

Appendices

Appendix A1 - Literature review research-practice gap full

Research Questions

1. What is a Research-Practice Gap?
2. How does a Research-Practice Gap manifest itself?
3. What are the telltale signs of a Research-Practice Gap?
4. How do those signs translate to the leadership domain?
5. What can there be done about a Research-Practice Gap?
6. What should there be done about a Research-Practice Gap?
7. How does one go about doing something about a Research-Practice Gap?
8. How can I do something about a Research-Practice Gap in my project?

1. What is a Research-Practice Gap?

There is a fundamental disjuncture between the world of research and the world of practice (Mulhall, 1997). This disjuncture is a fundamental gap between research and practice, which is caused by a misunderstanding on both sides of the requirements and goals of the other (Norman, 2010). Any gap endures because of the inherently paradoxical nature of research and practice (Smith & Lewis, 2011, p. 382). "The origins of the research–practice gap have been well laid out in the literature: Researchers prefer producing knowledge over translating and disseminating it (Van de Ven & Johnson, 2006), researchers have an incentive to produce research (Khurana, 2007) rather than to engage with practitioners, researchers and practitioners represent information in different ways and use different language and strategies (Kelemen & Bansal, 2002; Kieser & Leiner, 2009), and researchers and practitioners have different epistemological stances (Rousseau, Manning, & Denyer, 2008; Shrivastava & Mitroff, 1984)" (Bansal et al., 2012).

Practice-Research Gap > practice not translating back into research?

"The gap between research and practice is fundamental." (Norman , 2010)

"caused by a misunderstanding on both sides of the requirements and goals of the other." (Norman , 2010)

the gap endures because of the inherently paradoxical nature of research and practice. A paradox reflects "contradictory yet interrelated elements that exist simultaneously and persist over time" (Smith & Lewis, 2011, p. 382).

The origins of the research–practice gap have been well laid out in the literature: Researchers prefer producing knowledge over translating and disseminating it (Van de Ven & Johnson, 2006), researchers have an incentive to produce research (Khurana, 2007) rather than to engage with practitioners, researchers and practitioners represent information in different ways and use different language and strategies (Kelemen & Bansal, 2002; Kieser & Leiner, 2009), and researchers and practitioners have different epistemological stances (Rousseau, Manning, & Denyer, 2008; Shrivastava & Mitroff, 1984). Moving beyond the

origins of the gap, some scholars have offered ways to bridge the gap, including evidence-based management (Pfeffer & Sutton, 2006), engaged scholarship (Van de Ven, 2007), and relational scholarship (Bartunek, 2007).

Mulhall (1997, p. 970) offers an explanation for the research–practice gap when she points out that ‘in reality there is a fundamental disjuncture between the world of research and the world of practice’ - from (Seymour et al., 2003)

But even in the fields with a substantive scientific basis, the practical applications to the daily practice are very limited. (Norman, 2010)

2. How does a Research-Practice Gap manifest itself?

Robinson (1998) says that: “The research–practice gap arises when the theories of researchers do not articulate with the theories of practitioners. The gap persists because without an adequate account of practice we do not know the methodological resources that are required to forge such an articulation.” As a result of everyday working commitments or organizational factors, which constrained practitioners’ attempts to use or undertake research, the practitioners were unable to take part in the world of research (Le May et al, 1998).

3. What are the telltale signs of a Research-Practice Gap?

Bansal et al. (2012) mention that: “When navigating the research–practice gap, researchers struggle to negotiate the palpable disjunctions between the challenges of achieving rigor and the demands of maintaining relevance.” Where there is a research–practice gap, you will find academics and practitioners consistently divided regarding their interest (Deadrick & Gibson, 2009). This divergence in focus indicates that researchers’ solutions may not speak to practitioners’ problems (Banks, 1985). Even when used, research is either misused and/or misinterpreted by the practitioners, or not applicable enough to be of use in the field. In short, science works best when all the variables are understood and controlled. But the real world is complex and messy, with uncontrolled variables, sometimes behaving in ways that contradict the neat, tidy, logical assumptions of the scientist (Norman, 2010).

Researchers most often play in the fun quadrant, finding lovely problems to work on without regard for whether anyone cares outside of their fellow research in-group. Within companies, researchers tend to be far more closely attuned to their academic brethren than to the people within the product divisions of their own companies, but become frustrated when their work is finally ignored by the practitioners (Norman, 2010). They often suggest that differences in norms, rules, and goals make productive exchanges and interactions difficult (Feldman & Orlikowski, 2011).

Practitioners have a need for applied and useful knowledge. If the knowledge provided by the research does not meet those criteria, they can deride the research results as coming from a pristine ivory tower; interesting perhaps, but irrelevant. In the end, practical disciplines are all taught through apprenticeship, internship, residency, and long periods of training (Norman, 2010). Seymour et al. (2003) says that: “We must not underestimate how difficult it is for practitioners to move between both these worlds in the quest to offer research based practice.”

Le May et al. (1998) went as far as to raise the issue of how research could be perceived as fostering a competitive spirit among staff and thereby having a detrimental and destabilizing effect on collegial relations (Seymour et al., 2003).

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"become frustrated when ignored by the practitioners" (Norman , 2010)

4. How can a Research-Practice Gap be managed, as a field?

Bansal (2012) notes that when moving beyond the origins of the gap, some scholars have offered ways to bridge the gap, including evidence-based management (Pfeffer & Sutton, 2006), engaged scholarship (Van de Ven, 2007), and relational scholarship (Bartunek, 2007). Narrowing the research-practice gap is not just a matter of disseminating research more effectively or of using more powerful influence strategies (Robinson, 1998). Note that Bansal (2012) spoke of bridging the gap, whereas Robinson spoke of narrowing the gap. There are many verbs that one can use when addressing the gap such as managing, bridging, spanning, filling (Bansal 2012), brokering (Neil, 2015), narrowing (Robinson, 1998), closing or widening.

Norman (2010) proposes the use of a translational entity, which Banks (1985) would call an appraiser, that can act as an intermediary to facilitate, convene and support both sides of the field. Star & Griesemer (1989) suggest that co-creating new boundary objects could help and even transform both communities (Carlile, 2002). Murray (2009) goes as far as to suggest six ways for researchers to ensure that their research findings have an impact on practitioners. All of these indicate different ways of framing and dealing with the research-practice gap.

For the purposes of this project, it would be besides the point to discuss all of these in detail, which is why we only mentioned some of the more relevant ways the research-practice gap can be affected. Suffice it to say that there are lots of ways to manage a research-practice gap. Examples of these can be found in Appendix A1 FIXME. So there is lots that can be done, but what should there be done when managing a research-practice gap?

5. What should there be done about a Research-Practice Gap, as a field?

Bansal (2012) believes that the gap should be bridged, not closed. The business of research demands a perspective that is different from the business of practice; closing the gap puts the objectivity of researchers at risk. While some researchers should work to bridge the gap, others should remain outside the world of practice to keep a unique perspective to see what those on the

inside might miss. Closing the gap comes with the risk of having researchers increasingly behave as practitioners or vice versa, yet bridging it opens up the opportunity to build intermediary organizations that can span the space and allow both research and practice to do what they do best. (Bansal, 2012) Seymour et al. (2003) suggest that the academic field should take a suggestive and supportive role towards the practitioners.

Norman (2010) states that: It is rare for a single individual to have the breadth and depth of knowledge and skills to understand the practitioner's world, but who can also simultaneously make use of all the advanced research learnings of the multiple relevant disciplines. Norman goes on to suggest that we should aim to do fundamental research geared towards solving important applied problems and thus taking a more active role in bridging the gap. The research-practice gap might be bridged by the use of a translational entity, doing much more than just supporting or suggesting.

Mallonee et al. (2006) go a step further and suggest that researchers and practitioners should engage the community and stakeholders, as equal partners and initiate community-based interventions.

So the research-practice gap should be managed in a bridging-like manner, but the opinions are divided on if this should be more like a solid land-bridge or a ferry going back and forth. But how exactly should a researcher go about this?

5. What can there be done about a Research-Practice Gap?

The researchers come aboard after the technology has been unleashed. But this is precisely when they can be most effective, because it is now that they can play Pasteur's game: starting with a real need, figuring out what the scientific requirements are, doing the science, and then feeding the results back to a practitioner community desperately awaiting those findings (Norman, 2010). > sounds like PMB really

Moving beyond the origins of the gap, some scholars have offered ways to bridge the gap, including evidence-based management (Pfeffer & Sutton, 2006), engaged scholarship (Van de Ven, 2007), and relational scholarship (Bartunek, 2007).

Le May et al. (1998) suggest that a constraint on using research in practice is related to whether research is perceived to be an individual or collective enterprise.

Narrowing the research-practice gap is not just a matter of disseminating research more effectively or of using more powerful influence strategies (Robinson, 1998).

Translational entity

"We need translational developers who can act as the intermediary, translating research findings into the language of practical development and business while also translating the needs of business into issues that researchers can address." (Norman , 2010)

An intermediary organization can hire people who specialize in particular support roles. Much like medical writers, who need not research or practice medicine, these intermediaries need not be researchers or practitioners. The supporting role requires people who are specialized at their particular skill but are sufficiently fluent in the language of both communities. They can help practitioners and researchers co-create new boundary objects that embody knowledge from both communities (Bansal et al., 2012). By engaging in creating these objects, both communities may find themselves transformed (Carlile, 2002).

These three roles—facilitating, convening, and supporting— help transcend the paradoxes between research and practice. Most researchers have some of these skills but few have them all, which is why we need intermediary organizations to bridge the gap. (bansal 2012)

"... closing the research–practice gap in particular, is likely to involve complex chains involving multiple kinds of participants." (Neal et al., 2015)

Cooperation between researchers and practitioners.

We suggest that one way to achieve coordination is for both to undertake the task of determining how to increase appraisers' use of valid input data in appraisal decisions. Researchers could identify methods and other aids that will best facilitate appraisers' selection of valid ratee information. Practitioners could determine the content of appraisals and specify how job behaviors could be assessed most accurately in organizational settings. (Banks, 1985)

An analogy might illustrate how we envision coordination between researchers and practitioners. If the goal is to hit a nail on the head, then we need to find a hammer and locate the nail. Researchers can provide the hammer by determining what methods would be most effective for hitting the target.

Practitioners can locate the nail by determining what nails can be observed best and which ones to hit. Appraisers simply hit the nail. We argue that collaboration between researchers and practitioners is essential to build a stronger and more appealing structure for performance appraisal. (Banks, 1985)

Researchers and practitioners should engage the community, including stakeholders, as equal partners in the initiation of community-based interventions. (Mallonee et al., 2006)

What can practitioners do?

Negative findings warrant careful exploration to determine whether the research failed to find an effect as a result of program design, implementation or evaluation. (Mallonee et al., 2006)

Critical thinking skill

There has been little narrowing of the research–practice gap since students started to learn critical thinking for academic purposes. (Seymour et al., 2003)

We propose that thinking skills can be encouraged in the context of practice and that regular educational events, such as journal clubs, can contribute to developing critical thinking in the practice environment. (Seymour et al., 2003)

The research–practice gap will reduce only if research becomes part of practitioners' ideology, which includes the art and science of nursing. Critical and creative thinking are prerequisites to narrowing the disjuncture between research and practice, and we suggest that educators and practitioners explore structured ways of meeting together to appraise literature as a possible means of making use of their thinking and knowledge in clinical practice. (Seymour et al., 2003) there are promising accounts of successful strategies for implementing evidence-based practice in clinical settings, and Perry (2002) notes that while there are pitfalls to avoid, there are times when the efforts to implement evidence-based practice may be well rewarded. (Seymour et al., 2003) We suggest that greater emphasis on valuing the art of nursing as well as finding ways of developing critical thinking and reading, in the context of practice, will contribute to a more harmonious relationship between research and practice. (Seymour et al., 2003)

What can researchers do?

First, researchers should **study relevant topics and innovations**. Second, researchers should **use appropriate communication channels for sharing** their findings with practitioners. Third, researchers should **consider the consequences of their innovative ideas and practices**. Fourth, researchers should **provide flexibility for their innovations to be reinvented by practitioners**. Fifth, researchers should **examine and study the diffusion process** within the counseling profession to learn about how practitioners make their decisions about adopting innovations. Finally, researchers should **respect and seek out the knowledge of practitioners**. According to diffusion of innovation theory, these steps will help to ensure that research findings have an impact on practicing counselors and the clients they serve. (Murray, 2009)

PMB - Problem-based methodology

By taking a methodological perspective, I am making the more radical claim that research may be ignored, regardless of how skillfully it is communicated, because it bypasses the problem-solving processes that sustain the practices that researchers seek to alter. (Robinson, 1998)

The position taken in PBM is that we can best identify the effects of such constraints by seeing how they shape the reasoning and actions of the actors who are solving the problems of interest. In other words, constraint-inclusion accounts of practice incorporate structures by searching for evidence of their inclusion in the constraint sets of relevant problem-solvers (Robinson 1994b).

The insights of formal theory cannot be directly applied, however, because practice is already enmeshed in a web of constraints that typically prevent its straightforward adjustment. PBM offers researchers a way of joining with practitioners to investigate how the web may be rewoven. (Robinson, 1998)

Common language between researchers and practitioners.

“So we have a common language that can be used by designers and by non-designers to remember, ideate and communicate experiential matters. The common language of the generative tools and methods is the bridge across the gap between research and design.” (Sanders & Stappers, 2012)

Regulations

Research often does not meet practice needs, or cannot be ‘operationalized’. Funding for practice research should be provided only where an active practitioner is part of the team of applicants. Research proposals should be reviewed by both researchers and practitioners. (Le May et al., 1998)

Journal editors should allow a focus on implementation methods in scientific articles that deal with community interventions, either by allowing lengthier descriptions of interventions within articles or providing web-based links to such in-depth descriptions. (Mallonee et al., 2006)

Funding guidelines should support the acquisition of comprehensive knowledge by requiring strong formative and process information and outcome data. (Mallonee et al., 2006)

Education

Universities should make it a priority that the next generation of researchers (ie, graduate students) and practitioners acquire real experience in community-based programs. (Mallonee et al., 2006)

Existing practitioners should receive quality training and opportunities for skills development to enhance their ability to apply scientific evidence and community knowledge at every stage of intervention development, adaptation, implementation and evaluation. (Mallonee et al., 2006)

6. What should there be done about a Research-Practice Gap? (Imho)

“it is rare for a single individual to have the interactions breadth and depth of knowledge and skills to understand business plans and marketing strategy, to know how to lead a team of perhaps hundreds of developers to produce a reliable, bug-free set of code with millions of lines of instructions that can work across the many platforms and perturbations of equipment and applications found in the real world, who can simultaneously make use of all the advanced research learnings of the multiple relevant disciplines: the social sciences, business, and technology.” (norman,2010)

Solve problems that are identified by/with practitioners

“I recommend aiming at Pasteur’s quadrant—fundamental research geared to solving important applied problems. (Norman,2010)”

The benefits of researching applied practice are relatively clear: (1) we would understand the processes of applied practice better; (2) we could therefore give our applied practitioners

increased ability to deliver positive outcomes (and avoid negative outcomes) when they work with clients; (3) the very theories and research generated by researchers would be used by practitioners in the real world, not simply remaining in journals where they may or may not be picked up by other researchers: actual 'impact'; (4) we could improve the training of applied practitioners (5) we could improve the accountability and transparency of applied practitioners, and facilitate informed and meaningful reviews of practice and case-studies; and thus (6) ultimately, we could increase the credibility of the field of sport and exercise psychology. Overall, therefore, there is incredible value yet to be realised in proactively researching the processes, assumptions and mechanisms of applied practice. (Keegan et al., 2017)

Don't close the gap, but bridge it in some way.

Bridging the gap vs closing the gap

we are asking that the liminal space be **bridged, spanned, or filled**. (Bansal, 2012)

Closing the gap also risks sending mixed messages about what is "good" research. Conducting good research is hard, and shifting the metrics could devalue the research process and its products (bansal, 2012)

it is presumptuous of researchers to assume that practitioners want the gap closed. **The gap creates a buffer**, allowing practitioners to grapple with problems and solutions without researcher interference (bansal, 2012)

First, we believe that the gap should be bridged, not closed. The business of research demands a perspective different from the business of practice; closing the gap puts researcher objectivity at risk. Second, intermediary organizations, not lone researchers, are better positioned to bridge the gap because of the inherent paradoxes between research and practice. (Bansal, 2012)

While some researchers should work eagerly to bridge the gap, others should remain outside the world of practice to see what insiders might miss. (Bansal, 2012)

Closing the gap risks having researchers behave as practitioners or vice versa, yet filling it opens up the opportunity to build intermediary organizations that can span the space and allow both research and practice to do what they do best. (Bansal, 2012)

Common values and knowledge

If we want to progress as a field, we need to articulate the common values and body of knowledge that sets us apart from other disciplines (cf., Huselid, 2002, Langbert, 2005, Mahoney, 2002). From (Deadrick & Gibson, 2009)

What is the mission statement of the HR discipline as a whole? What are the core values underlying the field of HR? Are those values reflected in our publications? This research is, and should be, just the beginning of our attempt to answer those questions. (Deadrick & Gibson, 2009)

“So we have a common language that can be used by designers and by non-designers to remember, ideate and communicate experiential matters. The common language of the generative tools and methods is the bridge across the gap between research and design.” (Sanders & Stappers, 2012)

Suggestive/supporting role

This more encompassing view recognizes that practitioners require support from those who have research skills and that this should be provided as a means of assisting, rather than threatening, the clinical expertise of practitioners. (Seymour et al., 2003) > take a supporting/suggestive role as research; avoid that ivory tower

Dissemination and implementation strategies must be grounded in an appreciation of the complexity and social nature of research utilization. (le May et al., 1998)

7. How does one go about doing something about a Research-Practice Gap?

Focus on managing the paradox, not neutralizing it.

Bansal et al. (2012) state that: “Working in the gap between research and practice calls for a willingness to embrace these paradoxes and a concerted effort to move forward in the face of the ensuing contradiction and contestation. Ultimately, as Smith and Lewis (2011) noted, paradoxes do not need to be dismantled or neutralized, but rather managed in a state of dynamic equilibrium.”

Encourage practitioners to spend time to engage with research that questions their own practice.

In order to seek out new evidence, practitioners must question their own practice and that of their colleagues, move beyond culturally received knowledge and stand alone (Seymour et al., 2003). “... research should have more impact where there has been more engagement.” (Robinson, 1998) Retsas (2000) suggests that for nurses to be more involved in **using research in practice they need to be given more time** to be able to do this. From (Seymour et al., 2003) > so maybe more time can already help?

8. How can I do something about a Research-Practice Gap in my project?

“Building the bridge between research and design is the most effective when it can **start at the beginning of the research process**, not at the end of the research process. In this way, the process of analysis can influence the formation of ideas on the conceptual side.” (Sanders & Stappers, 2012)

First, researchers should **study relevant topics and innovations**. Second, researchers should **use appropriate communication channels for sharing** their findings with practitioners. Third, researchers should **consider the consequences of their innovative ideas and practices**. Fourth, researchers should **provide flexibility for their innovations to be reinvented by practitioners**. Fifth, researchers should **examine and study the diffusion process** within the (counseling) profession to learn about how practitioners make their decisions about adopting innovations.

Finally, researchers should **respect and seek out the knowledge of practitioners**. According to diffusion of innovation theory, these steps will help to ensure that research findings have an impact on practicing counselors and the clients they serve. (Murray, 2009)

“Practitioners don't have enough **time** to use research.” (Le May et al., 1998)

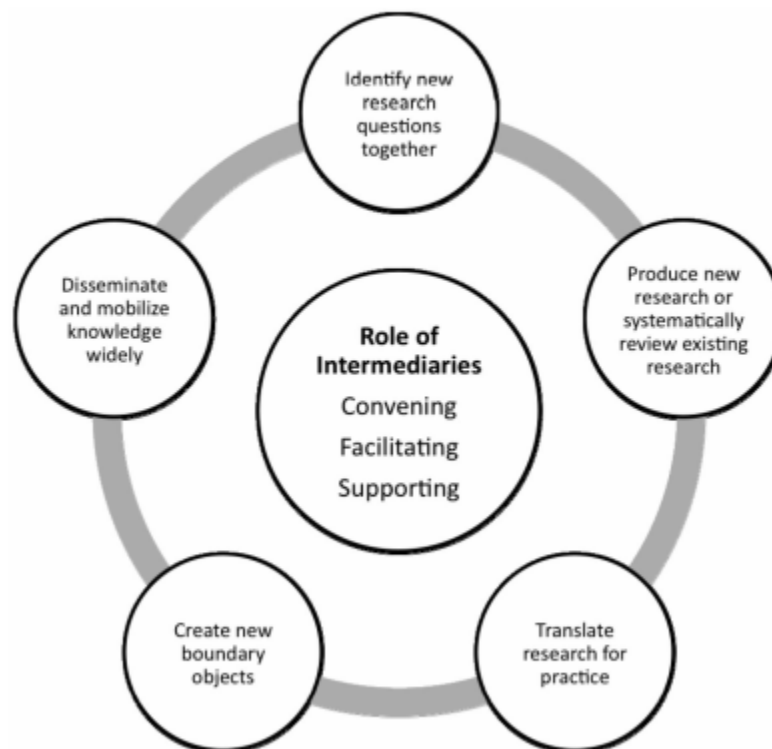
“When navigating the research–practice gap, researchers struggle to **negotiate the palpable disjunctions** between the challenges of achieving rigor and the demands of maintaining relevance.” (Bansal, 2012)

“We must not underestimate how **difficult it is for practitioners to move between both these worlds** in the quest to offer research based practice.” (Seymour et al., 2003)

Brokering the research-practice gap? (Neal et al., 2015)

Common language, generative tools, participatory mindset (stappers & sanders, 2012)

Figure 3
The Activities That Bridge Research and Practice and the Role of Intermediaries



During research:

- Start your research with the gap in mind and set up to bridge it beforehand. (Stappers & Sanders, 2012)

- Consider and reflect on the consequences of my ideas; plan this at the end of the project or midway throughout. (Murray, 2009)
- Include questions on how people gain knowledge (on leadership) in the interviews, also do additional research on this. (Murray, 2009)
- Also include information outside of the literature (interviews/some books/popular media) (Murray, 2009; Bansal 2012)
- Use practitioners to co-create relevant and interesting research questions. (Bansal, 2012; Banks 1985)

Product/solution requirements:

- Determine whether my project will use appropriate communication channels for sharing (is depository enough etc. ? launch strategy?) (Murray, 2009; Bansal, 2012)
- Make an effort to make the result/solution of my project flexible for the users. (Murray, 2009)
- A solution area of opportunity is providing the practitioner with more (efficient and/or easier) moments or incentives to explore the research of their field with the goal of applying it to their practice. (Le May et al., 1998; Seymour et al., 2003)
- Boundary object (Bansal 2012)
- common language (Stappers & Sanders, 2012)
- Translate/transform useful research into practice (useful form for practitioners) > design (Bansal, 2012)

Appendix A2 - Leadership literature review

Research questions

To begin to understand how designers want to gain information about leadership and how to aid their learning effectively and how these design leaders want to learn specifically, regarding their perceived challenges. The following 11 research questions were formulated.

[questions nicely formatted]

1. *What is leadership (in my project)?*
2. *What are typical leadership qualities and skills?*
3. *What are typical designer qualities and skills?*
4. *Which qualities and/or skills overlap and which ones interfere with each other?*
5. *What do designers think of as leadership?*
6. *How do designers end up in leadership roles?*
7. *How do people learn?*
8. *How do designers currently learn (about leadership)?*

9. *What do designers want to learn (about leadership)?*
10. *How should designers learn (about leadership)?*
11. *Should designers learn (about leadership)?*

Q's: *What are designers atm (good at etc.) + What are leaders atm (good at etc.)*

Q: *how do designers want to learn (are they motivated/knowledgeable?)*

Q: *how/why do these designers end up in leadership roles?*

Q: *what is a design leader?*

- *Could it be considered part of design management?*

Literature review:

Leaders are not born to lead, but made; but some are born not to lead and can't be made to lead.

"If personality is a significant determinant of effective leadership then a purely developmental focus will not contribute sufficiently to building an organisation's leadership capability (Hogan and Hogan, 2001). This implies that any approach to building leadership capability needs to be underpinned by rigorous and effective selection procedures." (Higgs, 2003; p.281)

"In more recent times the area of leadership has been studied more extensively than almost any other aspect of human behaviour (Kets de Vries, 1993; Goffee and Jones, 2000; Higgs and Rowland, 2001). Many have pointed out that, in spite of the plethora of studies, we still seem to know little about the defining characteristics of effective leadership (e.g. Kets de Vries, 1994; Goffee and Jones, 2000; Hogan and Hogan, 2001)." (Higgs, 2003; p.273)

"many maintain that we have little real knowledge of what is required for effective leadership (Kets de Vries, 1994; Higgs and Rowland, 2001; Hogan and Hogan, 2001). Indeed there is, within the vast literature, little agreement on the paradigm within which such research should be framed." (Higgs, 2003; p.274)

"A core issue, for some time, has been whether or not leadership should focus on personality or behaviours (e.g. Hogan and Hogan, 2001; McCall et al., 1988). This, in turn, has implications in terms of strategies for developing leadership capabilities. A personality-based paradigm would argue for selection as being the main focus, whereas a behaviour-based one would argue for development. In essence this is the debate around whether leaders are born or made." (Higgs, 2003; p.274)

Study 1

Higgs, M. (2003). How can we make sense of leadership in the 21st century?. *Leadership & organization development journal*.

Goal

Identifying a model of leadership by using a sensemaking paradigm that shifts the measurement of the effectiveness of the leader towards their impact, rather than their organizational success.

"The paper sets out to develop a framework for thinking about leadership in terms of combining personality and behaviours."

Conclusion

“Within the leadership arena it has been proposed that emotional intelligence is a major factor underpinning success.” The paper presents data that empirically demonstrates links between emotional intelligence and leadership.

Study 2

Dulewicz, V., & Higgs, M. (2005). Assessing leadership styles and organisational context. *Journal of Managerial Psychology*.

Goal

Investigate the new leadership dimensions questionnaire (LDQ) and provide support for its use on assessment and development of leadership.

Conclusion

“Results show a reasonably even allocation across all three leadership styles and that the styles are independent of the four important biographical variables. They also **show that the five FFM personality factors do not account for any additional variance on any of the styles at a significant level.**”

“Employees who can reach outside their silos to find colleagues with complementary expertise learn more, sell more, and gain skills faster.” (Edmondson et al., 2019)

“In studies involving more than 2,000 global teams, one of us—Sujin—found that diverse teams containing a cultural broker significantly outperformed diverse teams without one. (See “The Most Creative Teams Have a Specific Type of Cultural Diversity,” HBR.org, July 24, 2018.)”

*“Cultural brokers promote cross-boundary work in one of two ways: **by acting as a bridge or as an adhesive.**”*

“In addition, leaders can develop more brokers by giving people at all levels the chance to move into roles that expose them to multiple parts of the company. This, by the way, is good training for general managers and is what many rotational leadership-development programs aim to accomplish.”

“Leaders shouldn’t just encourage employees to be curious about different groups and ask questions about their thinking and practices; they should also urge their people to actively consider others’ points of view. People from different organizational groups don’t see things the same way.”

“In a study of jazz bands and Broadway productions, Brian Uzzi of Northwestern University found that leaders of successful teams had an unusual ability to assume other people’s viewpoints.”

“Engaging in one (practice of promoting cross-silo collaboration) promotes competency in another.”

Study 3

Edmondson, A. C., Casciaro, T., & Jang, S. (2019). Cross-silo leadership. *Harvard Business Review*, 97(3), 130-139.

Goal

Show that the most promising innovation and business opportunities require cross-silo collaboration, which means breaking down silos and getting people to work together cross-boundaries. This is said to be a challenge for many leaders and employees.

Conclusion

Vertical relations are prioritized over horizontal ones; which makes creating cross-silo collaboration harder. Leaders need to help people develop the capacity to overcome the barriers that hold them back from cross-collaborating in the following four ways: Cultural brokers, encouraging people to ask the right questions, get people to see the world through others' eyes and broaden your (employees') vision.

Study 4

Kerr, R., Garvin, J., Heaton, N., & Boyle, E. (2006). Emotional intelligence and leadership effectiveness. *Leadership & Organization Development Journal*.

Goal

Investigate the relationship between managerial emotional intelligence (EI) levels and a rating of leadership effectiveness.

Conclusion

“Data may act as a strong predictor of leadership effectiveness, particularly the branches within the experiential EI domain, but high scorers on this do not get high supervisory ratings necessarily. These findings endorse the validity of incorporating EI interventions alongside the recruitment and selection process and the training and development process of managerial personnel. However, they also question the conceptual validity of a key branch (managing emotions) of the MSCEIT.”

“This may indicate that a supervisor's ability to understand and manage their emotions does not play a key role in determining how they are viewed and rated by their subordinates.”

"we strongly believe that self-reflection and assessment are equally important." (Calabretta et al., 2016; p.87)

"Showing leadership is not only a matter of choosing a style but also maintaining a delicate balance."

"Designers need to lead and be humble at same time."(Calabretta et al., 2016; p.87)

Study 5

Calabretta, G., Gemser, G., & Karpen, I. (2016). *Strategic design: eight essential practices every strategic designer must master*. Chapter 3. Bis publishers.

Goal

Lay out two key elements in how designers can identify on how to handle complex challenges of strategic design projects. Ownership and vision.

Conclusion

"There are two major influences on the agility of the process: a solid project vision and the degree of ownership within the organization. The extent to which these two factors occur help designers determine what leadership role to take on in order to move the project forward."

Also shows that designers should be able to adapt their leadership style to suit the situation in order to have their projects be effective and successful.

"Leadership cannot be attained without the efforts of others." (Joziase, 2011; p.35)

"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."

"Design leaders are adept at balancing an exploration of new possibilities for the organization with good management of the existing design function. These leaders are also good at explaining, in business language, the power of design and how it can help a company reach its objectives."

"wisdom is at the heart of visionary leadership." ;p.41

Study 6

Joziase, F. (2011). The soul of design leadership. *Design Management Review*, 22(3), 34-42.

Goal

This article will explore what one needs to become a great design leader. What qualities distinguish an individual as a design leader?

Conclusion

- 1) They are good at envisioning the future; they constantly ask what is changing and what opportunities may arise from change.
- 2) They think strategically; they question existing core competencies and ask which ones will be needed in the future. They ask how their organization plans to set itself apart from its competitors.
- 3) They lead others; they know how to develop, inspire, and maintain teams. (McCullagh)

It is important to realize that design leadership is multidimensional.

“With Chopra, I believe that developing leadership qualities is a matter of matching responses to needs and is a skill that can and should be learned.”

“At the 2010 DMI conference in London, Raymond Turner observed that leadership in design often falls into two categories: **design pushers**, who tend to be in a position to use design to make strategy tangible, and **design pullers**, who can create an understanding of what is possible and demonstrate the value that design brings. Turner argues that a transformational synergy must be created between pushers and pullers if design’s full potential is to be realized.”

Exploring a framework might help us to close this gap between design pushers and pullers.

“Little of substance has been published on design leadership.” (Turner & Topalian, 2002; p.1)

Study 7

R. Turner and A. Topalian, “Core Responsibilities of Design Leaders in Commercially Demanding Environments,” inaugural presentation at the Design Leadership Forum, 2002.

Goal

Is there a real difference between design leadership and design management? Highlighting the fundamental differences between design management and design leadership?

Conclusion

“Design management is essentially reactive while design leadership is essentially pro-active.”
(Turner & Topalian, 2002; p.1)

“Without design leadership, executives don’t know where they are going; without design management, executives don’t know how they might get there.” (Turner & Topalian, 2002; p.1)

“Design leadership is critical to business success for six reasons:

- Helps to envision the future
- Manifests strategy
- Helps direct corporate investment and maximises the return on investment.
- Shapes the customer experiences and through that, the reputation of businesses.
- Responsible for creating and sustaining environments for innovation.
- Responsible for organizing and training for design and innovation within business.”

(Turner & Topalian, 2002; p.9)

“Ultimately, design leadership is a commercial imperative because it enables a company to differentiate itself from others, create and sustain competitive advantage and evolve into a world-class performer.” (Turner & Topalian, 2002; p.9)

Study 8

Yunker, G. W., & Yunker, B. D. (2002). Primal leadership: Realizing the power of emotional intelligence. *Personnel Psychology*, 55(4), 1030.

Goal

“Primal Leadership makes a case for emotionally attuned leaders and why they bring out more in their employees than commanding and pace-setting leaders.”

Conclusion

“We learn that successful leaders resonate on an emotional level with their employees, whereas dissonant leaders by contrast, have shortcomings that undermine their firm’s potential for success.”

Study 9

Gloppen, J. (2009). Perspectives on design leadership and design thinking and how they relate to European service industries. *Design Management Journal*, 4(1), 33-47.

Goal

“The focus of this article has been to relate some perspectives on the terms design leadership, design management, and design thinking in the service industry. Understanding the customer

experience, and carefully focused design leadership and design effort, are essential to managing customer experiences for the better.” p.46

Conclusion

“an understanding of the mutual dependency of design leadership and design management is needed with respect to the service industries in order to maximize their efficiency and effect.” p.46

“The role of design in business is broadening and moving towards a more strategic level in addition to the process of designing the variety of touchpoints that in sum constitute a customer journey in a service context.” (Gloppen, 2012; p.88)

Leadership involves making decisions, including decisions that influence design processes and outcomes. p.88

Leaders may benefit from adopting a design attitude. P.88

“Successful leadership and strategic design may not be far from each other in attitudes towards problem solving.” p.88

“Both seem to have the capacity to be integrative thinkers and to synthesize. The notion of synthesis, fundamental in design as well as in business strategy, may lead to the claim that the main areas informing service design leadership are the approach, methods and processes of design in combination with organizational leadership strategies.” 88

Study 10

Gloppen, J. (2012, September). Service design leadership. In *Conference Proceedings ServDes. 2009; DeThinking Service; ReThinking Design; Oslo Norway 24-26 November 2009* (No. 059, pp. 77-92). Linköping University Electronic Press.

Goal

Basically the world is changing and we need designers to help make decisions.

Service Design Leadership – leadership informed by design in a service context

The term service design leadership is introduced in this paper to reflect a new attitude towards leadership in the service economy in response to the characteristics of services.

Conclusion

“At the same time, society has moved towards a service economy and thus may require a

different approach from both designers and leaders of service organizations. We may expect leaders in service organizations to want to broaden their understanding of how they may collaborate and take advantage of designers' skills and competences on both strategic and operational levels" 88

"successful leadership and strategic design may not be far from each other in attitudes towards problem solving" 88

Both seem to have the capacity to be integrative thinkers and to synthesize. The notion of synthesis, fundamental in design as well as in business strategy, may lead to the claim that the main areas informing service design leadership are the approach, methods and processes of design in combination with organizational leadership strategies.

Study 11

Lee, K. C., & Cassidy, T. (2007). Principles of design leadership for industrial design teams in Taiwan. *Design Studies*, 28(4), 437-462.

Goal

How to be a good design leader?

Conclusion

"

1. Good design leaders must develop and demonstrate characteristics of reliability, open-mindedness, generosity, enthusiasm, capacity, and considerateness.
2. Good design leaders must focus on developing a deep understanding of their designers and maintain a close friendship with them.
3. Good design leaders should adopt attitudes and values such as objectiveness, equality, giving ownership, caring and protecting subordinates, caring for morale, appreciating personal merits, challenging status quo creatively, identifying and exploring new frontiers constantly, broadening the scope of design activities, appreciating passion and capacity in design and creativity, appreciating a mixture of talents and backgrounds, and rewarding contributions to the team.
4. Good design leaders should try to influence designers through facilitation, encouragement, motivation, communication, giving information, giving chances for personal development and setting up standards and systems.

5. Proper roles for good design leaders to play include ready consultant, block killer and resources provider.

“

Study 12

Joziase, F. (2020, 14 april). What Design Leaders do to get to the top? *Empowering Design Leaders*, <https://www.empdl.com/#Opinions>

Goal

How do design leaders get to the top?

Conclusion

Bunch more traits they could improve on, just being good at a few is already enough to be successful?

1 What is leadership (in my project)? > pick a leadership type (creative/transformational/servant)

What makes a great manager?

Meredith Belbin's view:

“A manager is someone who has an overview of the work that needs to be undertaken and can delegate it to others in an appropriate way. Although it can be argued that management can be about looking after process, a true manager has to oversee others, deploy them in the most useful way and encourage personal development.”

We [Belbin] conducted a survey asking people what they think makes a great manager. The results were interesting, but perhaps not surprising.

One thing that was clear is that there is no single combination of Team Roles that makes a great manager. This goes to show that one can be effective in a variety of styles, as long as one understands their strengths and weaknesses in the workplace...

Great managers

Looking in more detail, good communication appears as the principal asset of the most effective managers. Analysis of the figures shows that good managers are seen as encouraging of others, broad in outlook and caring but also challenging. They also have higher than average scores in being creative, innovative and persuasive.

Less effective managers

When asked about less effective managers, the message was loud and clear. People do not appreciate managers who simply direct and bark orders based on their previous knowledge. Nor do they appreciate

managers who lack humility and have a narrow outlook. Less effective managers also appeared as inflexible, not interested in others and manipulative.

In conclusion

The overall results suggest that a facilitative manager is much preferred to a hard-line, micro-manager. The results suggest that the pursuit of high standards is perfectly possible and indeed desirable, provided these goals are pursued in a way that is acceptable to others.

Although it is an advantage to be a natural communicator, communication alone is not enough. Managers may need to make tough and sometimes unwelcome decisions but being caring is a necessary trait for managers to win acceptance. Meredith comments that:

"A general who does not care about his troops will not be able to win their support through difficult times."

And finally, Meredith's tips for managers – be self-aware, take an interest in others, adapt to the specific demands of your situation and make the most of the human resources available.

<https://www.belbin.com/resources/blogs/what-makes-a-great-manager/>

"I like to turn to Deepak Chopra's leadership framework. "The hallmarks of inspired leaders are creativity, intelligence, organizing power, and love," he writes." - the soul of leadership

Mendez-Morse, S. (1992). Leadership Characteristics That Facilitate School Change.

Non leader Leadership: Many Leaders

Similar to the contingency explanation of leadership is the notion of organizational leadership. Barnes and Kriger (1986) suggest that previous theories of leadership were insufficient because they "deal more with the single leader and multifollower concept than with organizational leadership in a pluralistic sense" (p. 15). They contend that leadership is not found in one individual's traits or skills but is a characteristic of the entire organization, in which "leader roles overlapped, complemented each other, and shifted from time to time and from person to person. ...implying a more inclusive concept of leadership" (p. 16). This concept of organizational leadership has not been examined as closely as the investigations of individual leadership traits and behaviors.

An extension of organizational leadership is the concept of shared leadership. Slater and Doig (1988) refute the **assumption that leadership is a possession of one individual** and state that such a supposition ignores the "possibility that leadership may also be exercised by a team of individuals" (p. 296). Murphy (1988) states that the hero-leader framework "ignores the invisible leadership of lower-level staff members throughout effective organizations" (p. 655).

2 What are typical leadership qualities and skills? (short!)

“Interpretation of factors

The nine factors were interpreted as follows:

- (1) Genuine concern for others.
- (2) Political sensitivity and skills.
- (3) Decisiveness, determination, self-confidence.
- (4) Integrity, trustworthy, honest and open.
- (5) Empowers, develops potential.
- (6) Inspirational networker and promoter.
- (7) Accessible, approachable.
- (8) Clarifies boundaries, involves others in decisions.
- (9) Encourages critical and strategic thinking.” (Antonakis et al., 2003)



Mendez-Morse, S. (1992). Leadership Characteristics That Facilitate School Change.

having vision,
(believing that the schools are for learning,)
valuing human resources,
being a skilled communicator and listener,
acting proactively, and
taking risks.

Source: Leithwood & Jantzi (2000).

1. Building vision and goals.
2. Providing intellectual stimulation.
3. Offering individualized support.
4. Symbolizing professional practices and values.
5. Demonstrating high performance expectations.
6. Developing structures to foster

participation in decisions.

Horner-Long, P., & Schoenberg, R. (2002). Does e-business require different leadership characteristics?: An empirical investigation. *European Management Journal*, 20(6), 611-619.

Dess, G. G., & Picken, J. C. (2000). Changing roles: Leadership in the 21st century. *Organizational dynamics*, 28(3), 18-34.

EXHIBIT 1: STRATEGIC INVENTORY	
Using Strategic Vision to Motivate and Inspire <ul style="list-style-type: none">• Does the vision reflect a holistic understanding of the organization's purpose, environment, and stakeholder interests?• Does the vision challenge the organization's assumption base and mental models?• Is the vision communicated in a way that motivates and inspires employees at all levels?• Do all employees feel and support a compelling purpose for the organization (beyond shareholder returns)?	Gathering and Integrating External Information <ul style="list-style-type: none">• Has the organization created a "culture of environmental awareness"? Are the key elements of priority, involvement, focus, process, and motivation in place?• Do managers throughout the organization have a sound awareness of emerging trends and events in the industry environment? Is relevant external information broadly shared throughout the organization?• Does the organization utilize multiple sources of competitive information—including the Internet, published sources, networking, benchmarking and supply chain partners?• Are underlying assumptions about the external environment tested regularly?
Empowering Employees at All Levels <ul style="list-style-type: none">• Does the organization support and encourage "bottom-up" empowerment?• Does the organization rely on trust and culture, or does it control behavior with a system of rules, regulations, and hierarchy?• Does the organization provide the training, information, and knowledge employees need to do their jobs? Are rewards and incentives aligned with performance objectives?	Challenging the Status Quo and Enabling Creativity <ul style="list-style-type: none">• Does a sense of urgency exist throughout the organization?• Do employees throughout the organization actively question the status quo?• Is there a strong "culture of dissent" and a "freedom to fail" mentality?• Are ideas solicited from all levels of the organization?• Does the organization have a culture that encourages innovation and creativity?
Accumulating and Sharing Internal Knowledge <ul style="list-style-type: none">• Is internal information widely shared? Are the processes timely, effective, and efficient?• Do managers at all levels use effective techniques to tap informal sources of information? Do they have strong listening skills?• Is technology used effectively to facilitate the gathering and distribution of internal information?	

21st century, organizational leaders must place less emphasis on traditional structures and controls and shift their focus to concentrate on five key priorities:

- Using strategic vision to motivate and inspire
- Empowering employees at all levels
- Accumulating and sharing internal knowledge
- Gathering and integrating external information

- Challenging the status quo and enabling creativity.

Zie references voor meer

Competence areas:

Envision – the ability to identify a clear future picture, which will inform the way in which people direct their efforts and utilise their skills.

Engage – finding the appropriate way for each individual to understand the vision and, hence, the way in which they can contribute.

Enable – acting on a belief in the talent and potential of individuals, and creating the environment in which these can be released.

Inquire – being open to real dialogue with those involved in the organisation and encouraging free and frank debate of all issues.

Develop – working with people to build their capability and help them to make the envisioned contribution.

Personal characteristics

Authenticity – being genuine and not attempting to “play a role”; not acting in a manipulative way.

Integrity – being consistent in what you say and do.

Will – a drive to lead, and persistence in working towards a goal.

Self-belief – a realistic evaluation of your capabilities and belief that you can achieve required goals.

Self-awareness – a realistic understanding of “who you are”; how you feel and how others see you.

Higgs, M. (2003). How can we make sense of leadership in the 21st century?. *Leadership & organization development journal*. (this boi is also a big fan of Emotional Intelligence) & 2005 higgs

4 Which qualities and/or skills overlap and which ones interfere with each other?

References:

Antonakis, J., Avolio, B. J., & Sivasubramaniam, N. (2003). Context and leadership: An examination of the nine-factor full-range leadership theory using the Multifactor Leadership Questionnaire. *The leadership quarterly*, 14(3), 261-295.

Appendix B - Reflection script for impactful research strategies and results

Checklist for Reflection on Impactful Research

Graduation Project - Tim Rijkers 4293304

1. Are you still using all of the strategies?
2. Do you think you are (still) making a difference for the practitioners with the work you did this week?
3. What can be the consequences of your ideas, when extrapolated further into the future and the deliverable?
4. Have you learned more about how people learn this week?
5. Which kinds of information sources have you used for your research this week?
6. How have the practitioners/interviews impacted your research and process this week?
7. Did anything else relevant to the research-practice gap happen this week?
8. Do any of these answers persuade you to change your plans regarding research for next week?

During research:

- Start your research with the gap in mind and set up to bridge it beforehand. (Stappers & Sanders, 2012)
- Consider and reflect on the consequences of my ideas; plan this at the end of the project or midway throughout. (Murray, 2009)
- Include questions on how people gain knowledge (on leadership) in the interviews, also do additional research on this. (Murray, 2009)
- Also include information outside of the literature (interviews/some books/popular media) (Murray, 2009; Bansal 2012)
- Use practitioners to co-create relevant and interesting research questions. (Bansal, 2012; Banks 1985)

Product/solution requirements:

- Determine whether my project will use appropriate communication channels for sharing (is depository enough etc. ? launch strategy? LinkedIn video/graphic) (Murray, 2009; Bansal, 2012)
- Make an effort to make the result/solution of my project flexible for the users. (Murray, 2009)
- A solution area of opportunity is providing the practitioner with more (efficient and/or easier) moments or incentives to explore the research of their field with the goal of applying it to their practice. (Le May et al., 1998; Seymour et al., 2003)
- Boundary object (Bansal 2012)

- common language (Stappers & Sanders, 2012)
- Translate/transform useful research into practice (useful form for practitioners) > design (Bansal, 2012)
- Design as irritations, provocations, or inspirations for practice; based on research. (Kieser & Leiner, 2009)



As proposed in chapter 2, the use and effectiveness of the strategies for impactful research were reflected on, on a weekly basis for a total of 14 weeks, whilst using eight key questions (see image FIXME and Appendix B FIXME). At the start of each week, thought was given to the questions and were answered. The results of the twelve moments of reflection were collected and clustered.

[image illustrating the strategies for impactful research FIXME]

In order to further reflect it will be attempted to answer the following questions:

- How was it to use the strategies for impactful research?
- Did the strategies have an effect and in which ways?
- What kind of and which changes would we suggest to be implemented for future use of the strategies?

So firstly, how was it to use the strategies for impactful research throughout most of the project?

From the moments of reflection, it has become clear that the strategies were operationalized to such a degree, that they are deemed usable in most weeks of the project. The strategies were especially easy to use in the earlier stages of the project, where things were still unclear and more flexible. Towards the end of the project, it became clear that the strategies were harder to use during times where a deadline was looming and things had to be finished. In this project, those were specifically the weeks leading up to the midterm and greenlight milestone meetings. During the latter half of the project it became clear, even though research is also done through design, that the strategies were harder to use during the synthesis and design phase of the project. It was more difficult to translate the strategies into design actions, especially during the diverging stages of ideation and conceptualization.

Secondly, how did the strategies for impactful design affect the process throughout the project? The weekly reflections helped the process, outside of simply being a reminder and making one more cognizant of the strategies, by offering a different reflective perspective one could take. After each reflection, the goals and activities for that week were often adjusted slightly or new activities were planned, in accordance with said strategies. This perspective helped to become aware of moving goalposts and to become aware of possible outcomes of the project. During diverging it helped with changing perspectives and pursuing knowledge that had not yet been pursued. During converging they added a criteria by which the decision making could be weighed.

Lastly, which changes could potentially be implemented for future use of the strategies for impactful research?

Firstly, the questions could and maybe should be worded in such a way that a yes-or-no answer does not suffice. This makes reflecting easier, as one does not have to ask themselves: *Why?* Every time. The questions can do that for them. Secondly, each strategy can be given a time-component where they come in and out of use at certain times of the project. Some of the formulated strategies were simply not relevant for the entirety of the project. Lastly, the reflection based strategies should probably carry less weight during the ideation phase of a project, since they might be more constraining than beneficial. This does not mean they can not be a boon during the ideation and concepting phase of a design project, it means that the strategies should be disregarded when they prove to be less than useful during these stages. The benefits of the strategies for impactful design are also captured by these informing the list of design requirements and wishes, which I believe to be enough during these phases of a design project.

Appendix C - Interviews script and list of interviewees descriptions FIXME

Director for an aviation company	IDE alumni
Director of Innovation for a middle sized international company	Design Management BSc & IDE alumni
Lab Director, CCO for a big design agency	IDE alumni
Lab Director for an academic institution	IDE alumni
CEO for a small company	IDE alumni
Creative Leadership Coach	Communication & Marketing
Director at a big company	MSc ID in antwerp
Director for an aviation company	IDE alumni
Design Director for a middle sized international company	ID BSc + PhD in Management
UX Lead at a big company	Digital media design
Owner and managing and creative director at a middle sized design agency	IDE alumni
Creative director and founder at a small design agency	
general manager & managing director at a big company	IDE alumni
Senior in management at a big international company	IDE alumni
Founder, director and trainer at a design leadership agency	IDE alumni
Executive at a big company	IDE alumni
Design Director at a small design agency	ID at TU/e
Founder and director of a small design agency	BSc graphic design
Executive at a big company	IDE alumni
Design officer at a big company at a professor related to design management	ID in germany
Director & Designer at a small design agency	Graphic Design BSc
Cocreate lead at a big company	MSc economics

The design leaders were also asked to describe their specific tasks, roles and reports. Using this data, I put them in the following framework (see Image X) to visualize what kind of people were interviewed for the purposes of this project.



Image X: Competency framework inspired by Baars (2016 & 2021).

Appendix D1 - Interview results full

In this chapter the results of the research activities, discussed in Chapter 4, will be reported and discussed. The full results and images can be found in Appendix D FIXME.

- **Changing** perspectives
- Basics of reframing
- Creating clarity
- Iteration 2x
- Mental agility; **switching** between tools.
- Steadfastness
- Focussed on the future
- Looking further/ahead
- Being able to find the right problem
- Reading people
- Confronting people
- Ability to inspire people to follow you(r vision) 4x
- Getting people along, in their own world, with you.
- Inspire yourself
- Focus on impact
- Understanding how to reach goals
- Communicating (skills) 3x
- Translating
- Appearance / Aura
- Ask lots of questions 2x
- Design Mindset 2x
- Design thinking
- Open mind
- Comfortable with uncertainty 2x
- Storytelling 2x
- Observing 2x
- Listening 3x
- Always looking for better
- Sensitivity
- System thinking 2x
- Analytical
- Empathy
- Finding common ground
- Consciously making decisions on what NOT to do.
- Human centered thinking
- Customer centricity
- Being used to not getting things right the first time.
- Open to growth 3x
 - Feedback for myself
 - Helping & seeing people grow
 - Giving & receiving feedback
- Self-managing
- Broad understanding
- Broad education
- Experience in working in multi disciplinary teams
- Feeling about situation / intuition
- Being representable towards the client

- Convincing
- Doing, making and testing; making it tangible
- Balancing; abstract & tangible
- Understanding what is going on in people's heads
- Vision development 2x
- Future development
- Teamwork
- People engagement
- Project planning
- Setting clear goals
- Roles in teams
- Plan of requirements
- Realizing the point on the horizon
- Articulating goals
- Depicting goals
- Giving form to mentifacts
- Creating a narrative
- Discovering boundaries
- Describing boundaries
- Stretching boundaries

Negative:

- Not execution focused
- No follow-through; not interested in implementation
- Too perfectionistic
- Inclusive (which makes one slow to decide)
- Being slow
- Being (so) different 2x
- Going too fast for others
 - Ignoring the stakes
 - Ignoring the emotions/fears
- Thinking people will change for/with me 2x
- Daring to explore 2x
- Bad at checking
- Having overview
- Wanting too much change 2x
- Making this abstract
- Being too conceptual; not concrete enough
- Being conceptual for too long
- Reflecting too much
- Looking internally too much
- Always trying to solve something with a product/service.
- Asking the wrong questions; answering the wrong question with a solution that is now doomed.
- Defensive about their expertise; thinking the skills are unique to them
- Disconnecting from the content
- Hard to transition to execution

- Translation process taking a lot of time
- “Asking for forgiveness over asking for permission” (trust?)
- Impatient
- Having no patience; not seeing the small wins
- Speaking a different language
- Other way of thinking
- Té authentiek
- Not enough technical background.
- Not having to be right the first time; showing work that is not done; people stop listening.
- Too focused on content
- Too focused on tools
- Too focused on chasing the new
- Low in experience after education
- Arrogance 2x
- Stubborn
- Working in the same place with similar people too much; not being challenged enough
- Not empathic with **all** stakeholders; fe. the clients
- World is less magical to us; we know how it works. ; not enough wonder
- Curiosity (distracting) / temper?
- Not methodological enough
- Usually bad politicians
- Introvert 2x
- and autistic
- Holistic approach; difficult in the process of implementation
- Hard to stick to decisions made earlier; when moving to implementation
- Not educated towards an actual job
- Expectation that D has a grand vision on how to change the world
- Not being used to actually having to get the client to agree and along; instead of just telling them your idea is just good and they should trust you.
- Individual artistic attitude
- Talking too much
- Not knowing what leadership is; confusing it with management/administration

3. What are typical designer qualities and skills? & 4. Which qualities and/or skills overlap and which ones interfere with each other?

In Appendix D FIXME, you can find a comprehensive list of all the positive and negative qualities and skills that were named and counted during the interviews. Common positive sentiments, which described traits that helped people out whilst transitioning into leadership positions were:

- Communication skills, in written, verbal and visual form.
- Willingness to explore and stretch boundaries.
- Knowing how to think, also described as being able to use creativity in a structured way.
- Being user-focused.

and even sacrifice, so one should understand the costs before taking up the responsibility of leadership.

Lastly, one should understand what it means to be a leader. A leader has to prioritize constantly, whilst developing, dealing with and inspiring his people by painting a clear dot on the horizon. All this should be done, whilst holding on to the realization that you are part of the team and that you can not do it alone. And if this was not enough, they should also really develop some management skills.

10. How should designers learn (about leadership)?

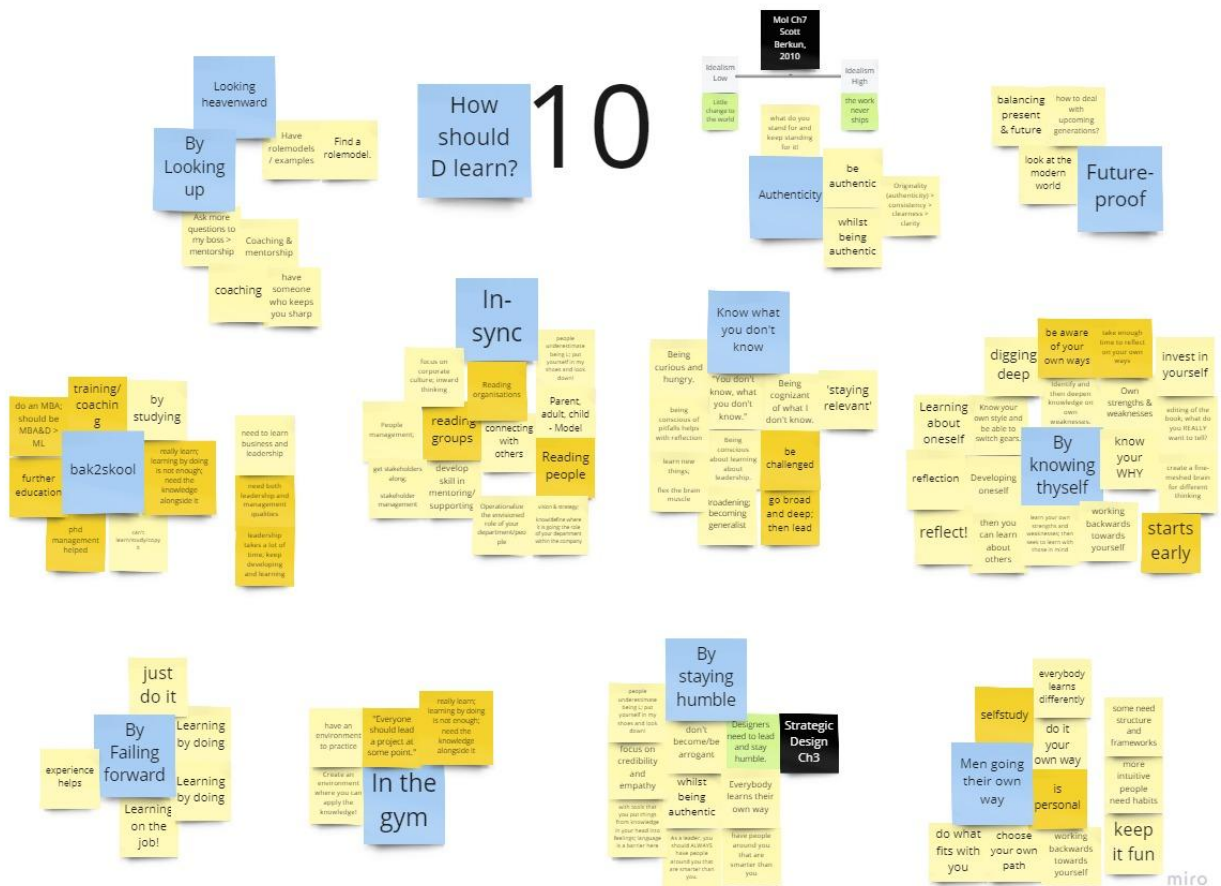


Image FIXME: Clusters on the question: "What is the most important thing you learned about leadership (and would have liked to have known earlier)?"

In the interview, I asked the interviewees if they thought people should learn about leadership in the same way that they did, or if they would recommend otherwise. Almost all of the interviews started their answer with mentioning that you should always do it your own way, to stay in your energy, and be authentic. All of these factors play a role if you are to be trusted and deemed credible at some point, you can't step out of your role as a leader. It is 24/7.

Again, challenging yourself, learning about yourself and the things you do not know are front and center. All the while, they should stay humble and never think you are done learning. There is always another course, degree or book you can consider.

11. Should designers learn (about leadership)?

eventually say no because they no longer did traditional designer tasks, whilst others said yes because they felt the term designer has evolved over the years and is still evolving.

[image of cluster 12]



Image FIXME: Clusters on the question: "Should designers be in leadership positions?"

The latter elicited similar responses, nudging people to expose their view on both the state of leadership and the design field. The majority seemed to think that designers should definitely be included in leadership positions and that designers can add value in those positions. The caveat to

this picture is that they often need to have gained plenty of experience, have broadened their horizons and preferably have gained some management skills along the way.

- **Envisioning a Design space (takeaways)**

Intro

The data gathered from these interviews has offered some answers to our research questions. Insights and areas of interest that were found after the first round of analysis, were used to envision a design space.

Mid

The aim is to deliver a toolkit that aids leaders with a design background in their leadership positions. This toolkit will stimulate the exploration, development and practice of the leadership qualities and practices that are important in the current context.

Using the data gathered from the interviews a design space and challenge was formulated. This was done through clustering the insights on those questions, together with the results from research question 8, 9 and 10.

Which they work on by:

- (Academic) study.
- Resolving their commitment to the cause (by testing themselves).

Slot

This design space leaves us with a lot of questions. Should the project focus on supporting the design leaders in consciously working on their soft-skills, facilitate them in performing specific tasks or should it try to indicate which designers are suitable to become future design leaders? To further converge towards a design goal, further synthesis was necessary.

Appendix D2 - Synthesis

An interesting apparent conflict in the answers presented itself when it came to being a visionary. Having a vision seems to be critical in being a leader, but being visionary seems to be considered a negative as a designer when transitioning into a leadership role. I think this apparent conflict is solved when you consider who is being the visionary and what kind of impact it has on those around them. Looking ahead at Image FIXME, I want to illustrate that a vision coming from someone in the bottom left 'starters' quadrant, is experienced very differently than a visionary leader from the top right 'leaders' quadrant. The starters have yet to build up the credibility and necessary communication skills to have people actually care to listen to their ideas. It is not that being visionary is a bad trait, but a failure to communicate.

5 What do designers think of as leadership?

Designers clearly subscribe to one of the plethora of leadership forms that boil down to leading on an even level compared to their followers. Most design leaders claimed to be leading through content, creatively or even transformatively, whilst others would proclaim themselves servant leaders. Only a small subset of the design leaders interviewed, mentioned the need or preference for directing and hierarchical status. The interviewees felt like a more level leadership style fits better and is in part caused by the fact that their followers are usually highly educated. They are not leading "unmotivated factory workers", but employees that can be trusted to do a capable job. They enable their fellow employees through providing focus, development, support, a safe enough environment and keeping them on track.

Focus is provided by offering a clear dot on the horizon that they can all strive and aim for. Development is offered by bringing the followers interesting jobs, courses, training and positions in a personally tailored manner. The leader uses his human skills to make sure that these people are in the right place for both the company and the followers themselves. The design leaders support their colleagues by making sure they have an environment that they can work in which is relatively safe and orderly, so that they can go out and deal with often chaotic projects. One way of providing order is by setting up the frame and boundaries, within which their people can perform their best. The design leader lastly, keeps them on track by making

sure that everything done by his people is in line with the corporate strategy. The design leader guarantees the corporate strategy, whilst his people can focus on the tasks at hand.

In the end, a design leader is more like a coxswain, instead of a captain. They agree on a route and keep the team on route to their destination, whilst trusting the rest of the team to do the rowing by themselves.

Seniority was not mentioned as a prerequisite to leadership, which was unexpected, but was often cited as one of the reasons the designers ended up in leadership positions.

“Leadership is a teamsport, not an art.”

Lots of listening; what do they want to achieve? What drives them? (connecting element part)

Taking the first step, so the rest can follow

Real leadership emerges when all leverage (such as money) disappears.

Lots of listening; what do they want to achieve? What drives them? (connecting element part)

Taking the first step, so the rest can follow

Real leadership emerges when all leverage (such as money) disappears.

Bridgebuilders! (the connecting element)

Bridgebuilders! (the connecting element)

6 (so) How do designers end up in leadership roles?

During the interviews, I asked all of the participants how they ended up in their leadership positions and whether this was on purpose or accidental. A few cited that it “just kind of happened” and that leadership was never a goal in and of itself, whilst on the other side, a few more participants cited that they purposefully went after a leadership role. Reasons for becoming leaders were: Money, gaining more influence and then being able to experiment and wanting to own their own design bureau.

By far the most participants however, cited that it was a bit of both. They commonly felt like they slowly found out that such a position suited them and that their interests aligned with being in a leadership position. Mix seniority with having “the right character” and we have a recipe for a future leader?

In the end, not a lot seems to differentiate designers from others, in how they end up being in leadership positions. Designers add value to any leadership team by virtue of diversification. It is noteworthy that their willingness to think differently aided them in being leaders, but not in becoming leaders. Being visionary is only appreciated when you have already built rapport with your colleagues.

7 How do people learn?

8 How do designers currently learn (about leadership)?

Learning about leadership starts and ends with the design leader’s social network. Most participants reported that they actively search for people to learn from and with. Be it a coach, mentor or an addition to their (informal) network.

From there, there are two lines of thought which at first glance, seemed like complete opposites. Interviewees reported that one either needed to 'just do it', learn by trial and error, and that learning leadership from a book was not practical, or they reported that one really needs additional formal education in the form of an MBA or leadership courses. I now hold the belief that both sides are correct in this apparent contradiction and that they are actually talking about two sides of the same coin. Putting in the hours and learning through the experiences is only helped by grounding oneself in 'book-knowledge'. This way, it is easier for leaders to 'get out of the event' and understand what is really going on. In the end, it is hard to know what you do not know, so reading about certain difficulties others have encountered primes you to pick up on those earlier than you would have otherwise.

The main practice the participants reported, outside of talking to peers or mentors, is reflecting and actively asking for feedback to reflect on. They value learning about their own leadership and being open to criticism. Being open to confrontations or other clashes with the unfamiliar would help one grow into a more whole person, which is deemed essential for being a good leader, or at least becoming a better leader. Other current practices for improving their leadership capabilities are active and passive observation, which basically includes trying to learn something from any kind of stimuli. Popular stimuli included reading books, online articles, listening to podcasts and watching sports.

One of the interviewees (*Maarten Jurriaanse or was it Marcel Kampman?*) commented during our interview that "Coming back home is very different from having stayed at home". Gaining more knowledge and experience, about your field, your company or yourself, will grow your value as a leadership figure.

In the end, learning about leadership is like learning a completely new language. If you move to china without speaking a word of chinese you will have a very hard time picking up the language without deliberate practice. Whilst on the other hand, if you stay in your home country and study a bit of chinese in your free time, your progress will also be fairly slow. But if you were to move to china after having taken some lessons beforehand and keeping up the lessons whilst living there, your chinese will improve at a much faster pace. It is the design leader's responsibility to walk on the edge of the coin and continuously put their ongoing education into practice, whilst actively asking for feedback and reflecting.

So this is how they do it currently...

- **TALK ABOUT their needs and how the existing solutions fail somewhere !!**

10 How should designers learn (about leadership)?

So what do they think they should do, and already reportedly do? Front and center is the focus on self. The interviewees mention that you should start by really learning about yourself, so that you can later understand and therefore support others. It is important to seek out what you do not yet know, since it is "hard to know, what you do not know". A leader should surround themselves with smart people which introduce the design leader to new knowledge, situations and stimuli to learn from. It is sometimes all about the people around the leader. On one side of the coin the design leaders think that experiencing the actual struggles of practicing leadership by trial and error is something that can not be taught, the actual experience and seniority that come with it are invaluable to a leader. On the other side, people who are more involved in the academic side of the field, advocate that a formal education still has a lot of value to add to improving one's leadership qualities.

This does beg the question, what do they say a design leader should do to learn about leadership, but do not currently employ? Three things. Staying humble, staying true to yourself in an effort to be considered authentic and staying relevant. The participants report that designers can be a tad arrogant in thinking they know or understand things fully, but often it is the case that they do know a lot of things whilst lacking the depth needed. This often shows in human skills, where the designer can become arrogant thinking they understand people because of all the human-centred design work they have already seen and done. Knowing a lot of things is very helpful when talking to many other disciplines, but that is where the leader should restrain themselves. Let the experts do their thing, use your knowledge to speak their language and speak with them on their terms, ask the right questions and set the right expectations, but do not tell them how or what to do. This leads into being humble as well. Being able to listen to people as if they know something you do not yet know is something that will aid in having a truly empathic response towards the people the design leader is working with. This is, again, why design leaders talk about actively having people around that are smarter, more knowledgeable and/or more experienced. They challenge you, they humble you and they do better work than you in their respective fields. Lastly, the participants cite that balancing the present and future concerns is a constant struggle that should be taken into account when working on one's leadership. Becoming a leader that can deal with upcoming generations and the modern world.

In the end, the leaders are very aware of their position regarding their followers. They say that keeping the rapport with their employees in check is important. They need to treat the followers as adults, to be treated as an adult themselves. Once they start behaving a bit like a parent, the followers will follow suit and put themselves in a child-like role.

Things that were reaffirmed:

Don't forget about the people around you, it is about them.

Fail forward, you need to experience it; again the coin.

Know yourself (and stick with who you are.)

Seek out what you do not yet know.

bak2skool

New things:

Future proof; how to stay relevant?

This also ensures you can stay true to yourself and be considered; authentic.

Humble boi

Parent - adult - child levels

By writing stuff down; helps learning?

- HOW DO PEOPLE LEARN IS THE MISSING PIECE

9 What do designers want to learn (about leadership)?

So what do they work on, when they work on their leadership? Some of the things design leaders work on were already alluded to in the answers we got to the previous questions. The things design leaders **do** to develop their leadership qualities mostly revolve around developing themselves. One of the activities that

relates to developing themselves, that came up in larger volumes, is putting themselves in uncomfortable situations, deliberately, in order to have their views challenged and force themselves to continuously switch perspectives. Like mentioned earlier, this is usually done by actively looking outside of your bubble using various media like books, sports, people etc. This could be summed up by saying they focus on their seniority. Another activity that came up frequently was guarding the authenticity of the design leader. Being authentic is a key element to gaining credibility as a leader. Once people perceive you as capricious, it is very hard to get them to follow you, especially when a situation comes up. When a situation comes up that heightens the perceived chaos so much that people can not deal with it anymore, they turn to the leader. This leader is the one that needs to bring some order back into the situation. Put some yin back next to the yang. If one is perceived as capricious, people tend to trust them less in these key situations, which makes authenticity important.

This leads very well for the next activity that leaders work on, which is working on their emotional intelligence (Goleman, 1995). Which is a broad term for working on their human skills. They start with learning about themselves; their own strengths and weaknesses. When they understand the value they add, then they can figure out what kind of team they need to compliment them. Then when they learn more about themselves, it opens them up to learn more about others as well. It enables them to reason how a person would feel and think in a certain position, so that they can give a more empathic response which aligns expectations from both sides. Aligning these expectations is important. When the leader asks for X, he has a certain expectation from his people to deliver X. When they are properly in-sync, something that fulfills the criteria of X will be delivered. When the leader and people are not speaking the same language, any letter of the alphabet can be delivered, to much frustration on both sides. So when a design leader talks about speaking the same language, it can mean professionally, academically or emotionally, which are all highly relevant since they are often "the connecting element".

This leads into another activity that revolves around self development, in actively listening to peers and asking for feedback. Design leaders really value the perspectives their followers can provide them with and this also applies to themselves. It is hard to understand what impact you have on other people, unless you actively seek out to uncover it.

The last activity that was already hinted in the previous questions is about the future. The leaders have to put a dot on the horizon. They communicate the 'why'. This serves the double function of inspiring themselves and others by giving them something to strive for and staying relevant in the future. Having a vision, puts everything else in a certain perspective. Some participants remarked that the future of design leadership is going to be very different from now, looking at how complex the field of design has gotten and how much it has changed over the years. Staying relevant in such a field is definitely a challenge.

Activities or realisations were also mentioned during the interviews that were barely ever explicitly mentioned previously. The first thing most leaders immediately mentioned is that you have to know what you are getting into when you become a leader. It is a full time thing that does not end when you come back home, when a situation arises, you have to act. You have a responsibility to your people. This goes together with the realisation that you have to let go. A leader can not take things too personally, whilst also not being untouchable, which is a fine balance to strike. For example, a failure has to still affect you, but not in such a fashion that your other duties are affected.

Leaders also mention that you have to be daring, usually in the context of being vulnerable and humble. A leader has to dare not to know. Design leaders value this practice because it brings them to the same level as the followers.

Design leaders also work with and within teams. Various activities relate to building, leading and managing these teams effectively. Firstly, they have to focus on matchmaking. Even though disciplines like to work with their own kind, leaders know that multidisciplinary teams, more often than not, complement each other

better. Positions and roles really go before people here, first the leader identifies which roles they need filled to reach a certain dot on the horizon and then these roles are filled with (new) people. Once built, these teams and their people need to be continually developed, which is where design leaders put the emphasis on putting others into the limelight and letting them grow. "There are no bad people, only people in bad situations." As a leader, it is about being able to serve the common interest in any given context. Lastly, hitting on the framework introduced in <image framework baars>, the leaders note that gaining the necessary knowledge on management and being able to really speak that language is essential. Being able to bridge the gap between silos in the company and being a connecting element in this way, is one of the things that make a leader effective in enabling his team(s) to perform at their best.

Something something credibility?

New

- *Sacrifice; it is a 24/7 thing*
- *Let go, don't take it too personally*

- *Be daring*
- *Humility & vulnerability (dare not to know)*

- *Team dynamics/matchmaker*
- *Inspire (explicitly)*
- *Keep it fun*
- *Develop the team*
- *The cause*

- *Management skills/language*

Old

- *Self Development; being your own boss & reflection.*
 - *Be uncomfortable.*
 - *Guard their authenticity.*
 - *Work on their emotional intelligence.*
 - *Reading people/groups/companies.*
 - *Actively listen to peers and ask for feedback.*

- *Put a dot on the horizon. (; start with why)*
- *Staying relevant.*

Cited problems:

- EQ + connect & integrate
- Balancing long-short term > being aware
- Inspiring vs being critical (balance)
- Lots of distractions
- Hard to operationalize complex solutions (no tools)
- Habits

- Set of questions to ask yourself
- How to work on X (today)?
- How to inspire the team?
- How to give feedback that helps people grow?
- How to stay relevant? (also inspires)
- Being inspired myself and working on this explicitly
 - Hard because lack of time and mental load
- The watercooler effect is gone.
- Really knowing how someone is feeling (during corona)
- How to deal with the corona isolation effects? 2x
- Asking for help; the threshold is even higher now!
- Perform better when the pressure is on (stressed & exhibiting auto-pilot behavior)
- Roleplaying?
- How to select our (new) leaders?
 - Which skills are actually impactful?
- How to build a multi disc. Team?
- How to confront someone who is doing it wrong, but does not (want to) see it themselves?
 - Dealing with someone who is not 'in their energy'.
- How to make sure my emotions are not closed off?
- Keeping my back straight in difficult positions.
- How to speak with other management effectively and deal with their different mode of thinking?
- How to communicate with other departments as the design department?
- Helping designers speak with managers, you can only change their perspective whilst being in and taking their perspective first.
- Design management skillset
- Framework design management competencies (baars)
- How to show that you bring value and for who you bring that value?
- How to know what you do not know?
- Platform to share leadership struggles? 2x

11 Should designers learn (about leadership)?

“...developing leadership qualities is a matter of matching responses to needs and is a skill that can and should be learned.” - the soul of leadership

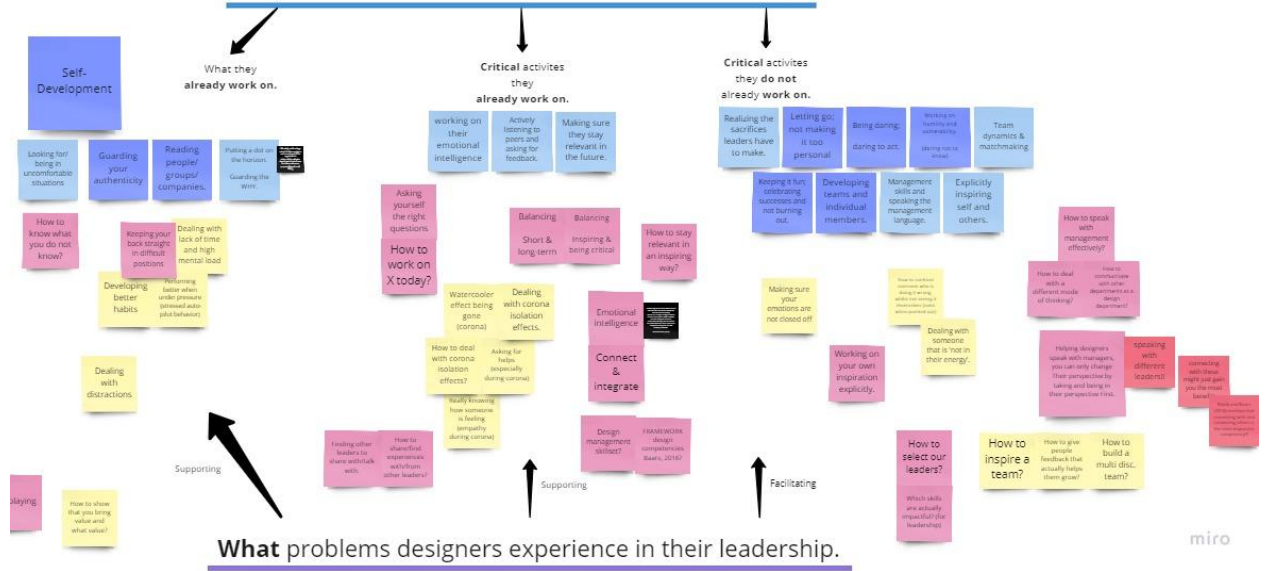
This is leadership for Designers.

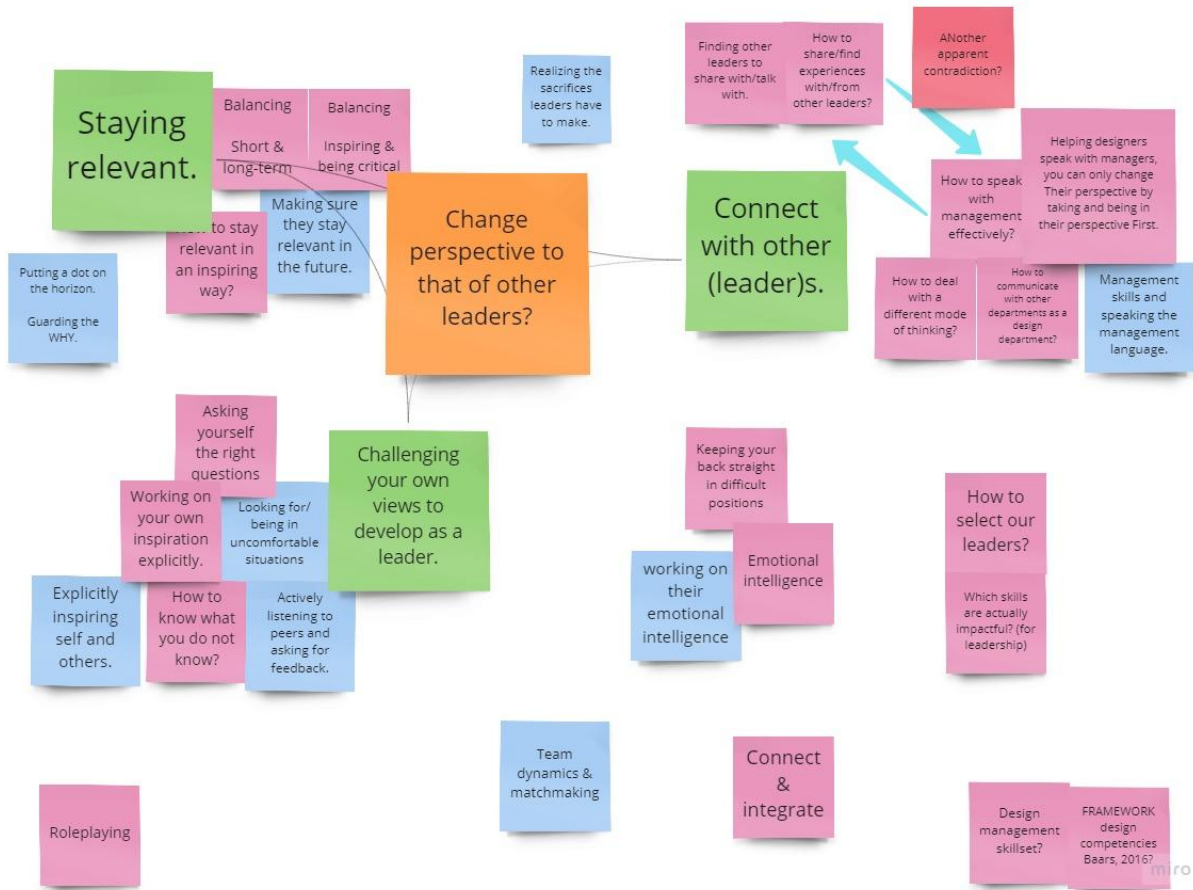


How designers want to improve their leadership.



What designers want to improve in their leadership.





I want to help **designers*** to temporarily **shift their perspective, independently, towards other leadership styles.**

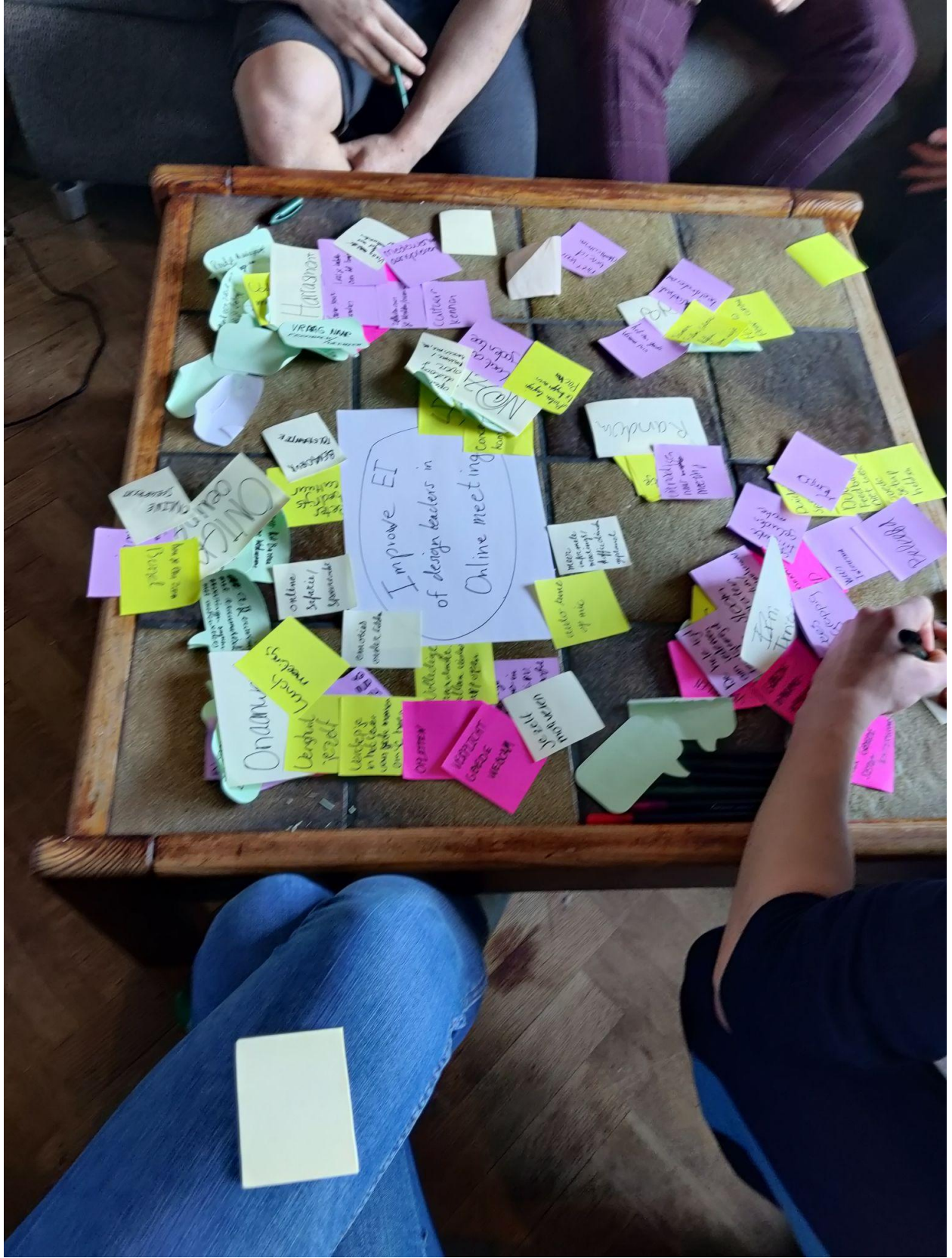
*that currently reside in the creative directors quadrant.

Appendix E - Ideation







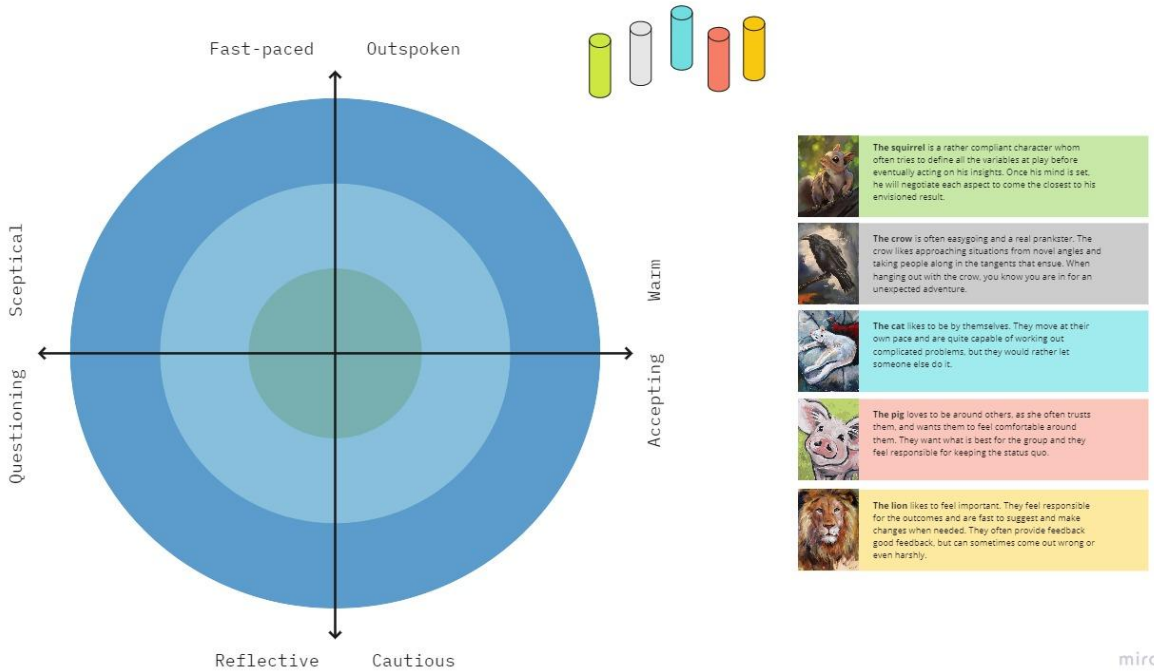
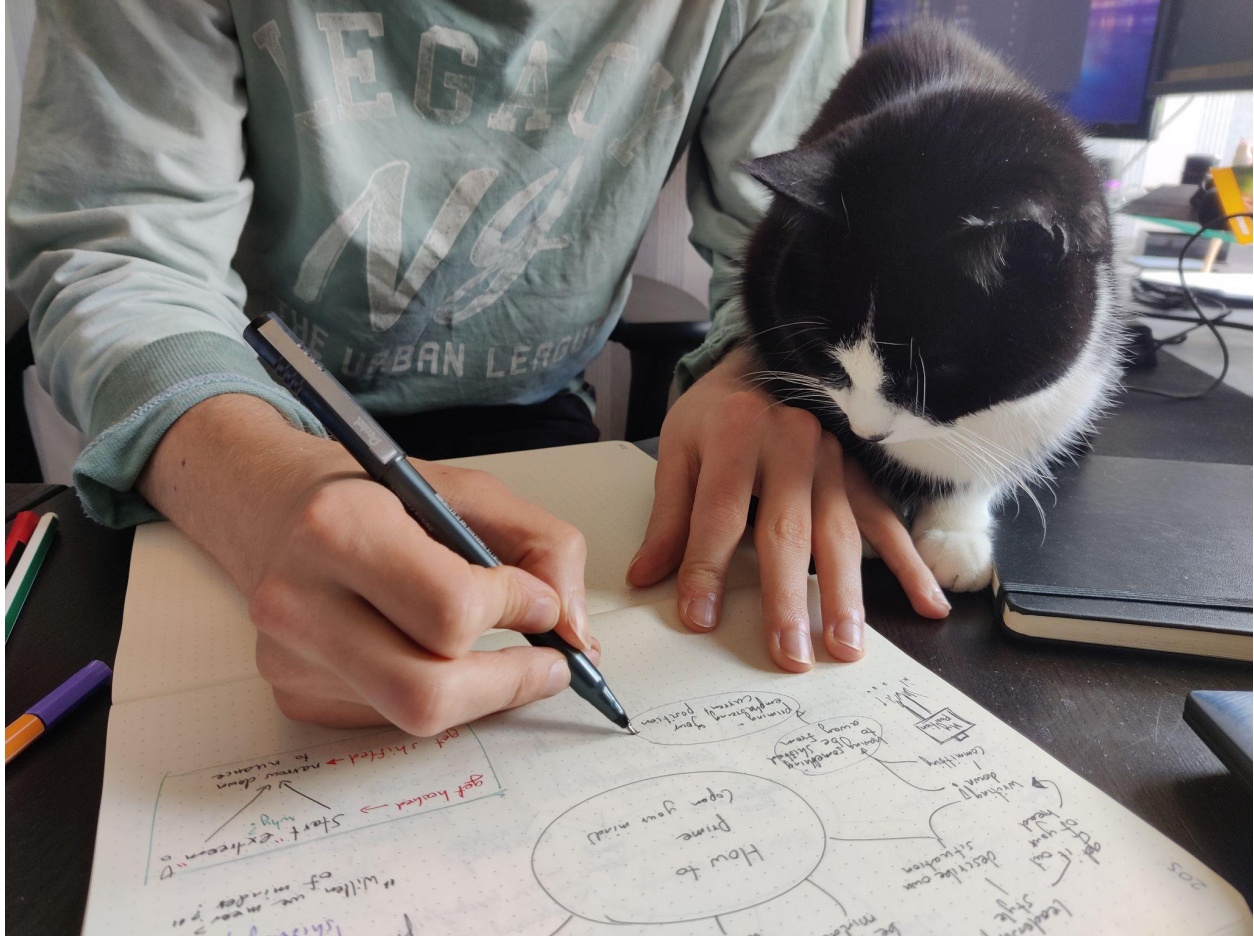


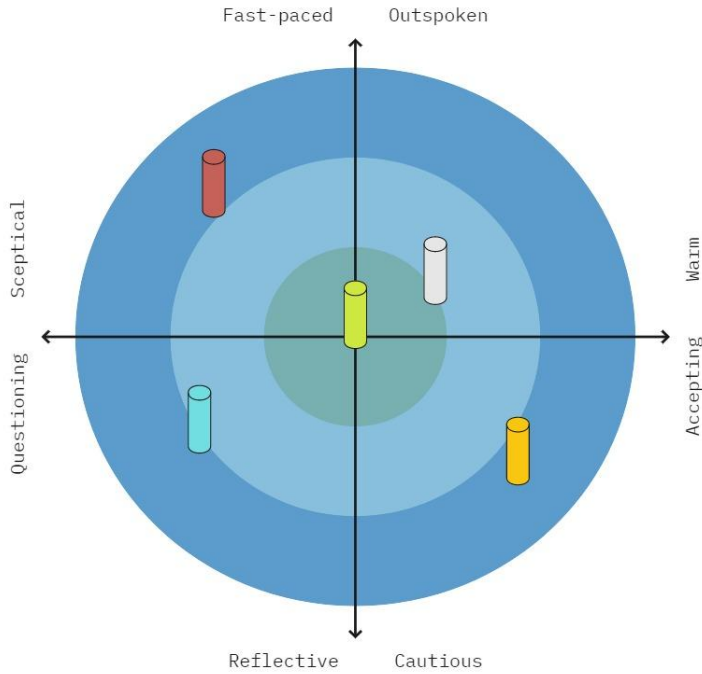












-  The squirrel is a rather compliant character whom often tries to define all the variables at play before eventually acting on his insights. Once his mind is set, he will negotiate each aspect to come the closest to his envisioned result.
-  The crow is often easygoing and a real prankster. The crow likes approaching situations from novel angles and taking people along in the tangents that ensue. When hanging out with the crow, you know you are in for an unexpected adventure.
-  The cat likes to be by themselves. They move at their own pace and are quite capable of working out complicated problems, but they would rather let someone else do it.
-  The pig loves to be around others, as she often trusts them, and wants them to feel comfortable around them. They want what is best for the group and they feel responsible for keeping the status quo.
-  The lion likes to feel important. They feel responsible for the outcomes and are fast to suggest and make changes when needed. They often provide feedback, good feedback, but can sometimes come out wrong or even harshly.

miro

1

1. Please open your mind; you might learn something you did not already know.
2. Please enter an environment that is new to you. (for example, sit under your desk).

2

Which leadership qualities are important to you?

Leadership Quality	Not as important	Very important	Points
Being Credibility When you are credible, people trust you to do the things you say you are going to do and you do them. When you maintain consistency, people know you will deliver.	Not as important	Very important	7
Being visionary When you are a visionary, people look to you for direction. You place a dot on the horizon that they can get excited by and work toward. You deliver the way.	Not as important	Very important	7
Being understanding When you are understanding, you focus on getting things done. You can troubleshoot and integrate new knowledge and circumstances into activities.	Not as important	Very important	7
Being empathetic You are an effective communicator that understands the things used by others' peers. Empathy makes like they can talk to you. The communication also understands that a big part of communication is listening.	Not as important	Very important	7
Being daring You are not afraid to do what needs to be done. You don't shy away from risks and the possibility of facing the difficult alone. You strive to be creative and make unpopular decisions.	Not as important	Very important	7
Empowering others You create an environment where others can perform their best. You believe that there is no such thing as a bad person. Just people in bad situations. You help your people flourish. You encourage and give them opportunities to lead and influence your decisions.	Not as important	Very important	7
TOTAL:			28

3

Challenge!

Would you like to try a 'leader'-week? In this week, you try to tackle some of your leadership challenges by thinking about what your chosen card would do.

Set a reminder!

- Would you like to set a reminder?
- Put a picture in your phone.
 - Make a physical manifestation to stick on your monitor.

miro

1

2. Please enter an environment that is new to you. (for example, sit under your desk).
1. Please open your mind; you might learn something you did not already know.

2

Which leadership qualities were important to you (this week)?

	Points
When you are credible, people trust you to do the things you say you are going to do and you do them. When you promise something, people know you will deliver.	6
When you are visionary, people look for you for direction. You show a way or the vision that they can get inspired by and work towards. You define the way.	6
When you are empathetic, you listen and really try to understand how the other person feels. You are able to step into the shoes of others and understand their perspective.	1
You are an effective communicator that understands the issues and is able to help people. Everyone feels like they can talk to you. The communication goes unobstructed that a big part of communication is listening.	1
You are not afraid to do what needs to be done. You don't get bogged down and the possibility of having to stand down. You have to be creative and make unorthodox decisions.	2
You create an environment where others can perform their best. You define what needs to be done and what you need as a leader. You have a clear vision of what you need to do and you communicate that to your team and ensure they understand it and follow your direction.	4
TOTAL:	20

WHY?

3

Which one is the most interesting, based on your previous answers?

Challenge! Would you like to try a 'leader'-week? In this week, you try to tackle some of your leadership challenges by thinking about what your chosen card would do.

Set a reminder. Would you like to set a reminder?
 • Put a picture in your phone.
 • Physical
 • naamkaartje?

miro

Challenge

Roleplay

all of the characters in your scenario, and completely act out the scenario.

+

Pick a Modifier:

- Don't use a particular word or sentence.
- Swap out one of the characters for a person or leader you know off.

Challenge

Explain

how you (would have) acted a certain way in the given scenario.

to Two fictional characters

of your choice, for example:

- Your boss.
- A 5 year old child.
- A stay-at-home mother.
- Your elementary school teacher.

Challenge

Roleplay

all of the characters in your scenario, whilst completely acting out the scenario.

and then

Explain

why you (would have) acted a certain way in the given scenario to someone you respect.

Reflect

Did something weird happen in the scenario? Or something you do/did not (yet) fully understand?

&

What do you think about it now?

Reflect

Would you like it if this scenario would repeat itself, in some form, in the future?

&

Would the others involved in this scenario also not mind this?

Reflect

Which actions, interactions, words or sentences that you experienced in the scenario, would you like to implement more in your daily life, in the future?

&

How will you implement this?

Reflect

Did something weird happen in the scenario? Or something you do/did not (yet) fully understand?

&

What do you think about it now?

Scenario

You are asking someone for help.

OR

Someone is asking you for help.

Scenario

Standing your ground in a meeting.

Scenario

Discussing someone's failure(s) with them.

OR

Discussing your own failure(s) with someone.

Scenario

Giving feedback to someone.

OR

Receiving feedback from someone.

Scenario

Motivating others.

OR

Motivating yourself.

Scenario

Convincing others of your opinion.

OR

*Being convinced yourself of someone
else's opinion.*

Dear Design Leader,

The following activity is going to be intentionally vague, so sure to embrace it, in order to get the most out of this exercise.

In the following exercise, you will be presented with a group of animals. These animals have been outfitted with some character traits, but you are free to adapt these characteristics to fit your interpretation of the given animals.

Instructions:

The group of animals is working on a huge party to celebrate the end of corona and the whole forest is invited. There is a lot of work to be done and the party will need strong leadership to get the job done.

Please **choose one of the animal cards**.

This animal is the appointed leader for this exercise.

Now look at the **group circle** and place the appointed leader in the middle.

Please envision how this group of animals would organize this party, with this appointed leader at the helm.

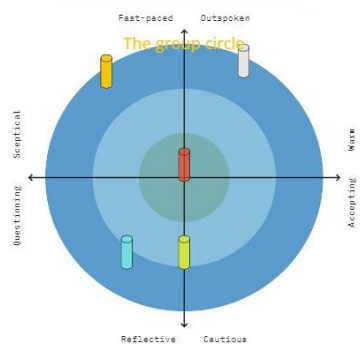
Now **place the animal leaders** in the 'group circle', indicating how they are perceived by the appointed leader.

Please **explain** and **write down** why the appointed leader sees the other animals a certain way. Explain which **traits** the other animals and the leader themselves, exhibit and what kind of **impact** this has on the leader and the other animals.

...

Now **repeat** the exercise with a different appointed leader.

Be sure to **write down** the noticeable differences between the two situations.



- The appointed leader (lion):** He is a bit of a show-off and likes to be the center of attention. He is very confident and likes to be in charge. He is very fast-paced and likes to be in charge.
- The pig:** He is a bit of a show-off and likes to be the center of attention. He is very confident and likes to be in charge. He is very fast-paced and likes to be in charge.
- The cat:** He is a bit of a show-off and likes to be the center of attention. He is very confident and likes to be in charge. He is very fast-paced and likes to be in charge.
- The dog:** He is a bit of a show-off and likes to be the center of attention. He is very confident and likes to be in charge. He is very fast-paced and likes to be in charge.
- The rabbit:** He is a bit of a show-off and likes to be the center of attention. He is very confident and likes to be in charge. He is very fast-paced and likes to be in charge.

middle of questioning & accepting because he is compliant calculating but openminded: still critical

not chill for a serious team; but mb good for innovation pig would like them in the team since pig is trusting and can accept a prankster, cuz pig is not overly serious

pig thinks the cat does it at their own pace judgy & bitchy so thats why more to the left side 'hooghartig'

chille leader, central boi lucky pick!; he really feels like the center of the group; people pleaser

fast-paced for sure robin-hood king; quick and maybe impulsive decisions fairly critical and direct; they say how it is

Effective team?

Maybe the pig is too much of a people pleaser to be a good leader.

7.5/10

Depends on how he deals with the dominant lion and the laxness of the crowd.

If he focuses on the group and keeps lion/crowd in check; it can be an effective team.

miro

Dear **Design Leader**,

The following activity is going to be intentionally vague, be sure to embrace it, in order to get the most out of this exercise.

(Surely a designer should be capable of doing this.)

In the following exercise, you will be presented with a group of animals. These animals have been outfitted with some character traits, but you are free to adapt these characteristics to fit your interpretation of the given animals.

Exercise:

The group of animals is working on a huge party to celebrate the end of corona and the whole forest is invited. There is a lot of work to be done and the party will need strong leadership to get the job done.

Please **draw one of the animal cards**.

This animal is the appointed leader for this exercise.

Now look at the '**group circle**' and place the appointed leader in the middle.



Please envision how this group of animals would organize this party, with this appointed leader at the helm.

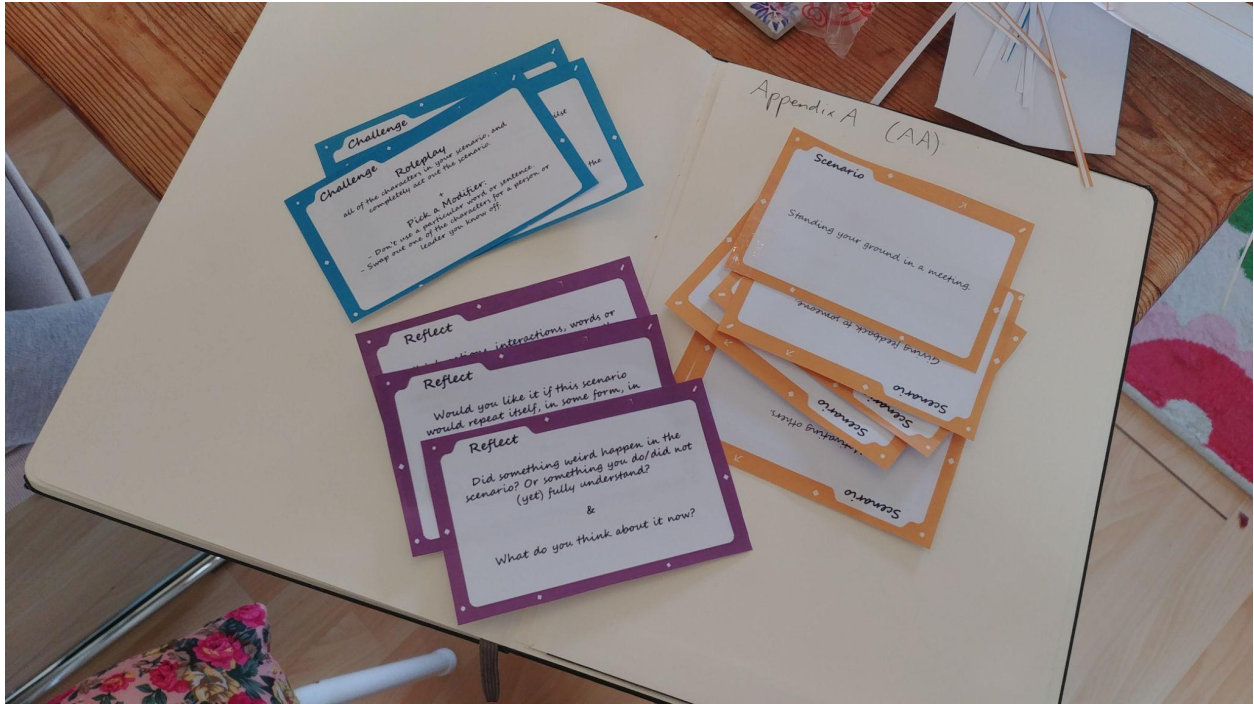
Now **place the animal totems** in the 'group circle', indicating how they are perceived by the appointed leader.



Please **explain** and **write down** why the appointed leader sees the other animals a certain way. Explain which **behavior** the other animals and the leader themselves, exhibit and what kind of **impact** this has on the leader and the other animals.

Now **repeat** the exercise with a different appointed leader.

Be sure to **write down** the noticeable differences between the two situations.



Appendix F - List of requirements

List of design requirements was steadily built up using the knowledge gathered and generated during the project.

Requirements

- The intervention satisfies the design goal.

Pugh's Checklist.

- The product should be usable by at least 1 person, up to 5 people.
- The product can not be in conflict with any privacy laws.
- It should take a maximum of 5 minutes to set up the product for intended use.
- Should be usable multiple times a day, multiple days a week. However, intended use is once a week or once a month.

Strategies for impactful research.

- Translate and transform useful research into a useful form for practitioners (Bansal, 2012).

Insights from tests.

- Provide a reminder for the challenge.
- Provide an environment for structured reflection.
- Include microboundaries to support the friction design of the concept and encourage slow thinking.

Wishes

Strategies for impactful research.

- Solution is flexible in its use for the users (Murray, 2009).
- Provide the practitioner with more (efficient and/or easier) moments or incentives to explore the research of their field with the goal of applying it to their practice (Le May et al., 1998; Seymour et al., 2003).
- The intervention could serve as a boundary object (Bansal, 2012).
- Introduce or promote a form of common language (Stappers & Sanders, 2012).

Insights from tests.

- Include a way for the user to feel committed to the challenge.
- Include a way for the user to feel challenged by the challenge.
- Provide users with a clear and actionable starting point for the challenge.
- Set clear expectations for first-time-use.

Insights

- Being a visionary is not a bad trait, but a failure to communicate.

“An interesting apparent conflict in the answers presented itself when it came to being a visionary. Having a vision seems to be critical in being a leader, but being visionary seems to be considered a negative as a designer when transitioning into a leadership role. I think this apparent conflict is solved when you consider who is being the visionary and what kind of

impact it has on those around them. Looking ahead at Image FIXME (framework with interviewees), I want to illustrate that a vision coming from someone in the bottom left 'starters' quadrant, is experienced very differently than a visionary leader from the top right 'leaders' quadrant. The starters have yet to build up the credibility and necessary communication skills to have people actually care to listen to their ideas. It is not that being visionary is a bad trait, but a failure to communicate."

- *"You just don't know, what you don't know".*

"They also focus on putting in the work, making the miles and paying their dues. "Just do it" was a very common phrase in almost every interview. Some even claimed it was the only way to really learn about leadership was to make a leap of faith into the deep unknowns of leadership. This seemed to be an apparent contradiction with a large subset of the interviewees actually claiming that one has to do training, follow courses and potentially even consider going back to earn another degree. In the end, I think they are speaking about two sides of the same coin. Yes, you need to put in the hours, be challenged and gain the experiences that come with time. But also yes, one needs to study deliberately to make those hours put in all the more effective and worthwhile. What they could both agree on is that one needs a training ground to try things out. As a number of interviewees keenly mentioned: "You just don't know, what you don't know"."

- *Leadership is a team sport and you can not do it alone.*

"Lastly, all the leaders seem to agree that they need a circle of (informal) mentors and coaches of sorts. The leaders really valued having anyone around really, peers of the same standing that might be experiencing similar things, or mentors and coaches that have some more experience than you. I think this really emphasizes that leadership is a team sport and that you can not do it alone."

- *Learning about leadership should be done in your own authentic way, in your energy.*

"In the interview, I asked the interviewees if they thought people should learn about leadership in the same way that they did, or if they would recommend otherwise. Almost all of the interviews started their answer with mentioning that you should always do it your own way, to stay in your energy, and be authentic. All of these factors play a role if you are to be trusted and deemed credible at some point, you can't step out of your role as a leader. It is 24/7."

- *Designers are the connecting element and bridgebuilders between the silos that often exist within companies. This is one of their unique leadership qualities, or at least a quality they will need to leverage to have an impact.*

"The results from the questionnaire confirmed the authors' assumption that diversification is a dominant challenge in the organization. By assigning roles to go beyond the realm of management into the function of design, design management is becoming a bridge builder between the various functional departments. In businesses where design is active in an organization design

management can aid in overcoming the organizational symptoms of silo thinking.” (Rüedi & Baars, 2016)

Insights Test1:

Priming

- Physical action before mental actions!
- Asking to be open-minded might be overkill and can be combined into another step.

Position

- Asking about ‘this week’ is more actionable than asking about ‘in general’.
- Sliders don’t work for ranking characteristics; they are all important.
- Ranking them on a finite pool of points worked and the user has to really think about how many points each characteristic should receive.
 - Ranking them in tiers; like a stack of cards; might not evoke the same amount of thought.
 - Same might go for a finite pool of tokens to divide.

Push

- Picking goes easily after having put so much thought into the characteristics.
- Picking > random; with random cards it does not feel like a logical continuation of the process.
- If the participant knows what the cards are going to vaguely be; they might choose differently. > HAVE to set some expectations for first time use?
- Setting a reminder has the double function of also being the first step to action; actually starting the leader-week.
- Physical reminders seem more impactful than a digital one; digital gets lost in the sea of apps and is less personal.

- *Physical action is more conducive to keeping an open mind than just asking someone to do it, even if they are designers.*
- *Asking people about which leadership characteristics are important to them in general makes the exercise very hard to decide, but if it is limited to only a week people can more easily complete the tasks. “In general” is too big a question.*
- *Dividing up the 20 points seemed to hit the sweet-spot of there being enough friction that the user had to think critically and take a position, but not too easy so that it would be performed rather thoughtless like ranking the characteristics from highest to lowest importance.*
- *Having some choice in which deck you pick, but then still getting a random challenge is a nice combination. There is still some commitment in choosing, but it still feels like a challenge because the outcome of the chosen deck is still somewhat uncertain.*
- *Creating a reminder is a nice first step to kick off your leader-week.*
- *If the participants do not know what is on the cards from the start, they might pick differently during first-time use!*
- *Digital or physical reminder is undecided, maybe both?*

- *Digital nice icebreaker when others see it*
 - *Physical was nice to check just before a meeting*
- *The examples given on the card were nice and actionable enough to help with the challenge. Especially when the card was the reminder.*
- *All (2) participants wanted to try it again.*
- Design legacies
 - Changing the future by mapping the past.
- Reflect as yourself or reflect as the leader?
- “How would the leader have handled that situation that I was in last week?”
- What are your leadership challenges for next week? How do you see those challenges through the eyes of your leader?
- LET other know you are experimenting??

Insights test 2 (see Appendix for full)

- Roleplaying is too high of a bar, explaining out loud is doable.
- The exercise can be vague, but there need to be handles to help just-in-case.
 - Especially a more clear intro and time-estimate.
 - More clear challenges.
- The reflection questions were reportedly very successful, especially when asked to write down the answers.
 - Drawing it out comic-book style instead is also a promising prospect.
- Drawing a card from a face-down deck adds to the feeling of it being a challenge, as opposed to (not) picking a face-up card.
- The participants thought it was weird that the ‘reflection’ cards seemed on the same perceived level as the ‘scenario’ and ‘challenge’ cards.
- Combining the variants did not work, having to repeat something made the differences more clear and thus a shift in perspective was more likely.

Insights test 3

- The taunt made the participants feel part of the designer group and put them in a more designerly mindset?
- Placing the animal tokens in the circle was a tough balancing act, but not impossible.
 - The toughness made them think deeper.
- The circle grabbed most of the attention, so some other details in the exercise were lost.
- The participants reported that it was easy to get into the mind of the archetypal animals.
- Participants stuck to the given characteristics instead of implementing their own.
 - Having to assign roles to the animals might help with that.

Appendix G - Test final concept

Specific remarks

- Flow was made more explicit using the 7 steps were received positively
- Need more frontloading of what the card set will do for the design leader.
- About half of the users did not want to take the challenge, might be solved with frontloading. They saw enough value in the reflection and the challenge seemed to be a bit extra. So its good that not all the value of the design is in the challenge anymore haha.
- Priming is fine, most people understand from workshops etc (previous experience) that this just works.
- Positioning;
 - reflecting on recent activities way easier than general reflections like in the concept; avoids the ego.
 - Divvying up points took iterations, as intended.
 - Change wording to encourage self reflection.
- Push
 - Cards with specific actionable pointers were more inspiring.
 - Leaders with which the user could identify were deemed more inspiring.
 - Both icons and archetypical cards worked; faces helped.
 - Both 'good' and 'bad' examples of each leadership characteristic were provoking for their own reasons.
 - Those who did take the challenge; favored a physical reminder.

General remarks

- Wording was not always explicit enough, can't be too specific. Rather instruct them too much then too little.
- The design leaders reported wanting to use it during weekly/monthly reflection moments, which are often with peers.
- The design satisfied the design goal through offering a novel way of being provoked and reflecting with the additional option of taking the challenge to take those reflections a step further.
- The characteristics were not equal. Some were described as basics for professional working life.
- In its current form (long) it would be used monthly, whilst a shorter version could be used weekly.

Points-sheet

When you are credible, people trust you to do the things you say you are going to do and you do them. When you promise something, people know you will deliver.

Being Credible

Points
2

When you are a visionary, people look for you for direction. You place a dot on the horizon that they can get inspired by and work towards. You deliver the why.

Being visionary

2

When you are operationalizing, you focus on getting things done. You can translate and integrate new knowledge and circumstances into actionable.

Being daring

3

You are an effective communicator that understands the jargon used by his/hers peers. Everybody feels like they can talk to you. The communicator also understands that a big part of communication is listening.

7

You are not afraid to do what needs to be done. You don't shy away from risks and the possibility of having to stand alone. You dare to creative and make unpopular decisions.

Being communicative

Being operationalizing

3

You create an environment where others can perform their best. You believe that there is no such thing as a bad person, just people in bad positions. You help your people develop themselves and give them opportunities to lead and influence your decisions.

Empowering others

3

TOTAL: 20

Leadership Challenge Decks

The Leadership Challenge Decks are arranged on a light blue background. Each deck features a golden eye icon on a dark blue background. The decks are labeled with various leadership qualities:

- Being Communicative (yellow label)
- Being Credible (white label)
- Being visionary (blue label)
- Being daring (green label)
- Empowering others (pink label)
- Being operationalizing (red label)

One deck includes a portrait of a man and text: "You, Vladimir Putin...". The Miro logo is visible in the bottom right corner.

Dear **Design Leader**,

The following activity is going to be intentionally vague,
be sure to embrace it, in order to get the most out of this exercise.

(Surely a designer should be capable of doing this.)

In the following exercise, you will be asked to reflect on your leadership activities of the last few weeks. You will then be asked to rate the importance of certain leadership characteristics in those activities. After which you can pick a challenge card based on your answers.

Step 1

Please enter an environment that is new to you. (for example, sit under your desk or stand up instead of sitting down).

Be sure to keep an open mind!

You might learn something you did not already know.

Step 2

Now think your leadership activities of the last few weeks. Now **write down** and summarize two leadership activities that stand out to you.

Next, please **divvy up** all 20 points between the six leadership qualities on the points-sheet.



Step 3

Please, whilst keeping your score distribution in mind, **draw** one card from any of the leader-decks.



Now reflect on the leadership activities that you just wrote down, through the eyes of the leader you just drew from the deck.

Next, **write down** two leadership activities you will encounter in the upcoming weeks. How would the leader on your card handle those situations differently from you?

Step 4

Points-sheet

		Points
When you are credible, people trust you to do the things you say you are going to do and you do them. When you promise something, people know you will deliver.	Being Credible	2
When you are a visionary, people look for you for direction. You place a dot on the horizon that they can get inspired by and work towards. You deliver the way.	Being visionary	5
When you are operationalizing, you focus on getting things done. You can translate and integrate new knowledge and circumstances into actionables.	Being operationalizing	3
You are an effective communicator that understands the jargon used by his/her peers. Everybody feels like they can talk to you. The communicator also understands that a big part of communication is listening.	Being communicative	3
You are not afraid to do what needs to be done. You don't shy away from risks and the possibility of having to stand alone. You dare to be creative and make unpopular decisions.	Being daring	4
You create an environment where others can perform their best. You believe that there is no such thing as a bad person, just people in bad positions. You help your people develop themselves and give them opportunities to lead and influence your decisions.	Empowering others	3
TOTAL:		20

Leadership Challenge Decks

The Leadership Challenge Decks include the following categories and content:

- Being communicative:** Includes a yellow sticky note and a deck with a photo of a man speaking.
- Being visionary:** Includes a blue sticky note and a deck with a photo of a man in a white shirt.
- Being operationalizing:** Includes a red sticky note and a deck with a photo of a man in a white shirt.
- Being daring:** Includes a green sticky note and a deck with a photo of a man in a white shirt.
- Empowering others:** Includes a pink sticky note and a deck with a photo of a woman in a white headscarf.
- Being credible:** Includes a grey sticky note and a deck with a photo of a man in a white shirt.

Additional text on the decks includes:


- Being communicative:** "I've been a great communicator for a long time. I've been able to get my message across to a wide range of people. I've been able to get my message across to a wide range of people." (Note: This text is partially obscured and appears to be a placeholder or a specific challenge text.)
- Being visionary:** "I've been a great visionary for a long time. I've been able to see the future and I've been able to get my message across to a wide range of people." (Note: This text is partially obscured and appears to be a placeholder or a specific challenge text.)
- Being operationalizing:** "I've been a great operationalizer for a long time. I've been able to get things done and I've been able to get my message across to a wide range of people." (Note: This text is partially obscured and appears to be a placeholder or a specific challenge text.)
- Being daring:** "I've been a great daring person for a long time. I've been able to take risks and I've been able to get my message across to a wide range of people." (Note: This text is partially obscured and appears to be a placeholder or a specific challenge text.)
- Empowering others:** "I've been a great empowerer for a long time. I've been able to help others and I've been able to get my message across to a wide range of people." (Note: This text is partially obscured and appears to be a placeholder or a specific challenge text.)
- Being credible:** "I've been a great credible person for a long time. I've been able to get my message across to a wide range of people." (Note: This text is partially obscured and appears to be a placeholder or a specific challenge text.)



Hello, **Greta Thunberg** here!

- Laser-like focus on issues that she deems the most important and uncompromising in these beliefs.
- Would rather be too harsh in her words, than being unclear.
- Is always looking for the next step she can take right now, in order to achieve her goals.

I challenge you to try a Greta week!



Privet, **Vladimir Putin** zdes!

- Cause often goes before people
- Believes in sending clear and powerful messages
- Does not trust blindly
- Willing to stand alone
- Gathers motivated and responsible people around him.

I challenge you to try a Putin week!



Hello, I'm a **Mother**.

- Makes sure others feel safe and feel heard when they speak.
- Encourages others to try things they have not done before.
- Offers others two choices, not fifty.
- Looks at other's strengths instead of their weaknesses.
- Keeps everything running smoothly in the background.

I challenge you to try a mom week!



Hello, **Ghandi** here!

- Insists on being the last in a group to speak, not to have the last word, but to make sure his opinion is as well informed as possible.
- Looks for win-win scenario's.
- His conscience is his guiding compass.
- "Be the change you want to see in the world"
- Willing to wait things out.

I challenge you to try a Ghandi week!



Hello, **Bill Gates** here!

- Willing to put my money and name on the line.
- Precise in my speech and take ample time to form an opinion.
- Consistent in pursuing the goals I have set out decades before.
- Connecting to other humans by expressing love and empathy is very important to me.

I challenge you to try a Bill Gates week!



Hello, **Alexander the Great** here!

- Inspires great loyalty in his following, due to his intense dedication to being successful.
- Not afraid to get his hands dirty (or bloody).
- Bold and daring strategist that is not afraid to sometimes follow his gut instinct.
- Stubborn and foolhardy in his beliefs.

I challenge you to try a Great week!

Appendix H1 - Redesign Process

Being Credible

When you are a visionary, people look for you for direction. You place a dot on the horizon that they can get inspired by and work towards. You deliver the WHY.

Being visionary

When you are operationalizing, you focus on getting things done. You can translate and integrate new knowledge and circumstances into actionable.

Being operationalizing

You are not afraid to do what needs to be done. You don't shy away from risks and the possibility of having to stand alone. You dare to be creative and make unpopular decisions.

Being daring

You are an effective communicator that understands the power used by other people. Everybody feels like they can talk to you. The communicator also understands that a big part of communication is listening.

Being communicative

You create an environment where others can perform their best. You believe that there is no such thing as a bad person, just people in bad positions. You help your people develop themselves and give them opportunities to lead and influence your decisions.

Empowering others

ja oops that was me

• Using strategic vision to motivate and inspire

• Gathering and integrating external information

• Challenging the status quo and enabling creativity.

• Accumulating and sharing internal knowledge

• Empowering employees at all levels

Dess, G. G., & Picken, J. C. (2000). Changing roles: Leadership in the 21st century. *Organizational Dynamics*, 29(3), 18-34.

the ability to identify a clear future picture, which will inform the way in which people direct their efforts and utilise their skills.

finding the appropriate way for each individual to understand the vision and, hence, the way in which they can contribute.

acting on a belief in the talent and potential of individuals, and creating the environment in which these can be released.

being open to real dialogue with those involved in the organisation and encouraging free and frank debate of all issues.

working with people to build their capability and help them to make the envisioned contribution.

Figgs, M. (2003). How can we make sense of leadership in the 21st century?. *Leadership & organization development journal*.

Envision

Engage

Enable

Inspire

Develop

dot on the horizon
envision

manage
operationalize

be out there
daring

inspire

empower
nurture

Envisioning is the ability to identify a clear future picture and place a dot on the horizon that will motivate and inform the way people direct their efforts and utilise their skills.

Managing is the ability to translate and integrate new knowledge while finding appropriate ways for each individual to understand the vision and the way in which they can contribute to that vision.

Daring is the ability to act on the belief in talent and potential of individuals and allow, to create environment where these can be released. You dare to be creative to challenging the status quo to create this environment.

Inspiring is the ability to being open to and encourage real dialogues, the sharing of internal knowledge and the frank debate of all issues.

Empowering is the ability to work with people on all levels to build their capability and help them make the envisioned contribution.

Envision

Manage

Dare

Inspire

Empower

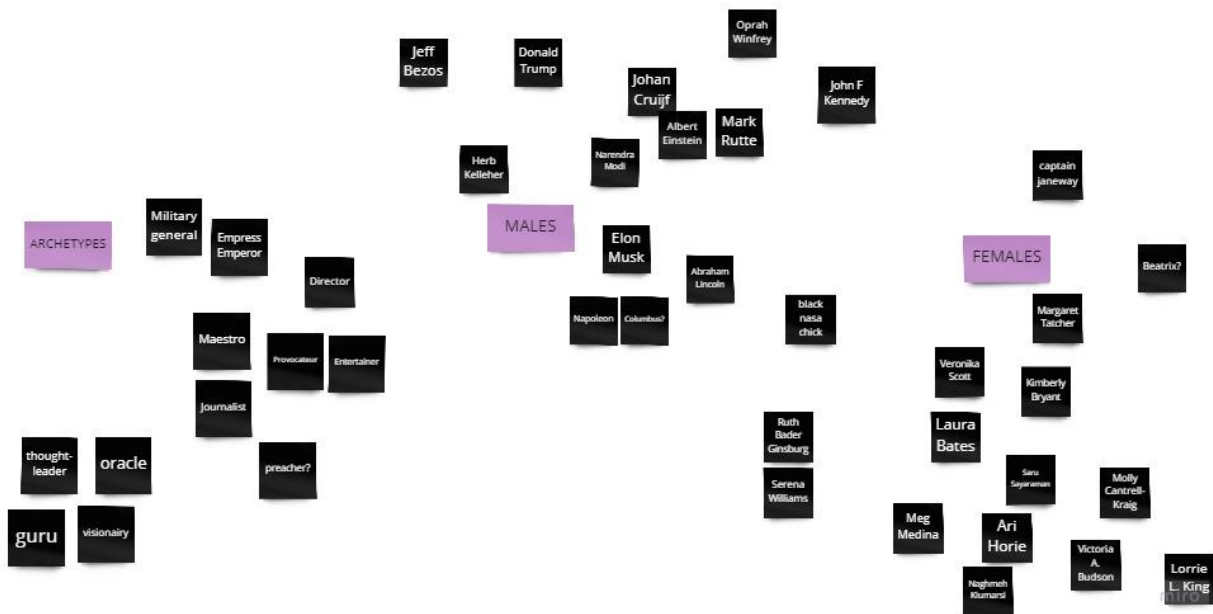
envision
new situation

maintain
current situation

improve
current situation

critically
look at the
current situation

NEW
abilities



Appendix H2 - Redesign Printout version

Added separately to the TU Delft Repository.

Appendix 0 - Project Brief (approved)

Added separately to the TU Delft Repository.