise six responsibilities which are critical for organisational success:

- Envisioning the future
- Manifesting strategic intent
- Directing corporate design investment
- Manage business reputation by shaping customer experience.
- Creating, supporting and sustaining an environment for innovation
- Organising and train the business for design and innovation (Gloppen, 2009; Miller & Moultrie, 2013).

In addition Sherwin (2012) believe that there are certain behaviours and skills that a design leader should incorporate in their daily responsibilities, as they are not responsible for the daily managerial activities. These responsibilities compromise the 6c's of creative leadership, which include: the design leaders *conjure* or rather force compelling design work under pressure. A design leader also *communicates* actively with their co-workers and they *coax* creativity from their employees. Furthermore leaders *compel* their teams and employees to realise their visions, they often do so by encouragement instead of pressure. Additionally, leaders *cajole* with the use of critique thereby creating a flow of creativity. A design leader also encourages and *cheers* the team as well as inspires its members to perform. (Sherwin, 2012)

On another matter McCullagh (2008) points out that previously mentioned activities also can be seen as qualities not only for envisioning the future, think strategically but also to lead and inspire others. Those are the three qualities that design leaders tend to share. Joziassse (2011b) on the other hand adopted the acronym LEADERS to design leadership as a method of explaining the seven qualities the multidimensional role require.

L - Listen and look
E - Emotional bonding
A - Awareness
D - Doing
E - Empowerment
R - Responsibility
S - Synchronicity

However, according to the Design Council and Creative & Cultural Skills (2007) at a more strategic level, designers need skills to enable them to better understand business drivers, markets and to work with senior management across a range of industries.

2.5 Leadership skills

According to Miller and Moultrie (2013) besides acting as a standpoint for understanding leaders, skill theory also works as a tested approach to analyse and explore leadership. Which is mainly why we focus on the skill theory in this research. To this date though, there has been inadequate attention paid to skill theory, despite the vast amount of leadership studies available (Wright & Taylor, 1985, 1994; Yukl & Van Fleet, 1992 in Mumford et al., 2007). Even less research have been focused on the skill set of design leaders. Little is actually understood in regards to what design leadership skills are and more important what skills a design leader requires (Miller & Moultrie, 2013). This is the gap we identified and with this thesis aim to fill.

One advantage of looking at skills though, is according to Mumford et al. (2007) and Northouse (2013) that these can be developed, which suggest that a leader can improve. In addition to this Miller and Moultrie (2013) as well as Mumford et al. (2007) point out that everyone can become a leader, yet the success depend on the individuals own motivation to learn the skills required. In other words one can develop a leader based on skills, identified for leadership, however in order to do this the individual need to be willing or rather motivated to develop his/her own leadership skills. Sherwin (2012) on the other hand claim that design leaders need to mature in their role before they can even realise their leadership skills and that these skills in the end is not easy to teach. In addition the Design Council claim that there is currently no culture of professional and continuous skill development for designers, besides on-the-job coaching (Great Britain: House of commons, 2007). Which for us implies that there have not been proper opportunities for the development or teaching of design skills. Which is supported by Turner (2013), who states that there is limited knowledge about how to train and groom design leaders. However Mumford et al. (2000) argue this by saying that a skill-based view on leadership actually is more commonly employed for training, developing and monitor leaders today. Even if it is more commonly employed further understanding of skills need to be developed. One way to do this according to Mumford et al. (2000) is through understanding how business leaders acquire skills during their careers. If this can be done the skills approach can provide a future template for leadership development in regards to important aspects of *listening*, *creative problem solving* and *conflict resolution skills* (Northouse, 2013). Furthermore if the skills, as mentioned, can be developed or improved another vantage point appears that leadership skills in general would be transferable from one company to another (Berard, 2013). In the end the important part is to identify what these skills actually are, for otherwise there can neither be implementation, transferability or development.

The main issue however is that there is no clear agreement of what skills, knowledge or experience neither a design leader nor a generic leader require. To start off somewhere we look to the generic leadership and Berard (2013) who believe that one of the essential skills in successful leadership is relationship building ability, which is unfortunately the least transferable skill. With that in mind, one knows that the concept of transferring all skills is questionable, and either way not of focus in this research. To continue on the generic discussion Mumford et al. (2007) believe that the generic leaders require a set of basic leadership skills comprising of:

- Cognitive skills in terms of the written and spoken word
- Business skills (management of: material resources, operation analysis, personnel and financial resources)
- Strategic skills (envisioning, systems perception, identification downstream and key causes, problem identification, solution appraisal and objective evaluation).
- Interpersonal skills (social perceptiveness, coordination, negotiation and persuasion).

In addition Connelly et al. (2000) reached that it is important for leaders to possess skills in *creative thinking*, *complex problem-solving* and *social judgment*. In the same manner Gloppen (2009) points out that creativity, innovation and value creation are important skills required for the strategic issues leaders face in business transformation. These also happen to be skills required for design thinking (which we mentioned earlier), entailing that design thinking could be an integral part of leadership skills. This somewhat paints the picture of how complex it is to differentiate what skills sets the different types of leadership apart. To further clarify to what extent scholars are disagreeing on the subject, we bring Miller and Moultrie (2013) explanation to attention, that a design leader employs a hands-on approach and focus on the product and operate as a design function. This does not require design thinking, which is what we argued from looking at skills even could be part of generic leadership in business transformation. Although Miller and Moultrie (2013) believe that the design leader requires skills in planning, design expertise and envisioning. Hence meaning that the design leader need some design related skills. Which is agreed upon by Han and Bromilow (2010) who implies that not only is design leadership skills necessary for those in leadership roles but also for the designer, and that these skills can be developed from a designer's own leadership capabilities. Byrne et al. (2009) takes this further and claim that leaders of all creative functions need to have considerable knowledge and understanding of the field in which they operate, which in this case would be design.

The design skill argument is something we can add on to the pile of disagreement and contradictions in relation to this topic, because Joziasse (2011a) for instance, believe that no prior design expertise or practice is required in order to be a design leader, which is supported by Topalian (2011). However Connelly et al. (2000) found that the establishment of necessary skills depend on what method of approach is used when undertaking skill-based research. As we are following Miller and Moultrie's (2013) method we have to follow, as a starting point at least, their view that a design leader requires design skills. On top of this Miller and Moultrie (2013) believe that the leader require business skills and categorise design and business into five categories; design-, cognitive-, interpersonal-, business- and strategy skills. Han and Bromilow (2010) have categorised the skills they believe necessary for design leaders in a similar manner into three groups though; *creative leadership*, *business awareness*, and, *interpersonal relationship* and *communication*. The categorising does not differ to much, but then on the other hand nothing under the leadership skill topic does differ extensively, so far. Berard (2013) for instance mentions that a lot of the generic leadership skills identified to date are interlinked with general management skills. Which in similarity Turner (2012) established for design leadership and design management, and this is what we believe cause the confusion that we want to clarify with our research. Turner (2012) also identified the following abilities as requirements for design leadership:

- To create differentiation, sustain competitive advantage, enable outstanding performance.
- Help envision the future; generate tangible, design related, business scenarios, considering the future; clarifying the implications of these scenarios for the company; and ensuring the most appropriate design directions, formulate design strategies and programs.
- Provide a clear direction.
- Establish a culture of innovation and train managers for design leadership roles
- Improve organisational performance.
- There are fundamental differences between leadership and management yet they are charged with a mixture of responsibilities that requires them to be at the heart of the organisation. (Turner, 2013)

These could possibly be used to understand or compare with established skills, as abilities are not the same thing but touch the same areas.

We do think that we should mention the weaknesses that come with applying a skill based leadership theory, because there are some as with all leadership

theories. Some previously identified skills (*motivation, critical thinking, personality and conflict resolution*) are according to Northouse (2013) addressing more than just leadership. However as Mumford et al. (2000) and others include these skills the concept of leadership the concept becomes less specific in explaining leadership performance. In addition Northouse (2013) point out that the listed skills does actually contain some trait attributes.

2.6 Summation of skills and research model

We want to summarise the skills we identified in the literature. First and foremost we put together the model below which is based on Miller and Moultrie (2013) assembled skills that they used for testing. In addition we added the design skills that they established in their findings.

FIGURE 1: RESEARCH MODEL

Cognitive	Interpersonal	Business	Strategic	Design
<ul style="list-style-type: none"> • Speak (convey information) • Listen • Write • Read • Learn/adapt • Think (critically) • Observe • Draw 	<ul style="list-style-type: none"> • Perceive (socially) • Coordinate • Negotiate • Persuade • Motivate • Nurture 	<ul style="list-style-type: none"> • Analyse • Synthesize (recuirement) • Motivate/direct (human resources) • Manage 	<ul style="list-style-type: none"> • Envision • Perceive • Plan • Evaluate • Identify • Appraise 	<ul style="list-style-type: none"> • Inspire • Imagine • Visualise • Design • Edit

Source: based on Miller & Moultrie (2013)

These were then matched with our literature review, to see if any of the other scholars identified other skills that could be added to the model. However most of these skills were possible to pair with Miller and Moultrie's skills or even the same, the following where used:

TABLE 1: SKILL INTERPRETATION

Source	Original skill	Interpretation
Mumford et.al (2007)	Motivation	
	Manage	
	Envision	
	Learn/adapt	
	Evaluate etc. ¹	
Connelly (2000)	Social judgment	Perceive
	Conflict resolution.	Negotiation
Northouse (2013)	Listen	
Han & Bromilow (2010)	Communication	Speak
Turner (2013)	Envision	
	Provide clear direction	Synthesize

Besides these we identified a few more that we felt perhaps were not even a skill or that they deviated too much from Miller & Moultrie's list (look at table below), which we are in the end going to use as our research model.

TABLE 2: SKILL EXCLUSION

Source	Original skill	Interpretation
Gloppen (2009)	Creativity	Skill?
	Innovation	Skill?
	Value creation	Skill?
Northouse (2013)	Creative problem solving	Deviate
	Conflict resolution.	Skill?
Connelly (2000)	Creative thinking	Skill?
	Complex problem solving	Deviate

¹ Mumford et.al (2007) is actually what Miller and Moultrie based their skills on and therefore we felt it was unnecessary to compare all of these skills.

3. Methodology



3.1 Choice of subject and organisations

The process for this thesis began with the two of us wanting to combine our interests as well as some of the subjects from our masters program L.I.K.E (Leadership- Innovative, creative, entrepreneurial). Design and leadership then became the obvious choice for us, as these were subject incorporated as courses in our program. As we progressed an article by Miller and Moultrie (2013) captured our interest. They explored a new research area for design leadership; skills. When we realised that Miller and Moultrie (2013) recommended further studies on the subject the thesis took form. Hence we conducted kind of a replica on Miller and Moultrie's (2013) research method. As a skill-based view on leadership is argued by some to be obsolete especially in terms of generic leadership we need to motivate our choice. So why? Well as mentioned, the study for us is interesting due to that skills still might play an integral part in the design leaders role, since design is a skill rather than a trait.

To differentiate ourselves from previous research we wanted to explore a different industry. This gave us a chance to confirm or disprove Miller and Moultrie's theory, not only on a new industry but also in a different country and in contrasting organisations, as we selected manufacturing SME's in 'Småland', a region in the southern part of Sweden. We chose 'Småland' based on geographical limitations we wanted to focus on nearby area, fortunately the region of 'Småland' is filled with interesting design-based organisations.

During the design course we went on several field trips; first and foremost we visited SME manufacturing organisations in 'Småland'. These types of organisations captured our interest as we discovered that they are of a unique character; that most of them employ an open door policy and teamwork is central for the organisations, which could lead to indistinct roles. It would not be shocking if the CEO were found fixing the machines on the production floor, which we think says a lot about their organisational culture. This is one of the reasons why we found the manufacturing industry so interesting, the indistinct roles that add to Miller and Moultries (2013) findings or rather test them from a new perspective, as mentioned earlier.

3.1.1 Interviewees and organisations

We selected the following organisations due to their acknowledgments by various design awards for example Red dot and 'Design region Småland' and the nature of the organisations.



Zero is a family business that manufactures and sells attractive light fittings. The current design leaders and CEO's father established Zero in 1978. The organisation employs up to date technology and solve problems in an innovative manner (Zero, n.d.). The organisation is located in Nybro, a small town within the 'Småland' region. The unique products and design has brought the organisation a lot of attention both in terms of award nomination and market share.

According to Thomas Gill this is because they are the only ones in Sweden and the world that fuse the type of advanced technology and design as they do in to their products, which are their trademark.

Thomas Gill – Design manager who is responsible for product development and production.

Manne Lindvall – Production manager and supervisor.



The current CEO Niklas Hult and Chairman Lars Carlsson founded DuoBad in 2000. The company have their own design, thoughtful ideas and an environmentally safe production with an emphasis on continuous improvement. It is important for them to listen to

their customers and give them the best possible service. They "*Create high quality products with timeless design to embellish everyday life*" (Almi, n.d).

Niklas Hult – CEO and founder, he is responsible for finances, technology, marketing, design and product development

Lars Carlsson – Chairman and founder, also head of buying.

Both Lars and Niklas own 50% of the organisation so they share responsibilities though.



LVI was founded in 1978. The organisation has been recognised as one of the world's leading manufacturers of equipment for those

visually impaired. LVI's philosophy is to make every day easier for people with visual disabilities. They design and develop products with high standard to ensure reliability, simplicity and service. Everything is developed and manufactured at their headquarter in 'Växjö'.

Henrik Blomdahl – Head of development and deputy CEO mainly responsible for the mechanical, electronic and software development within the organisation.

Joachim Schill – Product Constructor mainly responsible for constructing and developing new products.

3.2 Research approach

As we are conducting a kind of replica in terms of the method, we find it necessary to briefly introduce you to Miller and Moultrie's (2013) approach. They carried out a qualitative, interpretative and exploratory research with an inductive approach. They also collected data via semi-structured interviews. This chapter therefore introduce you as a reader to how we applied their method to our research.

Within the field of research methodology there are two types of research philosophies that reflect the relationship between theory and research, the inductive and deductive theory (Bryman & Bell, 2011). The approach chosen underpin the development of the research, therefore it is important to evaluate what philosophy is most suitable for our subject. As we are conducting a kind of replica we approach the research in a deductive manner. Ghauri and Grønhaug (2010) state that deduction is about building hypotheses from literature and existing knowledge, and therefore it is about testing the literature. Miles and Huberman (1984) claim that a deductive philosophy could be used in qualitative research where a fairly well developed theory is to be tested. As we are testing a theory based on an existing study we therefore find the deductive philosophy applicable. Furthermore we also developed an in-depth theoretical understanding before approaching the empirical aspects of the study, which is what one does in a deductive philosophy.

The next step was to select a research method. Research methods refer to the collection of data that is systematic and focused in order to obtain information so

that to solve the specific research problem (Ghauri & Grønhaug, 2010). The two main paradigms, which research relies on are either the qualitative or quantitative approach (Elliot, 2005; Belk, 2006). Which method and technique that is the most suitable for research depends on the stated purpose and research questions (Ghauri & Grønhaug, 2010; Saunders et al., 2009). Our purpose is motivated by Miller and Moultrie's (2013) statement that further studies should probe more into the differences between design leadership and generic leadership, based on their method. As we need to probe a qualitative approach is logical. The data collected in qualitative studies are thick and therefore allow for deeper understanding (Saunders, 2009). However, deduction is often of quantitative nature and induction of qualitative nature (Bryman & Bell, 2011).

As mentioned though we are following Miles and Huberman's (1984) claim that a deductive philosophy could be used in qualitative research. Using a qualitative method is, on top of this, most suitable for studies that need to explain and clarify a phenomenon or concept (Jacobsen, 2002). Yin (2009) also explains that when a study conducted within a rather new research field, which design leadership is, one should employ a qualitative research approach. Even though the theory that is acting as a foundation for this study is previously developed, the field in itself is relatively new. Therefore there is no clear direction of where, by whom or how design leadership is employed and that is why a quantitative study would be difficult to carry out.

After selecting an approach a relevant design for the research were to be determined. The overall plan for relating the research problem to relevant empirical data is through research design (Ghauri & Grønhaug, 2010). There are three main categories within research methodology, *exploratory*, *descriptive* and *causal* (Ghauri & Grønhaug, 2010; Saunders et al., 2009). Since we were not exploring a completely new subject we end up in between descriptive and exploratory design (Pinsonneault & Kraemer, 1993; Saunders et al., 2009; Sekaran, 2003). Exploratory, because we are looking into a new field (SME's) and that Miller and Moultrie (2013) were using this research design. Descriptive, because we were trying to understand a group of people in a given situation (Sekaran, 2003), as well as addressing *what*, *when*, *where* and *how* questions (Zikmund et al., 2010). We are not however trying to identify a cause-and-effect relationship so therefore a casual design could be excluded (Zikmund et al., 2010).

3.3 Data collection method

Ghauri and Grønhaug (2010) implies that qualitative data is generally collected through interviews and observations, it is a rather interpretative and/or analytical procedure, where the importance lies in analysing data in order to reach findings. Carey (2009) supports this and adds the fact that when adapting an interpretive approach to research the preferred method of data collection is through interviews. Based on this we have chosen interviews as our data collection method in order to meet the interpretive approach. Not to forget we were to follow Miller and Moultrie's (2013) method. In addition, interviews provide the researcher with the possibility to probe and let the respondents explain their answers further (Bryman & Bell, 2011). Which has been important for us so that we could gain more from the interviews and explore subjects that we might not have thought of from the beginning.

3.3.1 Interviews

Interviews require actual interaction between the respondent and the researcher and this can be conducted with the use of e-mail, telephone or in person. (Ghauri & Grønhaug, 2010; Zikmund et al. 2010). We have used semi-structured interviews in accordance to Miller and Moultrie (2013). Semi-structured interviews require a list of pre-determined questions about specific topics (Bryman & Bell, 2011). Saunders et al. (2009) explain that semi-structured interviews allow for conversation and being able to probe, therefore not being forced to follow a set framework or procedure. The method is favourable as it also allows one to pick up and explore interesting matters mentioned by respondents. Worth noting though, is that interviews are time-consuming and could cause reason for people to decline an interview (Saunders et al., 2009). To prevent this it is advantageous to choose a location that is convenient for the respondents (Bryman & Bell 2011). Consequently, we have conducted the interviews at the respondents' place of work. Another reason for this is that the respondents typically feel more relaxed in a known environment (Bryman & Bell, 2011).

3.3.2 Observation

Observation is when the interviewer, without asking the respondent, collects data through direct observation (Kothari, 2004). In order for us to gain a brief understanding of the organisation's work environment we employed a light

version of observation. We briefly looked at facilities, interaction, production and lunch/coffee-rooms.

3.3.3 Course of action

As recommended we carried out the interviews at the respondents place of work. At each organisation two leaders of either the design process or generic organisational tasks were interviewed individually during 40-50 minutes. The interviews started off with a conversation about the respondents' background and experiences following information surrounding their current position at the company. This was in order to first and foremost establish what type of design and leadership background the interviewee had and to function as an icebreaker. However we soon realised that we needed to develop a more extensive introductory (icebreaker) conversation, as some of the respondents seemed a bit nervous because of the short introduction. If we would have eased them in to the conversation through some chatting, this might have calmed them down. Or it could have simply been down to them being inexperienced interviewees. Either way, we ended up changing the introduction to a more personal approach. Besides this some of the skills that the respondents mentioned seemed more like traits to us, which could come down to it being easier for people to talk about their traits rather than their skills. That is why the predetermined skill cards was a good approach, we could however have given them some examples of what we wanted without leading them on.

After this we moved on directly to skills covering the respondents own perceived skill-set related to their position without prior influences from us this was the relating question; *What skills do you consider necessary in order to carry out your work and foremost your leadership?* This question proved some difficulties as one typically do not reflect too much on one's skills and roles. Instead of leading the respondents' reply we asked them to answer as thorough as they could from whatever they believed correct. Directing the answer with an explanation would perhaps fault our results (Bryman & Bell, 2011). When the interviewee had had the opportunity to express their own believed skill-set we introduced pre-written cards, with established skills assumed to be appropriate for design leadership. When the interviewees selected skills by themselves they came up with around one to four skills. Whereas we presented them with 29 skills, which entails that this might not have been the best way to gain knowledge of their preconceived skill-set. The skills were presented on self-adhesive labels. The interviewee then had to select the skill cards that they found to be used by themselves in their job, having the chance to remove and add skills to what they previously mentioned. In other words they had the chance to write skills on empty labels. All skills had to be motivated and attached to an A3 paper,

combined with their name, in whatever format they found appropriate, an example of this can be viewed in appendix 3. The attachment of the skills was done so that an analysis of the different types of clustering could be carried out; the question that could be answered with this is how the leader positions their skills to themselves. We did find that four out of six respondents had difficulties with how many and what skills to include on their map. As we attempted not to lead them to any form of result we allowed them to interpret this the way they wanted and this probably reflected the way that they did map their skills and therefore also what skills they selected. We regard this as a methodological mistake that in the end reflect our findings and why we have not put too much focus on the mapping itself. The interviewee after this though asked to rate each skill individually on a scale of 1-10 whereby 10 was the most important in order for the interviewee to perform their job. This was done so that we could identify the most important skills and compare to what they verbally communicated. Last but not least we asked the respondents how they personally view design and as well how important it is for their role and their organisation. As a semi-structured interview does allow for further questions during the interview, we put this to use, so whenever a respondent discussed an interesting topic we asked them to develop. We did however use an interview guide, which can be viewed in appendix 1.

Of course we went through some ethical procedures in form of asking how we were allowed to reference and present the respondents results. We also asked if we were allowed to record the interview before we started, for transcription purpose. Which we were given consent for by all of the respondents.

3.4 Operationalisation

Theme: Background and experience

We addressed the respondents' background and experience through one initial question.

Question:

Could you please describe your background, education and work experience?

The initial reason for asking this question was to review the respondent's design experience from education and previous jobs. Secondly we wanted for them to detail their role, so that we could identify what type of leadership they employed and how they viewed their responsibilities.

Question:

What is your personal view on design and how important is it for your organisation and your role.

Theme: Skills testing

This is the foundation of the thesis, and therefore important to investigate. We wanted to investigate whether there are any differences between the generic leadership and design leadership. By asking the interviewees to first explain their perceived thoughts on what skills they used and secondly allow them to select from pre-written skills we could determine what skills they employed. The rating of the skills was asked so that we could determine how important the skills were perceived to be in their role.

Question:

Please describe your position and role within this company, in other words your tasks.

Question:

Please rate your skills at the level you perceive each skill relevant for your position,. Use a scale of 1-10. Where 10 is the most relevant and 1 the least relevant.

Theme: Design view

Design leadership is the subject for the thesis and what we are testing skills for, so therefore design automatically becomes an integral part of the research. Therefore we wanted to know how the respondents viewed design as a mean of making sure that they understood the theme of the interview.

Question:

What is your personal view on design and how important is it for your organisation and your role.

3.5 Sample

Sekaran (2003 p.267) stated, *"It would be practically impossible to collect data from, or test, or examine every element."* Therefore a choice is always necessary. In order to do this a research strategy needs to be employed. Since we limited ourselves geographically as well as being naturally limited by the subject we cannot select organisations randomly. Non-random sampling, also known as non-probability sampling, was therefore applied in order to answer the research purpose and questions (Gerring, 2007).

From the different non-random sampling techniques available Saunders et al. (2009) recognises purposive sampling as a viable technique when working with small samples, such as in our case. Purposive sampling enables us as researchers to use our own opinions and experience when selecting organisations for answering the research questions (Bryman & Bell, 2011; Saunders et al., 2009). Bryman and Bell (2011) asserts that before selecting cases for purposive sampling researchers have to develop criteria's that each case should meet. The following criteria's was used in our case:

- At least one design leader and generic leader - and three possible candidates for interviews.
- Be part of 'Småland' county.
- Manufacture a product whereby design is an integral part of that manufacturing process.
- Be an acknowledged organisation for their design, however seen as an SME (small and medium enterprise).

The choice of a purposive sampling technique may cause bias due to that some members of the population might be more likely to be selected. However Bryman and Bell (2011) state that purposive sampling is useful in order to ensure that there is variety in the final sample.

When the sample of organisations was selected the initial contacted leader in each organisation were asked to recommend further appropriate candidates for interviews leading to a snowball sampling method (Saunders et al., 2009). The individuals interviewed was required to:

- The initial contact had to be either CEO, assistant CEO, or head of design responsibilities.
- The snowball recommended candidate should be involved with either generic leadership or design, depending on what position the first contact had.

3.6 Validity

According to Golafshani (2003) some researchers argue that validity or at least the term is not appropriate in qualitative research, some kind of measure or check is however necessary. In agreement Klenke (2008) states that both the terms of reliability and validity may be misleading in qualitative research. Therefore the question is rather to what extent the findings are credible from the standpoint of the participant, dependable in terms of transferability or confirmable for other independent researchers (Klenke, 2008). We are more or less testing the qualitative conformability of Miller and Moultries (2013) theory, although we must also prove our confirmability, transferability and credibility by clearly and transparently describing our method and course of action.

The purpose of research is research. Therefore it is important that there are no conscious or unconscious misinterpretation of data, which would lead to bias results (Zikmund et al., 2010). Qualitative interviews are at risk for being bias though, since the researcher have to some extent interpret the information collected, however the main risk is the interviewer imposing their view in the participant (Easterby-Smith et al., 2002). This could be done through comments, tone or non-verbal behaviour (Saunders et al., 2009) which is of course difficult to prohibit, we tried to formulate comprehensible questions and as mentioned not give further explanations to avoid this. However the interviewee can be bias as well due to lack of poor recall or inaccurate articulation (Yin, 2009), as it is a somewhat difficult subject, or was found to be, this was one of our main issues, we believe that the pre-made skill cards helped prohibiting this though.

3.7 Generalisation

The purpose of this study is not to generalise. Despite this we aim to generalise in terms of formulating our findings in a way that could be applicable in similar type of organisations that were used in this study. We find this suitable as Johnson (1997 p. 289) claims the following: *“in certain forms of qualitative research the goal is to show what is unique about a certain group of people, or a certain event, rather than generate findings that are broadly applicable.”* The organisations that the findings could be relevant for are therefore: SME manufacturing organisations in Sweden who employ design in some form, either by hiring and therefore leading design consultants or designers or perhaps internally design and develop products. The organisation should be of flat hierarchy structure or at least employ an open dialog within the company. The more similar the group of people who you generalise to is, the more defendable the generalisation will be (Johnson, 1997).

3.8 Choice of theory

In order to find different theories for this study we used several keywords. The two most frequent keywords were *design leadership* and *leadership skills* since these were the two major themes for the study. Keywords like *design*, *skills*, *leadership* and *management* were used on top of this.

The articles we based the theory on was found via two search engines for scientific articles; OneSearch and Google Scholar. We later screened the bibliographies in these articles. The subjects of leadership and design have both been part of our masters program so therefore we have been able to include some of the course literature. However, the topic of design leadership was a bit of a new territory for us and therefore the scan was necessary so that the thesis would be reliable. The two main books we utilised were Design Leadership by Turner and several chapters in the Design Management Handbook by Cooper, Junginger and Lockwood, and of course as you have read; the article by Miller and Moultrie.

3.9 Interpretation and analysis

During the interviews we took notes and recorded the conversation as mentioned, this was later transcribed. The transcription was done in Swedish as the interviews were carried out in Swedish. However, this meant that we had to translate the response in order to incorporate these in the text. This adds another dimension of interpretation as we interact with the data (Bryman & Bell, 2011). Which caused some linguistic problems, for example the respondents seldom referred to themselves when speaking. They rather used *we* or first and foremost *one/you*, something we believe to be caused by the Swedish culture. In Swedish there is a more natural word for this, which is not always used in the same context as *one/you*. We did however carry out checks with a bilingual academic in order to avoid mistakes.

For the analysis we chose to colour code. We used different colours based on nine different keywords; *skills*, *design*, *leadership*, *design leadership*, *background*, *attitude*, *organisational*, *role/responsibilities* and *other*. On top of this we gave each respondent and organisation a colour- and letter code so that it would be easier to match the response with our literature, and through this start an analysis. In the literature we used the same keyword color-coding but also allocated numbers for each row of the text so that we could utilise these as codes. Whilst coding and matching the literature with the data we took notes. The

result of this where then connected to our research questions which had to assist as headings for the analysis in order to ensure that we covered what we were aiming to answer. Subheadings in form of more narrow questions where then developed for our own sake, so that we would get a flow in the analysis and ensure that the correct information were incorporated.

As for the skills maps we used (appendix 3) we looked at how the skills were placed on the paper and from this tried to draw a conclusion but as you can read in course of action we did not put too much focus on analysing the skills maps, as these did not bring much to analyse from.

4 ■ Empirical investigation & Analytical discussion



4.1 The generic leader in SME manufacturing organisations

First and foremost we would like to analyse the leaders that were incorporated in this study: their background, role and the type of organisation they work in, as this reflect the organisational culture and general view on both design and leadership. When first deciding to analyse small manufacturing organisations we went into the research with a perceived mind-set that these organisations were of special character, which in the end might contribute to a certain outcome, this was later confirmed. What we mean with this is that small organisations tend to be of flat management structure due to this the roles interlink as employees and management work closely together (Levy & Powell, 1998). This also meant that all of the respondents were using design and leadership in different dimensions and that this made it difficult to distinguish the generic leaders from the design leaders. Something that may have been caused by us asking to interview the design responsible and the generic leader, a result generated by us not being sure if the initial person we contacted would know what design leadership meant.

It was noted during the interviews that all respondents incorporated design leadership in their work. For example when first contacting DuoBad, Niklas Hult was presented as the design leader and Lars Carlsson as the generic leader, however during the interview we soon realised that this might not be the case. Both leaders were heavily influencing the design process. Lars Carlsson did at first hand seem more involved with the overall design leadership aspects, as he was the one focusing on trend analysis and competitive analysis, which is what Acklin (2010) view as the design leaders core responsibilities. Niklas Hult might on the other hand focus more on details such as drawing and coming up with the actual design for products, he therefore has a more of a hands-on approach to the work. Lars Carlsson is more analytical; viewing things in a larger perspective and reasons before making decisions, which supports the previous argument that he would be a design leader (Best, 2006). At the same time he has bigger responsibilities in terms of overseeing the production, which could be argued to be more of a managerial nature. In the end there is a close relation between these two. They make decisions together complementing each other's skill-set.

At LVI on the other hand we could establish distinct roles and clearly identify that Henrik Blomdahl was applying design leadership, which we will discuss later on. Yet, Joachim Schill would perhaps not describe himself as a design leader but clearly incorporated skills and aspects of the role. As you can see these four leaders roles leads to some questions, who is the design leader, who

employ design leadership or who is simply the generic leader that incorporates design in their role? In the box below you can view how we approach this in the analysis:

From the start we focused on those responsible for design as the design leader, therefore in the analysis we will call them the design leaders (Henrik, Niklas and Thomas) and the others (Joachim, Manne and Lars) for the generic leaders until we can conclude who employ design leadership and therefore can be called design leaders.

4.1.1 Flat organisations

We believe that the typical flat structure of SME's affect the interlinkage between roles. Henrik Blomdahl at LVI for example mentions that they; *"...are very open. Everyone attend our meetings where we have representatives from each department. Representatives from high to low and everyone is allowed to have their say."* Based on the statement, from observing LVI's facilities and interactions we drew the conclusion that LVI are of a flat organisational structure. In similarity, DuoBad describes their organisation the following way; *"We have a flat organisation, and that is sort of what identifies small organisations success, there is no hierarchy, that way. People take responsibility for what one knows that one has to do in their own respective field. Therefore we don't really have any regular production meetings either, it becomes, more of a 'fika'² thing.* This realisation that SME's organisational structure influence the leadership and division of responsibilities affect the research and differentiate us from Miller and Moultrie (2013) who drew their conclusion from larger and taller organisations.

4.1.2 Respondents background

As for the respondents background, the majority had a mechanical engineering degree or similar, which typically incorporated some sort of design components but is not of the same character as Miller and Moultrie's (2013) respondents. In our case design was rather self-taught by those who employed it. Thomas Gill at Zero captured this well in a few words *"I grew up with design and worked here more or less since the start, because our father started the organisation. So if one talks about the design, it is something you learn throughout the years. I have the technical education so that I can deal with the production"*. The others might not have grown up with design in same sense but developed an interest for design due to the nature of their background or current position. Which therefore

² Fika: A Swedish tradition whereby one drinks coffee commonly done together in the lunchroom at 10am and 3pm.

would entail that Joziasse (2011a) and Topalian (2011) is correct; one does not need prior expertise or practise in design to become a design leader. However as Byrne et al. (2009) stated that leaders of creative function does require knowledge in the field they operate. The majority of the respondents operate in design-focused organisation they therefore regard design as an important aspect for their position. And what does really qualify expertise and practice?

All the respondents' technological or mechanical background allows them to work with product development from a technical perspective and through this use design, so even if they are not literally described as designers or studied extensive design at university they still employ at least technological design. As design can be many things, which we asked you to bare in mind in the beginning (Gorb & Dumas, 2011) we regard them as having valid design expertise in relation to what they need in their respective organisation. This could be either for sketching ideas, design themselves or employ designers, this is however a discussion for later on in the analysis.

Design background

First off we want to briefly look at the interviewees relationship to design, for instance Niklas Hult at DuoBad describes his view on and relation to design, when asked if he worked with design earlier: *"Yes in fact one does that whenever one creates something, then one really works with design but it really comes down to what degree of consciousness you do it with. Of course whatever you create you more or less use design, so even when I worked with developing machines, say if I created a sawdust protector I tried to make it look neat. For that is also a testament to professionalism."* Whereas Henrik Blomdahl at LVI recognise four types of design; *visual, functional, ergonomic and technological*. The functional design most likely come down to LVI's general approach to design, as Joachim Schill also recognise this stating that *"design is something that is functional yet beautiful"*. He explains further that without a thought through function something might not be *"good design, which is basically down to a matter of taste"*. Whereas at Zero *"the design is almost holy"*, and top management directed and recognised as the core competitive aspect for the organisation, by the generic leader. Which from our understanding is what Turner (2013) and Gloppen's (2009) thoughts could be linked with; that design is a necessary tool used in order to develop a successful organisation, impossible to avoid and the attitude 'creativity through design' is employable throughout the organisations. In addition this could demonstrate why design act as a merger between positions and create an enjoyable culture where all employees feel included especially in SME's. It is about one of those things where employees get responsibilities that they were not intended to have, but enjoy so much that it proves valuable for

both the organisation and the employee. Joachim Schill at LVI for instance developed skills in drawing by himself, which was not initially part of his position but became a useful tool for the organisation, something that might not have been discovered in a larger organisation.

This section gives us the notion that our preconceived thoughts of; who employs design leadership and who is the generic leader, were simply based on job titles. Therefore we will allow the analysis of the skill testing to clarify and establish a solid basis for determining these roles.

4.2 Analysis of the skills

Miller and Moultrie (2013) described skill theory as a good approach for exploring leadership. However as we mentioned the respondents found it slightly difficult to describe their skills without any guidance, a common reflection were; that its not very often one review one self's position. In addition, some of the "skills" that the respondents mentioned seemed more like traits to us, this could come down to it being easier for people to talk about their traits than their skills. This could also be linked to Sherwin's (2012) belief that a design leader need to mature in their role before they can even realise their leadership skills. Which has led to us having to interpret the response in regards to the first skills question. At times the respondents have given us direct skills but they have also talked about their position in terms that can be interpreted as skills without giving us a specific words for it. A quote by Manne Lindvall at Zero is a typical example of this *"If something doesn't work as it should then I have to solve that problem"* which we interpret as *problem solve*. There were several similar situations like this, as well as misunderstandings of what skills actually were, some discussed education, others traits and some leadership in general. We did draw a few leadership skills from this though, not all of these were identified during the interview and therefore not attached to the individuals skill map. But we will clarify the following in the table below.

FIGURE 2: FIRST STAGE SKILL TESTING

Cognitive	Interpersonal	Business	Strategic	Design
<ul style="list-style-type: none"> • Speak (convey information) • Listen • Read • Think (critically) • Draw • Curiosity 	<ul style="list-style-type: none"> • Attentiveness • Communicate • Negotiate • Socialise 	<ul style="list-style-type: none"> • Manage • Delegate • Problem solve • Lead • Projekt manage • Produce 	<ul style="list-style-type: none"> • Estimate • Identify • Plan • Appraise • Analyse (macro) 	<ul style="list-style-type: none"> • Create • Employ creativity • Design • Employ technology

We found it interesting that several skills that was put together beforehand was conveyed in this question then at the same time some new skills appeared. *Project management* for instance was mentioned by all of the top leaders. Lewis and Bonollo (2002 p.396) describe project management as the process of *“planning schedules and organising work to ensure that schedules and performance targets are met”*. They also believe that those involved in design projects requires skills within project management (Lewis & Bonollo, 2002). Those skills that Lewis and Bonollo (2002) clarify are used separately in this research. Yet, after the interviews we found it necessary to describe these together under the term project management since the respondents repeatedly mentioned it.

Attentiveness, a skill that was not at all identified in the secondary data collection but the majority of the respondents brought it to our attention during this part of the interview. They typically connected this to the importance of listening, which was later on identified as one of the most important skills in leadership. But of course they also discussed the skill in the actual sense of attentiveness; that one have to pay attention to others. It could be in the context that DuoBad explained; in business companionship. Where without being attentive, a companionship would never work. Or as the others; in regards to their co-workers in general. Just as attentiveness, *curiosity* was not identified as a skill in the literature review. Yet, Niklas Hult at DuoBad said the following: *“...credibility in what you say but first and foremost curiosity, because the day you aren’t curious you stop developing and when you do that you can’t develop others either.”* At first we were unsure if we could use curiosity as a skill. This for us seemed more like a trait and a typical example for what we mentioned in the beginning of this section. However, when we started to look more into it we found that Clanchy and Ballard (1995) define curiosity as a skill. Topliff (2013 p.18) supports this by claiming that *“curiosity is a foundational corollary of the key attributes of a strong and effective leader”* they do however divide curiosity into *“memory, the ability to learn new information, speech, understanding of written material and problem solving”* which is what Niklas Hult spoke about and therefore curiosity made it on to our list of leadership skills at this stage of the analysis but will divide curiosity like Topliff (2013) did , if we include it in the summarised model.

Problem solve was another skill that several of the respondents mentioned in one way or the other; Niklas Hult at DuoBad for instance expressed himself this way *“I am damn good at solving problems”* whereas Henrik Blomdahl at LVI relates it to planning and estimation. Problem solving did therefore seem to be an integral part of both design leadership and generic leadership, which both Northouse (2013) and Connelly et al. (2000) also found to be a necessary skill for all

leaders. Since we were focused on the design leadership we chose not to include *problem solve* which we in hindsight regret.

Furthermore technical knowledge was seen as valuable in the respective organisation, which could be down to the respondents' educational background. We translated this into *employ technology*, so that it would suit our research model. *Create* was also brought up more than once, which is an interesting result in our view, as others talked about creativity and design. Some also discussed produce in terms of turning ideas into production but *create*; especially from Manne Lindvalls aspect, who said "*I work a lot with my hands*" which for us sounds more like something a designer or artist would do, considering he is the only interviewee we can identify as the straight-out generic leader. Due to his position at the company, not leading any design processes or designers and his selection of skills, which can be viewed in appendix 2.

These were some of the skills we found valuable to discuss further; the interesting part in this though is the difference in response between the generic leaders and the design leaders. The generic leaders identified two skills that the design leaders did not mention; *socialise* and *employ creativity*. In a previous discussion in the literature review we identified that Gloppen (2009) believe that creativity is necessary for the design leader. Even though the design leaders did not articulate the word creativity it was implicit that this was what they meant in some of the conversations, which is difficult to exemplify in text form. It could perhaps be so that this is such a big part of their job that they did not think about it as a way of employing it as skill. Another aspect could be that they employ designers that have to be creative themselves, so that the leaders role rather have to do with different skills that motivates the designers creativity, as in Sherwin's (2012) theory of the 6C's. Either way the following skills were shared between the design leaders and the generic leaders, at this stage of the analysis: *draw, communicate, employ technology, delegate, problem solve, attentiveness, read and listen*. This changed a bit when we presented the interviewees with the skill cards, as we thought it would.

4.2.1 Skills testing

When the interviewees had to select from the predetermined skills, this was the skill they had to choose from, as you can see we used the research model:

FIGURE 1: RESEARCH MODEL

Cognitive	Interpersonal	Business	Strategic	Design
<ul style="list-style-type: none"> • Speak (convey information) • Listen • Write • Read • Learn/adapt • Think (critically) • Observe • Draw 	<ul style="list-style-type: none"> • Perceive (socially) • Coordinate • Negotiate • Persuade • Motivate • Nurture 	<ul style="list-style-type: none"> • Analyse • Synthesize (recuirement) • Motivate/direct (human resources) • Manage 	<ul style="list-style-type: none"> • Envision • Perceive • Plan • Evaluate • Identify • Appraise 	<ul style="list-style-type: none"> • Inspire • Imagine • Visualise • Design • Edit

Source: based on Miller and Moultrie (2013)

All of these skills were chosen by at least one of the respondents. Which entail that all of the previously identified skills are employed in 'Smålands' design-related SME manufacturing organisations. The result of this and how the respondents rated each skill can be viewed in appendix 2 as well as in the charts below. However the skills were motivated differently by each respondent and there was a slight difference between the design leaders and generic leaders in terms of comments. Which yet again made the distinction between who is the design leader and generic leader in each organisation unclear. In the chart below you can view what type of leader and how many that selected each individual skill, this chart will be used throughout the analysis so keep it in mind.

CHART 1: NUMBER OF LEADERS

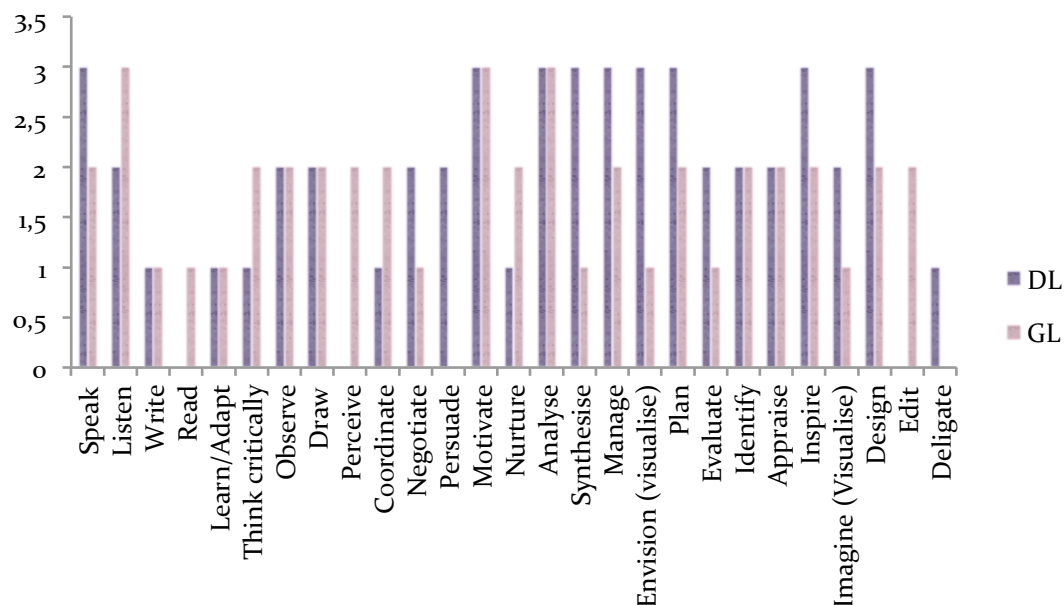
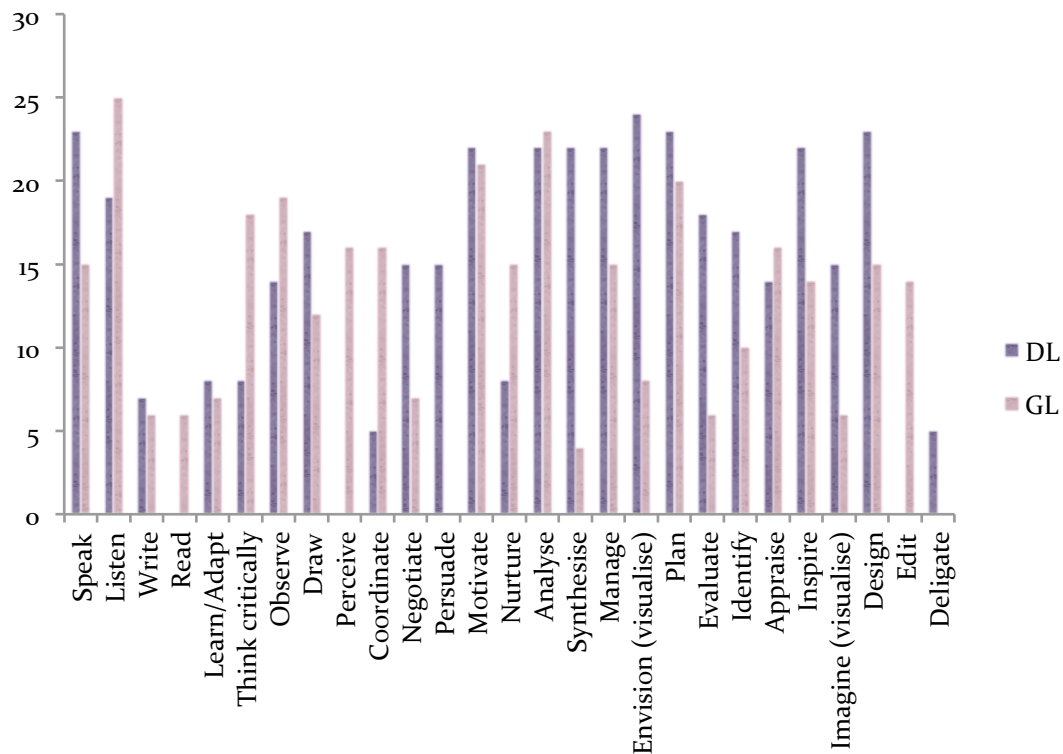


CHART 2: LEADERS TOTAL RATING



As you can see *persuade* were the only selected skill that the design leaders was unique with, which is not really a design skill. Henrik Blomdahl at LVI talks about it in generic leadership terms: “*We have to persuade employees in a nice manner sort of saying; this way is the best for the project and you, let’s do it this way.*”. The two “design leaders” who selected *persuade* work at high positions in their respective organisation (Niklas Hult as CEO at DuoBad and Henrik Blomdahl as deputy CEO at LVI), which leads us to believe that the persuade skill is probably part of those positions rather than the aspect of design leadership. On the other hand the generic leaders chose three skills that the design leaders did not: *read*, *perceive* and *edit*. And as we mentioned they were also the ones that came up with skills that was previously unidentified: *communicate*, *attentive*, *curiosity*, *delegate* and *creative*.

Shared skills between design leaders and generic leaders

As we mentioned in the beginning of the analysis the respondents gave us a few skills that they shared (*draw*, *communicate*, *employ technology*, *problem solve*, *attentiveness*, *read* and *listen*) before we handed them the skill-cards. During the second skill identification question we identified that equal number of leaders selected the following skills; *identify*, *appraise*, *observe*, *draw*, *learn/adapt*, *write*, *motivate* and *analyse*, which you can view in chart 1. We have started with

analysing the skills that two interviewees from each leadership group selected and will finish this section with motivate and analyse, as these were the skills that all leaders selected and found important for their position.

Identify

Henrik Blomdahl at LVI talks about *identify* as part of a process for synthesize, as a mean of identifying a problem/issue. Which Manne Lindvall at Zero also do, he formulated it like this *“if there is a problem then I’ll identify it.”*. Whereas Thomas Gill at Zero use the skill in terms of *“identify different products within the brand”*. Which is similar to generic leader Joachim Schill at LVI who identifies what he is going to construct. Therefore we draw the conclusion that leaders in these organisations use *identify* in terms of problem identification and opportunity identification, which is supported by Mumford et al. (2007) who believe this skill to be part of the basic skill set required for generic leadership. There is however no clear distinction between design leadership and generic leadership in regards to the comments. Although in terms of rating the design leaders regard *identify* as distinctively more important.

Appraise

Manne Lindvall at Zero describes how he relates *appraise* to his position; *“This has to do with some degree of responsibility for quality. It is me who appraise if the quality is ok or not, there’s a lot of grey areas. But I appraise if we can accept the look of the varnish in one way or the other.”* Thomas Gill at Zero has the same view on appraise; to appraise if something is ok or not. Niklas Hult at DuoBad on the other hand talks of it in a broader perspective:

“Of course appraise is super important. If there is someone that comes up with an idea or if we have a supplier that brings a product, then one have to have a well-developed ability to appraise that idea or product. It could be changes in the production or an ability to appraise a good deal. Or the ability to appraise other humans abilities during a recruitment process.”

Our conviction is that in leadership, as we mentioned in the first leadership quote by Cole (1996) in the literature review; one individual influences others to contribute to the work. Which is how we view *appraise* in terms of leadership. The leadership aspect of skills is in the end what we are looking at in this study. The response by Niklas Hult therefore meet our preconceived notion of *appraise* and the scholars we referred to in the text. As *appraise* is rated fairly high by both types of leaders we can only draw the conclusion that it is not a design specific leadership skill. When looking at the comments we can see that the design leader use appraise as a leadership skill.

Observe

Miller and Moultrie (2013) regard *observe* as a cognitive skill. At DuoBad both

leaders are highly concerned with analysing the market, whereby we view this as a strategic way of using observation as a skill. Lars Carlsson at DuoBad did push the most for the strategic method of analysing the market in relation to observe: *"I observe a lot, through this one can see all changes, but that is because I analyse a lot, all the magazines and competition. One could do this even better though!"*. Whilst Niklas Hult at DuoBad referred to observe as *"observing if the personnel is ok"* although he also brought the strategic view to the plate; *"it could be a way of observing the market, new trends on the market or organisational trends"*. In similarity Thomas Gill at Zero present the skill like this: *"one can observe an idea in another industry that can be translated into our industry. We work a lot with extremes, things that can't actually be done"*. Observation itself may be a cognitive skill however as the leaders utilise the skill in a strategic measure we believe it should be transferred to the strategic section in the research model.

Draw

Whenever the leaders mentioned draw or sketch they did so in relation to other skills, therefore we will present one of each leaders view on drawing here and discuss it in relations to the other skills further down in the analysis.

Generic leader: *"I sketch daily, I draw different things. The basis of the work is that I draw and construct the products. But there is a lot around there, it could be that one have to sketch an exploratory picture for a manual. "*

Design leader: *"Draw, is something I do a lot when I manage the constructors. Then I sketch by hand so that I can explain things, it is a lot easier to draw than to explain things, it is easier to reduce the errors that way."*

What we interpret from this though is that when working with product development, being able to sketch ease the communication process and therefore could be seen as an important skill for the design leader. It is less important If you do it in computer systems such as CAD which both Thomas Gill and Henrik Blomdahl does or if you do it by hand as the DuoBad leaders does, it depends on the organisation's way of working. This could however also be linked to Joe Ferry's (in Best, 2006) belief that a visionary design leader can help contribute to a design-focused culture, with this connection we want to add validity to the thought that; being able to visualise information through sketches assist the design leader in their process of explaining and therefore lead.

Learn/adapt

A leader can improve their skills (Northouse, 2013) in other words learn new things and through this develop. As Niklas Hult at DuoBad discussed: *"If you don't develop yourself you can't develop anyone else"*. But according to Turner and

Topalian's (in Gloppen, 2009; Miller & Moultrie, 2013) six core design leadership responsibilities, the design leader should train the employees for design and innovation, and this was the angle that Thomas Gill at Zero approached learn/adapt with: *"Well one tries to teach what the others can't, so they can do it as well. Then from time to time one has to adapt if someone has a good opinion for instance, everything I say can't always be correct."* Joachim Schill at LVI also applies learn/adapt in the sense of teaching: *"When one have to build a new product and if I know how to build it and the others don't"*. From this and what the other two leaders said, we can conclude that the leaders have to reflect on what others tell them and adapt them selves if someone else comes up with better ideas. Which interlinks with *attentiveness* and that teaching others new skills are part of their positions.

Write

Write seemed just as read (view chart 1 & 2) to self-evident of a skill for the leaders to attach to their skill maps. Henrik Blomdahl at LVI mentioned it briefly *"I do write and read a lot, there is a lot of negotiation that's why"* and Joachim Schill also selected write but he was also the only one who selected all the basic cognitive skills. Hence we do not feel like we have too much to reflect upon when it comes to these skills, we are likely to treat these as the ability to walk and ride a bike in this context, something that comes naturally and fundamental to even perform a desk job. In relation to other skills we will however discuss some of these further.

Motivate and analyse - selected by all respondents

Motivate and *analyse* are as the skills above selected by both generic and design leaders although the only two skills that all leaders selected and rated high in total. Therefore we chose to analyse these separately since these are seen as highly important by all leaders in these organisations.

In the literature review we brought up Sherwin's (2012) 6 C's of creative leadership that is connected to the design leaders' daily responsibilities. The design leader should therefore among other things conjure design work under pressure, coax and compel their team to realise their vision as well as cheer the team on. We believe the 6 C's could be translated to motivation of teams. However the leaders had varied views on motivation, for example at LVI they have to *"motivate how the products should look"* or as the design leader put it *"there is a lot of motivation that has to be done"* in relation to manage the employees and projects.

At Zero though they used more specific motivations that correlates with the 6 C's in terms of motivating personnel, for example this was stated:

"One always has to motivate. If one have to carry out redistributions, because there is something that has become critically. Then you have to say - Well you have to help out, and therefore have to motivate why they should do so. Especially as they believe they won't be able to their own work then. It's me who would have to take the blame in case it doesn't work out, so I have to be able to motivate them to do the job".

Niklas Hult at DuoBad said something similar; that he deals with motivation in terms of both questioning co-workers and defending *"why one thinks the way one does"*. As well as motivate the co-workers to contribute, which to us translate into cheer in the 6 C's. Whereas Lars Carlsson related motivate to reasoning and negotiation. There is another factor of motivation that we brought up in the literature, as well as during the analysis of the *learn/adapt* skill, that a leader can improve through skills development. This does however depend on the leaders own motivation to do so according to Mumford et al. (2007). We interpreted that the leaders in these interviews where motivated to learn or develop new skills.

Back to the 6 C's and some criticism regarding our interpretation. These are related to creativity and therefore the theory is aimed at how design leaders can encourage and force this. None of the design leaders really connected motivation to creativity and therefore this linkage could be questioned. We use it as a way of explaining the process of leaders influencing their co-workers to perform and motivate their design choices though.

Analysing

Mumford et al. (2007) relates the skill *analyse* to operations (production requirements, needs and in order to create design). Which according to us is exactly what Zero use *analyse* for, Manne Lindvall views *analyse* in terms of looking at production malfunctions and coming up with solutions for this, in other words relates it to problem solving. Whereas Thomas Gill *analyse* in relation to new ideas *"Well one does that when one has an idea, then one tries to think as long as possible before one does it, in order to see what will happen"*

Lars Carlsson at DuoBad's view on *analyse* correlates with Mumford et al.'s (2007) view. Lars Carlsson commented on analysing market needs *"Analyse; I try to think through things so that one views it from different angles.... for example it could be a function how that will work for different age groups. So that a product function and appeals"*, which is what correlates to Mumford et al.'s (2007). Whilst Niklas Hult reply can't be related to Mumford et al. (2007), he regards *analyse* *"as a result of one's ability to listen, from that one can synthesize"*. At LVI Henrik Blomdahl takes an operational approach through analysis of market needs and their production *"There is a lot of analysing going on...of course at different levels for instance I analyse the competition, and our own production."* and Joachim

Schill has more of a personal view in regards to his thoughts "*I analyse a lot, what it is I'm going to construct*". To conclude we believe that Mumford et al.'s (2007) view on *analyse* as a skill is applicable to these types of companies although Joachim Schill and Niklas Hult views are of course part of the human's way of analysing what one does, but perhaps not core to design leadership.

Skills only selected by design leader

For the rest of the skills the selection between the design leaders and generic leaders are relatively even. Two of the skills that stood out the most for the design leaders were *synthesize* and *envision* when simply looking at "statistics", even though this might not be too relevant considering the nature of the research (Saunders et al., 2009). With *synthesize* we mean create new requirements and we thought of it first and foremost as a business skill, which you can view in the research model. The design leaders view this as part of leadership by saying the following:

Niklas Hult at DuoBad "*By listening I think one can synthesize. Then you have to be able to manage these requirements...Synthesize is a form of delegation it could also be that one start a new project.*"

Henrik Blomdahl at LVI "*In order to work with people that visualises, inspires and designs you need to be able to set new requirements (synthesize) so that they can do their work.*"

Thomas Gill on the other hand use it from a leadership perspective when "*set new requirements for employees if there is a change*" although he needs to follow a lot of requirements that is setup by the industry. It could therefore be argued according to us that they use synthesizing in order to provide clear direction for their employees, which Turner (2012) described as a requirement for design leadership.

Envision could on the other hand be viewed from several angles, as a skill. Turner (2012 in Best, 2006) Mumford et al. (2007) and Acklin (2010) for example mean that the design leader should envision the organisation's future and competitive advantage, in other words from a strategic point of view. In a similar manner Miller and Moultrie (2013) established that the design leader should envision future business opportunities. All in all, based on the literature, *envision* is a big part of design leadership, which was proven by the respondents in this study to be correct. Yet, the respondents related envisioning to both strategy, design and business skills, which could be a linguistic issue as the respondents related both *imagine/visualise* and *envision* to the same or similar thing. Therefore as you could see in the charts the skills *imagine* and *envision* also have to include *visualise*. For example: Niklas Hult at DuoBad said, "*When you are trying to*

persuade someone you have to have the ability to visualise. It could be both in terms of products or goals." Thomas Gill at Zero use *imagine* when he has ideas for a product, design or a process. But he also described this as *"how something could turn out"* which therefore lead us to believe that he utilise *imagine* as *envisioning* from a strategic point of view (Mumford et al., 2007). However, the generic leaders utilise these (*envision, imagine, visualise*) skills as well. Joachim Schill at LVI for instance use these when he is constructing products and have to visualise before he starts drawing and therefore he also *"visualises for others"*. He did on the other hand say *"Imagine for me is more or less the same thing as visualise."* which point out this linguistic issue even more, at the same time he recognise these skills as important in overseeing and creating the design process. To summarise this; *envision* or rather *envision, visualise, imagine* and *synthesize* are in this research what characterise the design leader if the design responsible would automatically be called the design leader and not something that is used by all respondents in these organisations. In the literature review we mentioned a quote by (Shaw, 2012), in relation to this we explain that we focus on the part that a leader creates vision rather than trust in this research. Which we now consider as an appropriate focus, since *envisioning, imagine* and *visualising* was brought up in these term and as an important skill for leadership.

Skills only selected by generic leaders

Furthermore the skills we mentioned as being selected by the generic leaders alone was: *Read, perceive* and *edit*. *Read* was only selected by Joachim Schill though who motivated this by saying: *"I select read as well, one reads and have to understand emails"*, which we believe that all leaders do, but perhaps it was too much of a self-evident skill. What Joachim Schill talks about is exactly what Mumford et al. (2007) describes reading as a skill to be; interpreting paragraphs of text. In these types of organisations it could be a crucial skill though, especially for someone in Joachim Schill's position where a lot of email exchange between him and Chinese production teams are carried out. Small mistakes in reading and writing could have a big effect on the final product, according to Joachim Schill himself.

As for editing Lars Carlsson at DuoBad said the following *"Edit, change our sketches and prototypes... We are quite good at that, when we work with an initial idea and then change it. First a prototype is sketched and then we have to critically analyse this and then edit and re-do it.* Which is what Joachim Schill referred editing to as well; *"Edit, I'm not simply thinking of a text then, it's more about editing a sketch"*. It's is for us interesting that the generic leaders were the ones that not only selected *edit* but also referred to it in terms of editing sketches. Especially since Miller and Moultrie (2013) identify *edit* as a design specific leadership skill. Then however these two so-called generic leaders are the ones

we believe to be employing design leadership, as we mentioned earlier. The generic leaders also selected perceive with the following motivations:

Joachim Schill at LVI: *“Perceive. Same thing as listening and observe, it’s important”* what he means with this is that these three skills is connected to listening.

Manne Lindvall at Zero: *“Perceive, that is partly in regards to the personnel, to perceive what they experience. It is also about how to perceive the customers wishes correctly, because that is always a cause for interpretation. As I work in the production I have the sales people and the customer on each side of me. So they interpret one thing and then communicate this to me which might lead to misinterpretations somewhere down the line”*.

In other words they perceive in a social context. This we had to look up while analysing, as we did not have a clear perception of this skill. Mumford et al. (2007 p.160) put perceive as *“being aware of others’ reactions and understanding why they react as they do”*, so there is a clear linkage between the respondents and previous research.

Skills selected by all design leaders

Furthermore the design leaders all agreed that *design, inspire, manage, plan* and *speak* are integral skills for their positions, based on their ratings (view chart 2).

In this section we aim to declare how design is used as a skill by the “design leaders”. At Zero they outsource design competence which means that Thomas Gill have to have skills in leading these designers. This could be connected to the ‘what’ of design that Joziassé (2011a) described, whereby Thomas Gill leads the designer in terms of showing them where to go. Even though DuoBad also employs external designers they do design some themselves and did do so even more in the beginning. Niklas Hult for example visualises and mediates through drawings his ideas to and for the designer. Henrik Blomdahl also works with designers, whereby as we mentioned he finds it important to be able to set demands for these designers. Still he also has to *“evaluate and visualise new products for the design process”* from time to time. He does however say that it is important to work with other people that *“by themselves can visualise, inspire and design stuff”*. Which proves Joziassé’s (2011a) point even further.

In relation to this Henrik Blomdahl mentioned *inspire* and how he links this to design, he also uses it himself in his leadership though. Niklas Hult on the other hand claim that he himself is not very good at *inspiring*, he does tell a story in relation to how others can view him as inspiring without him noticing. When

talking about this he mentioned that it is the receiver who interprets the inspiration *"I generally don't set out to intentionally inspire"*. We did however find the story inspiring and interesting in itself and want to share this with you:

"We had a women named Ia who unfortunately died to early. We consulted her in the start-up process in order to find among other things a brand name, she also developed our graphic profile. She came in at an early stage before we registered the organisation so that to match our brand with our business concept; to sell and produce products under a strong brand...We did not want to be named "Carlssons Bad" or something similar, as many already do. She went away and came back with DuoBad as the only suggestion. I mean people want something to choose from otherwise it is difficult to say if it is perfect or not, so we questioned this. But she claimed that she had listened to us during two hours and was so inspired by our plans, she thought it was amazing. She simply said: It is you and Lasse who are DuoBad, you are a duo and you want to create and sell bathroom furniture, therefore DuoDad. So with this I mean that one can inspire without knowing so."

Sherwin (2012) and McCullagh (2008) claim that inspiring others as a design leader is important, the leader needs to encourage teams to perform. We interpreted that Henrik Blomdahls way of linking inspiring, with setting demands to be a way of pushing his colleagues forward. Thomas Gill seems to have captured Sherwins philosophy in his statement; *"Inspire does one have to do in some way so that everyone thrives."* We view it as if someone thrives they perform. In the end we regard this as a fundamental leadership aspect for design leaders, but perhaps not design connected per se. We analysed further what Miller and Moultrie (2013) said about *inspire* and reached the conclusion that our respondents does not discuss the aspect of inspiring in a design context and therefore *inspire* will not make it on to our list as a design specific skill.

In terms of *manage* Henrik Blomdahl manage personnel and because he works in *"projects there is a lot of management involved"*. In a similar manner Thomas Gill manage his projects and *"manage others but it is important not to overload them and make sure everyone is fine"* Mumford et al. (2007) cover all these aspects of managing material, resources, daily operations and personnel. Which we think is agreeable with Niklas Hult statement that *"in small companies management is extra important"*. We find this similar to inspire though in terms of being a leadership skill that is fundamental to design leaders but not a design specific skill although it is a skill that the design leader specifically require.

Moving on to planning, which is identified by Miller and Moultrie (2013) to be an important skill. According to Thomas Gill he *“plans for all new the products. We generally have a deadline so one have to plan for that”*. Both Niklas Hult and Henrik Blomdahl also selected *plan* but Niklas Hult added the comment: *“I think I’m actually quite good at planning”* he does however struggle with delegation, planning therefore becomes an extra important skill for him. In addition we mentioned that Sherwin (2012) believes that planning is an important function for the design leader and in the context that Thomas Gill mentioned we believe it to be a design specific skill. In other words we mean that to *plan* for design or new product lines is a strategic design leadership skill.

Han and Bromilow (2010) identified communication skills as important for the design leader, which we interpreted as *speak* in our research model since Miller and Moultrie used *speak*. However, as we identified communication as a separate skill through the results from the third question (appendix 1), and that the design leaders selected *speak* without mentioning communication in the fourth question (appendix 1). We therefore believe that these two should be separated, even though they are similar skills, *speak* will not be used as a design leadership specific skill based on this result though. When selecting *speak* (*convey information*) the respondents motivated their choice the following way:

Niklas Hult: *“Speak and convey information is very important, I can’t say I’m an expert on it though, but of course it’s a question of who you compare yourself with”*

Thomas Gill: *“One have to try and motivate the co-workers, so that everything works and it’s the same thing with conveying information.”*

Henrik Blomdahl: *“In my line of work, there is a lot of conveying information.”*

To conclude this section we will summarise these skills; *design, inspire, manage, plan* and *speak*. Starting off with *inspire* and *design* which are straight-out design leadership skills according to Miller and Moultrie (2013), even though we choose not to interpret *inspire* as one. These two were also selected by two generic leaders in our study, and was rated fairly high in total (view chart 2). Which lead us to believe that these two skills perhaps are fundamental for the design leadership in these organisations after all. As for *manage*, the two generic leaders who found *manage* important rated it in total similar to *design* and *inspire*, however Manne Lindvall who we believe to be the most ‘pure’ generic leader, did not select *design* and *inspire* but rated *management* and *plan* high (appendix 2). When comparing this to the literature we concluded that; *manage* is obviously

part of design leadership in terms of projects etc. but not as a daily routine, which it seemed to be in general when it comes to generic leadership.

Skills selected by both leaders but highly rated by design leaders

To finish of our skills selection and rating analysis we want to include the last few skills that ended up being selected by both design leaders and generic leaders but was rated higher by the generic leaders: *think critically*, *coordinate* and *nurture*. Northouse (2013) brings up motivation and critical thinking skills as skills that address more than just leadership which could be why these were rated the way they were and something we need to consider when coming to a conclusion in regards to the design leadership skills.

Think critically were selected by two generic leaders and one design leader. Thomas Gill (design leader) motivate his selection with: *"Think critical, that one does all the time, one always try to find faults and problems with things and objects that arise."* treating the skill as a measure of identifying problems whereas Joachim Schill (generic leader) use *think critically* for questioning: *"Let's say that it is about questioning...well that happens."* He did however question himself if he even should select critical thinking, but in the end rated it as 10,, which implies that after giving it some thought he found it valuable for his position or he simply did not think through his rating thoroughly. Which could have been a pervading issue in this method of analysing the value of the skills. That is a methodological side note though.

Manne Lindvall at Zero gave us an example for critical thinking that is relatable to Northouse's (2013) theory that this and motivation are skills that can be addressed for other areas than leadership: *"Sometimes one gets an order that seems, well it doesn't add up, fittings that doesn't go together, then one question it; that one can't put together a unit with that or how can this be used? Then I have to use critical thinking"*.

Coordinate

As for coordinate the generic leaders thought of meeting deadlines and in order to do so coordinating was necessary in their roles. Miller & Moultrie (2013) implies that coordinate is an interpersonal skill whereby one have to adjust actions in relation to others, which is what Manne Lindvall and Joachim Schill have to do, examples:

"I look at this production wise, since we have a lot of subcontractors that have to have the stuff for a certain date, and therefore I have to coordinate."

"We always follow a certain time frame, then it is important that I'm finished with what I'm supposed to be finished with, so that it works."

Then Henrik Blomdahl mentioned coordinate in relation to project management, as for coordinate the projects. So we can draw the conclusion that Miller and Moultrie's (2013) approach is applicable to these types of organisations as well.

Nurture

According to Berard (2013) the least transferable skills is relationship-building abilities, which at the same time is essential to leadership. Joachim Schill at LVI related *nurture* to relationships: *"In this case it's relations, I would like to say that this is quite important for me, I try to be a buddy to everyone in the company"*. However the rest of the respondents discussed nurture in terms of product development, except Lars who started off with products and then we asked a follow up question in relation to nurture the employees and he replied; *"Yes, that is important. Each morning at 9am we treat everyone to breakfast. That is a way for us to nurture them"*.

Henrik Blomdahl who discussed the products said the following: *"I am actually thinking of product maintenance in this case, because a product needs to survive for at least five years.... one have to nurture the product so that it lasts through its life cycle"* Which we dare to claim still is a form of relationship, however in terms of nurturing the view that the customers have of the product. It could also relate to Miller and Moultrie's (2013) belief that the design leader employs a hands-on approach and focus on the product and operation as design function. Even though they meant it in regards to the leader as approaching these through a design perspective, it still has to do with the product-oriented leadership.

4.2.2 Summarising the skills

From the empirical investigation and analysis we can conclude so far that the following skills were selected by at least one design leader or one generic leader at each stage of the process. The model below compromise the skills we identified for the research model, the skills that the interviewees told us in the first skill question (Appendix: interview guide) and at the bottom cluster we gathered the skills that were identified through the skills mapping.

FIGURE 3: DEVELOPMENT OF RESEARCH MODEL

Initial research model				
Cognitive	Interpersonal	Business	Strategic	Design
<ul style="list-style-type: none"> • Speak (convey information) • Listen • Write • Read • Learn/adapt • Think (critically) • Observe • Draw 	<ul style="list-style-type: none"> • Perceive (socially) • Coordinate • Negotiate • Persuade • Motivate • Nurture 	<ul style="list-style-type: none"> • Analyse • Synthesize (recuirement) • Motivate/ direct (human resources) • Manage 	<ul style="list-style-type: none"> • Envision • Perceive • Plan • Evaluate • Identify • Appraise 	<ul style="list-style-type: none"> • Inspire • Imagine • Visualise • Design • Edit
First stage skill testing				
Cognitive	Interpersonal	Business	Strategic	Design
<ul style="list-style-type: none"> • Speak (convey information) • Listen • Read • Think (critically) • Draw • Curiosity 	<ul style="list-style-type: none"> • Attentiveness • Communicate • Negotiate • Socialise 	<ul style="list-style-type: none"> • Manage • Delegate • Problem solve • Lead • Projekt manage • Produce 	<ul style="list-style-type: none"> • Estimate • Identify • Plan • Appraise • Analyse (macro) 	<ul style="list-style-type: none"> • Create • Employ creativity • Design • Employ technology
Second stage skill testing				
Cognitive	Interpersonal	Business	Strategic	Design
<ul style="list-style-type: none"> • Speak (convey information) • Listen • Write • Read • Learn/adapt • Think (critically) • Observe • Draw 	<ul style="list-style-type: none"> • Perceive (socially) • Coordinate • Negotiate • Persuade • Motivate • Nurture 	<ul style="list-style-type: none"> • Analyse • Synthesize (recuirement) • Manage 	<ul style="list-style-type: none"> • Envision • Plan • Evaluate • Identify • Appraise 	<ul style="list-style-type: none"> • Inspire • Imagine • Design • Edit

From this list we will hopefully be able to establish who employ design leadership or are the design leader and therefore what differentiate design leaders and generic leaders, before that we do have a few things that we want to clear up.

4.3 Skill maps

We mentioned in the methodology that a part of this research was to allow the respondents to map out their skills, without any preconceived notion of how. This allowed us to analyse if there was any difference in how the respondents' looked at themselves in regards to their skills or if they analysed their skills differently between each other. Considering the low amount of interviewees, as it is a qualitative research, we cannot draw any distinct conclusions from this. However we did do some interesting reflections in regards to this, according to us. First and foremost two of the design leaders placed their skills in a form of process. Henrik Blomdahl at LVI for instance created a process in form of a cycle (View appendix 3) and grouped his skills into categories. Whereas Niklas Hult at DuoBad did place his skills in a horizontal line (View appendix 3). Still he talked about them as if they were in a process and in the end he allocated *delegate* to the side of this "process". So that we could see that this was something important for him but he did not use it as well as he should. The others listed their skills. We could perhaps draw the conclusion that those who work at a senior position and who expressed that they had some sort of military background, which they related to their leadership, were more inclined to think of themselves and their skills as part of a process. This is interesting to us as Mumford et al. (2000) based their leadership research on military officers. As well as Henrik Blomdahl who regards the UGL (development of leaders and groups), course for future officers through the Swedish Armed Forces, as an influential course for his leadership. This is perhaps a topic for another discussion but it might have some long drawn influences on the result of the mapping.

Other than this we could not find anything to remark on when it comes to the mapping itself. However the rating of the skills were connected to how they mapped their skills. Henrik Blomdahl for instance rated his skills through those clusters he created during the mapping. Whereas the rest of the respondents rated their skills individually, often starting with those skills that they used or thought was the most important for their position. If we would have allowed the respondents to know beforehand that they were allowed to rate their skills perhaps more skills would have been include in the mapping. The reason for us bringing this to your attention in the analysis rather than the methodology is because this conclusion took form as a way of analytical reasoning, whereby we believe it would be confusing for the reader to read it in the methodology.

4.4 Design leadership skills

In the analysis we have so far tried to establish if each skill selected by the respondents is seen as required for design leadership or not. The conclusion for this was also based on the literature review. The analysis ended up in us realising that we should put together a model of different nature than we initially thought of. Instead of writing up all the skills a design leader require we found it necessary to formulate a model based on pure leadership skills, besides those “fundamental” to leadership in general, as well as one model with design specific skills that “makes” the design leader in these organisations. With the statement ‘fundamental to generic leadership’ we imply that we have not studied leadership in general, all the skills we tested were based on design leadership theory and therefore we cannot generalise our results in relation to this. We can however establish what leadership skills we believe to be fundamental for the design leader and then add design related skills. Through this we can reach a conclusion of who could claim to be a design leader or who is simply a “generic” leader that employ design leadership aspects.

Some of the skills that were selected by the leaders in this study are therefore not included in our model. This does not mean that we believe Miller and Moultrie’s results to be incorrect; it simply means that we regard these skills as being “generic leadership skills” that one requires in order to be a leader in general. To clarify further; the skills in the model below are skills that stand out to us, as being generic leadership skills that are specifically necessary for the design leader to carry out their job and then on top of this the design leader need design specific skills.

FIGURE 4: DEVELOPED RESEARCH MODEL

Skills left out in our model				
Cognitive	Interpersonal	Business	Strategic	Design
<ul style="list-style-type: none">• Write• Read• Think (critically)	<ul style="list-style-type: none">• Perceive (socially)• Coordinate• Negotiate• Persuade• Nurture	<ul style="list-style-type: none">• Analyse• Synthesize (recuirement)• Manage	<ul style="list-style-type: none">• Perceive• Evaluate• Identify	

The design Leader's –“generic skills”			
Cognitive	Interpersonal	Business	Strategic
<ul style="list-style-type: none"> • Learn/ adapt • Speak (convey information) • Listen (attentive) 	<ul style="list-style-type: none"> • Motivate • Inspire 	<ul style="list-style-type: none"> • Analyse • Manage • Problem solve • Project manage 	<ul style="list-style-type: none"> • Observe • Plan • Appraise
Design skills			
Draw		Edit	
Synthesize		Design	
Envision- Imagine- Visualise		Employ technology	

Now we have reached the stage where we need to clearly identify who actually employ design leadership. We found one way that we could do so, using the table we compromised above and the rating of each skill that is included in the table for design leadership. By summarising each respondent's score for these skills we concluded that one of the initial design leaders reached the highest score out of all and another the lowest. Therefore we also realise that we cannot base the result on this result alone, as through analysing comments we regard the lowest scoring leader as one of the more obvious design leaders. The result of the scores could come down to the differentiating methods of rating as well as the variation of clustering the skill cards. Despite the exceptions the rest of the scores gave us a result that matched our initial perception of the leaders.

Results:

Generic leader 1: 48
Generic leader 2: 120
Generic leader 3: 101

Results:

Design leader 1: 43
Design leader 2: 110
Design leader 3: 78

4.5 How important are design skills for the design leader

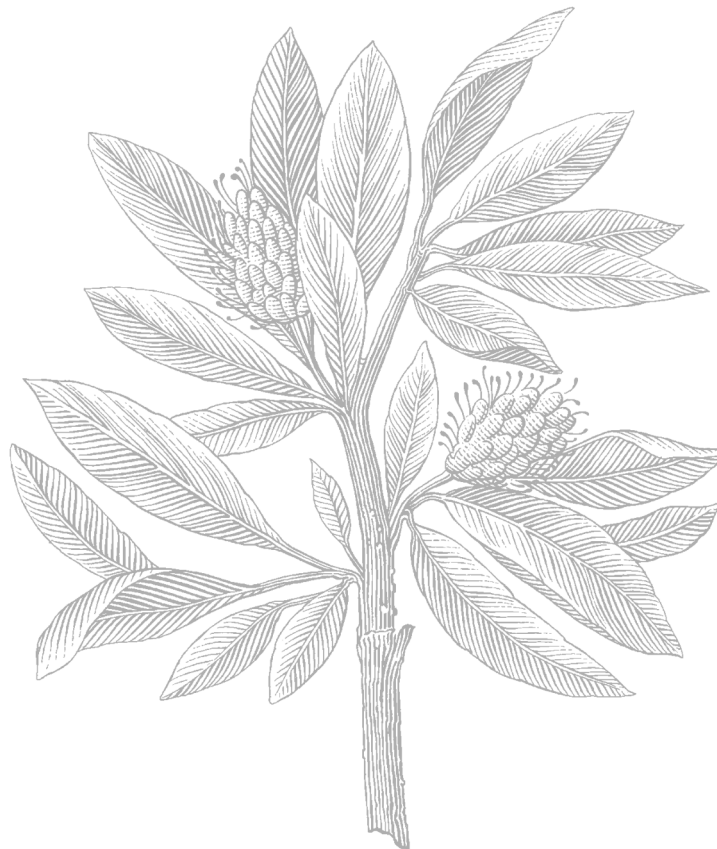
As you can view in figure 4, we have gathered several skills that we regard as necessary for design leadership. Among these we sectioned design specific skills, in other word skills that differentiate the design leader from the generic leader. There might not be too many skills that separate the two concepts, however it is the outlook the leaders have on their skills that distinguish them the most. In the beginning we brought up the question of; to what extent does one require design expertise or knowledge, whereby we declared that it depends on the organisation one works in. Therefore it is difficult to generalise even for the type of organisations that were included in this study. For instance at Zero they consult external designers and work in projects whereby Thomas Gill requires skills in how to employ the correct designer, synthesize demands so that this designer can do his/her work, envision what he wants the designer to create, be able to edit the designs and perhaps give technological pointers on solutions that the designer might not have knowledge of.. He therefore also need to be able to translate the design to his production team and therefore Manne Lindvall.

With this we can clearly state that Thomas Gill is a design leader however looking back at his background he has no design education or clear experience besides what he gained through his work at Zero and childhood. Which leads us to believe that in this SME case Joziassse (2011a) and Topalian (2011) is correct, one can be a design leader without design background. It is the more or less the exact same situation at LVI. However we do agree with Miller and Moultrie (2013) that the design leader in these types of organisations requires design related skills, perhaps not in terms of designing though but in leading the process. At DuoBad though, they even designed (sketched) the first line of bathroom fittings themselves, which implies that in SMEs one could require knowledge of how to actually design the products, however we do believe them to be the exception as they had extensive background in the furniture industry.

Another question we wanted to answer were if the generic leader can utilise design leadership. To start of we want to refer to Berard (2013) who believe that skills can be transferable and developed. Which is also the case for the respondents, they were for the most part self-taught when it comes to both design and leadership. They did however develop these skills gradually. Hence they were generic leaders from the start that have developed design skills. On the other hand if they would have worked at large organisations this would probably not have been the case, it is likely that the respondents have had the opportunity to learn from all areas of the organisations and been a bigger part of the process than if they would have worked in larger organisations.

Three out of six leaders does also own the organisation that they lead, which is likely to have influenced their motivation and opportunities to learn new skills. The fact that the leaders work in manufacturing industries with technological or engineering degrees could also have had an effect on their ability or opportunities to learn and develop these skills. So that to generalise against all generic SME leaders would be wrong. For these types of organisations though, there is a possibility that one could develop a course whereby the design leadership skills that is identified in this study could be taught. The generic leader is most likely to be able to learn these skills at least in order to employ and manage designers, which however depend on their own motivation to do so (Mumford et al., 2007; Miller & Moultrie, 2013). Which leads us on to the conclusion, where the findings in this analysis will be summarised.

5. Conclusion



5.1 Conclusion

The purpose of this study is to describe and develop what set of skills a design leader require and if these differentiate them from the generic leader in SME organisations.

In the beginning we questioned that there are no clear agreement for what skills, knowledge and experience a design leader require. We can't really answer this question in the broad perspective nor can we provide you with a full set of generic leadership skills. The purpose was to identify the skills a design leader require and if these differentiate from the generic leader and this we can show you in relation to SME manufacturing organisations in 'Småland'. We have throughout the research based our analysis and questions on a research model in an attempt to develop and test the skills within it. As we progressed we found that we wanted to change the basis of this model. Miller and Moultrie (2013) identified fundamental generic leadership skills that they connected to the design leadership and added to their model. We wanted to highlight those generic skills that in our research were discovered as extra important for the design leadership. In other words without these leadership skills one could simply not attempt to be a design leader. Of course the generic leader utilise some of these leadership skills as well, only that these are extra important for the design leader. As it is quite difficult to explain this in words we want to show you the models again so that you can see difference clearly (view figure 1) and the figure below.

FIGURE 4: DEVELOPED RESEARCH MODEL

The design Leader's – "generic skills"			
Cognitive	Interpersonal	Business	Strategic
<ul style="list-style-type: none"> • Learn/ adapt • Speak (convey information) • Listen (attentive) 	<ul style="list-style-type: none"> • Motivate • Inspire 	<ul style="list-style-type: none"> • Analyse • Manage • Problem solve • Project manage 	<ul style="list-style-type: none"> • Observe • Plan • Appraise
Design skills			
Draw		Edit	
Synthesize		Design	
Envision- Imagine- Visualise		Employ technology	

Which of the previously explored design leadership skills are applied in these organisations and if so how?

As you can see we have besides removing those skills we believe to be 'pure' leadership skills added a few new skills to our model, the design leaders in Småland SME manufacturing organisations need to have to be able to: *problem solve, employ technology, project manage* and in terms of *listen* be attentive. We need to acknowledge all of the design leadership skills that was previously identified, because not a single skill were left out in the testing. However some (view chart 1) were selected by the generic leaders or selected by all leaders but not related to design leadership.

- *So what is design leadership?*

Well, according to us design leadership is when a person at a leading position that have enough design knowledge and skills to lead, motivate and support designers in their process of developing new products for the organisation. They also have to have skills in motivating co-workers to be part of the design process within the organisation and contribute creatively, as well as establish design related visions and strategic direction for the organisation. This is what the skills within the model we provide you with should lead to. So think of them in a design context, for example *listen* (attentive), what happens in a design context if the leader does not listen or cannot be attentive to details. Well, the design might end up being miscommunicated and the production cost of the product high. Or *observe*, the design leader need to be able to both observe market trends in order to formulate strategic design goals as well as observe changes within the organisation in terms of straying followers and design strategies.

What is the difference between the design leader and the generic leader in the type of organisations included in this research?

What does qualify the generic leader in these organisations then? Well, we realised that the majority of the so called generic leaders in this research actually employ design leadership aspects which is not that strange when you think about it, because they are motivated to employ their creativity and design skills by their seniors, who we identified as design leaders. That they then in their turn do the same or have it as a responsibility that includes utilising design skills themselves could make them appear as design leaders, there is nothing that say they are not design leaders, because we believe that one could employ design leadership at any level. The importance lies in utilising the skills we put together

in order to encourage design involvement as a core function for all organisational actions. The generic leader on the other hand is not involved in any of the design related aspects of the production, development or daily routine.

How important are design skills for design leaders, specifically could the concept of design leadership be applied to generic leaders without design skills.

This does however lead us to believe that it would be fairly easy for the generic leader to employ the concept of design leadership. We do dare to say that a design leader need design skills at least in terms of directing designers and in these small organisations it is advantageous to be able to design as a design leader. It is either way important to be able to communicate through sketches. Although extensive previous educational background in design is not necessary, it can be self-thought if there is an interest to learn and especially if one has technological references, and then it might not be too far of a stretch. Bear in mind though that the design leadership culture does currently not provide opportunities for development in design leadership. Therefore further research need to be conducted in regards to how one could teach design leadership skills at a fast pace, as the leaders in this study have had several years and lots of experiences behind them before reaching their current positions.

We can now draw the conclusion that we are no longer the 'child' looking at the emperor in his new clothes. We have fully come to terms with design leadership being a term that is fare more likely to be used in organisational leadership today, than we initially thought. To say the least it is beneficial for leaders in manufacturing organisations to develop design leadership skills, perhaps it should even be the norm. In a world where design leads the path to competitive advantage, could a leader bring an organisation to the forefront without design leadership skills? We do not believe so, therefore we now question if the generic leadership is even outmoded. Which is why we would like to pass on the torch by recommending further studies on the topic.

5.2 Further studies and recommendations

One thing that we need to address before we end this thesis is the gender perspective, all the respondents in this study where men and either owned the respective organisations themselves or worked for men, which entail that in a study where women would have been included the result might have been

different. Therefore we think it would have been interesting to carry out a similar study on women. In addition the Swedish or rather Scandinavian culture are known for the tall poppy syndrome which mean that we find it difficult to express if we are good at something because of fear for being accused of self-righteousness. Which one always have to have in consideration when carrying out studies on peoples abilities, traits or skills in Scandinavia, as it might not lead to as an accurate response as if the study would have been anonymous. This is also one of the reasons we believe a quantitative study would be useful. We want to pass on the torch and ask the next person in line to test our and perhaps also test Miller & Moultrie's findings in a quantifiable method. Based on those results a qualitative study on how one could formulate a way of teaching these design skills in an educational environment.

As for the leader wanting to employ design leadership we recommend you to analyse the skills we concluded in our final model. Review how these can be applied in a design context and perhaps take a light course in design and make a field trip to an organisation that manufacture and design their own products. At this organisation ask if you can shadow the design responsible or perhaps even the design leader, as this is up to this day the most developed method of teaching.

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6. ■ Appendices



6.1 Interview guide

Since the interviews not only contained questions but also instructions for the respondents, the interview guide below contains a mix of both questions and instructions. As the questions were asked in Swedish we included these aswell.

1. Could you please describe your background, education and work experience?
Sw: 1. Vänligen beskriv din bakgrund, utbildning och arbetslivserfarenhet du anser vara relevant för din nuvarande position.
2. Could you please describe your position and role within this company, in other words your tasks?
Sw 2: Kan du förklara vad din roll och position på företaget innebär, med andra ord arbetsuppgifter?
3. What skills do you consider necessary in order to carry out your work and foremost your leadership?
Sw 3. Vilka färdigheter anser du att du behöver för att utföra ditt arbete och då främst ditt ledarskap?
4. Hand out the skills cards, the interviewee are then asked to choose cards they perceive relevant to their position. (They can also add skills that they think are needed in addition to the skills cards)
Sw 4. Ge den intervjuade "skills cards", ombe denne att välja relevanta kort som hen anser sig använda i sin roll. (Här kan de även lägga till de färdigheter som de tycker behövs utöver skills carden)
5. Could you please motivate your selections of skills?
Sw 5. Kan du motivera dina val av färdigheter?
6. Please place your cards on this paper in what ever form you find appropriate.
Sw 6. Vänligen placera ut korten på detta papper i vilket format du vill.
7. Please rate your skills at the level you perceive each skill relevant for your position. Use a scale of 1-10. Where 10 is the most relevant and 1 the least relevant.
Sw 7. Vänligen betygsätt dina färdigheter i den grad du anser dessa vara relevanta för din roll, utifrån skalan 1-10 . Där mest viktigt är 10 och mindre viktigt är 1.
8. What is your personal view on design and how important is it for your organisation and your role.
Sw 8. Vad är din personliga syn på design och hur viktigt är design för ert företag samt din roll.

6.2 Skills result (grading)

Skill	Zero	Zero	LVI	LVI	DB	DB
	TG	ML	HB	JS	NH	LC
Speak	10	-	8	7	5	8
Listen	9	6	-	10	10	9
Write	-	-	7	6	-	-
Read	-	-	-	6	-	-
Learn/Adapt	8	-	-	7	-	-
Think critically	8	8	-	10	-	-
Observe	7	-	-	10	7	9
Draw	8	-	-	7	9	5
Perceive	-	8	-	8	-	-
Coordinate	-	8	5	8	-	-
Negotiate	-	-	5	-	10	7
Persuade	-	-	5	-	10	-
Motivate	10	8	5	6	7	7
Nurture	-	-	8	7	-	8
Analyse	6	4	8	10	8	9
Synthesise	8	4	7	-	7	-
Manage	9	8	5	7	8	-
Envision	10	-	5	8	10+8	-
Plan	10	10	5	10	8	-
Evaluate	10	-	8	6	-	-

Identify	9	4	8	6	-	-
Appraise	5	8	-	-	9	8
Inspire	9	-	5	6	8	8
Imagine	9	-	-	6	6	-
Design	10	-	5	8	9	7
Edit	-	-	-	6	-	8
Skills added by respondents						
Communicate	8					
Attentive	6					
Curiosity	10					
Delegate	5					
Creative	8					

6.3 Skillmap examples



Jowhi m. Schill @ LVI.se

Tala (Förmedla information)	7	Observera	10	Analysera	10	Inspirera	6
Lyssna	10	Rita	7	Hantera/Driva	7	Föreställa	6
Skriva	6	Upptatta	8	Visualisera	8	Designa	8
Lösa	6	Koordinera	8	Planera	10	Redigera	6
Lära ut/ompassa sig	7	Motivera	6	Utvärdera	6		
Tänka (kritiskt)	10	Värda	7	Identifiera	6		

Niklas Hult

Lyssna ¹⁰	Motivera ⁷	Föreställa ⁶
Analysera ⁸	Overtala ¹⁰	Planera ⁸
Framställa ⁷ nya krav	¹⁰⁺⁸ Visualisera	Inspirera ⁸
Hantera/Driva ⁸	Observera ⁷	Bedöma ⁹
Tala ⁵ (förmedla information)	Rita ⁹	Närlikenhet ¹⁰
Förhandla ¹⁰	Designa ⁹	

⁵ Deligera