

**HOW COULD A FORMAL SAME GENDER DYAD
MENTORING PROGRAMME FOR WOMEN BE
ADJUSTED TO BE A BETTER TOOL TO COMBAT SKILL
SHORTAGES IN MANAGEMENT, FROM THE CASE
STUDY PARTICIPANTS' PERCEPTION?**

M. Hammerschmid

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M. Hammerschmid

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requirements for the Degree of Doctor of Business
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DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of the University of Worcester and is original except where indicated by specific reference in the text. No part of the thesis has been submitted as part of any other academic award. The thesis has not been presented to any other education institution in the United Kingdom or overseas. Any views expressed in the thesis are those of the author and in no way represent those of the university.

Signed: Martina Hammerschmid

Date: 30 March 2020

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ABSTRACT

A shortage of skilled workers seems to turn into a shortage of managers, a trend that is already visible in the region of North Rhine-Westphalia, Germany, and is expected to worsen in the next few years. Utilising the untapped potential of women in the job market would help to sustainably negate predicted long-term skill shortages. Therefore, a women-only mentoring programme for the advancement of women in the region of East Westphalia-Lippe (OWL) was initiated in 2015. At present, there is only limited research exploring the effectiveness of female same-gender dyad cross mentoring in counteracting skill shortages in management. Through a qualitative constructivist grounded theory approach, this study aims to address this knowledge gap. The research participants agreed that the programme successfully manages to make a contribution to combating skills shortages in management in the region of East-Westphalia Lippe. It manages to help recognizing and developing the potential and competencies of high-potential females. The programme counteracts the lack of role models by gathering experienced female managers with high-potential females. The programme thus inevitably gives participants access to a network of like-minded people. By participating in the mentoring programme, these women's visibility is greatly increased, and this helps change the traditional image of their role. The participants reported increased visibility within their companies as a result of participation in the programme. This could lead to a woman being considered for a corresponding vacancy for which she otherwise would not have been considered. In addition, the programme succeeds in giving women more self-confidence through tandem relationships with successful managers. Moreover, it provides them tools for strengthening their own self-confidence. The women can exchange experiences, fears, and problems in a protected area and thus utilise an enormous wealth of experience.

However, the programme fails to help companies increase their levels of diversity within their management teams. In order to further strengthen the programme, the research participants believed that it would be of advantage having a male mentor in the programme. This would be someone sufficiently influential to convince other men to support the programme.

Several strategies were developed on how the women-only mentoring programme "Cross-Mentoring OWL" in East Westphalia-Lippe could be strengthened to become a better tool to combat skill shortages in management. Concluding, this study aims to broaden our understanding of the possible effects of women only mentoring programmes in order to combat skill shortages in management.

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ABBREVIATIONS

AT	Activity Theory
BREXIT	British Exit from the European Union
CEO	Chief Executive Officer
DAX	German Share Index
DBA	Doctor of Business Administration
EMCC	European Mentoring & Coaching Council
ERDF	European Regional Development Funds
EU	European Union
GDP	Gross Domestic Product
HR	Human Resources
HRD	Human Resource Development
HRM	Human Resource Management
ICT	Information and Communication Technology
IHK	Industrie und Handelskammer (Chamber of Commerce and Industry)
MDAX	Mid-Cap-DAX
MIO	ManagerInnen OWL (Association of Female Managers in East Westphalia-Lippe)
NRW	North Rhine-Westphalia
OECD	Organization for Economic Cooperation and Development
OWL	Ostwestfalen-Lippe (East Westphalia-Lippe)
QDAS	Qualitative Data Analysis Software
RCT	Rational Choice Theory
SDAX	Small-Cap-DAX
SIT	Social Identity Theory
SME	Small and Medium-sized Enterprises
TD	Talent Development
TecDAX	Mid-Cap-DAX, technology sector
TM	Talent Management
UK	United Kingdom
GT	Grounded Theory

1 Introduction

Besides a shortage of skilled workers, a shortage of managers seems to be evolving. In the period of 2010 to 2025, Germany is predicted to experience a decline in labour force of more than 6 million people (BMAS, 2017). According to the Chamber of Industry and Commerce, more than 36% of companies in North Rhine-Westphalia share the concern that skill shortage is the greatest risk to economic development (IHK NRW, 2015). The Federal Employment Agency sees women as the greatest and most easily utilised potential for skilled specialists (Bundesministerium für Arbeit und Soziales, 2017). Therefore, in 2005, the state government of North Rhine-Westphalia initiated a mentoring programme called “CrossMentoring OWL” for the advancement of women in East Westphalia-Lippe. East Westphalia-Lippe consists of the city of Bielefeld and the districts of Herford, Gütersloh, Paderborn, Höxter, Minden-Lübbecke, and Lippe (OstWestfalenLippe GmbH, 2016).

By supporting women in progressing in corporations, the programme aims to support companies in closing their skill shortage gaps. This was requested in the action plan of the federal ministry of labour and social (reported by Bundesministerium für Arbeit und Soziales (2011)). However, there has been no evaluation of whether this goal was met after the programme’s introduction in 2006.

Generally speaking, there has been only limited research exploring the effectiveness of female same-gender dyad cross-mentoring in combating skill shortages in management. Through a qualitative approach, this study intends to address these knowledge gaps and provide insight into how the lives of mentees have been influenced. Special attention is paid to achievements and progress made two years after the programme ended. The study is also meant to provide understanding of why women seek same-gender mentoring. The aim is to explore actions for the management of the mentoring programme “CrossMentoring OWL” on how to improve the programme to better meet the needs of the region in terms of skill shortage in management.

In studies and literature concerning the topic of mentoring, researchers requested that mentees be studied beyond the ends of their programmes to assess their sustainability and the participants’ utilisation of skills after the programme ended (Stufflebeam, 2007; Le Comte and McClelland, 2016; Murphy and Lewes, 2017).

1.1 Problem Statement

A trend already visible will worsen in the next few years: the number of skilled specialists is decreasing, so the number of potential managers will adjust accordingly. European Human Resource managers declared the lack of leadership talent to be the greatest challenge for their company (Scholz, 2017). As outlined in Figure 1, North Rhine-Westphalia lacked 27,000 managers in 2018. The Chamber of Industry and Commerce estimates that this number will increase to 48,000 by 2030 (IHK NRW - Die Industrie- und Handelskammern and V., 2018).

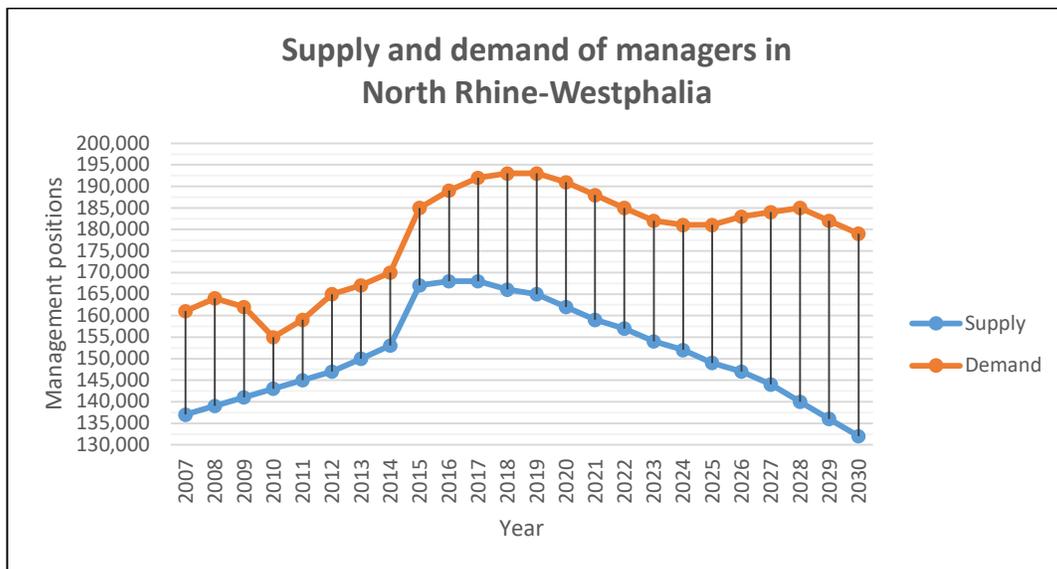


Figure 1: Supply and demand of managers in North Rhine-Westphalia (IHK NRW - Die Industrie- und Handelskammern and V., 2018).

Regarding East Westphalia-Lippe, the Chamber stated that the region lacked 2,270 managers in 2018, and it predicted that this number will increase to 4,320 by 2030, as depicted in Figure 2 (IHK NRW - Die Industrie- und Handelskammern and V., 2018).

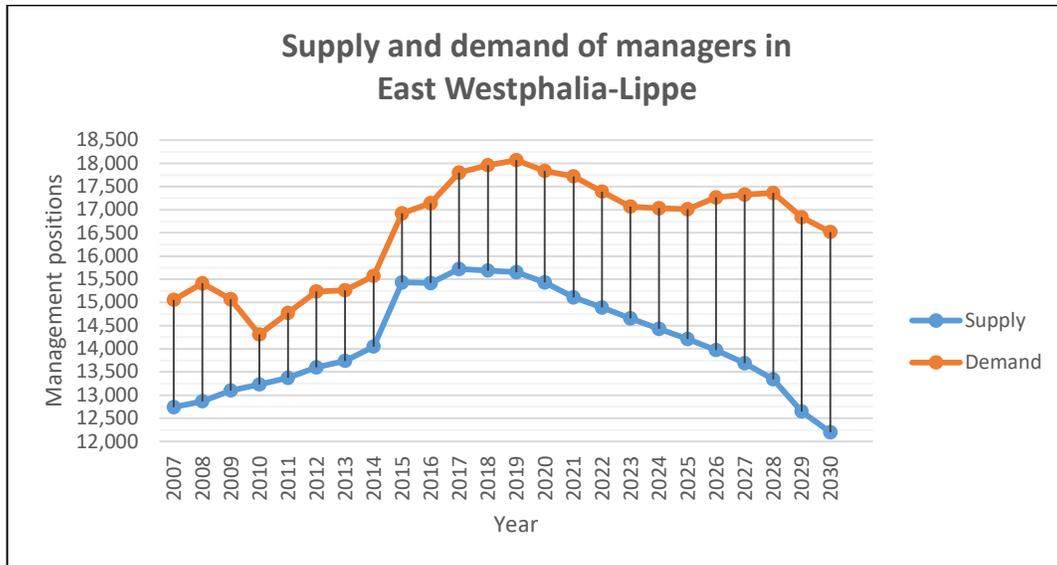


Figure 2: Supply and demand of managers in East Westphalia-Lippe (IHK NRW - Die Industrie- und Handelskammern and V., 2018).

1.1.1 Skill Shortages

The effects of demographic change on the labour market in individual regions can already be seen today. One example is southern Germany, where the situation is very tense for some occupations which are not facing this difficulty in eastern or northern Germany. In the longer term, however, the consequences of demographic developments will affect companies in all federal states. All across Germany, companies will have to adapt to the fact that the number of employed people will continue to fall. Competition between companies for the best workforce will intensify significantly in the near future (Bundesministerium für Arbeit und Soziales, 2017; Bundesministerium für Wirtschaft und Energie, 2017).

Thus, Germany's companies are increasingly confronted with a new form of skilled labour shortage. In addition to engineers, doctors, and researchers, they are increasingly lacking suitable managers. This was stated by a study of a Basel-based research institute which was updated in August 2017 (Sorge, 2017). Only 21% of HR managers believe that this is the case for skilled workers with specific vocational training. 27% of these managers declared that the shortage of managers is the greatest challenge for their companies, as reported by Scholz (2017).

Since 2011, European regional development funds (ERDF) have been made available to the Ministry of Labour, Integration, Health, and Social Affairs of North Rhine-Westphalia for the implementation of projects. In all of the state's regions, numerous projects with innovative approaches are in the process of implementing the central objectives of the initiative. Particular

commitment is devoted to the following aspects: **(1) increasing the employment rate of women**, (2) qualifying and further training employees, (3) preventing young people from dropping out of their traineeships and studies, and (4) recovering professional qualifications as formal qualification (Jansen, 2015).

1.1.2 The Importance of Women in Tackling Skill Shortages

Around 6.3 million women of working age are unemployed - many with medium and high qualifications. In Germany, only 55% of employed women are employed full-time, with Germany ranked second to last in the EU. This means that, in many other EU countries, there are more women working and thereby displaying their potential in the labour market (Bundesministerium für Arbeit und Soziales, 2011, p. 20).

Women are well-qualified (Bundesagentur für Arbeit, 2017; Bundesministerium für Arbeit und Soziales, 2017), but they largely work in part-time positions and hardly in top management. The Federal Employment Agency thus sees women as the greatest and most easily utilised potential for skilled specialists and noted that women in Northern and Western Europe have significantly higher labour force participation rates (Bundesministerium für Arbeit und Soziales, 2011, p. 6, 2013, p. 5).

Highly qualified women rarely reach the top management of companies and organisations, even though greater diversity among board members has been linked to improved organisational performance due to the provision of new insights and perspectives, according to Rao and Tilt (2016).

The Institute of Labour Market and Employment Research found that 26% of senior executives in the private sector are women. A number of companies have now voluntarily committed themselves to increasing the number of women in management positions to a fixed percentage. In the coalition agreement of the Federal Government, there was an agreement to present a gradual plan for increasing the proportion of women in management. The first stage of this plan is focusing on binding reporting obligations and transparent voluntary commitments (Bundesministerium für Arbeit und Soziales, 2011, p. 25).

1.1.3 The Region North Rhine-Westphalia

North Rhine-Westphalia (NRW) is a federal state located in the western Germany. The capital is Düsseldorf and its largest city is Cologne. Figure 3 shows a basic map of Germany with North Rhine-Westphalia shown in red.



Figure 3: Map of Germany locating North Rhine-Westphalia (Wikipedia, 2009b).

North Rhine-Westphalia is home to mid-sized family businesses. Almost 99.5% of the 755,000 companies in North Rhine-Westphalia are family businesses. This makes the region very unique (Ministerium für Wirtschaft, Innovation, 2017). The mix of companies in this region makes this study particularly interesting, as the structures within the companies differ and therefore the status of women in management can also be different.

1.1.4 The Region East Westphalia-Lippe

East Westphalia-Lippe is one of the strongest economic regions in Germany with around 140,000 companies, one million employees, and a gross domestic product of more than 60 million euros per year (OWL OstWestfalenLippe - Gesellschaft zur Förderung der Region mbH, 2017). Figure 4 shows a basic map of Germany with East Westphalia-Lippe shown in red.



Figure 4: Map of Germany locating East Westphalia-Lippe (Wikipedia, 2009a).

The regional economy is characterised by a broad mix of sectors with an emphasis on manufacturing and numerous world market leaders. Well-known brands from East Westphalia-Lippe are Beckhoff, Bertelsmann, Claas, DMG MORI, Gerry Weber, Harting, Miele, Phoenix Contact, Dr. Oetker, Schüco, WAGO, Weidmüller, and Wincor Nixdorf (OWL OstWestfalenLippe - Gesellschaft zur Förderung der Region mbH, 2017). The economic importance of the region and the broad mix of sectors, medium-sized companies, and world market leaders make the region quite diverse and therefore a particularly suitable location for this research.

1.1.5 The Programme CrossMentoring OWL

Companies are the initiators of mentoring because they recognize it as a suitable and efficient instrument for personnel development and employee retention. They want to use their specific competencies and the diversity in mixed-gender management teams as a competitive advantage. So far, more than 88 companies in East Westphalia-Lippe (with a total of 237 tandem partnerships) have participated in the cross mentoring programme established in 2006. The companies recognise the predicted shortage of specialists and managers (Tigges-Mettenmeier, 2019).

CrossMentoring OWL in East Westphalia-Lippe consists of two levels of action: Firstly, the tandem relationship between mentor and mentee with the regular meetings, and secondly the supporting programme. Every four to six weeks, regular meetings between mentor and mentee take place and serve to discuss concrete, individual concerns in a hierarchy-free, trusting relationship. The mentor makes her knowledge available to the mentee.

The supporting programme offers participants and representatives of the participating companies a platform for the exchange of experiences and thematic discussions by means of events and workshops. The contents refer to the operational and individual fields of management and development. Mentoring increases the chance that companies will use realistic self-assessments to motivate women to accept management tasks and thus form successful teams with broad competence (Tigges-Mettenmeier, 2017).

Participation in the mentoring programme is initiated by the interested company. The company is interested in developing the skills of high-potential in the company in order to benefit from them profitably for the upcoming management tasks. The company also wishes to be an attractive and innovative employer for well-qualified men and women alike. Young high-potential within the company can take part in mentoring and management development

seminars. Moreover, if the company also employs women managers who would like to become involved in mentoring, the company could be represented by a mentor (Tigges-Mettenmeier, 2019).

Based on interviews with the companies, mentors and mentees, the project team puts together tandems (mentees and mentors from different companies). At the kick-off event, the tandems get to know each other. The tandem work starts with a formulation of goals for the mentee, which refers to their professional development and to the support expected from the mentoring programme. The regular meetings between mentee and mentor are supported by the supporting programme. Supervisors and other company representatives are also involved in this process. The seminar series aims to qualify young career-oriented high-potential for career development in the company focused on specialist and management positions. The mentoring scheme aims to help the participants acquire and develop specific methodological and management competencies that stabilise and increase their position and career opportunities (Tigges-Mettenmeier, 2019).

1.1.6 Goals of the programme

The mentoring programme has set out two specific goals. First, to help recognize and develop the potential and competencies of high-potential females. Second, to help companies increase their levels of diversity within their management teams (Tigges-Mettenmeier, 2019).

The mentoring programme aims to help participants in recognizing and developing their potential and competencies with a view to stabilizing and expanding their specialist and management tasks. The companies recognize the forecast shortage of specialists and managers. They meet this challenge by making optimum use of personnel potential that has not been exploited to date. Companies that make use of future-oriented personnel concepts such as cross-mentoring are ascribed an innovative and open corporate culture. Companies use this effect with regards to mentoring in order to be perceived as attractive employers, externally as well as internally. In this way, the programme aims to make a contribution to combating skills shortages in management in the region of East-Westphalia Lippe.

1.2 Rationale for the Research

Mentoring traces its origins to Greek mythology of some 4,000 years ago (Clutterbuck *et al.*, 2017, p. 2). Historically, mentoring was conceived as a transformative relationship in which experienced individuals helped less experienced ones realize their personal and professional

goals. However, due to the widespread emergence of mentoring programmes, this phenomenon has only attracted significant attention in the past 35 years from researchers, policy-makers, wider professional bodies, and employer organisations. As such, there is still a need for more research into the effectiveness of female same-gender dyad cross mentoring in combating skill shortages in management.

1.2.1 Gap in Theoretical Knowledge

Mentoring has evolved into multiple forms and become an essential vehicle for change in every branch of society, from business to the military and from the highly privileged and economically powerful to the desperately underprivileged and disempowered. Mentoring is positively affecting the lives of tens of millions of people (Clutterbuck *et al.*, 2017, p. 1).

According to Noe (1988), women and men require mentors equally. Scandura and Ragins (1993) determined that, due to the lack of females in highly powerful positions, the likelihood of cross-gender mentorship is greatly increased. However, White *et al.* (2017) state that access to female role models in leadership positions is particularly important for women.

Godshalk and Sosik (2000) argued that, in cross-gender mentoring relationships, attributes like identification and interpersonal comfort are expected to be lower. They therefore concluded that cross-gender mentoring is expected to be less effective. Further, Allen, Day, and Lentz (2005) determined that participants of same-gender relationships perceive a greater degree of interpersonal comfort due to shared experiences. Within the literature regarding mentoring relationships, the subject matter of gender similarity was emphasised by Ragins (1997), Allen and Eby (2003), and Ragins and Cotton (1993).

According to Koberg, Boss and Goodman (1998), Ragins and McFarlin (1990), Scandura and Williams (2001), and Thomas (1990), same-gender mentoring relationships yield greater benefits than cross-gender ones. According to Bozer, Joo, and Santora (2015), these findings reflect the majority of studies relating to this topic.

There are different lenses through which mentoring can be viewed, such as the mentoring philosophy, context, application, practice, dynamics, conversation, or programme (Clutterbuck *et al.*, 2017, p. 1). This research will first examine mentoring through the lens of “mentoring application or practice”, as this study relates to a particular group (namely mentees of the “CrossMentoring OWL” programme). The perspective will then shift to the lens of the “mentoring programme”, as this research is meant to make recommendations for the

management of the mentoring programme, as previously mentioned (Clutterbuck *et al.*, 2017, p. 2).

The importance of female role models was constantly highlighted throughout the interviews. Following a grounded theory approach, this research therefore evaluates whether role modelling is identified by the mentees of this programme as an essential function of a mentor. Ragins and Kram (2007), Vongalis-Macrow (2014), and Moss, Brigitte, and Meier (2017) determined that there is a serious lack of female role models, and this weakens the confidence and aspirations of younger women. Picariello and Waller (2016) stated that, especially for women, a same-gender mentor could be perceived as a role model who overcame barriers to professional advancement.

Kram (1985) and Allen, Eby, and Lentz (2006) stated that identification with a mentor is required to facilitate the process of role modelling. This process is eased if individuals have commonalities, as stated by Ragins (1997), and Allen, Eby, and Lentz (2006). Allen, Eby, and Lentz (2006) and Steele and Fisman (2014) determined that role modelling is often part of mentoring. It may also occur when the mentor holds a position to which the mentee aspires.

Clutterbuck (2004) and Kram (1980) identified role modelling as one of the main functions of a mentor. Few studies directly address the dynamic of role modelling in mentoring, and those doing so tend to separate role modelling and mentoring. However, Clutterbuck (1998) saw being a role model and using role models as skills to be learned. Based on the researcher's experiences, having a role model is extremely helpful, motivating, and unique.

This research will respond to calls from Stufflebeam (2007) and Murphy and Lewes, (2017) to study mentees beyond the ends of their programmes to assess their sustainability. This suggestion links to what Le Comte and McClelland (2016) recommend: further research in the field of participants' ongoing utilisation of skills after the mentoring programme.

1.2.2 Gap in Practice

The key question of the developing skill shortage is: who will do the work of tomorrow? Above all, this research focuses on people who have been on the margins of the labour market. As the Federal Employment Agency sees great potential in women, the Federal Government has adopted 19 measures to combat the shortage of skilled specialists. One of these results-oriented

goals is to increase the proportion of women in management positions (Bundesministerium für Arbeit und Soziales, 2011).

The mentoring programme in East Westphalia-Lippe is carried out with companies in the region and was supported by public funds until 2014. Since 2014, the mentoring has been financed on a voluntary basis by the participating companies. The interests and objectives of the policy on the advancement of women, companies, and participants have determined the conception of this cross mentoring (Tigges-Mettenmeier and Eyssen, 2017, p. 231).

Never before has the proportion of highly qualified women in Germany in professional life been as high as it is today, and never before have women seen employment as such a natural part of their lives' plans. Almost half of all employees in Germany were women in 2014. Nevertheless, there is still great potential for skilled workers (Kompetenzzentrum Fachkräftesicherung, 2017). Until today, the CrossMentoring OWL mentoring programme has never been evaluated, nor has the issue of role modelling been explored within this programme. Another aspect that has not been investigated in this programme is why women seek this specific form of mentoring. The answers to all of these questions help to find strategies on how to improve the mentoring programme and make it a better tool to combat skill shortages in management.

1.3 Researcher's Positionality

Having a technical background I am working in the automotive industry, which is known as a male-dominated field. Being a woman heading an international sales department, I experienced on a daily basis what it means for women to pursue a career in management. I was lucky that my employer nominated me to take part in the mentoring programme CrossMentoring OWL. Hence, I took part in this programme in 2015/2016. During this period, I met numerous interesting people, including role models and like-minded young female professionals. I also developed deeper insight into the obstacles faced by women through the experiences of other participants. During this year I realised that I wanted to do scientific research in this field. I wanted to combine my practical experience as a manager who knows how difficult it is to hire skilled employees due to skill shortages and my experience as a mentee in a women-to-women mentoring programme. I thought the mentoring programme CrossMentoring OWL was an important tool for the region to push gender equality in management positions, so I wanted to see how the programme could be developed further to even better meet the needs of the region in terms of skill shortages in management.

Therefore, as discussed in Chapter 3, a constructivist research paradigm seemed perfectly suitable for this research, since it negates the existence of an objective reality (Mills, Bonner, and Francis, 2006). Constructivism itself questions the belief in the existence of an objective truth (Crotty, 1998; Breckenridge et al., 2012). Therefore, the researcher socially constructs reality, which influences the research. Similarly, participants have socially constructed realities that serve as data (Charmaz, 2006). A key principle of the constructivist approach is to give the subject a voice (Higginbottom and Lauridsen, 2014).

Deriving from the researcher's conviction that multiple realities exist, a relativistic ontological position is applied to this research (Guba and Lincoln, 1994). This way, the researcher believes that realities are understood within different contexts, including perspectives, culture, time, and place (Charmaz, 2006). This ontological stance seems appropriate for exploring how same-sex dyad mentoring for women might be adapted from the perspective of the case study participants as a better tool for addressing the skills shortage in management. This suggests that the realities discovered in this research will arise from interactive processes between the participants and the researcher. Therefore, the researcher agrees with Mills, Bonner, and Francis (2006) that "the world consist of multiple individual realties influenced by context". Hence, a relativist ontological position is applied.

According to Charmaz, the researchers cannot separate themselves and their experiences from their research or be objective about the data. It is more likely that researchers make consistent and ongoing subjective interpretations of the data (Higginbottom and Lauridsen, 2014). Hence, constructivism emphasises a subjective interrelationship between the researcher and the participants and thus a common construction of meaning (Hayes & Oppenheim, 1997; Pidgeon & Henwood, 1997; Mills, Bonner, and Francis, 2006).

Since this research examines the perceptions and experiences of the participants, it is perfectly embedded in a subjectivist epistemology. One aim of this research is to approximate as closely as possible the unique experiences and interpretations of the participants. Since the researcher examined female managers in male-dominated industries who were mentees in the mentoring programme under study, many personal experiences could be found in relation to the topic. Therefore, the researcher's own experiences and beliefs cannot be separated from this research. This philosophical perspective justifies the application of a constructivist theoretical approach, in which the epistemological and ontological position fits this research.

1.4 Research Aim and Question

This research study intends to explore and recommend actions for the management of the mentoring programme “CrossMentoring OWL” on how to improve the programme to better meet the needs of the region in terms of skill shortages in management.

1.5 Objectives

The objectives of this study are:

- to provide insight into how the lives of the mentees had been influenced two years after the programme ended.
- to provide understanding on why women seek same-gender mentoring.
- to provide an thematic framework that associates skill shortages in management with the effectiveness of “CrossMentoring OWL”.
- to describe the extent to which “CrossMentoring OWL” meets its goal based on the perspectives of the mentees and the experts.

1.6 Research Approach

Since this paper is intended to provide an overview and suggest future implications, information on qualitative aspects was gathered and analysed through semi-structured interviews with participants of the programme, a series of focus groups, and expert interviews. The researcher decided to apply qualitative research, as this study is highly contextual. Moreover, its data were collected in a “real life” setting (Gray, 2004, p. 320). Besides gaining a holistic overview including the perceptions of the participants, the researcher also intended to understand the way in which people act (Miles and Huberman, 1994, p. 6). From a grounded theory approach, this research will build on the expertise of the former mentees, managers, and experts.

1.7 Structure of the Thesis

This thesis consists of five chapters. Chapter 1, the introduction, outlined the problem under investigation, the rationale for this research, and the research’s aim, questions, and objectives. Chapter 2, the literature review, introduces relevant academic sources. Chapter 3, the methodology discussion, outlines the applied research design, the data gathering tools, and the data analysis approach. Chapter 4, the findings, discusses the major findings. Chapter 5, the discussion and conclusion, outlines this study’s contribution to knowledge and practice as well as limitations and potential fields for future research. Chapter 5 provides a discussion about the findings of this research presented in chapter 4, thereby linking them to the literature outlined in chapter 2.

2 Literature Review

The previous chapter dealt with the basic principles of the study as well as the objectives and the corresponding research questions. It also explained how this research contributes to existing knowledge in the field of mentoring women and combating skill shortages. This chapter provides an overview of the literature which frames this thesis' area of interest.

2.1 Brief Introduction to the Chapter

A comprehensive survey of the literature was conducted according to themes relevant to the research problem. Among these themes were skill shortages and diversity in management, though with a focus on women. The paper highlights the global situation of women with special attention to the EU and Germany. There is also a brief comparison of East and West Germany regarding the percentages of women in management positions. In addition, the effects of women on companies' broader economic impact and performance are discussed. This is followed by a description of supposed barriers women might face when striving for managerial positions and ways to overcome these perceived barriers.¹ After that, possible human resource development tools are discussed, though there is a major focus on mentoring and its different schemes.

2.2 Skill Shortages

Skill shortages affect organisations across the world in a wide range of occupational fields, and their effects are often severe (Cappelli, 2008; Collings and Mellahi, 2009; Galagan, 2010; Hartmann, Feisel and Schober, 2010; Warner and Zhu, 2010; Chatterjee, Nankervis and Connell, 2014; Bhanugopan *et al.*, 2017). There have been reports of skill shortages since the mid-1990s, although most of these have been linked to specific employment sectors such as nursing (Serghis, 1998; Bhanugopan *et al.*, 2017), mechanical engineering, construction, mining, and tourism (Bhanugopan *et al.*, 2017). Since then, the debate regarding skill shortages has become more evident in academic literature (Watson, Johnson and Webb, 2006, p. 37; Bhanugopan *et al.*, 2017). It was recognised as a widespread global problem when the Organization for Economic Cooperation and Development (OECD) indicated deficiencies in talent or skilled employees in both western and asian economies (Dainty, 2008; Bhanugopan *et al.*, 2017).

¹ Due to the limited scope of this research, the focus is explicitly on women who strive for managerial positions and not those who decide against such work.

2.2.1 Defining Skill

Despite some attempts at clarification, the identification of what constitutes a "skill shortage" remains essentially unclear (Haskel, 2001; Shah and Burke, 2005; Chan and Dainty, 2007; Richardson, 2007; Bhanugopan *et al.*, 2017). This is likely due to the difficulty of defining "skill". Shah and Burke (2005, p. 45) described a skill as "an ability to perform a productive task at a certain level of competence", and this ability can be acquired through formal education and training or through informal means and on-the-job training (Bhanugopan *et al.*, 2017, p. 1690). Skills can be further differentiated into basic, generic, vocational, and personal ones. Basic skills are, according to Shah and Burke (2005, p. 46), literacy, numeracy, and computer literacy, whereas problem solving, teamwork, learning aptitude, and performance are considered generic skills. The technical skills required to perform the necessary tasks within a particular occupation are regarded as vocational skills. Personal skills consist of motivation, judgement, leadership, and initiative (Shah and Burke, 2005, p. 46; Bhanugopan *et al.*, 2017). Grugulis (2007) referred to the aforementioned personal attributes and generic skills as "soft skills". Among these is loyalty. Grugulis (2007) also emphasised that the nature of work is continually changing, so the expected performance of tasks, management styles, and desired employee skills are changing as well (Bhanugopan *et al.*, 2017).

2.2.2 Defining Skill Shortage

Several researchers attempted to identify and address skill shortages (Skinner, Saunders and Beresford, 2004; Shah and Burke, 2005; Richardson, 2007). However, this is a complicated undertaking, as there is a lack of consensus about what constitutes a skill shortage. Skinner, Saunders, and Beresford (2004) clearly showed through a study of the automotive industry that different views of the importance of certain skills are held by employees, employers, and providers of skill development (Bhanugopan *et al.*, 2017). The researchers thus drew attention to the perceptions of the various interest groups with regard to their relationships with competence development (Bhanugopan *et al.*, 2017). They found that, while providers of technical training rely on conceptual and technical skills, employers actually lack soft skills associated with behaviour, communication, attitudes, and interest in work (Skinner, Saunders and Beresford, 2004; Bhanugopan *et al.*, 2017). Richardson, (2007, p. 15) study highlights how all discussions and figures associated with skills and skill shortages in Australia are based on the measure of "hard-to-fill vacancies" which heavily rely on an examination of job advertisements and remaining vacancies. Some researchers attempted to

divide skill shortages into quantity-oriented and quality-oriented ones (Watson, Webb and Johnson, 2006; Bhanugopan *et al.*, 2017).

In one sense, skill shortages could be regarded as “when there are not enough people available with the skills needed to do the jobs which need to be done” (British Government’s Training Agency, 1990, p.29 cited in Bhanugopan *et al.*, 2017, p. 1691). This is similar to the definition of Marchante, Ortega, and Pagán (2006, p. 5), who defined the term as “there is an obvious scarcity of suitably skilled workers in the labor market” (Bhanugopan *et al.*, 2017, p. 1691).

In another sense, skill shortages are also linked to an imbalance or gap between skills (Chan and Dainty, 2007; Richardson, 2007; Pillay, 2010) and not a shortage of people. These emerge when the existing workforce has fewer skills than are required for the position (Wallis, 2002; Marchante, Ortega, and Pagán, 2006; Watson, Webb, and Johnson, 2006; Watson and Sharp, 2007). Some studies concluded that a skill deficiency manifests as a gap between current and optimal skill levels (Green and Ashton, 1992; Skinner, Saunders, and Beresford, 2004). According to Richardson (2007), many reported cases of skill shortages fall into this category and are due to changes in employers’ requirements (Grugulis, 2007; Bhanugopan *et al.*, 2017, p. 1691).

Richardson (2007, p. 9) also suggested that it is necessary to better understand the nature of the "shortage" before it can be addressed. He thus identified the following four types of shortages: "Level 1 shortage": there are few people who have the basic technical skills, they are not using them, and there is a long training period to develop the skills; "Level 2 shortage": there are few people who have the basic technical skills, they are not using them, and there is only a short training period to develop the skills; "Skills mismatch": there are enough people who have the essential skills, they are not using them, and they are not willing to apply for job vacancies under the current conditions; "Quality gap": there are enough people with the basic skills, they are not using them, and they are willing to apply for vacancies, but they lack other qualities that employers consider important (Bhanugopan *et al.*, 2017, p. 1691).

2.2.3 Impact of Skill Shortages

All of these forms of “shortage” have impacts that are “felt at both the national and organisational level” (Bhanugopan *et al.*, 2017, p. 1691). While on the national level economic growth is affected, at the organisational level they hamper business performance through

effects like lower profits, inefficiency, employee fluctuation, poor morale, poor customer service quality, and a declining market share (Galagan, 2010, p. 48; Bhanugopan *et al.*, 2017, p. 1692). Organisations have realised that the expertise, skills, abilities, and experience of their employees are a competitive advantage over other organisations. Employers have become aware of the fact that “they need to prepare for and manage a growing shortage of talented workers” (Bhanugopan *et al.*, 2017, p. 1689).

2.2.4 Skill Shortages in Management

Demographic trends, socioeconomic changes, and the growing need for diversity in the workplace have encouraged organisations to recruit, retain, and promote women into senior executive positions (Vinkenburg *et al.*, 2011; Athanasopoulou *et al.*, 2017). However, the managerial training market exhibits pronounced informational asymmetry between demand and supply. As such, it is non-transparent (Rekalde *et al.*, 2017). In the twenty-first century global economy, the development and management of employees, according to Thite (2015, quoted in Garavan *et al.*, 2018, p.1), will remain the key to competitive advantage. The term *war for talent* (Chambers *et al.*, 1998) seems to be appropriate again.

In connection therewith, Bhanugopan *et al.*, (2017, p. 1689) identified a “need for a systematic examination of managers’ skill shortages and their impact on organisational success” (Beech, 2000; Economist, 2005; Li and Sheldon, 2010; Warner and Zhu, 2010). The existing literature suggests that managers’ skills influence a firm’s performance (Gilkeson and Michelson, 2005; Gottesman and Morey, 2006; Pillay, 2010; Unger *et al.*, 2011; Rousseau, 2012). Bhanugopan *et al.*, (2017, p. 1689) state that “skilled managers are more capable of discovering and exploiting business opportunities and allocating resources”, so they will exhibit better performance (Gilkeson and Michelson, 2005; Purdum, 2005; Bae and Patterson, 2014; Bhanugopan *et al.*, 2017). Organisational success is significantly impacted by managerial competence, which refers to sets of knowledge, skills, behaviours, and attitudes which a person needs to be effective in a wide range of managerial jobs and various types of organisations (Hellriegel, Jackson and Slocum, 2007; Bhanugopan *et al.*, 2017).

2.2.5 Factors Influencing Skill Shortages

A range of researchers have argued about the factors that influence skill shortages, such as type of industry, location, and organisational type, size, age, and ownership (Bhanugopan *et al.*, 2017). These must be investigated collectively to determine skill shortages (Green, Machin, and

Wilkinson, 1998; Shah and Burke, 2005; Marchante, Ortega, and Pagán, 2006; Watson, Johnson, and Webb, 2006).

However, earlier studies which examined the relationship between organisational characteristics and skills shortages largely focused on single organisations (Bhanugopan *et al.*, 2017). Therefore, a growing concern has been expressed about the generalisability of their findings, as they may be specific to certain occupations, contexts, or industries (Shah and Burke, 2005; Watson, Johnson and Webb, 2006; Watson, Webb and Johnson, 2006; Bhanugopan *et al.*, 2017). Besides research linking managers' skills to the performance of organisations (Gilkeson and Michelson, 2005; Gottesman and Morey, 2006; Pillay, 2010; Unger *et al.*, 2011; Rousseau, 2012) and the need to address the growing problems of skill shortages and their causes (Green, Machin, and Wilkinson, 1998; Shah and Burke, 2005; Marchante, Ortega, and Pagán, 2006; Watson, Johnson, and Webb, 2006; Watson, Webb, and Johnson, 2006), there has been much less research done to investigate the conditional impact of skill shortages in business environments (Bhanugopan *et al.*, 2017). Research has shown that the way in which human capital is perceived, used, and developed is central to building and maintaining competitive advantages. As such, heeding these aspects is in the interest of both employers and employees, though this ignores the circumstances in which skill shortages occur (Bae and Patterson, 2014; Noe *et al.*, 2013 quoted in Bhanugopan *et al.*, 2017, p. 1690).

As mentioned before, one of this research's objectives is to provide a thematic framework that associates skill shortages in management with the effectiveness of the mentoring programme "CrossMentoring OWL". In addition, this research intends to explore and recommend actions for the management of the mentoring programme "CrossMentoring OWL" centered on improving the programme as to better meet the needs of the region in terms of skill shortages in management.

2.2.6 Development of Skill Shortages

In 2020, 13% of desired graduate talent will not be found due to shortages (Desvaux *et al.*, 2017). According to the McKinsey Global Institute (2017), the aging of the population and falling birth rates might dramatically slow the growth of Europe's labour supply. As reported by Desvaux *et al.*, (2017), devising equal proportions of men and women in the labour force is key in countries like Germany, as these are facing this problem. This will be especially true among graduates of higher education, so it will be equally critical for all companies facing a dramatic shortage of talent.

2.2.6.1 Skill Shortages in Management: Situation in Germany

Germany's companies are increasingly confronting a new form of skilled labour shortage. In addition to engineers, doctors, or researchers, they are increasingly lacking suitable managers. This is the result of a study by a Basel-based research institute which was updated in August 2017 (Sorge, 2017). 30% of HR managers believe that the greatest bottleneck of the skill shortage is already manifesting as a lack of potential managers, as reported by Scholz (2017). Only 21% believe that this is the case for skilled workers with specific vocational training. 27% of European HR managers declare the shortage of managers to be the biggest challenge for their companies, according to Scholz (2017).

2.2.6.2 Skill Shortages in Management: Regional Situation

A shortage of skilled workers seems to turn into a shortage of managers (Scholz, 2017). This trend is already visible in the region of North Rhine-Westphalia and is expected to worsen in the next few years. This concern is shared by more than 36% of all companies in North Rhine-Westphalia, who state that skill shortage is the greatest risk to economic development (IHK NRW, 2015, p. 3). The following Figure 5 outlines the development of shortage of managers in East Westphalia-Lippe since 2007.



Figure 5: Development of shortage of managers in East Westphalia-Lippe (IHK NRW - Die Industrie- und Handelskammern and V., 2018).

In 2018, there was already a lack of 2,270 managers in the region of East Westphalia-Lippe which is equivalent to approximately 15% of all management positions in this region. The Chamber of Industry and Commerce estimates that there will be a lack of 4,320 managers in 2030. This would mean that 27% of all management positions in the region of East Westphalia-Lippe will be vacant (IHK NRW - Die Industrie- und Handelskammern and V., 2018). There are different approaches to combating skill shortages. This study focuses on how to utilise women's potential.

2.2.7 Utilising Women's Potential

Women have a great potential to combat skill shortages. Around 6.3 million women of working age are unemployed - many with medium and high qualifications. In Germany, only 55% of employed women are employed full-time. This ranks German women as second-to-last in the EU (in this regard). In many other EU countries, there are more employed women displaying their potential in the labour market (Bundesministerium für Arbeit und Soziales, 2011).

Women can be well-qualified, though they often work part-time. In the majority of cases, women rarely occupy top management positions. This means that, especially today, there is great potential for skilled specialists (Kompetenzzentrum Fachkräftesicherung, 2017). Therefore, the Federal Employment Agency sees women as the greatest and most easily activated pool of skilled specialists. The Agency also identified significantly higher female participation in the labour forces of northern and western Europe (Bundesministerium für Arbeit und Soziales, 2011, 2013).

In total, the federal government has adopted 19 measures to combat the shortage of skilled specialists. One of these results-oriented goals is to increase the proportion of women in management positions (Bundesministerium für Arbeit und Soziales, 2011).

The Institute of Labour Market and Employment Research has found that 26% of senior executives in the private sector are women, at least according to Kohaut and Möller (2017). At the highest management level, one out of four managers is a woman. A number of companies have now voluntarily committed themselves to increasing the number of women in management positions to an arbitrary percentage. In the coalition agreement of the federal government, there is an agreement to present a gradual plan to increase the proportion of women at the management level. The first stage of the phased plan is to focus on binding reporting obligations and transparent voluntary commitments (Bundesministerium für Arbeit und Soziales, 2011).

The gender gap in leadership positions is an extremely important topic for debate and discussion with regard to perceived inequality on a global scale, particularly because this difference is almost twice as high as labour force participation (Woetzel *et al.*, 2015). The McKinsey Global Institute analysed data from international labour organisations and found that 36% of leadership positions globally - such as legislators, senior officials, and managers - are likely to be held by women. In the case of senior executive positions within firms, the contrast between men and women is even larger: 25% of such positions are staffed with women (Woetzel *et al.*, 2015). According to projected calculations, 64 million women globally would be affected by this perceived gender inequality in leadership positions, and this could block women's economic potential. 551 million women believe that there are wage gaps for similar work (Woetzel *et al.*, 2015).

Woetzel *et al.* (2015) argued that three elements are needed to achieve the full potential of women in the workforce: 1. gender equality in society, 2. economic development, and 3. a shift in attitudes. Therefore, gender inequality at work is mirrored by gender inequality in society. Utilising the untapped potential of women in the job market would help sustainably negate predicted long-term skill shortages (Richardson, 2007; Bellmann and Hübler, 2014; Iredale *et al.*, 2014; Bhanugopan *et al.*, 2017; Riley, 2017; Welle, 2017).

2.3 Diversity in Management

Manifold individual characteristics may contribute to diversity in groups. Although organisational diversity has been said to stimulate creativity, enhance performance, and increase the quality of decision making (Sommers, 2006; Homan *et al.*, 2007; Page, 2008; Galinsky *et al.*, 2015), the level of diversification within management is believed to still be low (Gündemir *et al.*, 2017).

2.3.1 Ethic and Racial Minorities Contributing to Diversity

Ethnic and racial minorities are said to occupy insufficient upper management positions, although the level of diversification of the labour force is increasing (Süssmuth, 2007; Military Leadership Diversity Commission, 2011; US Bureau of Labor Statistics, 2014; Catalyst, 2015; Diversityconnection, 2015). For example, one study about Fortune 500 companies in the United States concluded that 4% of CEOs had ethical minority backgrounds (Zillman, 2014). One could distinguish similar perceived underrepresentation of ethnic and racial minorities in European

management positions. In the Netherlands, for example, 1% of corporate top leadership positions were said to be staffed with individuals who were identified as belonging to ethnic and racial minorities (Dekker, 2013 cited in Gündemir *et al.*, 2017).

Some researchers state that organisations could optimally utilise the talent of all employees and thereby gain a competitive advantage if they staffed leadership positions with individuals belonging to ethnic and racial minorities (Marx, Jin Ko, and Friedman, 2006; Ospina and Foldy, 2009). Similar researchers believe that western countries have insufficient numbers of ethnic and racial minority individuals in leadership positions (Zillman, 2014; Gündemir *et al.*, 2017). In a recently conducted study, Gündemir *et al.*, (2017) found that encouraging ethnic and racial minority leadership is crucial, as the study concluded that it helps organisations optimally utilise and even retain minority talent. Furthermore, besides being believed to have positive effects on intergroup relations, it is also said to enable the emergence of salient role models.

Because this research study intends to evaluate a mentoring programme that is designed to increase the number of women in management positions, the main focus of this paper is on gender diversity, i.e. women and men.

2.3.2 Women Contributing to Diversity

Highly qualified women rarely enter the top management in companies and organisations, even though greater diversity among board members has been said to be linked to improved organisational performance. There is a belief that women can offer new insights and perspectives somehow inaccessible to men, at least according to Rao and Tilt (2016).

Over the last decades, numerous studies on women in boards have emerged and resulted in a vast amount of literature. The question has been analysed from different angles, especially through the perspective of diversity in business. All of this research has helped put the topic of gender equality on the agenda of policy makers around the world. However, knowledge is still fragmented. Despite this, understanding all factors that accompany diversity in boardrooms is essential in order to create the most effective tools to achieve equality (Gabaldon *et al.*, 2016).

2.3.3 Women in Management Globally

Globally, women account for 50% of the world's working-age population. According to one calculation, they generate 37% of the global GDP (Woetzel *et al.*, 2015; Desvaux *et al.*, 2017). The participation of women in the labour market worldwide has been calculated to be around 27% lower than that of men. This means that 50% of women participate in the labour market,

while 76% of men do (International Labour Office, 2016). Some researchers think that the growth in numbers of female senior managers over the past decade has been alarmingly slow (Bullough, Moore and Kalafatoglu, 2017).

In 1998, one company of the 500 annually listed in the Fortune 500 list was led by a woman (Umbach, 2017). In 2017, 15% of all board seats globally were taken by women (Catalyst, 2017b). Although this is a significant improvement since 1998, it can be made to appear rather modest if it is compared to the rate of 12% in 2015 (Deloitte, 2015). Some countries experienced larger changes than others: New Zealand had an increase of more than 10%, Belgium 9%, Sweden 7%, and Italy, Norway, Australia, the United Kingdom, and Canada approximately 5% (Deloitte, 2015).

Even though several researchers support the value of their presence (Klenke, 2003; Herring, 2009), one explanation for the relatively low percentage of women in top management positions could be that some individuals underestimate the effectiveness of women as leaders (Paustian-Underdahl, Walker and Woehr, 2014). According to international labour organisations, men are almost three times as likely as women to accept leadership positions (Woetzel et al., 2015).

Women have been calculated to account for 39.3% of the labour force worldwide (Desvaux et al., 2017; The World Bank, 2018), and the percentage has been rising in recent years. Discordantly, a calculation concluded that 25% of management positions globally are staffed with women (Desvaux et al., 2017). According to Umbach (2017), figures of 4% to 5% female CEOs are considered a historic high. Schwab et al. (2017) predict that this economic gender difference will remain for another 217 years. In last year's Global Gender Report, there was a prediction that after 170 years - if growth continues – there will be equal proportions of men and women in the labour force (Schwab *et al.*, 2017).

2.3.4 Women in Management in the European Union

According to statistics, women account for 51.1% of the EU's population (Catalyst, 2017a), 45.8% of its labour force (Desvaux *et al.*, 2017; The World Bank, 2018), and 47% of its doctoral candidates (Statistisches Bundesamt, 2018b). These numbers have been rising in recent years. According to the European Commission, approximately 5% of the largest listed companies in Europe have women as CEOs. This is an increase of 2% since 2011. Although there was some

change in the highest positions, the proportion of women in executive roles increased more slowly (Deloitte, 2015).

According to GlobalStat – a joint project of the Robert Schuman Centre for Advanced Studies' Global Governance Programme and the Francisco Manuel dos Santos Foundation – 21% of the EU's non-executive directors, 13% of its executive directors, and 3% of its CEOs were women in 2014 (Umbach, 2017). This indicates an increase of 2.8% since October 2014 (Deloitte, 2015).

The largest increase occurred in Sweden (8%), followed by Italy (6%) and Belgium, the Czech Republic, Ireland, France, Poland, and Portugal (each at 5%). In ten EU countries, women account for at least 25% of board members. These countries are Belgium, Denmark, Finland, France, Germany, Italy, Latvia, Netherlands, Sweden, and the United Kingdom. France (37%) and Sweden (36%) had the highest rates and were the closest to the 40% target, which is still being discussed (Deloitte, 2015).

In 2012, the OECD estimated that the GDP in Europe could increase by 12% by 2030 if women would occupy more positions so that the percentages of men and women in the labour force were equal (OECD, 2012).

2.3.5 Women in Management in Germany

After 100 years of female suffrage in Germany and 70 years of constitutionally established equal rights (Zech, 2018), women do not receive or accept top leadership positions as often as men do (Bullough, Moore, and Kalafatoglu, 2017; Rincón, González, and Barrero, 2017). Although Germany has had a female chancellor since 2005 (Angela (Dorothea) Merkel), women do not present themselves equally in business. This is despite the fact that federal statistics state that women account for 51% of the German population (Statistisches Bundesamt, 2018c). 50.6% of Germany's academic degrees are awarded to women (Statistisches Bundesamt, 2017), and 45% of the country's doctoral candidates are women (Statistisches Bundesamt, 2018a).

Women account for 46.5% (Desvaux *et al.*, 2017; The World Bank, 2018) of the labour force in Germany, according to statistics, and these numbers have risen in recent years.

A Bisnode study analysed a dataset containing Germany's 228,000 largest companies according to size and turnover. It found that, of around 736,000 managers, 155,000 were women (Schwarze, Frey, and Tapken, 2016). Although a negative trend could be seen at the end of 2014 regarding female chairmen (Schwarze *et al.*, 2015), the percentage of women has slowly increased (Ernst & Young, 2018). According to the Bisnode study quoted above, a total of

736,000 top and middle managers were employed in the stated 228,000 companies. Of these, 42,900 top management positions and 111,900 middle management ones were held by women. Therefore, women comprised 21% of the managers in Germany in 2016. The percentage of women in the top and middle management has continued to be at a relatively low level since 2013 (Schwarze, Frey and Tapken, 2016).

This literature review focuses on middle management. This is of importance for this research because the mentees who participate in the programme either are aspiring to a position in middle management or are already working in such a position.

In the sectors' middle management, there is higher female participation, as can be seen in Figure 6. One can see that the percentage of women in middle management positions is highest in the health and social services sector (45.9%). This contrasts with the financial and insurance services sector (21.9%).

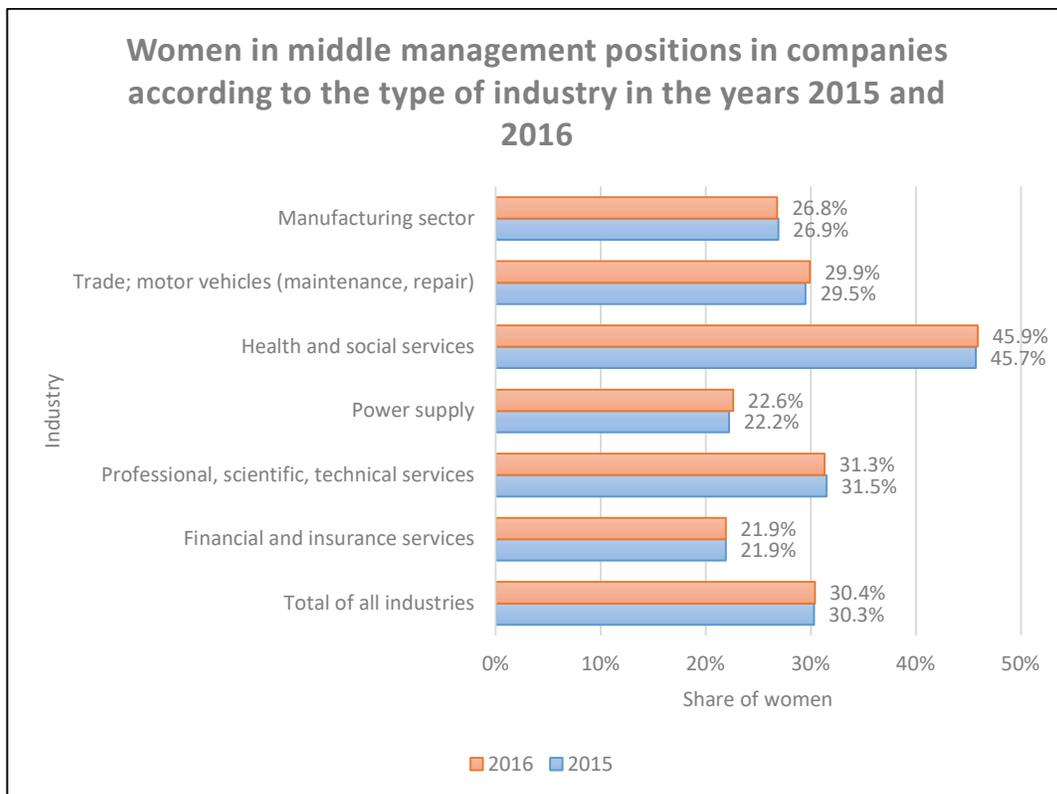


Figure 6: Women in middle management positions in companies according to the type of industry in the years 2015 and 2016 (Source: Bisnode Deutschland GmbH).

The development of the proportion of women in management positions in the German economy changed in several respects in 2018. Three years after the law for equal participation of women

and men in management positions came into force, more than half of the companies that were mandated to fulfil the statutory female supervisory board membership quota of 30% re-elected their controlling bodies (FidAR, 2018). The law for equal participation of women came into force on 1 January 2016 after its adoption in 2014. The law provides for a gender quota of at least 30% for supervisory boards of fully co-determined and listed companies, to be fulfilled from 2016. All other companies are obliged to set themselves a personal target in order to increase the proportion of women on supervisory boards, management boards and top management levels. There is no minimum target, but the target quota must not fall below the current level (Bundesministeriums für Familie, Senioren, 2015).

On 1 January 2018, 160² companies were listed in the German stock index. In these 160 companies, there were 686 board members. 50 of these members were female, which accounted for 7.2%, the highest amount since 2013. In 73% of these companies, the boards were staffed by men. 4% of these enterprises had two women in their boards, and 2.5% of these companies had female CEOs (Ernst & Young, 2018).

The following Figure 7 outlines a comparison of the percentages of women in top and middle management positions in Germany and their development from 2005 to 2016. In 2006, 8.5% of top managers were women, whereas 21.1% of middle managers were women. Compared to 2016, the figures increased to 30.4% of middle managers and 11.7% of top managers. Thus, over the course of ten years, the percentages of women increased by 3.2% and 9.2% in top and middle management, respectively.

² These 160 companies were divided into 30 companies in DAX, 50 in MDAX, 50 in SDAX, and 30 in TecDAX.

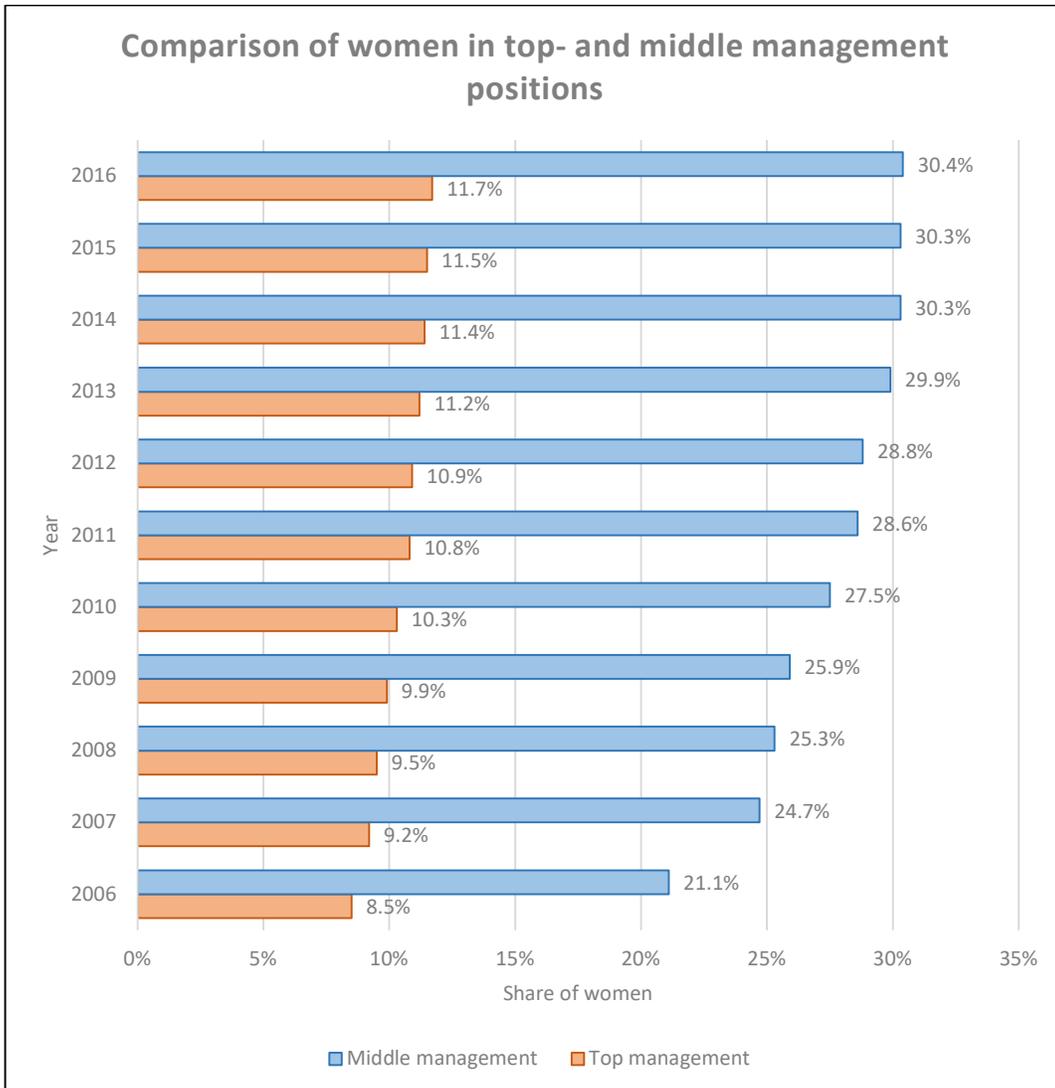


Figure 7: Comparison of women in top and middle management positions (Schwarze, Frey and Tapken, 2016).

According to Schwab *et al.* (2017), approximately 250 billion euros could be added to the GDP of Germany if women filled 50% of management positions. One factor held to be important by many researchers is the view that gender equality in society is correlated with economic development (Woetzel *et al.*, 2015).

2.3.6 Women in Management in Eastern Germany vs. Western Germany

27 years after reunification, some significant differences between eastern and western Germany can be found. One difference can be seen in an analysis of the proportions of women in top and middle management between federal states. The six eastern federal states have a higher

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proportion of women in management positions than the western German states (Schwarze, Frey, and Tapken, 2016).

The situation in middle management is similar in all federal states, though at a significantly higher level and in a different order, as shown in Figure 8. The federal states which comprised East Germany have higher percentages of women than the national average of 30.4%.

The state of Mecklenburg-West Pomerania has the highest percentage (40.5), followed by Saxony, Brandenburg, Thuringia, Saxony-Anhalt, Berlin, and North Rhine-Westphalia (which had the lowest percentage: 26.8).

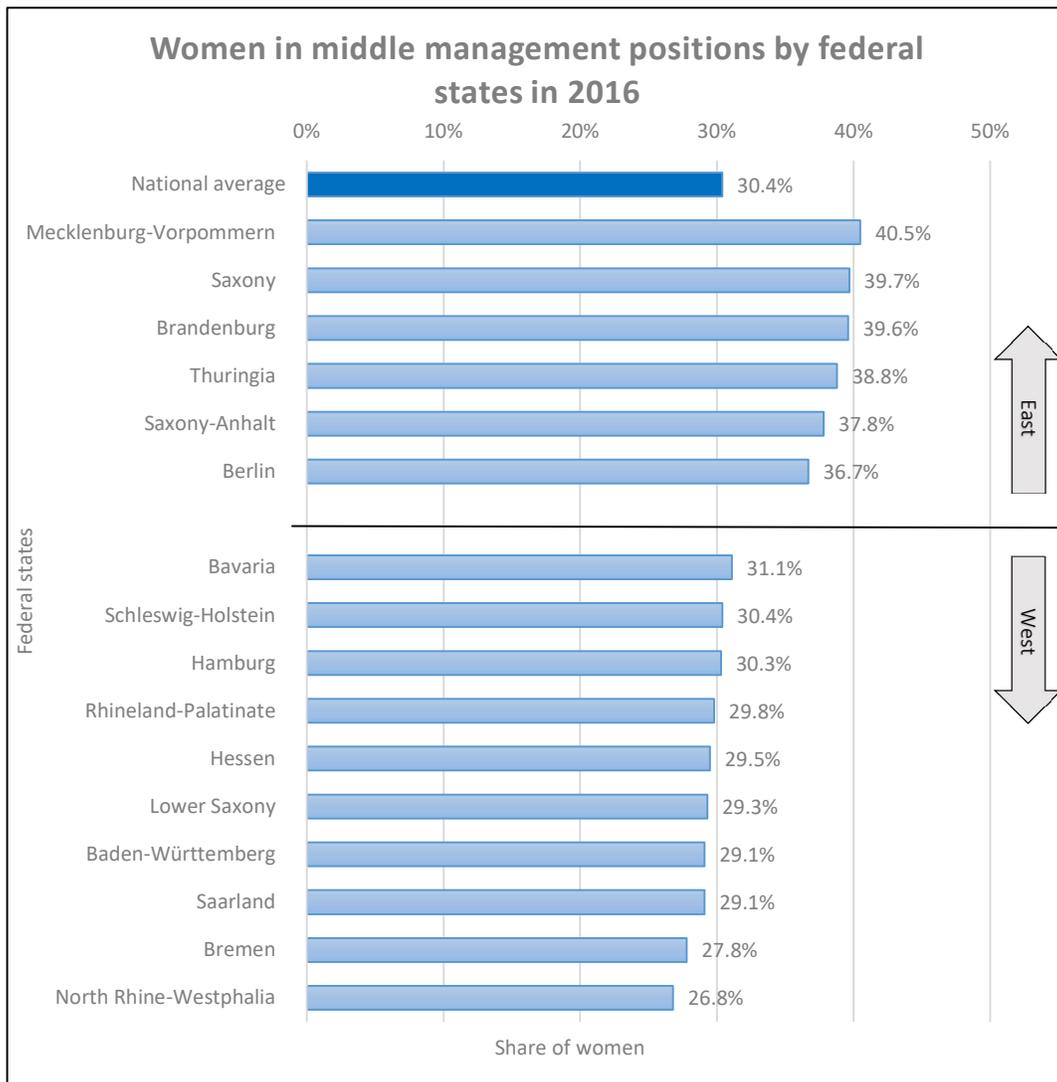


Figure 8: Women in middle management positions by federal states in 2016 (Source: Bisnode Deutschland GmbH).

A comparison between Lower Saxony (17.8%) and North Rhine-Westphalia (17.9%) in 2006 showed that both were at similar percentages. While Lower Saxony increased the proportion of women in middle management to 29.3% by 2016, North Rhine-Westphalia increased it to 26.8%. 31.1% of Bavaria's middle managers are women, i.e. its percentage is higher than North Rhine-Westphalia's. Both have had relatively stable percentages with declines in absolute figures since 2014. With the exception of Hamburg, there was a decline in the number of female managers for all federal states after 2014/2015 (Schwarze, Frey and Tapken, 2016).

The differences that still exist are also evident in the middle management percentages in all three company sizes, as shown in Table 1. The difference was the highest in large companies (13.3%). The difference was 9.8% in moderate companies and 5.1% in small companies.

	small	medium-sized	large
Western Germany	37.5%	27.8%	19.2%
Eastern Germany	42.6%	37.6%	32.5%

Table 1: Women in middle management positions in companies in western and eastern Germany according to company size (Source: Bisnode Deutschland GmbH).

2.3.7 Women in Management in East Westphalia-Lippe

East Westphalia-Lippe is a region of North Rhine-Westphalia in the western part of Germany. Generally speaking, it is strongly influenced by small and medium-sized enterprises (SMEs). About 70% of the employees in East Westphalia-Lippe work in SMEs (Schwarze, Frey, and Tapken, 2014). In 2017, women accounted for 45.6% of the total workforce in East Westphalia-Lippe and for 41.4% of the academically qualified professionals³ (IHK NRW - Die Industrie- und Handelskammern and V., 2018). In 2014, 18.2% of women were in the top and middle management in East Westphalia-Lippe. The development is depicted in Figure 9. A Bisnode study on women in management in East Westphalia-Lippe argued that, although qualified women have considerable potential, no strategies have yet been found to consistently and continuously increase it (Schwarze, Frey and Tapken, 2014).

³ Academically qualified professionals are employees with highly complex activities such as development, research, diagnostics, knowledge transfer, management, and leadership. A university degree of at least four years is required.

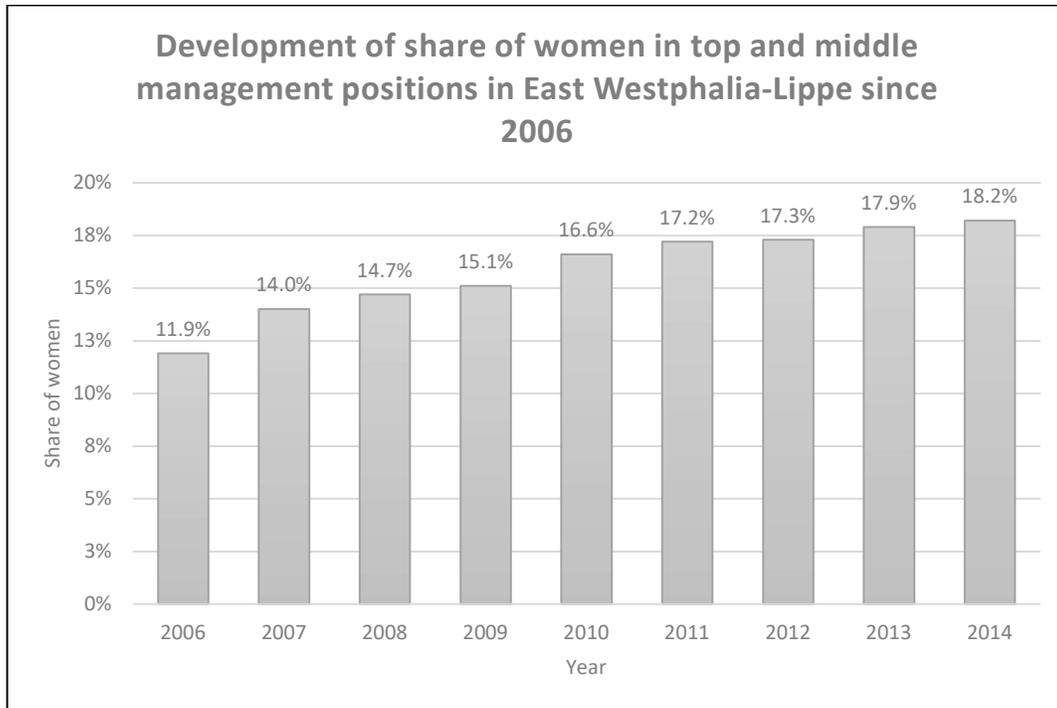


Figure 9: Development of share of women in top and middle management positions in East Westphalia-Lippe since 2006 (Schwarze, Frey, and Tapken, 2014).

The proportion of women in management in East Westphalia-Lippe has continuously and slowly risen since 2006. It rose from 11.9% in 2006 to 18.2% in 2014, an increase of 6.3% in 8 years. Compared to the average of North Rhine-Westphalia (where 19% of top and middle managers are women), East Westphalia-Lippe has an average which is lower by 0.8 percentage points. During the economic crisis from 2008 to 2010, there was neither a drop in absolute figures nor percentages. This also applied for men. The proportion of female top and middle managers varies considerably within East Westphalia-Lippe's districts and the city of Bielefeld, as outlined in Figure 10.

With a percentage of 19.8%, the district of Minden-Lübbecke is over the averages of East Westphalia-Lippe (18.2%) and NRW (19.0%). The same applies to the district of Herford, as its percentage is 19.3. The city of Bielefeld has an above-average proportion of female managers (18.4%) for East Westphalia-Lippe, and the districts of Gütersloh (17.0%), Höxter and Lippe (each with 17.9%), and Paderborn (17.5%) are below the average (Schwarze, Frey, and Tapken, 2014).

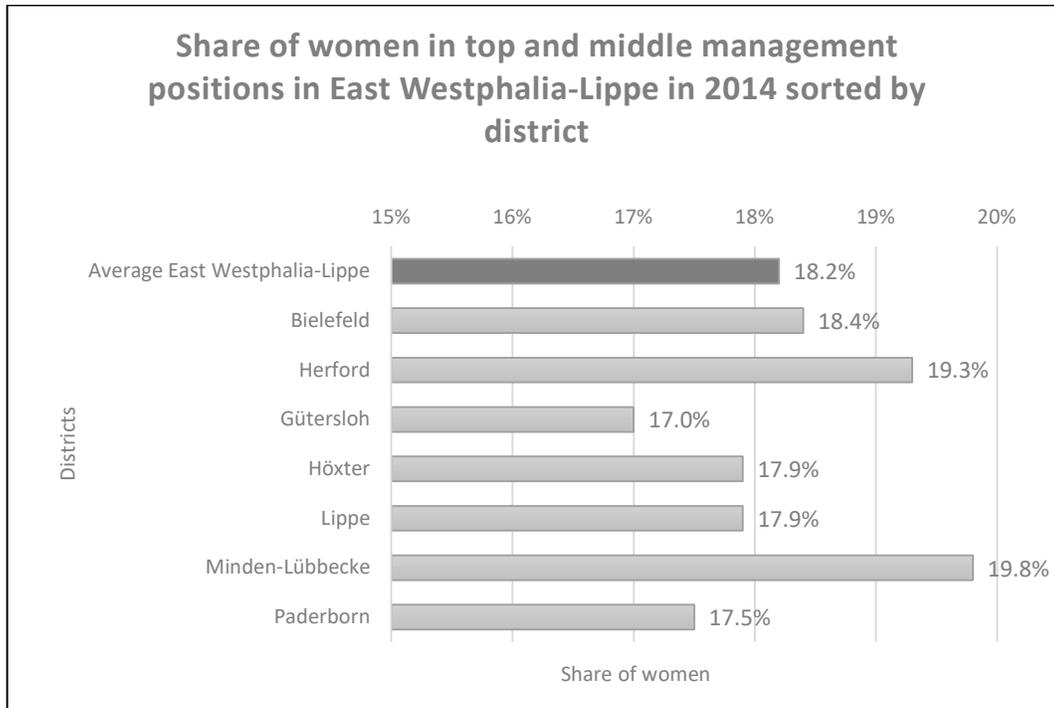


Figure 10: Share of women in top and middle management positions in East Westphalia-Lippe in 2014 sorted by district (Schwarze, Frey, and Tapken, 2014).

A reason for these differences may lie in the industry structure in East Westphalia-Lippe or the districts. The nationwide study regarding women in management conducted by Schwarze *et al.* (2015) clearly shows that high proportions of women employed in an industry do not necessarily result in high proportions of women in management.

2.3.7.1 Middle Management

At 25.2% in 2014, the proportion of middle management positions held by women in East Westphalia-Lippe was more than twice as high as the proportion for top management (10.3%) (Schwarze, Frey and Tapken, 2014). The Bisnode study surveyed around 11,330 middle managers in East Westphalia-Lippe in 2014, of whom approximately 2,850 were women. Figure 11 outlines the proportion of female middle managers in East Westphalia-Lippe and its development from 2006 to 2014. This proportion shows that there was a large number of qualified young women. The average proportion of female employee managers in North Rhine-Westphalia was 1.5 percentage points higher than in East Westphalia-Lippe (Schwarze, Frey, and Tapken, 2014).

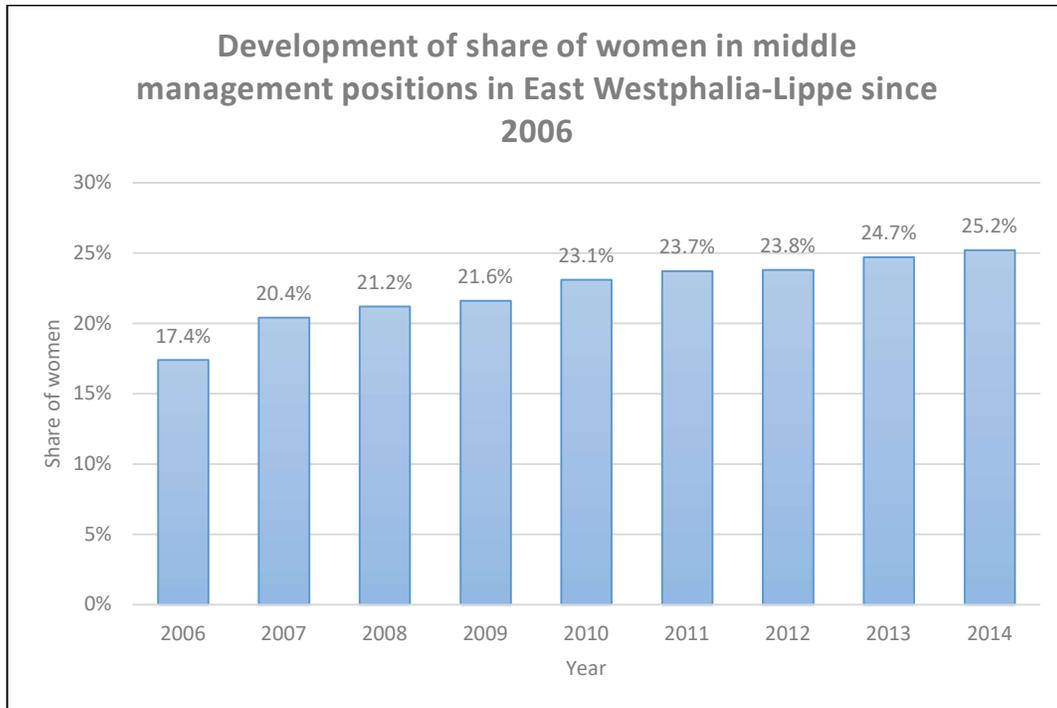


Figure 11: Development of share of women in middle management positions in East Westphalia-Lippe since 2006 (Schwarze, Frey, and Tapken, 2014).

In 2006, the proportion of female middle managers in East Westphalia-Lippe was at 17.4%. In the following eight years, there was an increase of 7.8 percentage points to 25.2%. In 2006, the national average was 3.7 percentage points higher (21.1%) than East Westphalia-Lippe's average. By 2014, it had increased by 5.1 percentage points (30.1% nationwide, 25.2% in East Westphalia-Lippe) (Schwarze, Frey, and Tapken, 2014).

The proportion of female middle managers varies by 3.1 percentage points between the regions of East Westphalia-Lippe and the city of Bielefeld, as outlined in Figure 12. Two regions (Minden-Lübbecke and Herford) were above the East Westphalia-Lippe's average in 2014 and on par with the NRW average. The city of Bielefeld and the district of Paderborn had averages equal to that of East Westphalia-Lippe (25.2%). The district of Gütersloh had the lowest proportion of female middle managers (23.6%).

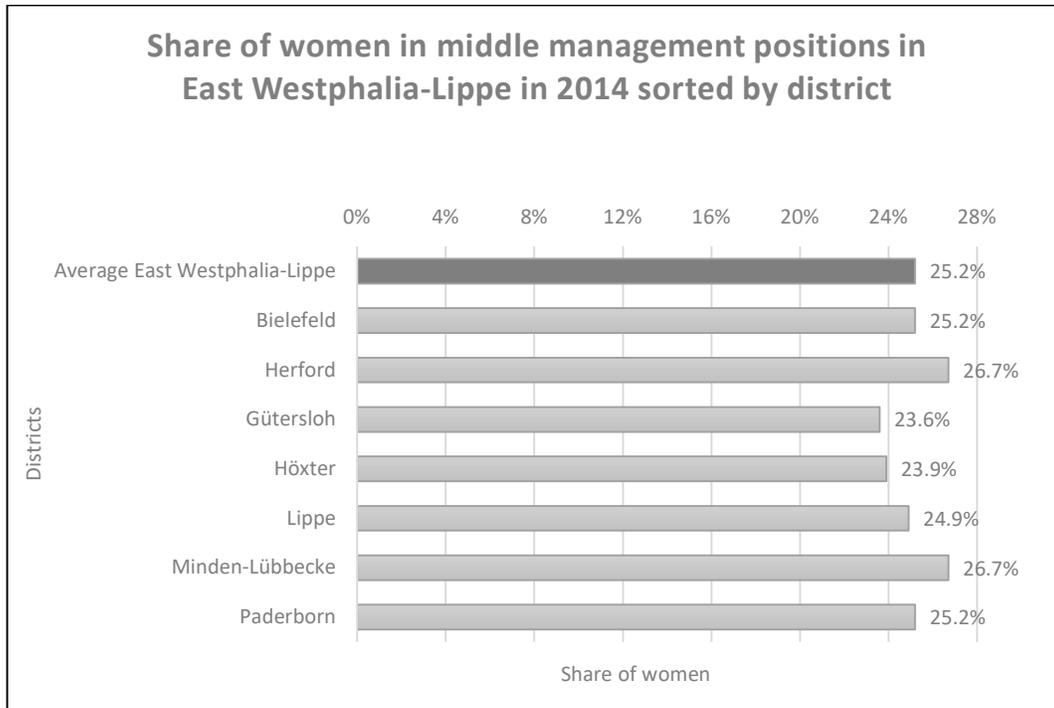


Figure 12: Share of women in middle management positions in East Westphalia-Lippe in 2014 sorted by district (Schwarze, Frey, and Tapken, 2014).

In 2014, there were approximately 2,460 middle managers in large companies. 380 of them were women. The study reported that 1,100 of medium companies' 4,770 middle managers were female. For small companies, the study declared that around 1,360 of the 4,100 middle managers were female (Schwarze, Frey and Tapken, 2014).

The following comparison according to company size shows that there are considerable differences between large, medium, and small companies at the respective management level. Some regions of East Westphalia-Lippe have higher female middle manager percentages for medium or small companies than they do for large companies.

2.3.7.1.1 Middle Management in Large Companies

The proportions of female middle managers in East Westphalia-Lippe among large and small companies are almost three times higher than the percentages in top management.

Figure 13 depicts the percentage of female middle managers in large companies in East Westphalia-Lippe and its development from 2006 to 2014 (Schwarze, Frey and Tapken, 2014).

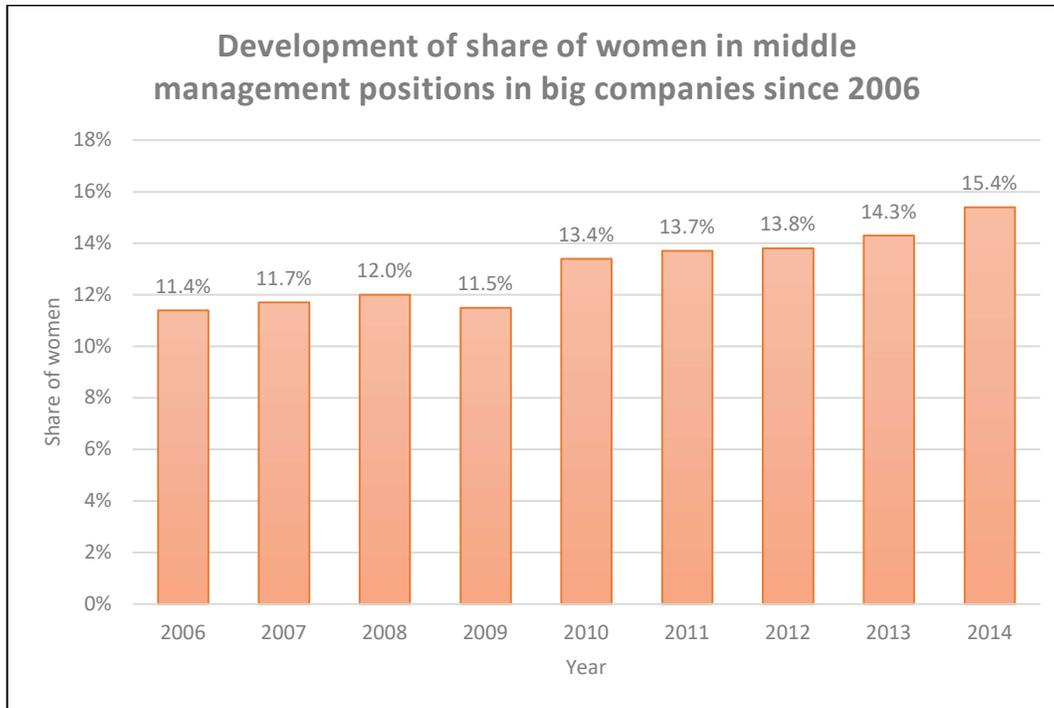


Figure 13: Development of share of women in middle management positions in big companies since 2006 (Schwarze, Frey, and Tapken, 2014).

The proportion of female middle managers increased by 4% from 2006 (11.4%) to 2014 (15.4%). A comparison with the 2015 federal level (20.0%) shows that East Westphalia-Lippe still had potential for development, i.e. higher percentages were possible. There was one small decline from 2008 (12.0%) to 2009 (11.5%). This also shows that, although there was still an increase in the absolute number of female middle managers, a higher number of management positions were filled by their male colleagues (Schwarze, Frey, and Tapken, 2014).

2.3.7.1.2 Middle Management in Medium-Sized Companies

The proportion of female middle managers in medium-sized companies in East Westphalia-Lippe increased by 4.0 percentage points between 2006 (19.2%) and 2014 (23.2%). This is depicted in Figure 14. From 2006 to 2011, there was a continuous percentage increase to 22.6%. In 2012 and 2013, the proportion of female managers stabilised at 22.5%. By 2014, this figure had risen again to 23.2%. The absolute figures show that the number of medium-sized companies rose continuously and that the number of male middle managers rose much more than the number of female managers from 2011 to 2013 (Schwarze, Frey, and Tapken, 2014).

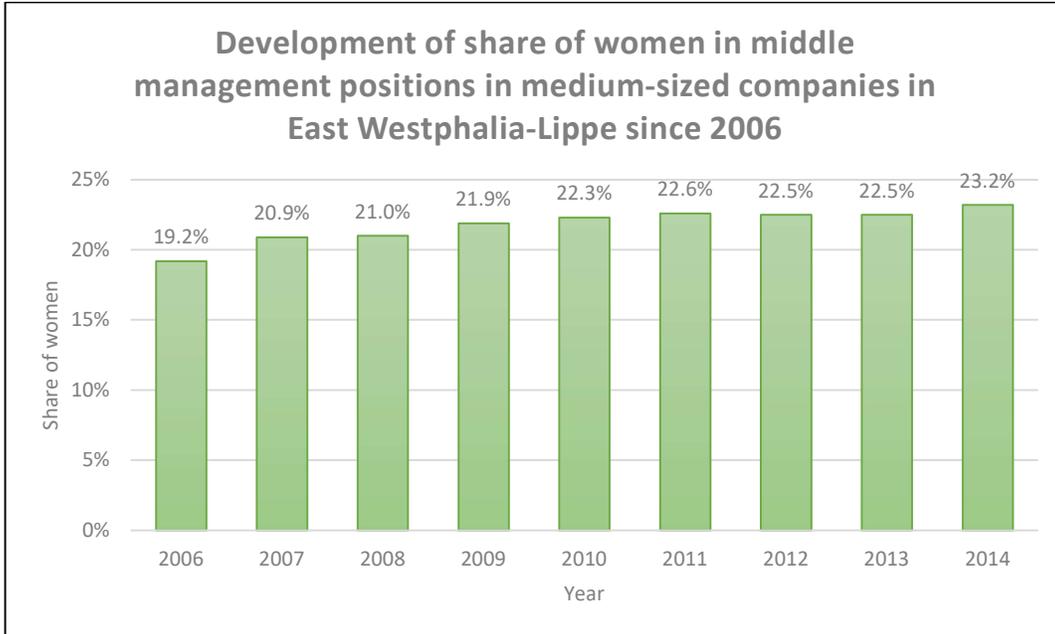


Figure 14: Development of share of women in middle management positions in medium-sized companies in East Westphalia-Lippe since 2006 (Schwarze, Frey, and Tapken, 2014).

2.3.7.1.3 Middle Management in Small Companies

The female middle manager percentage of small companies (33.3%) was slightly more than 10.0 percentage points above that of medium-sized companies (23.2%), as depicted in Figure 15 (Schwarze, Frey and Tapken, 2014).

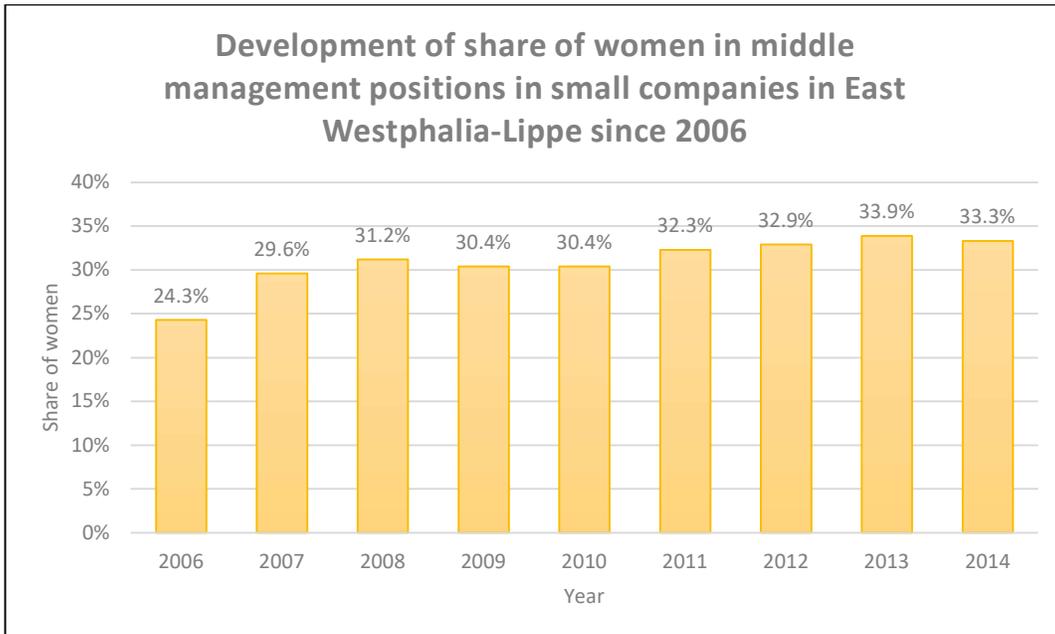


Figure 15: Development of share of women in middle management positions in small companies in East Westphalia-Lippe since 2006 (Schwarze, Frey, and Tapken, 2014).

After an initial significant increase to 31.2% in 2008, the percentage remained at 30.4% in 2009 and 2010 despite further increases in absolute figures. From 2011 to 2013, the percentage increased to 33.9. There was a slight decline of 0.5 percentage points in 2014. Overall, the absolute figures rose consistently after 2006. The periods of stabilisation or slight decline resulted from a significantly higher increase in the number of male managers (Schwarze, Frey, and Tapken, 2014).

2.3.8 Effects of Women in Management

This chapter more closely examines the effects of women in management regarding a broader economic perspective and companies' performance. This section aims to provide context for the research question. It is important to understand what added value women in management positions can provide for the economy in general but also for the company's performance.

2.3.8.1 The Broader Economic Impact

Some researchers calculated that, if women would be as active in the labour market as men are, women could boost the global GDP by 28 trillion USD, or 26% (Woetzel et al., 2015; UNWomen, 2017). This is roughly equivalent to the size of the combined American and Chinese economies (Woetzel et al., 2015). These researchers further calculated that Western Europe could increase its annual GDP by 23% - 5 trillion USD - by making women occupy 50% of positions (Woetzel et al., 2015). Approximately 250 billion euros could be added to the GDP of Germany if women were as economically active as men, according to another calculation (Schwab et al., 2017). The global GDP would increase by at least 13% (or 10 trillion USD) if women were paid for any presently unpaid care work, according to one estimation based on available minimum wage data (Woetzel et al., 2015). Research of the McKinsey Global Institute estimated that advanced economies are likely to face a shortage of 18 million workers with tertiary degrees by 2020. According to some researchers, almost 18% of this shortfall could be compensated if women would participate equally (Woetzel et al., 2015).

In addition, many economies face predictions of declining workforces and reduced GDP growth due to aging populations. These researchers believe that this effect could be mitigated if women had participation equivalent to that of men's (Woetzel et al., 2015). In the case of Germany, this would help maintain a work force of about 43 million people by 2025, which contrasts with one prediction that the workforce would otherwise be 41 million (Woetzel et al., 2015). Again, these researchers believe that, if women occupied 50% of positions, their contribution to the global GDP would double (Woetzel et al., 2015). According to Woetzel et al. (2015), women being

involved in unpaid work has a moderate correlation with their chances of assuming leadership positions. Mentoring and networks for females, among other strategies, are considered to be helpful interventions which encourage women to accept leadership positions (Woetzel et al., 2015).

2.3.8.2 Female Leadership's Effects on Company Performance

Some researchers reported that there is evidence that improved company performance correlates with increasing female participation in leadership positions (Woetzel et al., 2015).

Scholars disagree about female managers' effects on financial performance. For example, Isidro and Sobral (2015) reported that female board members are positively correlated with financial performance – measured in terms of return on assets and sales. Pletzer et al. (2015) encountered contradictory findings in their meta-analysis; they showed that there is no relation between an inflated number of females on corporate boards and a company's financial performance, i.e. neither positive nor negative. Therefore, their study does not support the notion that increased company performance is associated with a higher number of female board members. Despite contradicting their own study, they still encouraged increased female participation due to ethical reasons and a desire to promote fairness (Pletzer et al., 2015).

According to Kirsch (2018), who comprehensively reviewed 310 articles about board gender composition published in 135 journals from 1981 to 2016, the evidence produced by these studies is inconclusive; some found positive effects, others negative, and still others none. Kirsch highlights a study conducted by Haslam et al. (2010) which emphasised the importance of distinguishing between accounting-based measures of firm performance and stock-based ones. Post and Byron (2015) conducted a meta-analysis regarding the relationship between women on boards and firm financial performance to examine whether these conflicting results vary according to firms' legal, regulatory, and social contexts. They concluded that there is a positive relation between female board members and accounting returns and that countries with stronger shareholder protections had an even more positive relationship, as shareholder protection might motivate boards to use potentially variant experience, knowledge, or values contributed by a member (Post and Byron, 2015). In short, they concluded that female participation in boards and its financial effects are context-dependent (Kirsch, 2018).

Jeong and Harrison (2017) performed a comprehensive synthesis of the research on how female representation among top management teams and chief executive officers might affect firm performance. To do this, they used 146 primary studies conducted in 33 countries. They

reported that female representation in the top management produces a long-term benefit via mechanisms of strategic actions that mitigate risk. The benefit is even larger in environmental and organisational contexts in which executives are given more autonomy over their decisions (Jeong and Harrison, 2017).

Regarding female managers' effects on social performance, Byron and Post, (2016, p. 428) conducted a meta-analysis of 87 independent samples to determine "whether and how female directors influence firms' engagement in socially responsible business practices" as well as firms' social reputation among stakeholders. Byron and Post's, (2016, p. 437) study suggested that "the effect is generally positive and that this relationship is even more positive in national contexts of higher stakeholder protections and gender parity". Isidro and Sobral (2015) conducted a study to investigate female board members' direct and indirect effects on firm value. They reported indirect effects and no evidence that an increased number of female board members directly affects a firm's value. Female board members are, according to Isidro and Sobral (2015), positively related with social and ethical compliance, which the researchers then positively related with firm value. Their study suggests that inflating the number of female board members in large European firms can indirectly increase their value.

2.4 Obstacles Faced by Women

The following section outlines the obstacles faced by women when progressing the corporate ladder. The obstacles are divided into demand and supply side obstacles. The different perspectives shall help the reader to see the issue under investigation in a more holistic framework. Being aware of both sides and understanding them is essential to being able to draw conclusions on how to overcome these obstacles, which is discussed in the latter part of this section.

This supply and demand perspective regarding women on boards has been used by several researchers, such as Pucheta-Martínez and Bel-Oms (2014). They used this method to devise some empirical outcomes such as a difference in the remuneration of males and females. Another example is Martín-Ugedo and Minguez-Vera (2014), who researched differences in firm performance. However, few scholars used a strategy of isolating factors of demand and supply regarding disproportionate gender participation in management. These scholars were Farrell and Hersch (2005), De Cabo, Gimeno, and Escot (2011), and Gupta and Raman (2014). Gabaldon

et al. (2016) argue that distinguishing between supply and demand is essential in determining the reasons for women's lower participation in management, as it helps explain any gaps in a more holistic framework. Both supply and demand must be understood, as misunderstanding could result in a substantially malignant outcome, i.e. mandating a quota above the supply (Lakhal, 2015; Gabaldon *et al.*, 2016).

As Bono *et al.* (2017) stated, "The challenge is not getting into organizations but getting to the top." Women and men might be motivated differently to reach top management positions because of different values and attitudes (Eagly, 2005). Research has shown that women are usually less avid for power than men (Schuh *et al.*, 2014) and generally do not so vigorously pursue achievement (Adams and Funk, 2012).

McKinsey's *Women Matter* initiative surveyed female and male managers on a global scale to explore the common perceptions about any obstacles which might dissuade women from leadership positions. Within this survey, managers were asked to prioritise what they believed to be the largest challenges faced by female leaders. The four highest-ranked obstacles were: 1. the double burden of balancing work and domestic life (this was listed by 34% of European respondents), 2. the "anytime-anywhere" work model that requires employees to be available at all times and mobile geographically, 3. a lack of specific company measures to recruit, retain, and promote women, and 4. the absence of female role models (Woetzel *et al.*, 2015).

2.4.1 Demand Obstacles

Demand effects in corporations such as discrimination and "glass ceilings" (Powell and Butterfield, 1997) can hinder women from progressing up the corporate ladder (Gabaldon *et al.*, 2016).

2.4.1.1 Invisible Obstacles

2.4.1.1.1 Glass Ceiling

The phrase *glass ceiling* is used to describe invisible barriers that stop women (Bombuwela and De Alwis, 2013; Sharma and Sehrawat, 2014; Ezzedeen, Lè Ne Budworth, and Baker, 2015; Ansari, 2016) and minority groups (Roehling *et al.*, 2009) from career advancement in leadership positions. Pai and Vaidya (2009) defined this notion as obvious difficulties that prevent minorities and women from occupying positions in the top management. Saleem, Rafiq, and

Yusaf (2017) believe that the *glass ceiling* is a global phenomenon. The term was coined in 1986 in the Wall Street Journal, and in 1987 it was first used in research (Omran, Alizadeh, and Esmaeeli 2015).

Initially the term was used to describe a corporation in which women could not access top management positions due to being blocked by corporate culture or tradition (Jackson, 2001). Since then, numerous scholars have undertaken research related to this phenomenon. Man, Skerlavaj, and Dimovski (2009) stated that the *glass ceiling* affects women on not only an individual level, but also on organisational and national levels. According to King, Maniam, and Leavell (2017), the *glass ceiling* has been investigated from two perspectives: the systemic problem and the motivational problem (Cech and Blair-Loy, 2010). King, Maniam, and Leavell (2017) argue that a systemic problem is when the term *glass ceiling* is attributed to an “old boys’ club”, i.e. an organisational culture in which men are favoured. However, if individuals are responsible for their own promotion up the corporate ladder, the problem is regarded as a motivational one. A *glass ceiling* can thus be interpreted as a self-fulfilling prophecy (King, Maniam, and Leavell, 2017). According to Cech and Blair-Loy (2010), women already in senior positions are especially likely to agree that the problem is motivational, as they see their success as a result of determination and hard work. Cech and Blair-Loy (2010) also reported that white women, married women, and women with advanced degrees who are not primary contributors to their families’ incomes are more likely to blame motivation than a structural barrier.

Wesarat and Mathew (2017) argue that the *glass ceiling* phenomenon blocks women from top management positions, i.e. highly remunerated jobs, thus negatively impacting their careers. Jackson and O’Callaghan (2009) and Sharma and Sehrawat (2014) reported that, even if women occupy the same positions as men, they might receive lower salaries (Omran, Alizadeh, and Esmaeeli, 2015; *World Employment Social Outlook*, 2018). According to Jackson and O’Callaghan (2009), this difference can also be found among senior administrative positions.

2.4.1.1.2 Glass Cliff

Women being promoted to executive roles in declining organisations is described by Vongas and Al Hajj (2015) as a “glass cliff”. Ryan and Haslam (2005) coined the term *glass cliff* and described it as a situation in which companies promote more women than men to executive positions while the companies are dealing with declining performance (Vongas and Al Hajj, 2015).

Such *glass cliff* positions are, according to Ryan and Haslam (2005), exceedingly dangerous for whoever holds them. According to Haslam and Ryan (2008), women are perceived to handle crises better than men. However, Ryan and Haslam (2005) argued that the person who holds

the executive position during a period of consistently poor performance is exposed to criticism and in greater danger of being blamed for negative outcomes. An example of a *glass cliff* promotion is Marry Barra, the CEO of General Motors (GM). She was promoted after the company emerged from bankruptcy (Kossek, Su, and Wu, 2016).

2.4.1.2 Old Boys' Club

A growing body of literature highlights the importance of networking in general, as networks are regarded to be beneficial for individuals (Villesèche and Josserand, 2017). The advantage is based on the concept of "social capital", i.e. "the aggregate of present or potential resources which are linked to the possession of a durable network of more or less institutionalized relationships of mutual acquaintances and recognition" (Bourdieu, 1986, p. 246; Villesèche and Josserand, 2017, p. 1005). However, according Villesèche and Josserand (2017, p. 1005), women experience a "lower return on networking activities than men and thus enjoy weaker social capital", especially regarding career resources (Burt, 1998; Forret, and Dougherty, 2004). This might be because the most influential business networks are informal, male-dominated ones which women have difficulty accessing (Gamba and Kleiner, 2001; Singh, Vinnicombe and Kumra, 2006; Groyberg and Bell, 2013; Villesèche and Josserand, 2017).

Such male-dominated networks are often referred to as "old boys' networks" (Gamba and Kleiner, 2001; Groyberg and Bell, 2013). According to Acker (2006) and Timberlake (2004), these high-status networks and social structures are tools through which existing gendered power relations are reproduced and preserved. As stated by Durbin (2011, p. 91), an old boys' network can therefore be seen as a "gateway network that ultimately controls resources". This phenomenon can be linked to the concept of "homophily", i.e. people preferring those perceived as being highly similar to them (McPherson, Lynn and Cook, 2001). Hence, women are less likely to be promoted due to limited access to often male-only informal networks with a high degree of influential potential (Burt, 1998 cited in Villesèche and Josserand, 2017, p. 1005).

2.4.2 Supply Obstacles

Supply obstacles such as women's attitudes, values, family conflicts, or expected gender roles can according to Gabaldon *et al.*, (2016, p. 372) lead to "a relatively limited pool of qualified female candidates for board positions" (Bygren and Gähler, 2012; Gregory-Smith, Main, and O'Reilly, 2014; Gabaldon *et al.*, 2016).

According to Terjesen, Sealy, and Singh (2009), Ford and Pande (2011), and Gabaldon *et al.* (2016), supply obstacles are split into three groups: 1. gender differences in values and attitudes, 2. identification with gender role expectations, and 3. work-family conflict.

2.4.2.1 Gender Differences in Values and Attitudes

According to Rincón, González, and Barrero (2017) most barriers to decision-making positions are related to gender stereotypes. Crites, Worldwide, and Dickson (2015) define stereotypes as “qualities or traits assigned to certain groups on the basis of their race, sex, nationality, age, religion or other characteristics. These qualities are generalizations given to the entire group even though they may not describe all the members of that specific group”.

There are numerous studies regarding stereotypes of women and men. Dohi (1995 cited in Drake, Primeaux, and Jorden, 2018) reported that, in western societies, women are characterised by sensitivity, harmony with others, affiliation, and strength. This matches a recent study of Drake, Primeaux, and Thomas (2018), who explored implicit gender stereotypes among and between men and women with an implicit relational assessment procedure in which they conceived that women are perceived as emotional, gentle, and sensitive whereas men are regarded as dominant, forceful, and logical. Steinmetz *et al.* (2014) reported that men are perceived as more audacious than women. These stereotypes can cause men to be regarded as more suited than women for leadership positions, as reported by Koenig *et al.*, (2011). Other researchers reported that women have more satisfactory school performance than men in all courses (Voyer and Voyer, 2014).

2.4.2.2 Identification with Gender Role Expectations

Throughout the history of lifestyles of men and women, men focused on tasks while women focused on people and relationships. Hence, female leadership has been considered supportive and anthropocentric, whereas male leadership has been considered task-oriented, visible, formal, and official (Rincón, González, and Barrero, 2017).

Leadership positions have been traditionally held by men (Stempel, Rigotti, and Mohr, 2015), so certain characteristics and behaviours that are believed to be important for leadership are ascribed to men (Schein, 1975, 2001; Schein *et al.*, 1986).

Women might create internal barriers to leadership positions through their self-identification with expected gender roles (Gabaldon *et al.*, 2016). In this case, women face a conflict with their self-images, which is why they do not strive for top management positions (Korman, 1970; Eddleston, Veiga, and Powell, 2006).

Researchers found that women's aspiration to senior management might be linked to their self-identification with masculinity. This refers in particular to women who perceive themselves as more masculine and more likely to strive for top management positions (Powell and Butterfield, 2013). In addition, Greenwald (1980) reported that this perception is often related to gender concepts internalised through childhood socialisation.

Stereotype threat is another form of identification for women. This means they fear that their behaviour may negatively impact their performance, as it may conform to an existing stereotype (Steele and Aronson, 1995). However, this threat is found to confirm stereotypes, as it diminishes women's performance and reduces their motivation to succeed. Moreover, this threat generates anxiety and vulnerability in female leaders (Hoyt *et al.*, 2010).

2.4.2.3 Work-Family Conflict

Women often face a so-called *work-family conflict* when committing to their family responsibilities (Gabaldon *et al.*, 2016). This conflict was identified to be the most common obstacle for women reaching leadership positions (Greenhaus and Beutell, 1985; Newell, 1993; Wirth, 1998). Women are found to devote more hours to family activities than men, though some researchers believe that both devote the same number of hours to work (Eby *et al.*, 2005; Gabaldon *et al.*, 2016). This is said to be linked to unequal career opportunities (Straub, 2007).

According to Gabaldon *et al.*, (2016) family life remains a career obstacle for women. One study reported that, while fathers have greater chances of promotion, women's chances of promotion remain unaffected by motherhood (Bygren and Gähler, 2012; Gabaldon *et al.*, 2016).

The aforementioned obstacles are barriers faced by women when progressing along the corporate ladder. In the following section, this paper discusses possible ways to overcome these obstacles.

2.4.3 Overcoming Demand Obstacles

Appropriate policies for recruiting and retaining female talent will help companies create "a larger talent pool and stronger financial performance, which suggest that making gender diversity a significant goal is well worth the investment" (Desvaux, Devillard-Hoellinger, and Meaney, 2008, p. 6).

An effective method of increasing the number of women on boards has been argued to be mandating the behaviour of companies' hiring directors. Affirmative action policies are the most

commonly used dictates to oppose perceived conscious and unconscious discrimination (Gabaldon *et al.*, 2016).

Affirmative action can be differentiated into equality of opportunities (Seierstad and Opsahl, 2011) and equality of outcomes (Gabaldon *et al.*, 2016). Equality of outcome refers to so-called “hard” measures to increase the number of women on boards, such as quotas, targets, or earmarking (Gabaldon *et al.*, 2016). Equality of opportunity supposedly stimulates demand through “soft” legal initiatives, corporate governance codes, and the comply-or-explain-principle (Nielsen and Tvarnø, 2012). Voluntary quotas and raising awareness are considered to be part of equality of opportunity (Ford and Pande, 2011; Gabaldon *et al.*, 2016).

2.4.3.1 Quotas in Corporate Boardrooms

Several governments already set voluntary targets and quotas to promote women in leadership positions in business. Examples are France, Germany and Norway. In 2005, Norway was the first to impose a mandatory board gender quota of 40% for certain enterprises, such as state-owned companies (Deloitte, 2015; Woetzel *et al.*, 2015). This quota resulted in over 40% of board members being female in 2013, compared to 6.8% in 2003 (International Labour Organisation, 2015). Other countries mimicked this, such as Iceland and France in 2010, Belgium, Italy, Malaysia and the Netherlands in 2011 and Spain in 2012. In India and Pakistan, laws dictate that all boards hire at least one woman, although not all companies obey this rule (Deloitte, 2015). In Austria, the supervisory boards of companies with the state as a major stakeholder were required to increase the number of female members to 35% in 2018 (Deloitte, 2015). In Kenya and Taiwan, state-owned enterprises are required to staff at least one third their board positions with women (Deloitte, 2015). In 2015, Germany set gender quotas requiring listed companies to allocate 30% of board seats to women (Deloitte, 2015; International Labour Office, 2016). Brazil, Portugal and Singapore are discussing mandatory gender quotas for board members (Deloitte, 2015). The European Council is still in discussion about the European Union Commission’s proposal from 2015 for a directive on quotas for women on boards (Deloitte, 2015).

However, Germany was the first country in 2015 to bind itself to the initiative “Planet 50-50 by 2030: Step it up for Gender Equality – a United Nations Women Initiative” (UNWomen, 2016). One important step taken by the German parliament was the legislation passed in March 2015. The law took effect in 2016 and requires roughly 110 listed companies with employee representation on their supervisory boards to have 30% of their non-executive board seats be

held by women (Deloitte, 2015; International Labour Office, 2016). Roughly 3,500 companies which either have employee representation on their supervisory boards or are listed are subject to the “Law on Equal Participation of Women and Men in Leadership Positions in the Private and Public Sector”. This means that these companies must determine quotas for supervisory and executive board seats as well as members of the top management. The same regulations apply for state-owned entities. Companies subject to the law must report on compliance with the quota in the corporate governance statement of their management reports. In addition, they must also report on target figures and time limits related to the implementation of measures to achieve equal representation. Companies who do not comply with the law must either appoint a woman or leave the seats empty (Deloitte, 2015).

Following the quota for supervisory boards, the German Corporate Governance Code was updated in 2015. This code has various recommendations to inflate the number of women on management boards. Two examples are: management boards should set targets for increasing the percentage of women on the two levels below the top management, and supervisory boards should set targets for the number of women on management boards. These recommendations are accompanied by a “comply-or-explain” mandate. This means that companies, if they do not acquiesce, must disclose explanations on an annual basis. A law demands that state-owned enterprises staff 50% of their supervisory boards with women after 2018 (Deloitte, 2015).

However, as the gender ratio not only applies to listed companies, but also for fully co-determined companies in the regulated market in Germany, examining them is also crucial. This is a total of 186 companies, out of which 28.1% of the supervisory board members and 7.3% of the board members are women. These numbers correspond to an increase of 2.3% in board members over the last three years and 6.1% increase in the supervisory boards over the last five years. The quota was initially disputed, and its introduction resulted in the desired numerical inflation (FidAR, 2018). According to the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth, the quota works. Since the introduction of the female quota in 2015, the proportion of women in supervisory boards of fully co-determined and listed companies has risen by 11.9% (Feste Quote - Privatwirtschaft, 2019). However, others criticize the fact that the percentage of women increases only in the companies affected by the women’s quota and only at the prescribed levels, namely the board rooms (Bertrand et al., 2019; Bös, 2019; Maida and Weber, 2019; Weckes, 2019).

2.4.3.2 Part-Time Management Positions

6.6 million women are part-time employed in Germany. This number contrasts with the figure of 1.6 million men in part-time employment (Schwarze, Frey, and Tapken, 2016). Germany has a work culture of 'presence at work'. This means that people who are most often in their offices and work the most are the ones rewarded with meaningful positions (Zylla-Woellner, 2014). The trend towards digitalisation, more flexible working methods and locations, and analysis and communication via social media supports initiatives for part-time leadership. In 2014, the Institute for Employment Research used their panel to determine whether part-time management existed among surveyed companies and how often this was the case. Around 16% of those companies stated that they could incorporate part-time management at the first or second management levels (Kohaut and Möller, 2016). Of these, 63% implemented it (Schwarze, Frey, and Tapken, 2016). Figure 16 shows that 46% of women work part-time, whereas 10% of men do.

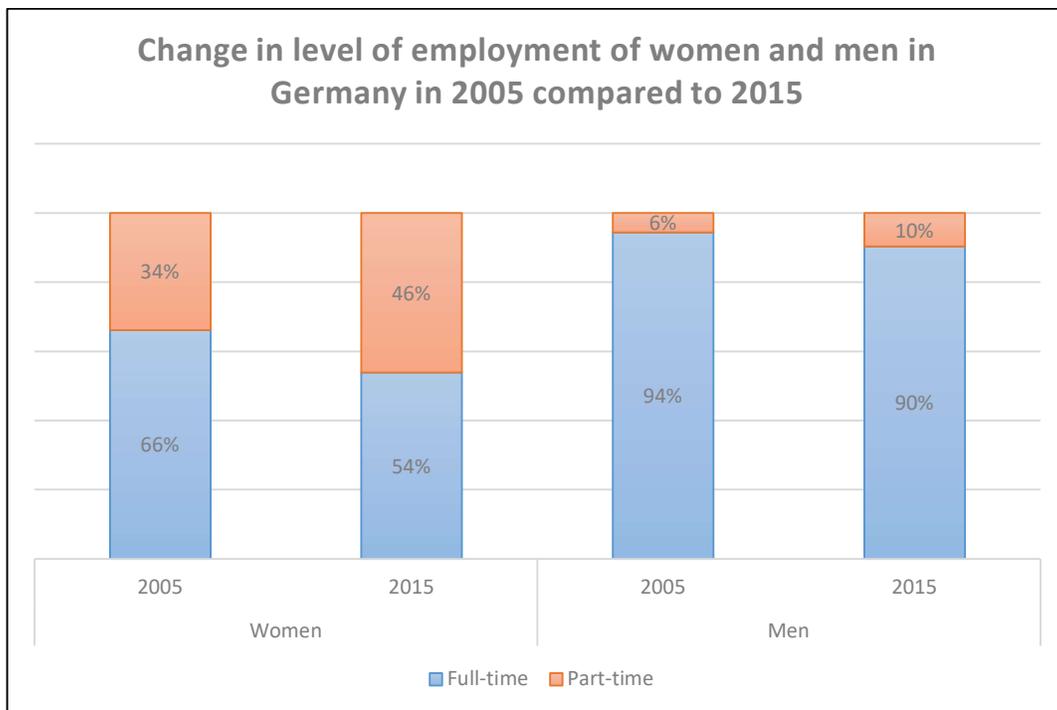


Figure 16: Change in level of employment of women and men in Germany in 2005 compared to 2015 (Schwarze, Frey and Tapken, 2016).

Although part-time work is gaining more and more importance, part-time jobs for managers are notably rare (Durbin and Tomlinson, 2014). Every fourth woman in a management position in Germany has reduced working hours and is therefore listed as a part-time employee (Karlshaus and Kaehler, 2017). However, there are clear differences between the sectors. The higher the

proportion of women, the higher the proportion of managers in part-time positions (Hipp and Stuth, 2013).

Due to the lack of mentors and positive female role models, women working part-time struggle even more to progress on the corporate ladder (Lane, 2004; Dick and Hyde, 2006; Durbin and Tomlinson, 2014). Among other things, targeted mentoring offers could considerably facilitate the implementation of part-time management (Karlshaus and Kaehler, 2017).

2.4.3.3 Strong Leadership

In order to change a board's composition, strong leadership is needed. This means that the CEO, lead director, or committee chair must force a reduction in the number of men if fewer than 50% of seats are held by women. According to a few researchers, there are enough women and minorities who are well-qualified to serve on boards; they just need to be approached (Deloitte, 2015; International Labour Office, 2016).

Cranwell-Ward, Bossons, and Gover (2004), Klasen and Clutterbuck (2004), Megginson *et al.*, (2006), and Garvey (2010) emphasised the importance of the senior management's commitment to the success of a mentoring scheme.

Research on corporate diversity initiatives from Catalyst stated that any initiatives to retain or advance women in corporate management require sustained and coordinated commitment from top management (Mattis, 2001, p. 372). Senior managers must fabricate a reduction of men and link it to strategic business plans. Additionally, all management and employees must be cajoled to believe that eliminating barriers and supporting the recruitment of the best female talent is in their interests (Mattis, 2001, p. 373).

2.4.4 Overcoming Supply Obstacles

According to Gabaldon *et al.* (2016), the low number of women interested in board positions is one of the most highly cited reasons for the implementation of public policies to promote female board participation. Looking at board compositions is relevant, as equality in management positions should not be limited to middle management. Few women in board positions, means few possible role models for aspiring young women.

In addition, women's work-family conflict must be reduced through policies like an equal distribution of domestic responsibilities between women and men. An example of this is equal and non-transferable paternity leave (Gabaldon *et al.*, 2016). According to Gabaldon *et al.* (2016), this has been by far the most widely analysed solution in the literature.

2.4.4.1 Work-Family Policies

Organisational policies must be adjusted to help employees control their work hours and workload (Kossek, Baltes, and Matthews, 2011). Flexible working hours (Allen *et al.*, 2013) and leave to take care of dependants (Den Dulk *et al.*, 2013) are considered to be the most relevant work-family arrangements provided by employers (Gabaldon *et al.*, 2016). However, women who take advantage of such policies may face negative consequences (Flaherty Manchester, Leslie, and Kramer, 2010); women taking parental leave might be considered to be less committed, which might reduce the chance of being considered for promotions (Leslie and Manchester, 2011). Hence, even though these policies might already be in place, taking advantage of them seems to be incompatible with climbing the corporate ladder (Drew and Murtagh, 2005).

2.4.4.2 Networks and Visibility

Networks are critical for the development of managerial careers (Forret and Dougherty, 2004; Rasdi, Garavan, and Ismail, 2013), including elements such as taking on more responsibility or being offered a new challenge (Wolff and Moser, 2009). Individuals with strong network ties are more likely to be offered highly remunerated jobs (Lin and Dumin, 1986; McGuire, 2000), secure promotions (Burt, 1998; Forret and Dougherty, 2004), and be selected for international appointments (Linehan, 2001; Villesèche and Josserand, 2017).

Women might be less active in networking than their male counterparts due to gender differences in values and attitudes, which may mean they are less frequently considered for leadership promotions. Studies have offered instruments to encourage women, such as the presence of role models and mentoring or training programs (De Cabo, Gimeno and Escot, 2011; Gabaldon *et al.*, 2016).

However, Villesèche and Josserand, (2017, p. 1004) determined that “women’s ability to use informal networking for career development is limited” (Dries and Pepermans, 2008; Wilson, 1991). According to these researchers, women in business thus have more difficulty in developing connections and accessing linked resources. Women thus enjoy less social capital than men (Gamba and Kleiner, 2001; Groysberg and Bell, 2013; Villesèche and Josserand, 2017). This supports gendered career paths (Wilson, 1998), making a numerical gender imbalance continue to dominate, especially in senior management positions (Villesèche and Josserand, 2017). In addition, even higher salaries can be achieved via networking (Forret and Dougherty, 2004; Wolff and Moser, 2009; Rasdi, Garavan and Ismail, 2013). Ford and Pande (2011) stated

that women are encouraged and motivated to attain leadership positions through visibility. This visibility could be through databases or media. Other scholars stated that women are underrepresented across these media (De Anca and Gabaldon, 2014b; Mateos de Cabo *et al.*, 2014). According to Villesèche and Josserand (2017, p. 1005) is one's network "an especially important factor in reaching the highest ranks" (Kogut, Colmer, and Belinky, 2014).

Women's informal networks tend to involve more relatives and friends, while men's networks are more professionally oriented (Dawson *et al.*, 2011). Possibly because of social structures, women are hardly seen holding attractive positions in networks of social relations (Ibarra, 1993), thus limiting their chances to develop new ties (Brass and Burkhardt, 1993; Ibarra, 1993) to individuals who could provide career-related support (Ibarra, 1992, 1993).

Still, time restrictions may be another justification, as domestic duties are more widely pursued by women than men, which limits the time available for networking activities outside regular working hours (Linehan, 2001; Sharafizad, 2011). Networking and access to resources are essential for career development (Villesèche and Josserand, 2017). Perhaps formal female networks are only beneficial for junior female managers (Villesèche and Josserand, 2017) as long as senior women do not apply what is known as the "Queen Bee Syndrome" (Cohen, Broschak, and Haveman, 1998; Rindfleish, 2000). This term refers to women in higher positions who tend to protect their positions by distancing themselves from other women.

The visibility of women should be improved to increase the number of women in top management positions. According to Gabaldon *et al.* (2016), the presence of role models and mentoring were identified as helpful tools for achieving this. Helms, Arfken, and Bellar (2016) concluded that, in order to train top management and other leaders, organisations can support mentoring and sponsorship.

2.4.4.3 Mentorship, Sponsorship and Role Models

Kram (1985) classified mentoring functions into two categories, career functions and psychosocial functions. Career functions include sponsorship, exposure and visibility, coaching, protection and challenging assignments and help a mentee to learn the ropes of organisational life and obtain advancement opportunities. Psychosocial functions include role modelling, acceptance and confirmation, counselling and friendship and support of the mentee in the development of an increased sense of competence, clarity of identity and effectiveness in the managerial role.

It is an essential means of learning about behavioural norms and key success factors in a given setting (Kram, 1983; McDonald and Westphal, 2013) and promoting skill advancement (Kram, 1983; Eby *et al.*, 2008). According to Noe (1988, p.65), “without a mentor, women often are unable to understand the reality of the male-dominated business culture and they fail to obtain the sponsorship needed to identify them as highly talented and to direct them in their career advancement”. Therefore, according to Hewlett *et al.* (2010), the most effective way to break so-called *glass ceilings* is sponsorship.

Role models were found to be another way to strongly influence career development (Gibson, 2003, 2004). Women’s motivation to strive for management positions can be increased through female role models (Waldman, Galvin, and Walumbwa, 2013). Female role models particularly motivate women to attain power positions and help them guide their developments (Gibson, 2003, 2004) through idealisation and admiration (Kelan and Mah, 2014). Professional identification, according to Sealy and Singh (2010), is key for women in business, as it helps them discover role models to emulate (Gabaldon *et al.*, 2016).

Women at all stages in their careers can profit from mentoring relationships (Ehrich, 2008; Durbin and Tomlinson, 2014). Mentoring relationships are important in terms of visibility and coaching (Hersby, Ryan and Jetten, 2009), career advancement (Linehan and Walsh, 1999; Durbin and Tomlinson, 2014) and building network resources, which in turn are important to influence career success (Bozionelos, 2003).

Feeney and Bozeman (2008) found out that in same gender mentoring relationships more network ties are established compared to mixed gender mentoring relationships. In addition, they found that the mentoring scheme – formal or informal mentoring – does not make a significant difference to the amount and focus of network connections. As mentoring plays a central role within this research, the following section more closely examines it.

2.5 Mentoring as a Skill Development Tool

There are different tools for human resource talent management. One of them is mentoring, which is not to be confused with coaching. In their research, D’Abate, Eddy, and Tannenbaum (2003) more closely examined the differences between mentoring, coaching, and other developmental interactions. They concluded that terms such as mentoring, coaching, and action learning are sometimes used interchangeably, though other people use the terms to refer to different things. From a research perspective, there seems to be no universal definition.

For this research the definition of mentoring from Wanberg, Welsh and Hezlett (2003) is applied. Mentoring is traditionally referred to as a pair relationship between an experienced mentor and a less-experienced protégé with the aim of improving the mentee's professional and personal development (Wanberg, Welsh, and Hezlett, 2003). There are conflicting arguments regarding the value of attempting to define each role (D'Abate, Eddy, and Tannenbaum, 2003; Rock and Garavan, 2006).

Human resource development (HRD) is an important part of human resource management (HRM), organisational development, and employee development (Haritha and Raghunadha Reddy, 2016). The literature review will focus on mentoring as one form of human resource development. Mentoring provides a mechanism of change for individual employees and is therefore regarded as a form of human resource management. The advantages of mentoring for both the employee and the company have been confirmed by numerous studies (Thurston, D'Abate and Eddy, 2012). As discussed in chapter 2.2, the aging of the population and falling birth rates might lead to a shortage of labour force, therefore Talent Development (TD) and Talent Management (TM) have become strategic areas in view of economic difficulties and the need for continuous innovation (Hedayati Mehdiabadi and Li, 2016; Cheese, Gartside, & Smith, 2009).

Organisations around the globe and across numerous industries are implementing mentoring programmes meant to provide career, leadership, and personal development support for less-experienced employees (Clutterbuck, 2002; Hegstad and Wentling, 2004; Smith, Howard and Harrington, 2005; Ortiz-Walters and Gilson, 2013). Mentoring became a key part of the learning and training toolkit (Short, 2014) and therefore plays a key role in professional and organisational life (Helms, Arfken and Bellar, 2016; Clutterbuck *et al.*, 2017; Mains and MacLean, 2017).

Figure 17 outlines the different functions of mentoring: emotional functions and career functions.

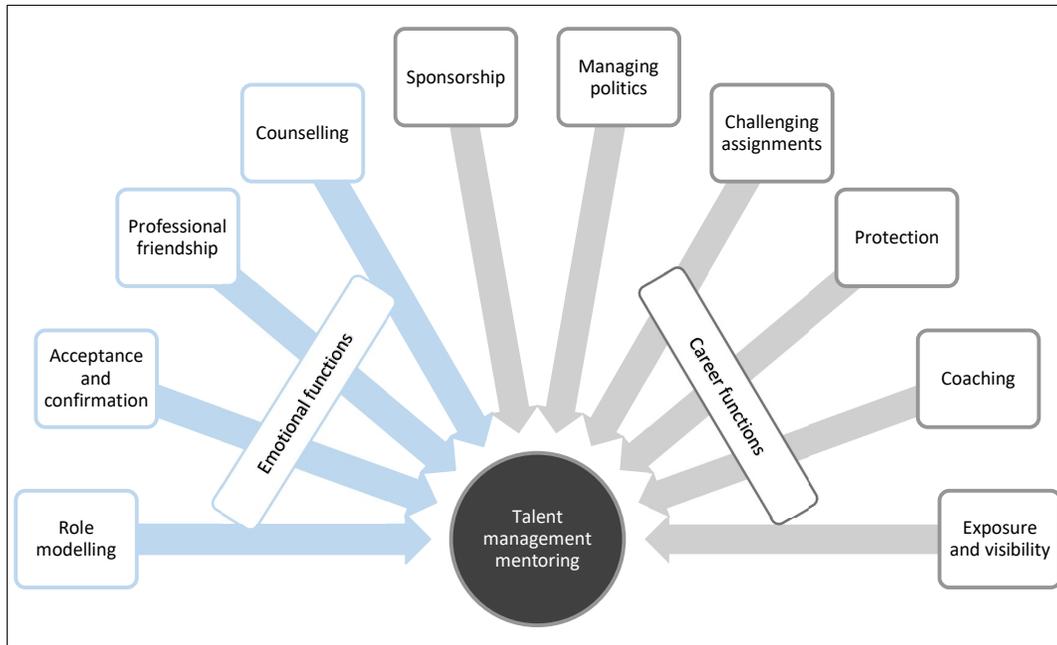


Figure 17: The Talent mentoring wheel (Merrick and Stokes, 2008b) adopted (Passmore, Peterson and Freire, 2013).

2.5.1 History of Mentoring

In western mythology and history, there are many mentor-mentee relationships. Examples are Socrates and Plato, Plato and Aristotle, Haydn and Beethoven, and Freud and Jung (Stafford, 2016; Smith, 2017). The first female mentor, according to Passmore, Peterson, and Freire (2013), was the goddess Athena in Homer's epic poem "The Odyssey". Athena helped Telemachus learn how to become a king. Her methods were essentially experiential learning, dialogue, and reflection.

In his seminal work "Les Aventures de Télémaque", Fénelon (1699) developed a mentoring guide as a tutor to Louis XIV's heir. Fénelon's mentoring model included reflective questioning, challenging, listening, and support (Fénelon (1699) cited in Passmore, Peterson and Freire, 2013, p. 243). In 1773, two volumes of Honoria's publication "The Female Mentor", which was based on Fénelon's model, were published. A third volume followed in 1796. This collection of stories provided a record of conversations on topics of interest among a group of women referred to as "the society". Via a commentary and series of asides throughout the volumes, Honoria described characteristics of a female mentor called Amanda, who seemed to have been a role model for "the society" (Passmore, Peterson, and Freire, 2013).

These historical writings claim the purpose of mentoring to be learning and developing. As such, it was already positioned as an educational activity involving experience and dialogue. This

categorisation is still valid in modern writing (Passmore, Peterson, and Freire, 2013). Throughout history, mentoring has been a social phenomenon involving a developmental relationship between the mentee and the mentor, who are individuals of unequal ranks (Sitzmann and Weinhardt, 2018). Mentoring is a natural and human activity, as history shows. Therefore, anyone could have the potential to engage in mentoring, although training on how to be a mentor is recommended (Passmore, Peterson, and Freire, 2013). According to Smith (2017), mentoring is part of life and an important method of enriching human experience. Children typically take advice from their parents, friends, or teachers, thereby learning from them. The same can be done via mentors in occupational environments.

Mentoring is widely used within organisations (Eby *et al.*, 2000) as an individual development strategy to facilitate the realisation of a variety of positive outcomes (Knouse, 2001; O'Reilly, 2001; Atkinson, 2002; Tong and Kram, 2013). Women and minorities have been encouraged to find and make use of mentors for several years (Noe, 1988; Ragins and Scandura Terri A., 1989; Burke and McKeen, 1990). Additionally, managers have been encouraged to serve as mentors to support individuals in their early career stages and increase their chances of success (Ragins and Scandura, 1997; Bell and Goldsmith, 2013).

2.5.2 Theoretical Aspects of Mentoring

Garvey, Stokes and Megginson (2018) sought to summarise all of the richness and complexity of coaching and mentoring within one diagram. The diagram is based on a model provided by Western (2017). The following Figure 18 shows the meta-theory of Garvey, Stokes and Megginson (2018) and acknowledges the basic subjects, or predecessors of coaching and mentoring namely, sociology, psychology and philosophy. Each area highlighted provides a different set of lenses or perspectives on mentoring. According to Garvey, Stokes and Megginson (2018), theory and practice of coaching and mentoring can act as tools through which the basic disciplines of sociology, psychology and philosophy influence the political, sociological, legal, technological and economic context. The experiences from practice can and do influence the base disciplines. Thus, the relationships between coaching and mentoring and these various disciplines are two-way and iterative as indicated by the arrows in the graph. For example, the sociological context has a considerable influence on the way mentoring is undertaken. It can also create significant cultural barriers to mentoring (Garvey, Stokes and Megginson, 2018). Common terms in the field of coaching and mentoring like “psychological contract” (Rousseau, 1989), are

according to Garvey, Stokes and Megginson (2018) considered to be situated in the legal context as they the reasonable expectations within a workplace.

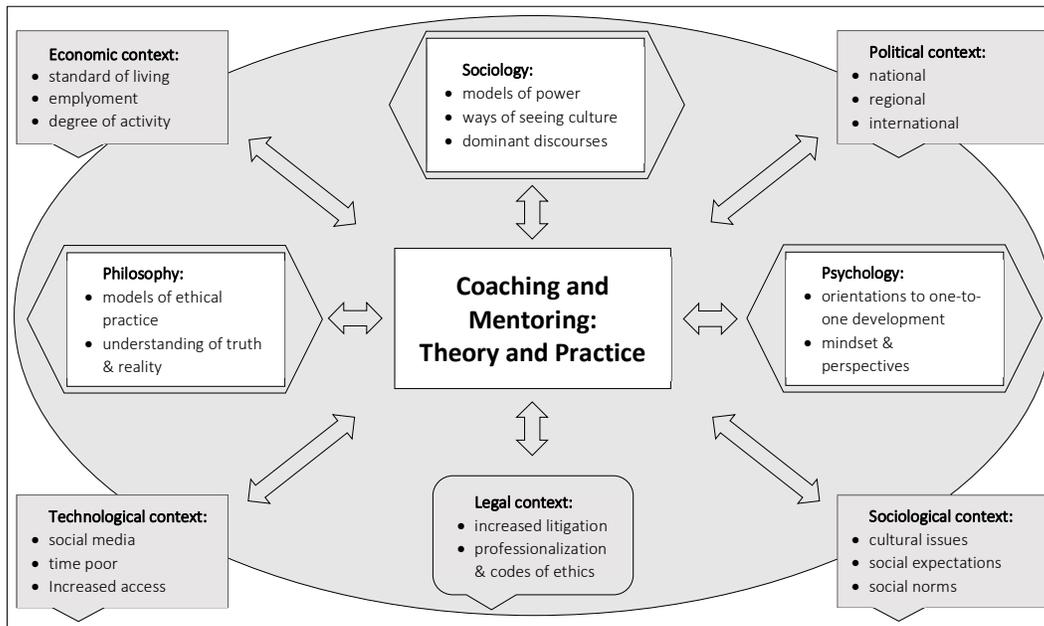


Figure 18: A meta-theory of coaching and mentoring (Garvey, Stokes and Megginson, 2018).

In a technological context, mentoring can take place nearly anytime everywhere. Because of social media and increased access to information and communication technology (ICT), borders diminished extremely and mentoring can take place across the globe, in different time zones, etc. (Garvey, Stokes and Megginson, 2018). The political context might have an influence on mentoring relationships like the Brexit on cross-cultural mentoring relationships and schemes (Garvey, Stokes and Megginson, 2018).

Garvey, Stokes and Megginson (2018) argue that the base disciplines of coaching and mentoring are sociology, psychology and philosophy outlined in Figure 18. In addition, they also acknowledge that mentoring could trace its roots in other disciplines such as psychotherapy, counselling, economics or organisational theory. However, according to Garvey, Stokes and Megginson (2018), each of these secondary disciplines has its roots in the three main discipline areas which are sociology, psychology and philosophy.

Whilst the discipline of philosophy addresses the consideration of what should be done from a moral philosophy point of view as well as the critical evaluation of the nature of evidence of success. Sociology draws the attention towards the dynamics within societies and cultures.

Psychology has its emphasis on the individuals motivations, behaviours and approaches to learnings (Garvey, Stokes and Megginson, 2018).

Because this research explores how same-gender dyad mentoring for women could be adjusted to be a better tool to combat skill shortages in management, according to case study participants' perceptions, different aspects of psychology will be discussed in more detail in the following section.

Psychology helps to understand how different mentalities and perspectives influence action and understanding in one-to-one developmental mentoring relationships (Garvey, Stokes and Megginson, 2018). However, according to Graham (2019), the account for individual identity and the implications of that identity are missing in the description of career development through mentoring. Various related theories on social groups examine how individuals try to surround themselves with individuals who have similar demographic profiles, perspectives and values, which are then amplified in group internal communication (Terjesen, Sealy and Singh, 2009). For this research, a closer look is taken at the Social Identity Theory, the working self-concept, self-esteem and self-efficacy in respect to mentoring.

2.5.2.1 Social Identity Theory

Henri Tajfel –a Polish social psychologist– developed the so-called Social Identity Theory (SIT) in the 1970s. His theory identified cross-group phenomena as prejudices as characteristics of individuals (Hogg and Abrams, 1998; Larson and Shevchenko, 2019). According to SIT, individuals have both a personal and a social identity. The latter is derived from the social groups to which individuals belong (Larson and Shevchenko, 2019). The knowledge of an individual that he or she belongs to a social group is called social identity in the SIT (Hogg and Abrams, 1998).

According to Hogg and Abrams (1998), the SIT constitutes the crucial link between the self and the group. Because, according to the SIT, individuals tend to define themselves by their belonging to certain groups. Further, individuals define themselves and others as either in-group or out-group individuals. In-group individuals rate each other higher compared to out-group individuals. Thus, it is difficult for out-group individuals to join these groups (Terjesen, Sealy and Singh, 2009).

The SIT is used to describe the exclusion of women from social networks. The top management of companies can be regarded as their own social network. The director level in an organisation can be seen as a node in this network. This node transfers resources such as information and

knowledge to the organisation and to the members of the network. Power is shared and the group acts with social cohesion (Westphal and Zajac, 1995; Terjesen, Sealy and Singh, 2009; Windolf, 1998).

Female directors are role models who inspire aspiring others. Although role modelling differs from mentoring, mentors can be role models in parallel. Especially women tend to watch role models to learn what to do and what to avoid (Terjesen, Sealy and Singh, 2009). Female directors play a vital role in others' work identity development (Sealy and Singh, 2006). Interacting with other women in networks as mentors or role models increases the chance for women to imitate the behaviour of other women, a concept which, according to Ibarra (1999), is even more beneficial than relying on a single role model (Terjesen, Sealy and Singh, 2009).

However, role modelling reflects more than just the perceived similarity. It reflects the protégé's perception of his or her ideal self and the extent to which the role relationship is internalized in his or her working self-concept (Mitchell, Eby and Ragins, 2015).

2.5.2.2 Working Self-Concept

The working self-concept is dynamic and controls cognition, affect and behaviour. It reacts to its environment and reflects situational contexts. Furthermore, the working self-concept is relational, that means it is shaped by significant others and relational experiences (Bartz and Lydon, 2004). In the working self-concept, people can present themselves in many different ways. Unique characteristics, dyadic relationships or social group belongings can be ways to define oneself (Sim et al., 2014). Different contexts activate different kinds of self-knowledge, so the functioning self-concept is considered flexible (Markus and Kunda, 1986; Markus and Wurf, 1987; Kunda, 1999; Fiske and Tylor, 2013; Isbell et al., 2013). This means that our emotional state most likely influences the available information about ourselves (Isbell et al., 2013). In the working self-concept close relationships play an important and causal role (Bartz and Lydon, 2004).

Sim et al. (2014) have investigated whether the working self-concept shifts to the collective self and away from the individual self when social identity is salient. Their findings suggest that aspects of a prominent and psychologically significant in-group may be accessible simultaneously with aspects of the personal self, so that features of both the in-group and the individual self-influence the concept of the working self. The working self-concept is malleable and can include aspects of the collective self, but this does not happen haphazardly. According to Sim et al. (2014), we do not simply assume the characteristics of an outstanding social

identity, but rather selectively adopt the characteristics of groups that we consider to be psychologically meaningful.

To better understand the motivational processes such as self-esteem, self-efficacy and authenticity, it can be helpful to analyse the group, the role and the person. It may be that people feel more comfortable in certain groups. This can be expressed through more self-confidence in certain roles or generally convey a feeling of authenticity when personal identity is verified (Sets and Burke, 2000).

2.5.2.3 Self-Esteem

Self-esteem is concerned with judgements of self-worth (Bandura, 1997). According to Cross et al. (2019, p. 11), mentoring is not only a way to give women access to successful role models, but also a way to “promote psychological empowerment and assertiveness, self-efficacy, self-esteem, self-confidence, work-related well-being and problem solving”(Dutta et al., 2011). It has been found that mentored individuals have a considerably higher level of organisational based self-esteem in comparison to non-mentored individuals (Ragins, Cotton and Miller, 2000; Dutta et al., 2011). According to Dutta et al. (2011) it seems likely that such improvements are even linked to career progression in the longer term.

2.5.2.4 Self-Efficacy

Self-efficacy is defined as peoples beliefs regarding their capability to succeed and attain a given level of performance and is found to play a key role in career development (Bandura, 1997). Mentoring is a source of self-efficacy because the relationships with mentors are one possible way of developing feelings of competence and efficacy (Curtin et al., 2016). Women are known to evaluate their own performance lower than men (Deaux and Farris, 1977). A lowered self-efficacy might hinder an individual to pursue a career. Women will not attempt to lead others if they do not believe that they can do it effectively. Thus building self-efficacy is necessary to prevent self-selection out of leadership roles. One way to enhance self-efficacy is role modelling and verbal persuasion (Bandura, 1997; Dickerson and Taylor, 2000). According to Dutta et al. (2011, p. 7) improvement is in self-efficacy “a key outcome measure most clearly allied with the aims of mentoring”. Self-efficacy and outcome expectations predict career goals and interests (Curtin et al., 2016).

Both women’s self-esteem and self-efficacy have been shown to be predictors of self-limiting behaviour in certain leadership tasks (Dickerson and Taylor, 2000; Dutta et al., 2011). Therefore,

mentoring is suitable tool to significantly improve both (Dutta et al., 2011) and thus help women to take on leadership roles.

2.5.3 Coaching: Differentiation from Mentoring

This section aims to help the reader differentiate mentoring and coaching as they often get mixed up in practice. Coaching and mentoring share many qualities (Passmore, Peterson, and Freire, 2013), though not all scholars agree on this point. While Garvey (2010) saw benefits in understanding the differences between coaching and mentoring, Ferrar (2004) regarded the separation of the two as rather impractical. Passmore (2007) discussed clear overlaps of mentoring and coaching (Salter and Gannon, 2015).

Coaching is typically a goal-focused activity chosen by clients either because they wish to solve a problem or because they desire to reach certain goals (Passmore, Peterson, and Freire, 2013). The coaching process is a relatively straightforward one in which the coach develops the client's capacities or performance (Carver and Scheier, 1998). According to some studies, coaching is one of the key financial investments which help retain female talent and support their efforts toward promotion and permanent establishment of female participation. Although there are numerous studies exploring the different models of coaching, little reference was made to any gender role in the coach-client partnership (Passmore, Peterson, and Freire, 2013).

D'Abate, Eddy, and Tannenbaum (2003) performed academic literature research in which they extracted 227 descriptions from 182 sources and systematically analysed these extracts to explain these constructs' meanings. Mentoring was found to exhibit characteristics such as an extended duration, role modelling, counselling, support, and advocacy, whereas shorter and more targeted developmental work (including goal-setting) was attributed to coaching (D'Abate, Eddy, and Tannenbaum, 2003). Ragins and Kram (2007) described mentoring as a possibly life-altering relationship that inspires learning, development, and mutual growth. From their perspectives, mentoring relationships can transform not only individuals, but also groups, organisations, and communities.

According to Clutterbuck (2008), the terms may have different interpretations in different countries. If there is a generic difference between these two concepts, then it may be that mentoring is more often associated with much broader, holistic development and career progress, while coaching addresses performance in specific aspects of an individual's work or

life. According to Cox, Bachkirova, and Clutterbuck (2010) and Garvey (2010), mentoring and coaching traditions evolved from roots in professional settings, which is why clearly defining both is difficult.

2.5.4 Socratic Questioning as a Mentoring Tool

Socratic questioning is, according to Tucker (2007), of inestimable value to managers in many circumstances in order to influence and persuade. Contemporary leaders, including mentors, are well served by applying the Socratic method (Tucker, 2007). Socratic questioning is named after the philosopher Socrates and is a specific way of asking a series of questions aimed at increasing awareness (Neenan and Palmer, 2001). Stimulating thoughts and increasing awareness are of greater importance than providing correct answers (Beck et al., 1993 cited in Passmore, Peterson and Freire, 2013; Chalofsky, Rocco, and Morris, 2014). Socratic questioning teaches the importance of asking questions when learning (Paul and Elder, 2007).

Such questions are designed to promote insight and more rationale decision making (Neenan and Palmer, 2001). Socratic questioning is a disciplined, systematic, and deep method. It is often used to explore complex ideas, discover underlying truth, uncover issues and assumptions, analyse concepts, and distinguish what is known from what is not known. It promotes probing beyond superficial ideas and valuing the development of questioning minds to promote deep learning. Therefore, Socratic questioning is intimately connected with critical thinking (Paul and Elder, 2007).

In a mentor relationship, the mentor can utilize the Socratic questions to support the mentee in his professional growth. Mentors act as instructor and evaluator for their mentees. Socratic questioning can be of help to both roles and can provide intellectual development and possible promotions to leadership positions. In addition, leaders who are trained in self-examination techniques and critical thinking ensure future organisational success (Tucker, 2007).

Socratic dialogue uses a questioning strategy to make the respondent aware of implicit knowledge or ways of thinking (Given, 2008).

2.5.5 Effective Mentoring

Sanyal (2017, p. 146) states that an effective mentor needs to be “authentic, display strong emotional intelligence, be an excellent communicator and be sincerely committed to the development of others.” However, mentoring is a two-way relationship and therefore the mentee’s capabilities and commitment are crucial for its success, too (Sanyal, 2017). A mentee

needs to be respectful and demonstrate openness. The mentee has to take initiative to arrange the meetings and to set the agenda, be able to select and bring forth issues for discussion and be willing to challenge and to be challenged (Clutterbuck, 2004; Sanyal, 2017). For a successful mentoring relationship, both parties must have sympathy for each other, they have to be clear about the purpose of the relationship and the talks between them must be important for both sides (Sanyal, 2017). However, assessing the effectiveness of a mentoring relationship can be undertaken from different perspectives, including policymakers, paymasters, providers and participants, and all of them are likely to have different expectations (Murphy and Lewes, 2017). Additionally, Allen and Eby (2011) highlight that it is not enough only to look at career outcomes, including compensation, promotion and job attitude, when assessing mentoring relationship effectiveness, it is important to look at the relationship itself, too. Within this relationship, a variety of professional development functions like challenging assignments, exposure, visibility, coaching, direct forms of sponsorship, emotional support, acceptance, confirmation, and role modelling (Kram, 1983) are provided (Sitzmann and Weinhardt, 2018).

2.5.6 Gender Differences in Mentoring

According to Noe (1988), women and men require mentors equally. Scandura and Ragins (1993) reported that, due to a lack of females in powerful positions, the likelihood of cross-gender mentorship was greatly increased. White *et al.* (2017) state that access to female role models in powerful decision making positions is particularly important for women.

Sosik and Godshalk (2000) argued that, in cross-gender mentoring relationships, attributes like identification and interpersonal comfort are expected to be lower, so they concluded that cross-gender mentoring is expected to be less effective. Further, Allen, Day, and Lentz (2005) stated that participants of same-gender relationships perceive a greater degree of interpersonal comfort due to shared experiences. Within the literature regarding mentoring relationships, the subject of gender similarity was emphasised by Ragins and Cotton (1993), Ragins (1997), and Allen and Eby (2003).

According to Thomas (1990), Koberg, Boss, and Goodman (1998) and Scandura and Williams (2001), same-gender mentoring relationships beget greater benefits than cross-gender ones. According to Bozer, Joo, and Santora (2015), these findings reflect the majority of studies relating to this topic. According to Gabaldon *et al.* (2016), there is a belief that men offer less support when mentoring women. Fowler and O’Gorman (2005) reported that female mentors

usually provide more personal and emotional support, career development guidance, and role modelling identification than men.

2.5.7 Role Modelling in Mentoring Relationships

Research showed that people tend to look for role models similar in gender or race (De Anca and Gabaldon, 2014a; Mateos de Cabo *et al.*, 2014). Gabaldon *et al.* (2016) suggest that mentorship could be a way of formalising role modelling, as it offers women additional guidance on their professional aspirations. According to Kram (1985), the role modelling function in cross-gender mentoring relationships is limited to the assumption that such mentoring relationships are more complex in terms of individual development. Role modelling was identified as the most important psychosocial function for relationships (Kram, 1983; Burke and McKeen, 1990; Sosik and Godshalk, 2000; Picariello and Waller, 2016). It was also found to be particularly important for protégés said to be of minority backgrounds (Kram, 1983; Ragins and Scandura, 1997).

Ragins and Kram (2007) and Gabaldon *et al.* (2016) reported that there is a serious lack of female role models, which has the effect of weakening women's confidence and management aspirations. This accords with Sealy and Singh (2010) and Vongalis-Macrow (2014).

(Picariello and Waller, 2016) stated that, especially for women, a same-gender mentor could be perceived as a role model who successfully overcame barriers to professional advancement.

However, in accordance with Kram (1985) and Allen, Eby, and Lentz (2006), identification with a mentor is required in order to facilitate the process of role modelling. This process is eased if individuals have commonalities, as stated by Ragins (1997) and Allen, Eby, and Lentz (2006). Allen, Eby, and Lentz (2006) and Steele and Fisman (2014) reported that role modelling is often part of mentoring. It may also occur when the mentor holds a position to which the mentee aspires.

Consequently, it is important for women to access the possibility of developing mentoring relationships with more highly ranked women, as women face gender-specific obstacles to mentoring opportunities (Noe 1988). As an "out group" in management positions, women have more difficulty in obtaining help from male managers, or "in-group" members (Levine *et al.*, 2005). An example of such help is mentoring (McDonald and Westphal, 2013; Villesèche and Josserand, 2017). Another obstacle for women could be stereotypes regarding relations between senior men and junior women. In such cases, women can suffer from negative

consequences like gossip when they successfully establish mentoring relationships (Clawson and Kram, 1984).

2.5.8 Mentoring Schemes

The more traditional mentoring relationship between two individuals of unequal status is usually informal (Eby, 1997; Higgins and Kram, 2001).

Such training tools are continuously developing, and there different models of mentoring around the world, particularly in business (Passmore, Peterson, and Freire, 2013). Several models of mentorship have been identified, and these can be roughly distinguished into formal and informal categories. This research focuses on a formal cross mentoring programme, so the next section explains this in more detail.

2.5.8.1 Cross Mentoring

Mentoring has been used in personnel development in the United States since the 1970s and in Europe since the 1980s. From this mentoring boom at the end of the 20th century, cross mentoring emerged at the beginning of the 21st century as a comparatively new instrument of personnel development (Liebhart, 2012). The term “cross mentoring” usually refers to mentoring relationships that transcend company boundaries and internal hierarchies. It is a special form of mentoring (external mentoring) and can be regarded as a successful modern instrument of cross-organisational personnel development (Domsch, Ladwig and Weber, 2017). The aim is to eliminate hierarchical obstacles in personnel development. A mentee often must behave in a less open and relaxed manner with an internal manager than with an external manager. Especially for small and medium-sized companies, which do not have capacities for internal mentoring, cross mentoring offers junior staff the chance to participate in a mentoring programme (Domsch, Ladwig and Weber, 2017).

Further advantages for the participating companies are networking and the possibility of collaboration (Walter-Kühfuss, 2010; Chandler, Kram and Yip, 2011).

Classic cross mentoring between companies is often referred to as cross-company mentoring. The innovative models of cross mentoring are cross-sector or cross-institution mentoring, which can also be used for aspects of cross-culture and cross-gender mentoring (Knott and Poulsen, 2012).

In addition to cross mentoring, there are other forms of mentoring which differ in terms of formal design criteria, the executive, and target group specificity (Graf and Edelkraut, 2016).

If the mentoring programme is deliberately planned by the organisation as part of personnel development measures, it is known as formal or institutionalised mentoring. There are other mentoring partnerships which form rather randomly. These are informal mentoring relationships. If the mentoring programmes only occur at different hierarchical levels, they are internal mentoring. Cross-company or cross-organisational programmes are classified as external mentoring (Domsch, Ladwig and Weber, 2017).

2.5.8.2 Formal Mentoring

Formal mentoring programmes are initiated by a company and explicitly aimed at employees who are believed to have outstanding talents and potential for future leadership. Mentors are always taken from their own companies. As a rule, they are active in senior management positions and support the company's junior staff in career development (Crawford, 2010). Formal mentoring involves a third party, typically a programme coordinator, who matches mentors and mentees based on a set of criteria. These range from demographics, career goals, and functional areas to random chance. The intent is to ensure that everyone has a mentor. The key to this is that the third person judges the perceived similarity between the mentor and protégé (Phillips-Jones, 1983; Douglas and McCauley, 1999). A second important difference is that formal relationships usually have limited durations (Allen and Eby, 2004). This duration is also set by the programme manager or organisation, and it usually amounts to about a year (Passmore, Peterson, and Freire, 2013). A third difference is the clearly defined duration and structure of such a formal relationship (Wanberg, Welsh, and Hezlett, 2003). One significant advantage of formal mentoring programmes is their formal arrangements, as they help individuals across different sectors (private, public, and non-profit) who may not have access to informal mentors find one who can support them (Allen et al., 2001 cited in Allen, Day, and Lentz, 2005; Passmore, Peterson, and Freire, 2013).

Formal mentoring programs have been described as the “poor cousin” (Baugh, Gayle, and Fagenson-Eland, 2007, p. 249) of informal relationships. However, it is important to note that they are not valueless and continue to offer a number of advantages, particularly to people who might not otherwise have access to mentoring (Ortiz-Walters and Gilson, 2013; Passmore, Peterson and Freire, 2013). Minorities or underrepresented groups are often the affected individuals (Thomas, 1993; Ortiz-Walters and Gilson, 2005). According to Davis (2008), formal mentoring programmes are even more visible than informal ones, so they are particularly useful

for helping participants gain visibility. However, according to Allen, Eby and Lentz (2006b), formal mentoring programmes are most effective if the mentors understand the goals of the programme.

2.5.8.3 Informal Mentoring

Informal mentoring is not planned by the organisation, but rather develops from the initiative of one or both partners in the mentoring relationship. Such unplanned mentoring thus does not have a specific structure. However, it is a further opportunity for career support (Crawford, 2010 and Reinbold, 2014 cited in Domsch, Ladwig, and Weber, 2017, p. 7). A perceived sense of similarity, shared experience, or trust are often reasons for the development of informal mentoring relationships (Domsch, Ladwig, and Weber, 2017). Such relationships do not have any specifications regarding timing, structure, or location (Kram, 1983).

2.5.8.4 Peer-to-Peer Mentoring

Peer-to-peer mentoring, or peer mentoring for short, is a special form of informal mentoring that is both unplanned and unstructured. However, it differs from classical informal mentoring in one respect: managers are not necessarily the individuals acting as mentors, but rather so-called peers. A peer is a person who has a position comparable to the mentee's. As such, a peer is not superior (Crawford, 2010 cited in Domsch, Ladwig and, Weber, 2017, p. 7).

2.5.8.5 Blended Mentoring

Blended mentoring combines aspects of classic mentoring with innovative online components. The partners can exchange ideas virtually and network with other partnerships. Individual learning units within the framework of mentoring and additional assistance are also possible online (Weibler, 2016 cited in Domsch, Ladwig, and Weber, 2017, p. 7)

2.5.8.6 Reverse Mentoring

Reverse mentoring is a paradigm shift in mentoring. Older, experienced managers and employees at higher hierarchical levels may not be as familiar with new technologies as younger employees. In order to eliminate this knowledge deficit, reverse mentoring has young, technology-oriented employees serve as mentors for superiors (Murphy, W. M., 2011 and Murphy, W. M., 2012 cited in Domsch, Ladwig, and Weber, 2017, p. 7).

2.5.8.7 Sponsorship Mentoring

According to Clutterbuck (2004), mentoring has two purposes. These are reflected in the American “career sponsorship” model and the European “developmental” model. According to Chandler (2017), this type of mentoring is less prevalent in Europe than in the United States. This might be because some European countries have cultures of low power distance (Hofstede, 2003; Passmore, Peterson, and Freire, 2013). The European model of mentoring focuses more on psychosocial support than career progression (Kram, 1983). Merrick's and Stokes' (2008) study of talent management support mentoring matched what Ibarra, Carter, and Silva (2010) determined: mentees become impatient with their mentors due to a lack of active sponsorship. Such sponsorship behaviours may include: help with exposure or managing politics, assistance with challenging assignments, and protection of mentees (Passmore, Peterson, and Freire, 2013).

2.6 Brief Summary of the Chapter

This chapter presented a critical literature review of skill shortages in management, diversity in management, obstacles faced by women, and mentoring as a skill development tool. This literature survey showed a number of topics deserving of further investigation.

Women have a great potential to combat skill shortages. Many women of working age with medium and high qualifications are unemployed. The literature has shown that utilising the untapped potential of women in the job market would help to sustainably negate predicted long-term skill shortages. Mentoring and the resulting networks for women, among other strategies, are considered to be helpful interventions to increase the proportion of women in leadership positions.

There is a wide range of affirmative actions for women, one of which being a quota for women's participation in different levels that they previously did not prefer or presently still avoid, such as leadership positions. Hence, more women being in management positions would help discourage stereotypes and encourage girls and young women to pursue careers in business, engineering, science, technology, and more. Modern young female managers are missing female mentors and role models. Experienced female leaders can act as role models, mentors, and sponsors to other women and girls. Formal mentoring programmes are one possible scheme of mentoring. According to the literature, this form of mentoring is even more visible than informal mentoring. Thus, formal mentoring programs are particularly useful for helping participants gain visibility, and consequently help mentees further develop their networks.

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The next chapter describes the research design and methodological composition of the study. This description incorporates the rationale of the chosen qualitative research design and the data analysis process. The role of the researcher and the relevant aspects of research ethics are also outlined.

3 Methodology

The previous chapter provided an overview of the literature that frames this thesis' area of interest. This chapter presents the methodological composition of the study, including the research setting, theoretical positioning, methods applied, the data analysis process as well as the role of the researcher, the research quality and the research ethics.

3.1 Brief Introduction to the Chapter

First, an overview of the research setting is given, including an explanation of the constructivist paradigm as well as the ontological and epistemological position of this research. The theoretical positioning section explains grounded theory and its origins as well as the largest differences between the main grounded theory approaches. After this is an explanation of the rationales for selecting a constructivist grounded theory approach (and the limitations of this method).

The chapter continues with an overview of the methods in this study. The first section outlines the organisation based on a constructivist grounded theory approach. Next, the data collection methods (semi-structured interviews and focus groups) are explained, after which a justification of the sample size and sampling method is given. The chapter then offers a brief insight into the pilot interview before explaining data analysis. It thereafter provides an overview of the coding differences between the three main grounded theory approaches. Afterwards, the different roles of the researcher are explained before the research quality is clarified. Finally, the chapter depicts an overview of the ethical considerations of this research.

3.2 Research Setting

To ensure a productive research setting, the researcher must, according to Mills, Bonner, and Francis, (2006, p. 26), "choose a research paradigm that is congruent with the researcher's own beliefs about the nature of reality". As the aim of this research is to explore and recommend actions for the management of the mentoring programme "CrossMentoring OWL" so it better counteracts the region's skill shortage, the following research setting was applied, as depicted in Figure 19.

According to Charmaz (2003), the framework of a constructivist grounded theory does not necessarily have to hold constructivist assumptions. She argues that grounded theorists should propose a more flexible strategy. With this in mind, the researcher's philosophical stance

regarding the choice to use a constructivist grounded theory approach is explored in this section. Its purpose is to create a credible framework to be outlined in the next section.

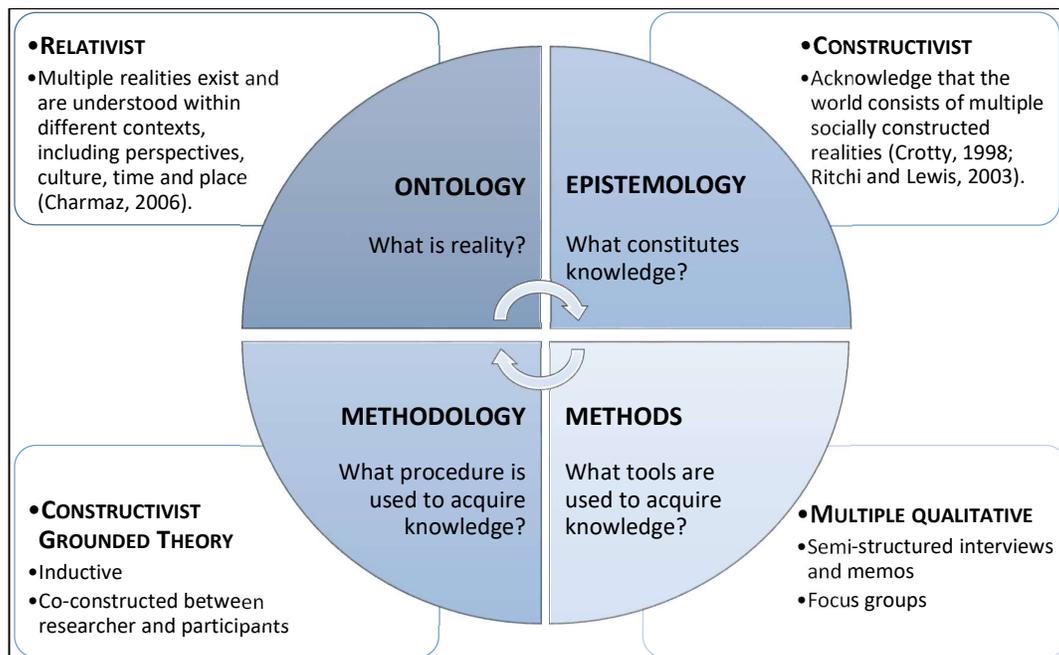


Figure 19: Research setting.

A brief overview of the researcher’s ontological and epistemological assumptions is provided because, according to Crotty (1998), “the philosophical stance informs the methodology”. Thus, this section illustrates how the researcher interpreted the processes which influenced the research’s design.

3.2.1 Constructivist Paradigm

The researcher believes that all people are influenced by their cultural backgrounds and histories, which shapes their views of the world and the meaning of truth. Therefore, for this research, a constructivist version of a grounded theory research approach is applied. This means, according to Charmaz (2006; 2009) and Thornberg and Charmaz (2012), that neither data nor theories are discovered, but rather that the researcher constructs them as a result of interaction with the participants and emerging analysis. This way, data collection and analysis take place simultaneously, as stated by Thornberg and Charmaz (2014).

Constructivism is a research paradigm that negates the existence of an objective reality (Mills, Bonner, and Francis, 2006). Constructivism itself challenges the belief that there is an objective truth (Crotty, 1998; Breckenridge *et al.*, 2012). Therefore, Charmaz presupposes the existence of manifold social realities (Kenny and Fourie, 2015). The researcher socially constructs reality,

which influences the research. Likewise, the participants have socially constructed realities which serve as data (Charmaz, 2006). A key principle of the constructivist approach is to give a say to the subject (Higginbottom and Lauridsen, 2014).

Therefore, the choice of a social constructivist perspective emerged from the researcher's worldview, experience, and interest in understanding the reasons for human behaviour. After an intensive analysis of the applied approach and the aim of this research, the researcher became confident that this research could add a valuable contribution to the academic world and practice. The social constructivist approach will help stress the importance of individual perceptions, as stated by Prior (2008): "Constructivism assumes that social reality is multiple, processual and constructed" (Charmaz, 2014 p.13). The theoretical applied perspective is interpretivist.

In terms of epistemology, interpretivism is a theoretical paradigm that is linked to constructivism. Interpretivism claims that social reality and natural reality are not the same and therefore require different types of methods. Understanding the real world is much more important than generalisability (Gray, 2004). According to Gray (2004, p. 31), interpretivism sees the world as "too complex to be reduced to a set of observable 'laws'".

3.2.2 Ontology

Based on the researcher's belief that multiple realities exist, a relativist ontological position is applied for this research (Guba and Lincoln, 1994). This way, the researcher believes that realities are understood within different contexts, including perspectives, culture, time, and place (Charmaz, 2006). This ontological stance seems to be a natural fit for the explorations of how same-gender dyad mentoring for women could be adjusted to be a better tool to combat skill shortages in management, at least according to case study participants' perceptions. This indicates that the discovered realities within this research will arise out of interactive processes between the participants and the researcher. Therefore, the researcher agrees with Mills, Bonner, and Francis (2006) that "the world consist of multiple individual realties influenced by context". Hence, a relativist ontological position is applied.

3.2.3 Epistemology

Constructivism emphasises a subjective interrelationship between the researcher and the participants and therefore a co-constructing of meaning (Hayes & Oppenheim, 1997; Pidgeon & Henwood, 1997; Mills, Bonner, and Francis, 2006). According to Charmaz, the researchers

cannot separate themselves and their experiences from their research or be objective about the data. It is more likely that researchers make consistent and ongoing subjective interpretations of the data (Higginbottom and Lauridsen, 2014).

As this research explores the participants' perceptions and experiences, it is perfectly set in a subjectivist epistemology. An aim of this research is to approximate the participants' unique experiences and interpretations as accurately as possible. As the researcher studied female managers in male-dominated industries who had been mentees in the studied mentoring programme, many personal experiences related to the topic could be found. Therefore, the researcher's own experiences and beliefs cannot be separated from this research. As such, this philosophical perspective further justifies the application of a constructivist grounded theory approach wherein the epistemological and ontological position fits this research.

3.3 Theoretical Positioning

Theoretical positioning builds the foundation of methodological choice. An ontological stance of a relativist and an epistemological view of a subjectivist lead to the expectation that an inductive, open-ended, and qualitative methodology will be the most appropriate. Hence, this section explores the constructivist grounded theory approach in greater detail. In order to better understand the choice of the researcher, it is important to understand the differences of the existing grounded theory approaches. Therefore, this section provides a compact overview of the origins of grounded theory followed by a brief outline of the three main versions of grounded theory.

3.3.1 Grounded Theory and Its Origins

Grounded theory was developed in the 1960s (Cooney, 2013) by two sociologists: Barney Glaser and Anselm Strauss (Willig, 2013). Due to their dissatisfaction with the existing theories in sociological research, they developed their own. Strauss and Glaser argued that researchers need a method that allows them to go from data to theory in order to let new theories emerge. This way the theories are grounded in the data from which they emerge rather than relying on analytical constructs. Therefore, grounded theory opened space for the development of new contextualised theories (Willig, 2013).

Their aim was to systematise the gathering, coding, and analysis of qualitative data for the purpose of generating a theory (Cooney, 2013). The outcome was two techniques central to

grounded theory, namely theoretical sampling and constant comparison (Glaser and Strauss, 1967). Grounded theory is regarded as a flexible methodology despite its systematic setup. It is designed to help with the development of substantive, explanatory models grounded in relevant empirical data (Hutchison, Johnston and Breckon, 2010).

Grounded theory includes the step-by-step identification and integration of categories of meaning from data. It is both the process of category identification and integration as method, and its product is a theory. Grounded theory provides an explanatory framework which helps one understand the phenomenon under investigation (Willig, 2013).

The different backgrounds of Glaser and Strauss influenced much of their methodological development. While Strauss was experienced in theory generation and symbolic interactionism, Glaser had experience as a quantitative researcher with descriptive statistics (Stern, 2016). Their original grounded theory techniques apply aspects of the logic and rigour of quantitative data analysis to qualitative data (Glaser and Strauss, 1967). The following Figure 20 outlines the key components of Glaser and Strauss' original grounded theory model.



Figure 20: Key components of Glaser's and Strauss' original grounded theory model (adapted from Bryant and Charmaz, 2007, p. 154; Higginbottom and Lauridsen, 2014, p. 9).

Instead of forcing preconceived ideas onto the codes or categories, is Higginbottom and Lauridsen's (2014, p. 9) model "characterised by an ongoing systematic process of collecting, coding, analysing, and theoretically categorising data using the information that emerges from the data" themselves. The process of data collection and analysis ideally continues until theoretical saturation has been achieved, meaning no new categories can be identified (Willig, 2013).

The theory outlined in the final report takes into account all the variations in the data and conditions associated with these variations. The report is meant to be an analytical product rather than a purely descriptive account. Theory development is the goal (Hood, 2007, p. 154). In the 1990s, they realised that they held conflicting perspectives, so each of them developed different schools of thought. These are called Straussian Grounded Theory and Glaserian Grounded Theory (Higginbottom and Lauridsen, 2014). Since its initial development in 1967, grounded theory has undergone a number of revisions (Heath and Cowley, 2004), as shown in Figure 21.

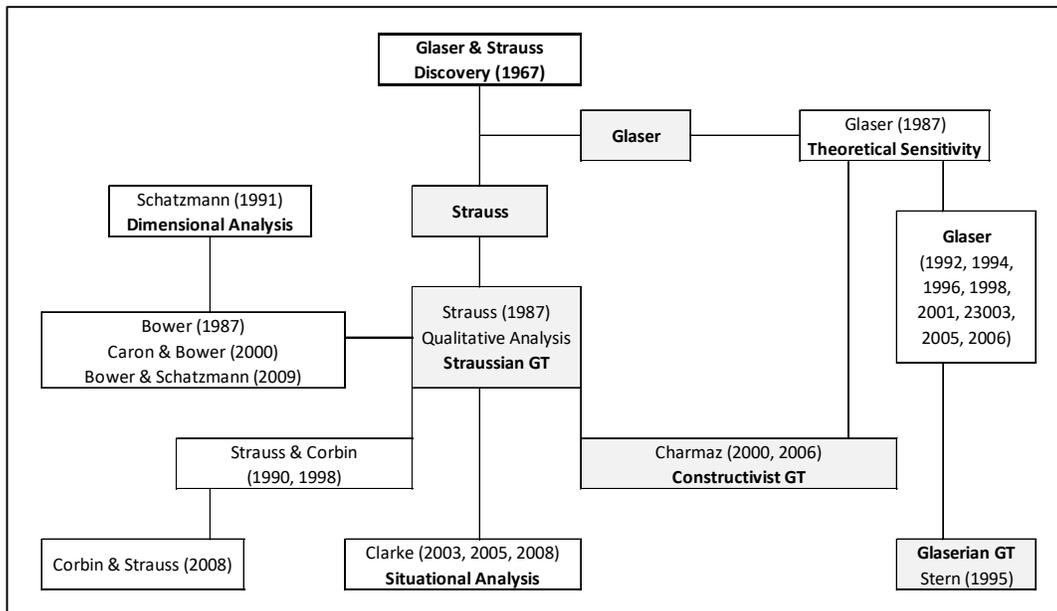


Figure 21: Genealogy of grounded theory: major milestones (Morse et al., 2009, p. 17).

As of today, three main versions of grounded theory dominate the field. These include the "classical" Glaserian version, the more structured approach of Strauss and Corbin, and the constructivist version of Charmaz (Willig, 2013).

3.3.1.1 Glaserian Grounded Theory

The Glaserian grounded theory method adopts an ontological position of critical realism in answering questions regarding the nature of reality and what can be understood from it. This way the researcher is required to embody the role of an objectively detached observer (Howard-Payne, 2016). The researcher should have as few predetermined thoughts as possible (Rieger, 2019). The focus is on the neutralisation of the researcher's bias through constant comparison instead of reflexivity (Charmaz, 2017).

3.3.1.2 Straussian Grounded Theory

The Straussian grounded theory approach is positioned in an ontological stance of pragmatic relativism and the contextualist epistemology advocated by Strauss. It directs the researcher to be personally engaged with the research (Howard-Payne, 2016) and to have an interpretive role (Rieger, 2019). The philosophical perspective of Straussian grounded theory has evolved over time and is somewhat ambiguous (Strauss and Corbin, 2008; Rieger, 2019). According to Charmaz (2014), the Straussian grounded theory method moved towards constructivism in the third edition of Corbin and Strauss' work in 2008 (Rieger, 2019).

3.3.1.3 Charmaz's Constructivist Grounded Theory

The constructivist grounded theory approach developed by Kathy Charmaz – a former student of Glaser and Strauss – proposes a grounded theory methodology founded on a relativist epistemology, which contrasts with Glaser. Rather than separating the researcher from the research, Charmaz suggests that the researcher constructs the theories through the methods proposed by Glaser and Strauss (Higginbottom and Lauridsen, 2014). The following Figure 22 outlines a schematic explanation of the constructivist grounded theory approach.

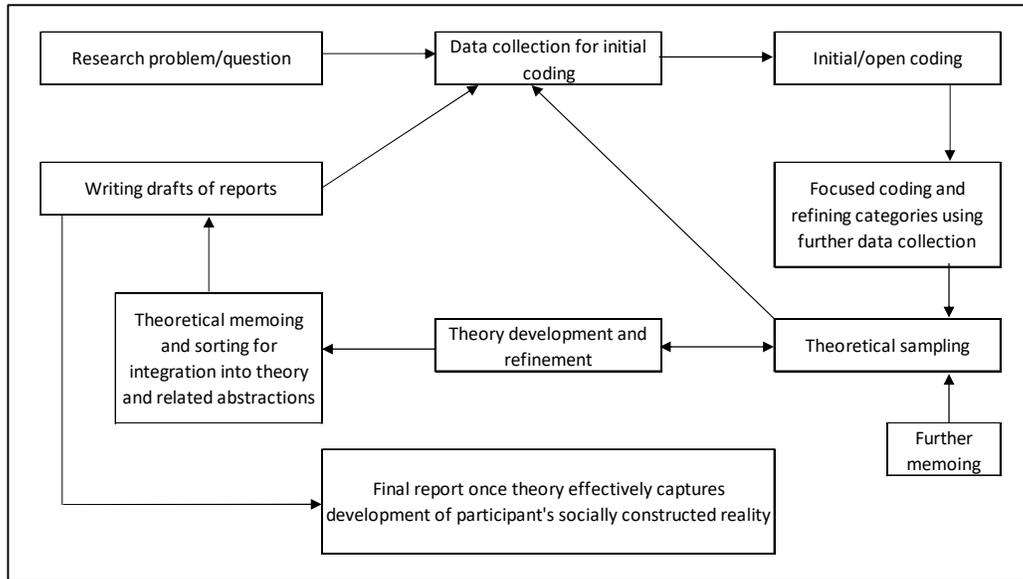


Figure 22: Schematic explanation of the constructivist grounded theory (Higginbottom and Lauridsen, 2014, p. 11).

Like Glaser, Charmaz uses a cyclical method of data collection, coding, categorisation, and theoretical sampling to create an abstract theory that responds to the initial research question (Higginbottom and Lauridsen, 2014). According to Kenny and Fourie (2015), there are uniting and differentiating principles of these three grounded theory methods, as shown in Figure 23. Despite their differences, the two approaches share fundamental uniting principles, namely theoretical sampling, theoretical saturation, constant comparative analysis, and memo writing (Alammar *et al.*, 2018).

The biggest differences lie in the coding framework – which will be discussed in more detail in section 3.6.2 – as well as the applied usage of the literature and underlying philosophy. Most importantly, all three theories require generating a theory from data (Higginbottom and Lauridsen, 2014).

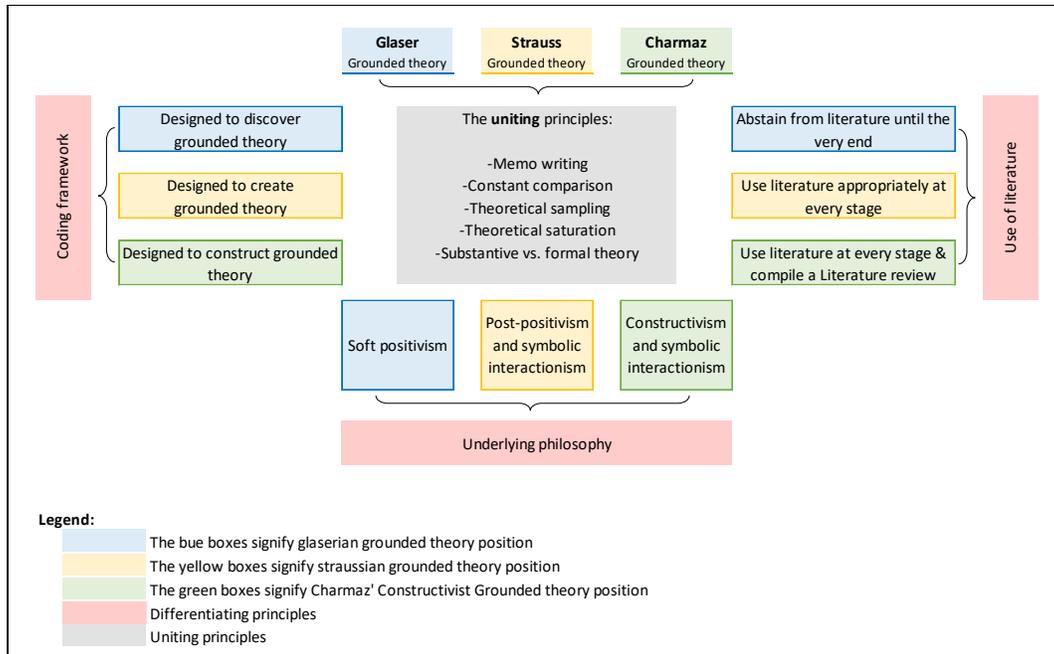


Figure 23: The unifying and differentiating principles of grounded theory (adapted from Kenny and Fourie, 2015).

The three grounded theory methods are distinct entities. However, according to Kenny and Fourie (2015), the researcher doesn't necessarily have to opt for only one tradition; the researcher is free in choosing and mixing them as long as the consistency of the parameters is secured.

3.3.2 The Rationale for Selecting Grounded Theory

This research was meant to gain an in-depth understanding of each participant's experience with the mentoring programme as well as the opinions of related experts and managers of the region. This was done to explore actions, which could be taken by the programme's management to improve it.

The programme's interpretive frame of reference is essential for this research. Other approaches such as *Thematic Analysis* and *Interpretive Phenomenological Analysis* were taken into consideration as well. Based on the constructivist position of this research, the constructivist grounded theory approach seemed to be most suitable. According to Braun and Clarke (2006), there are two groups of qualitative methods: those (like constructivist grounded theory and *Interpretive Phenomenological Analysis*) which stem from an epistemological position and those (such as thematic analysis) which do not. Although *Thematic Analysis* is widely used, there is no clear agreement on what *Thematic Analysis* exactly is, nor are there

agreed procedures for it (Braun and Clarke, 2006). However, in comparison, the constructivist grounded theory approach has a clear format to follow in order to construct theories from data. Grounded theory is in general considered to be an adequate approach when studying human action and interaction (Baker et al 1992; Parse 2001; Holloway and Todres, 2003). For grounded theory, a focus on social structures, social processes, and social interactions is appropriate (Annells, 1997). It is particularly helpful to apply grounded theory when investigating social problems or situations to which people must adapt (Benoliel, 1996; Schreiber and Stern, 2001). The purpose of constructivist grounded theory is to attempt to interpret how participants construct their realities and present multiple perspectives (Breckenridge *et al.*, 2012).

It was therefore considered a good fit for this research. The researcher concluded that the principles of this methodology were most appropriate to facilitate this study's observance of the researcher's personal epistemological and ontological perspectives. Another reason for applying the constructivist grounded theory approach was the fact that the research studied interviewees' subjective reality while utilising evidence-based knowledge, as the research is grounded in the data (Charmaz, 2006).

3.3.2.1 Theoretical Sensitivity

Theoretical sensitivity is related to both the researcher's life experience and the empirical theories which the researcher has absorbed (Birks and Mills, 2011). Glaser and Strauss (1967, p. 46) stated that "theoretical sensitivity is an ability to have a theoretical insight into one's area of research while also having an ability to make something of one's insight". Therefore, it was important to reflect on the researcher's prior knowledge and assumptions with the help of journals and memos. Because previous research dealt with different locations, the researcher became more curious about carrying out the research in East Westphalia-Lippe.

3.3.2.2 Reflexivity

According to Charmaz (2008, p. 409), a "*constructivist grounded theory assumes relativity, acknowledges standpoints, and advocates reflexivity*". Because this research was based on constructivist principles, the researcher's preconceived ideas and prior knowledge have been taken into consideration. Because it is impossible to disconnect the researcher's self-concept from the data analysis process, the constructivist grounded theory approach (with its relativist roots) seems to be even more relevant, as it helps one consider the multiple perspectives of how meaning is constructed through the interaction of the different participants.

3.4 Methods

The following sub-chapter outlines the case organisation applied in this research as well as the data collection methods used to gather data. Next, it is explained how triangulation was reached within this research to make this qualitative study credible. In addition, the sampling method applied and sample size are outlined, as well as the recruitment of the research participants. Finally, it is explained how saturation was achieved in this research.

3.4.1 Case Organisation

For this research, a case study organisation as defined by Saunders, Lewis, and Thornhill (2009) was adopted, based on a relativist ontological position. Robson (2002, p.178) defines a case study as “a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within this real life context using multiple sources of evidence.” A case study can be used for a variety of issues like the evaluation of training programmes (which is a common subject), organisational performance, policy analysis, project design and implementation, policy analysis, and relationships between different sectors of an organisation or between organisations. Case studies tend to explore issues where relationships may be unclear (Gray, 2004). As this research is meant to explore possible recommendations for the management of a specific mentoring programme on how to improve it, a case study approach is appropriate here. This is especially true because such a programme is linked to different organisations, so its success is dependent on these relationships.

Case studies follow an interpretive methodology, as they are meant to understand a phenomenon from different perspectives (Scotland, 2012). This leads to an inductive approach, which means that a theory is generated from data. This perfectly fits a constructivist grounded theory approach (Bryant and Charmaz, 2007).

An interpretivist acknowledges that it is impossible to gather value-free knowledge. Conducting research and interpreting findings will bias the data. But within a case study, the researcher is fully aware of this fact (Edge and Richards, 1998).

A well-conducted case study is able to provide insight into the participant’s perspective without dominating it (Scotland, 2012). However, due to the fact that case study research focuses on the participants’ views, reality is subjective and therefore differs from person to person. Hence, it is almost impossible that all of the participants could interpret the findings the same way the

researcher does. Hence, in terms of epistemology, a social constructivist approach was applied to this research, as it helps display multiple constructed realities (Crotty, 1998; Ritchi and Lewis, 2003).

Within this research, a case organisation will be applied to develop deeper insight into the intentions and expectations of the participants of the mentoring programme. The aim is to develop a holistic view through different data collection techniques like in-depth interviews and focus groups. These are regarded as the key types of data generation in qualitative research (Ritchi and Lewis, 2003).

3.4.2 Data Collection Methods

The strength of qualitative research is its exploration of the depth and complexity of the aforementioned phenomenon, which accords with Carlsen and Glenton (2011). When a researcher applies the principles of constructivist ground theory, data are gathered via focus groups and semi-structured interviews, in this case to explore potential amendments or extensions of the programme. Data were collected from key informants, namely the former mentees and experts, such as a representative of the chamber of industry and commerce in East Westphalia-Lippe and a representative of the equal opportunities officer in Bielefeld. Further informants were female managers of the region, human resource managers, and decision makers. Figure 24 provides an overview of the planned methodology. First, after an extensive literature review, a pilot interview with a former mentee was conducted. Afterwards, 13 interviews with former mentees of the programme, five interviews with experts in the field of skill shortages and advancement of women in the region East Westphalia-Lippe, and three focus groups with experienced managers were held. After this, the data were analysed according to the principles of grounded theory approach. This was followed by a mixed focus group to explore the feasibility of the discussed strategies and to determine whether their consequences would be contingent on these strategies.

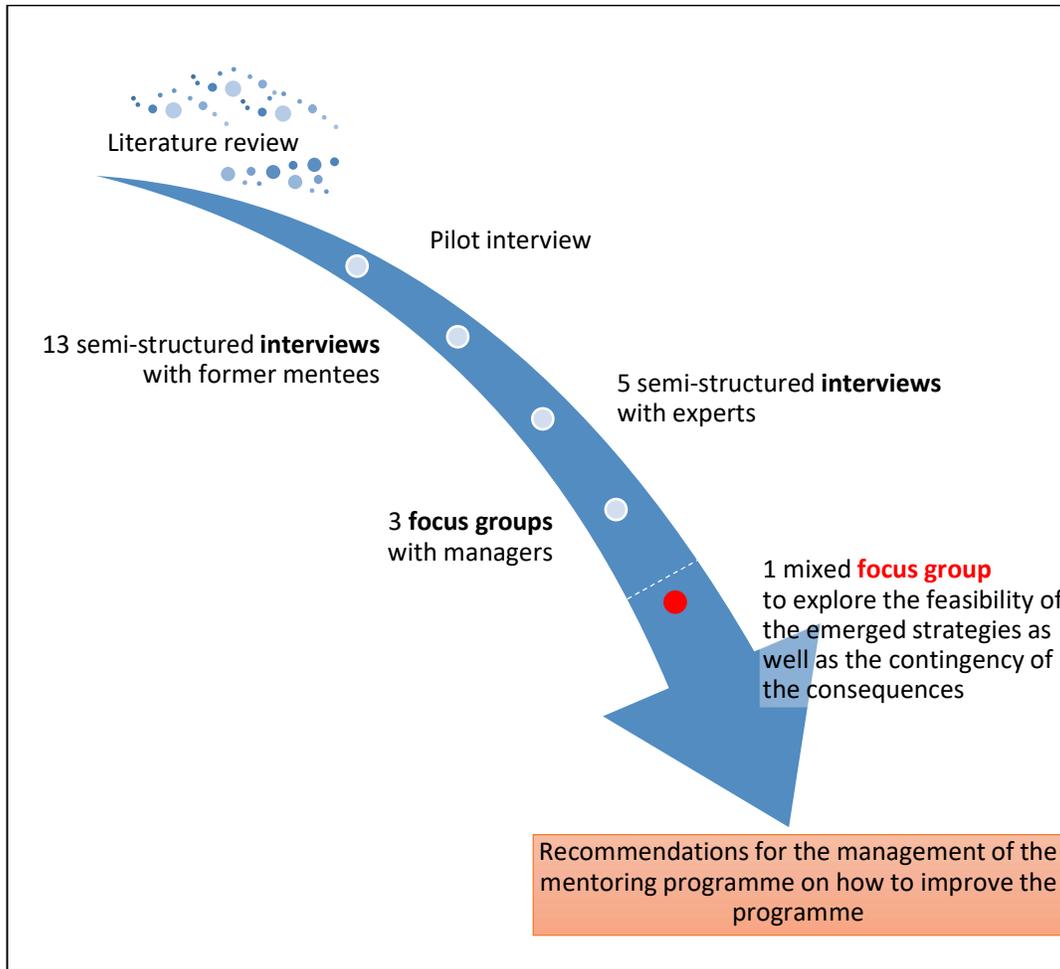


Figure 24: Overview of the applied methodology.

As stated by Molzahn *et al.* (2005), focus groups help researchers examine beliefs, whereas individual interviews enable them to explore personal experiences.

This approach helped the researcher develop actions for the management of the mentoring programme “CrossMentoring OWL” about how to improve the programme to better meet the needs of the region in terms of skills shortages in management.

3.4.2.1 In-Depth & Semi-Structured Interviews

An interview guide is defined as a list of questions, as described by Whiting (2008) and Krauss *et al.* (2009). This helps researchers guide conversations towards research topics during interviews, which was reported by Krauss *et al.* (2009) and Cridland *et al.* (2015). The quality of the interview guide is crucial. It affects not only the implementation of the interview, but also the analysis of the collected data, as stated in Krauss *et al.* (2009) and Rabionet (2009) and Cridland *et al.* (2015). The interviews were audio recorded to facilitate later transcription.

3.4.2.1.1 Rationale for Choosing In-Depth Interviews

For a constructivist grounded theory approach, Charmaz (2014) suggests intensive interviewing to explore the participants' personal experiences and perspectives regarding a research topic. Through the application of open-ended questions, the interview offers the participants space wherein they can "relate to their own substantial experiences" (Charmaz, 2014, p. 57). According to Fontana and Frey (2005), in-depth interviews are one of the most powerful tools for understanding people and exploring topics.

Within this research, it was important to focus on issues that were meaningful to the participants in order to develop management actions on how to improve the mentoring programme to better meet the needs of the region in terms of skill shortages in management. Hence, it was essential to focus on issues that were meaningful to the participants, experts, and managers. According to Ritchie and Lewis (2003), in-depth interviews give the researcher the chance to investigate people's personal perspectives regarding certain contexts. In addition, they are also regarded as suitable for studies that require an understanding of processes or experiences, as they offer the opportunity for clarification and detailed understanding. Therefore, the choice to apply in-depth interviews as one of the data collection methods for this research seemed to be natural. Especially for the former mentees, the in-depth interviews seemed to be the most appropriate way to approach them, as they shared personal experiences. These included sensitive topics, which they might not have shared in group discussions.

3.4.2.1.2 Limitations of In-Depth Interviews

However, in-depth interviews also have limitations. There is a concern about reliability due to, first, a lack of standardisation and, second, bias. Third, there is a lack of generalisation of findings about the entire population because of small sample sizes (Saunders, Lewis, and Thornhill, 2009).

However, this method is a good tool for the exploration of personal beliefs, values, motives and attitudes (Smith, 1975; Barriball and While, 1994). Another advantage is the fact that the researcher can make sure that every question is answered by each respondent without any external help (Bailey, 1987; Barriball and While, 1994). Moreover, the interviewer can validate the respondent's answer by observing his or her body language, which is essentially helpful when discussing sensitive topics (Gordon, 1975; Barriball and While, 1994).

3.4.2.1.3 Rationale for Choosing Semi-Structured Interviews

Semi-structured interviews were used to collect data, as they have been proven to be versatile and flexible, according to Gale *et al.* (2009) and Kallio *et al.* (2016). Semi-structured interviews are the most frequently utilised interview technique in qualitative research and can occur either with an individual or in groups, as stated by DiCicco-Bloom and Crabtree (2006). An objective is to provide insight into how the lives of the mentees had been influenced two years after the programme ended. The semi-structured interview method seemed to be an appropriate choice for this objective, as it is suitable for studying people's perceptions and opinions, as reported by Given (2008). The aim of this research is to explore actions on how to improve the programme to better meet the needs of the region in terms of skill shortages in management. Therefore, it is essential to focus on issues that are meaningful to the participants, experts, and managers. Semi-structured interviews enable the participants to express their diverse perceptions, as explained by Cridland *et al.* (2015). This gives the researcher the chance to look at the phenomena from different perspectives.

The questions asked during these interviews were based on the literature research conducted at the beginning on the one hand. On the other hand, they were based on discussions in various associations, clubs, etc. on this topic with a wide variety of people with different backgrounds and viewpoints such as managers, experts and mentees. For a detailed interview schedule, refer to Appendix 3.3.

3.4.2.1.4 Semi-Structured Interviews with Former Mentees & Experts

In addition to the interviews with former mentees of the programme, five interviews with experts in the field of skill shortages and advancement of women in the region East Westphalia-Lippe were undertaken. These interviews were based on the findings from the interviews already held with former mentees. They led to proposals for the management of the mentoring programme CrossMentoring OWL on how to improve the programme to better meet the needs of the region in terms of skills shortages in management.

3.4.2.2 Focus Group

Focus groups are, in a broad sense, interviews which are conducted with multiple participants simultaneously (Saunders, Lewis, and Thornhill, 2009). The term "focus group" initially came from the idea that a group is focused on a collective activity (Kitzinger, 1995). This collective activity occurs within a social context (Duggleby, 2005). Even though a focus group is not a

natural one, it can still help researchers observe group interplay within a social context (Morgan, 1996). This way, researchers can observe participants while they debate and share ideas, experiences, and opinions (Duggleby, 2005). The observation of this kind of interaction among the participants produces insights and data which cannot be obtained from individual interviews (Morgan, 1997).

Furthermore, focus groups can help in the development of participants' interpretations regarding results from earlier studies, as stated by Morgan (1998). The focus groups of this research were recorded and transcribed to ensure that none of the shared views was missed by the researcher.

3.4.2.2.1 Rationale for Choosing Focus Groups

Focus groups are regarded as being more dynamic because participants can hear each other's responses and provide additional comments which might not have occurred to them in individual interviews (Carter *et al.*, 2014). Focus groups give the researcher the chance to identify perspectives which are or are not shared among the participants (Morgan, 1996). Focus groups can also aid participants in their own reflections, as they can hear other opinions. This can help participants deepen their understanding of their own circumstances, attitudes, or behaviours. In addition, focus groups allow for a variety of views to emerge and therefore also for direct and explicit discussions if there are differing opinions (Ritchi and Lewis, 2003; Gray, 2004).

Particularly for the interviews with the experienced managers, it seemed to make sense to do them as focus groups due to this group dynamic. This helped develop fruitful discussions and different opinions from this homogenous group. The personal reflections which occurred during the group discussions were especially useful, as some questions referred to the manager's experiences (which might have been several years prior). Some participants were not aware of certain aspects which they had encountered in the past; they could once again recollect them due to sharing experiences with other participants. As a result, extensive data could be collected.

3.4.2.2.2 Limitations of Focus Groups

However, focus groups also have limitations. First of all, they require a noticeable amount of cooperation and enthusiasm from participants (Gray, 2004). Hence, organising a focus group can be stressful and time-consuming. Second, it can be overwhelming to manage the amount of data that results from such group discussion (Saunders, Lewis, and Thornhill, 2009). However, it was possible to replay the recordings of the interviews as often as needed during data analysis, which

helped to limit the loss of information. Ethical aspects regarding power relations and anonymity in focus groups are discussed in the research ethics chapter 3.9.

3.4.2.2.3 Video recording of Focus Groups

The focus groups within this research were video recorded to preserve gesticulation and facial expressions. This was done in order to support the researcher interpreting nuances during the analysis of the focus groups. According to Given (2008, p. 916), video recording is “a qualitative research method that involves capturing moving images, with or without sound, to study the visual details of interaction and behaviour”. This would not be possible with observing only. The available recording offers an advantage over observation as it allows repeated analysis cycles in which the researcher can process different information over time. It allows different aspects of the data to be examined at different times and in different ways (e.g. still image, slow motion). However, there is also a debate on the influence of a camera on the phenomenon being researched. But it is assumed that it has little impact on what people say or do (Given, 2008). Despite all that, video recording raises specific ethical questions regarding the maintenance of privacy and confidentiality of the participants (Given, 2008). Therefore, the researcher decided not to share images outside the research team and to limit the presentation of data to anonymous verbal descriptions.

3.4.2.2.4 Focus Group with Female Managers

In order to develop a comprehensive understanding of the topic, the semi-structured interviews were followed by three homogeneous focus groups consisting of experienced female managers. These focus groups were designed to complement the interviews. Because group dynamics often lead to the stimulation of new perspectives, they provide the researcher the chance to develop an even deeper insight into the topic (Gray, 2004). In addition, the combination of the two methods enhanced the trustworthiness of the findings of this research, which accords with the results of Lambert and Loiselle (2007).

3.4.2.2.5 Mixed Focus Group

Finally, an additional mixed focus group was held in order to explore the feasibility of the strategies developed through this study and determine whether the consequences of the interviews and focus groups would be contingent upon these strategies.

In qualitative research, samples may not always be planned, as they may evolve during fieldwork. Hence, additional data might be selected during data sampling (Guba and Lincoln, 1994; Gray, 2004, p. 324).

While both in-depth interviews and focus groups have limitations (Shenton, 2004), the combination of both methods balances them while utilising their benefits (Guba, 1981). Mixing qualitative methods allows (according to Carter *et al.* (2014)) different perspectives that could otherwise be missed. Therefore, data triangulation in qualitative research helps researchers develop a broader understanding of phenomena (Carter *et al.*, 2014).

3.4.3 Triangulation

Qualitative research can be made credible via triangulation, which means the use of multiple sources or referents to draw conclusions about what constitutes truth (Polit and Tatano Beck, 2012). According to Carter *et al.* (2014), different types of triangulation exist. Within this research, two of them were applied: method triangulation and data source triangulation.

Method triangulation takes place if multiple methods of data collection regarding the same phenomenon are applied (Shenton, 2004; Polit and Tatano Beck, 2012). Within this research, in-depth interviews, focus groups, and memos were used to reach method triangulation.

Data source triangulation happens if data are collected from different types of people to gain multiple perspectives and validate data (Carter *et al.*, 2014). This research utilised individual interviews with former mentees of the programme and experts from different fields as well as group discussions with experienced female managers. Therefore, data source triangulation was also reached, which increased the credibility of this research.

3.4.4 Memos and Journal Writing

Writing memos is an important part of grounded theory research (Glaser, 2013). According to Charmaz (2008, p. 166) it is regarded as “the intermediate stage between data collection and writing a draft of a paper or chapter” (Charmaz, 2003, 2006; Glaser, 1978, 1998).

Birks and Mills (2015) regard it as an analytical process fundamental to grounded theory analysis. Within this research Charmaz's (2006, p. 80) approach was applied “do what works for you”. Thus, the researcher of this study used memos and a journal throughout this research to record thoughts, feelings, processes, ideas and decisions in relation to this research project.

Memos were also used during and after the interviews and focus groups to record as much information as possible. The memos were also used during sampling and coding processes. This

approach helped the researcher to compare and contrast codes and concepts throughout the process. In addition, the memos were also used to record the voices of the participants, which is in line with the constructivist grounded theory approach in order to keep the meaning. Although the researcher tried to describe her own thoughts about the data in the moment, she also included congruent with the constructivist grounded theory, the voices of the participants in the memos to keep the meaning present in the theoretical results (Charmaz, 2001). Before the research, a journal was used to record conceptual ideas. Additionally throughout the research, the journal was helpful to record certain thoughts, ideas or information regarding this research. Writing memos and journal helped the researcher to verify each of the categories and it helped to reflect over possible premature conclusions about the data and became an essential tool towards the development of awareness.

3.4.5 Sampling Method

Within constructivist grounded theory research, there is no demand to focus on demographics or population representativeness with regards to the sample (Charmaz, 2014) unless and until it is necessary to understand and explore the categories and theory (Butler, Copnell, and Hall, 2018). Excessive focus on participant demographics can lead to the collection of data which lack the depth necessary to develop robust categories and do not support further theory development (Charmaz, 2014). Figure 25 outlines the sampling process.

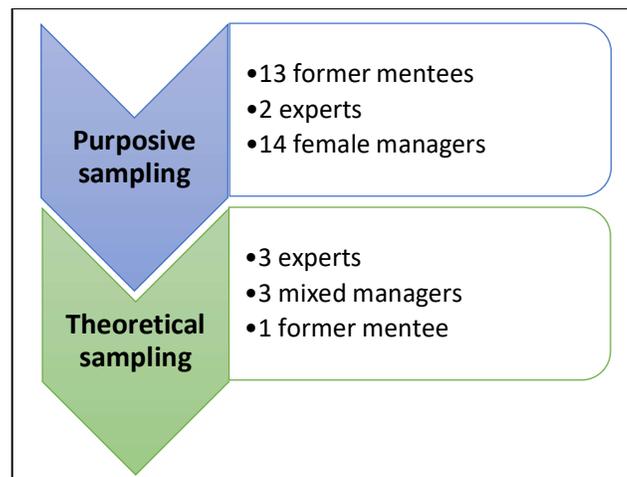


Figure 25: The applied sample process.

A diverse range of rich sources of information was sought, as the focus of this research was the richness and quality of the data. In a constructivist grounded theory approach, sampling is done in two settings. First, data collection begins with purposive sampling. After some data have been

collected and analysed and some tentative categories have been developed, the second stage of sampling (called theoretical sampling) begins (Butler, Copnell and Hall, 2018).

According to Charmaz (2006, p. 100), "initial sampling in grounded theory is where you start whereas theoretical sampling directs you where to go."

3.4.5.1 Purposive Sampling

Purposive sampling is applied to develop tentative categories and concepts (Charmaz, 2014). Former mentees, experts in different fields related to skill shortage, economic development, and gender equality, as well as experienced female managers were recruited during the first step of sampling.

One objective of this research was, among others, to provide insight into how the lives of the mentees had been influenced two years after the programme ended. The semi-structured interview method seemed to be a good choice, as it is suitable for studying people's perceptions and opinions, as reported by Given (2008).

However, the research question focused on the exploration of management actions on how to improve the programme to better meet the needs of the region in terms of skill shortages in management. Therefore, it was essential to focus on issues that were meaningful to the participants, experts, and female managers.

In addition to the interviews with former mentees of the programme, expert interviews in the field of skill shortages and advancement of women in the region East Westphalia-Lippe were also conducted. These interviews complemented the researcher's findings from the interviews already held with the former mentees and helped identify the ideal composition of the planned focus groups with female managers.

After the transcription and coding of these interviews, theoretical sampling according to Butler, Copnell, and Hall (2018) was applied. This is important, as it builds the basis for theoretical sampling.

3.4.5.2 Theoretical Sampling

Charmaz (2014, p. 192) defines theoretical sampling as "seeking and collecting pertinent data to elaborate and refine categories in your emerging theory."

In constructivism, theoretical sampling is viewed as a process of data collection to further explore concepts which were developed during prior analysis (Charmaz, 2014; Butler, Copnell, and Hall, 2018). Theoretical sampling is meant to narrow the researcher's focus on the topic in order to refine it. With the help of theoretical sampling, the researcher can explore the

boundaries of these categories, identify their properties, and discover relationships between them (Charmaz, 2014; Butler, Copnell and Hall, 2018).

Theoretical sampling is, according to Charmaz (2006, p. 103), “strategic, specific, and systematic”. Theoretical sampling depends on having already identified categories, as it is meant to expand and refine them. Therefore, it can occur in both early and late stages of research. Especially in the later stages, theoretical sampling can help demonstrate links between categories (Charmaz, 2006).

The goals of this theoretical sampling approach were the investigation of the categories found through purposive sampling, the exploration of the relationships between them, and exploration of the theory. It was searched for participants who could provide information on the areas of interest.

In accordance with theoretical sampling, two data collection approaches were used: the introduction of new research sites and seeking specific participant backgrounds. Both are explained in the next section. Engagement in these theoretical sampling processes helped the researcher construct a theory about how formal same-gender dyad mentoring for women could be adjusted to be a better tool to combat skill shortages in management.

This means that the sampling strategy employed during a constructivist grounded theory approach is unique to each study and shaped by the ideas and questions that arise from the data (Butler, Copnell, and Hall, 2018).

3.4.5.2.1 Seeking New Participants with Specific Backgrounds

To explore this concept, theoretical sampling was utilised to add new participants with specific backgrounds. Experts with specific knowledge in skill shortage and promotion of women were especially sought to develop more profound insight into this perspective.

The addition of new participants with specific backgrounds, is according to Butler, Copnell, and Hall (2018), a common form of theoretical sampling. According to Charmaz (2006, p. 96), the main purpose of theoretical sampling is “to elaborate and refine the categories constituting your theory.”

Within this research, new participants with specific backgrounds were added after one pilot interview, 13 semi-structured interviews with former mentees, two expert interviews and three focus groups with female managers.

The research participants who joined by theoretical sampling were selected according to their area of expertise. This means that depending on the topics discussed with the former participants and the categories developed from them, the researcher looked for potential

interview partners from the region and asked them to participate. Due to the small size of the region and the limited choice of experts, the researcher decided to not list the exact areas of expertise. Otherwise, the anonymity and confidentiality of the participants could not be guaranteed.

Through the analysis of these interviews and memos, tentative categories were developed.

Therefore, to explore these concepts further, theoretical sampling was used to seek initial participants. Theoretical sampling is conducted until no new properties emerge (Charmaz, 2006).

3.4.5.2.2 Addition of New Research Sites

The addition of new sites or new settings is, according to Butler, Copnell, and Hall (2018), a common form of theoretical sampling. Even Glaser and Strauss (1967) utilised multiple settings in their study for theory development. Since then, the addition of new research sites and settings has been accepted as a useful form of theoretical sampling within all forms of grounded theory, including the constructivist version of it (Charmaz, 2014; Butler, Copnell, and Hall, 2018).

Newly added settings usually have similar core characteristics to the original data collection settings, as stated by Butler, Copnell, and Hall (2018).

Within this research, a new data collection site in the form of a mixed focus group was added after the categories were developed. This focus group was arranged to check its members' understanding of the researched phenomenon. The outcome of this focus group is discussed in Chapter 4.

3.4.6 Sample Size

A total of 37 participants participated in the study. The participants consisted of 15 former mentees (including the pilot interview), five experts, and 17 experienced managers, as outlined in Table 2.

	Mentees	Experts	Managers
Pilot interview	1		
Semi-structured interviews	13	5	
Focus groups	1		4 x (4-6-4-3)
Number of participants	15	5	17

Table 2: The study's sample size.

3.4.7 Recruitment

After obtaining ethical approval from the ethics committee of the University of Worcester, the first interview participants were recruited. In accordance with Charmaz's (2014) constructivist grounded theory approach, the first participants were recruited via purposive sampling, as described in section 3.4.5.1 .

Table 3 outlines the selection criteria for the participants of this research.

Selection criteria			
	1.	2.	3.
Participants	Mentee	Participated in the mentoring programme CrossMentoring OWL in 2006.	
	Expert	Are experts in the field of skill shortages and advancement of women in the region East Westphalia-Lippe.	Do have experience working in the region of East Westphalia-Lippe.
	Manager	Do have experience with mentoring women.	Gave informed consent.

Table 3: Selection criteria of participants.

The researcher was already acquainted with the former mentees as well as some of the managers who participated in this investigation from various circles. It was therefore not a random sample. However, there were no relations to the experts.

Regarding the potential bias which may be an outcome because of the personal relationship between the researcher and some participants, it should be noted that the group of mentees formed the basis for the selection of the other study participants. Depending on the topics that arose during the interviews with the mentees, additional study participants with appropriate experience were selected accordingly. For example, the issue of the compatibility of family and work was a topic that was discussed extensively by the group of mentees. For this reason, the researcher made effort to acquire participants within the group of managers with and without children. Therefore, the researcher did not know all participating managers, with some the researcher got in touch because of recommendations within her network. The experts were chosen because of their expertise. Because East Westphalia-Lippe is a rather small region, the

options were very limited. However, the researcher aimed to recruit experts who were able to cover the aspects that arose during the interviews with the mentees and the managers. Bias can mean subjectivity, but the researcher is reflexive and thus aware of her own potential bias, as discussed in section 3.3.2.2. Applied self-reflection in the journal, as discussed in Section 3.4.4, helped the researcher to reflect on possible premature conclusions about the data and became an essential tool for developing awareness. This research addressed the issue of trustworthiness, which is the constructivist equivalent of internal and external validity, objectivity and reliability. Following a subjectivist epistemological position, constructivism emphasises a subjective interrelationship between the researcher and the participants and thus a co-constructing of meaning (Hayes & Oppenheim, 1997; Pidgeon & Henwood, 1997; Mills, Bonner, and Francis, 2006). According to Charmaz, the experiences of the researcher cannot be separated from the research or the data cannot be viewed objectively (Higginbottom and Lauridsen, 2014).

The researcher decided to not include additional details about the participants in order to protect their anonymity. This is important because the CrossMentoring OWL programme is renowned in East Westphalia-Lippe. Therefore, the protection of the participants was professionally and ethically important. This was done to avoid any harm to their private and professional lives due to participation in this research, and their protection was also important for the integrity of this study.

3.4.8 Achieving Saturation

The aim of this research was to gain saturation through the sample size. According to Strauss and Corbin (2008), data saturation is reached when no new categories emerge. As this researcher is a novice, there was concern that something important would be missed. However, as already suggested by Birks and Mills (2011), saturation is regarded as an abstract notion which is probably never fully achieved. Within this research, data saturation was understood as the point when the categories seemed to be well-developed and have clearly elaborated relationships while no new major concepts emerged from the data.

3.4.8.1 Interviews

The group of former mentees from 2015 and 2016 consisted of 21 individuals in total, out of which 14 participated within the research (if the pilot study is included). Furthermore, nine experts were also interviewed in order to develop additional insight into the topic from a

different perspective. The target group of potential interview partners was limited. The aim was to reach data saturation, which was achieved in this thesis. Otherwise, more interviews would have been scheduled.

Gray (2004) recommended that eight interviews be performed to ensure data saturation. Guest, Bunce, and Johnson (2006) identified that data saturation occurs between seven and 12 interviews, which is remarkably similar to the findings of Hennink, Kaiser, Bonnie, and Marconi (2017). These findings conform with Namey *et al.* (2016), who identify that saturation occurs between eight and 16 interviews. Braun and Clarke (2013) recommend ten to 20 interviews for medium projects. Braun and Clarke (2013, p. 16) regard a professional doctorate thesis with 30.000-40.000 words and a project timeline of three years as a medium project.

3.4.8.2 Focus Groups

Barbour and Morgan (2017) state that the typical size of a focus group is around six to eight participants. Smaller groups consisting of four to six are most useful when participants are highly engaged with the topic, whereas larger groups of eight to ten participants are most useful when people are less engaged with the topic. The focus group participants in this research were highly engaged with the topic, as all of them were experienced female managers.

The recommended number of participants for focus groups varies from four to twenty participants, according to McLafferty (2004). Whereas Kitziinger (1995) recommended four to eight, Twinn (1998) recommended four to five. Braun and Clarke (2013) recommend three to six focus groups for small projects, each consisting of three to eight participants.

Within this study, the guiding principle of Stewart and Shamdasani (1990) was followed. They suggested that there are no general rules for the optimal quantity of focus groups. They even suggested that one might be enough. Regarding group size, this thesis will follow Barbour's and Morgan's (2017) recommendation of four to six participants. This method will yield additional insights on how the programme could be improved in order to combat skill shortages in management.

3.5 Pilot Interview

Certain questions emerged from reflection on the research strategy of this study. What if the questions were unclear to the participants? What if the interview questions were disadvantageous to the research goal? Therefore, a pilot interview was conducted in order to address these topics (Saunders, Lewis, and Thornhill, 2009). The focus of this research was the experience of the former mentees during their participation in the mentoring programme, so a

former mentee was chosen for the pilot interview to ensure that she met the same criteria as the participants participating in the main study. Some adjustments to the wording of certain questions were made.

3.6 Data Analysis

Eisenhardt (1989, p. 539) stated that data analysis “is the most difficult and least codified part of the process”. However, according to Roulston (2014), data analysis starts with asking questions of interviewees and interpreting answers. The analytical approach of this data analysis was a grounded theory to identify patterns in the data. This was done because, according to Braun and Clarke (2006), it is a useful and flexible method for qualitative research which can provide a detailed and rich account of data.

3.6.1 Transcription and Translation

Initially, the researcher planned to do the transcription, but due to time limitations and pressure at work this seemed to be impossible. Therefore, a number of transcription services were investigated. The focus was on the accuracy of the transcription and delivery time. Therefore, someone with extensive experience in professional transcription was hired.

A non-disclosure agreement was signed and, after the sound wave files were emailed to her, the transcripts were sent to the researcher as Microsoft Word documents. The accuracy of the transcripts was phenomenal; only some technical terms had to be checked. There were no changes made at this stage of the data analysis process. Because the participants’ first language is German, the interviews were held in German to avoid misunderstandings.

Only quotations were translated into English by the researcher. Although the researcher has done her best to translate accurately, it must be acknowledged that some nuances of one language may be lost (Willig, 2014). Nevertheless, the researcher is convinced that it was the right decision to conduct the interviews in the native language of the participants. Had the interviews been conducted in English, some participants probably would not have been able to answer the questions in such detail.

Within grounded theory, the researcher’s goal is to know what is happening in the setting, in people’s lives, and in the recorded data. Codes emerge as the data are scrutinised and meanings within it are defined. Through this active coding, the researcher repeatedly interacts with the data, as this might lead to unforeseen areas and new research questions (Charmaz, 2006).

3.6.2 Different Logics of Coding

Charmaz (2006) made this analogy: coding generates the bones of grounded theory analysis and theoretical integration assembles these bones into a working skeleton. The main difference between Glaserian and Straussian grounded theory models relates to their approaches toward data analysis (Cooney, 2013; Alammam *et al.*, 2018). While in the original version it was described as a rather loose process, Strauss and Corbin reformulated this data analysis approach and added one step (Cooney, 2013).

3.6.2.1 Glaserian Grounded Theory

Glaser's approach includes two steps of coding, substantive and theoretical, and it is referred to as a less structured coding process (Cooney, 2013). In general, the Glaserian approach is understood to be more relaxed, as it allows for the natural emergence of a theory (Alammam *et al.*, 2018). As shown in Figure 26, there are only two steps of coding in the Glaserian approach.

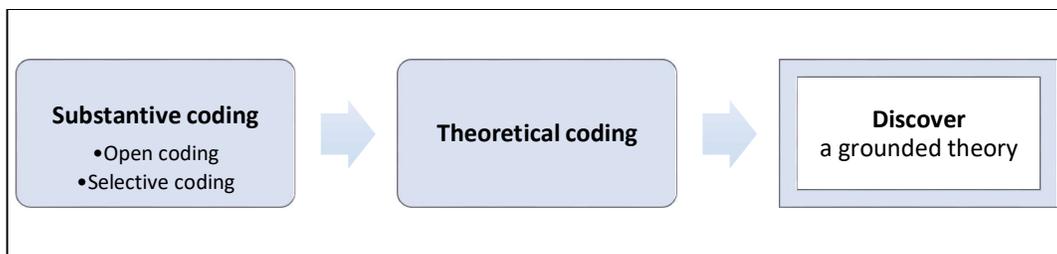


Figure 26: Classic grounded theory coding stages (Holton, 2010; Kenny and Fourie, 2015).

First, the researcher starts with open coding, which is part of substantive coding. In open coding, the researcher codes through immersion in the data and ends with the discovery of the core category. This is then followed by theoretical coding through which the researcher integrates substantive codes into a grounded theory (Rieger, 2019). The verification of the theory can, according to Glaser, only be performed via subsequent quantitative analyses that encapsulate the truth (Howard-Payne, 2016).

The Glaserian grounded theory approach can, according to Kenny and Fourie (2015), be criticised for being an inconsistent methodology, as it employs an interpretivist coding procedure within an objectivist, positivist paradigm.

3.6.2.2 Straussian Grounded Theory

The coding stages of Strauss differ from the Glaserian approach. Strauss and Corbin's analysis procedure describes three steps: open, axial, and selective coding. It therefore embodies a more

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structured coding process than the classic grounded theory approach (Cooney, 2013), as outlined in Figure 27.

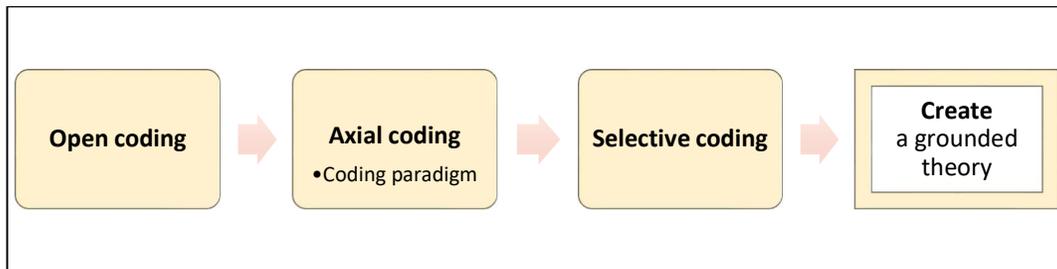


Figure 27: The Straussian grounded theory coding procedure (Corbin and Strauss, 1990).

This approach is referred to as coding with structure (Kenny and Fourie, 2015) and is meant to create theory (Alammar *et al.*, 2018). In fact, Strauss and Corbin designed a highly systematic and rigorous coding structure to create a grounded theory which closely corresponds to the data (Corbin and Strauss, 1990; Strauss and Corbin, 1998; Kenny and Fourie, 2015).

The main controversy involves the addition of axial coding (Kendall, 1999; Kenny and Fourie, 2015; Rieger, 2019). Axial coding serves to refine and differentiate concepts that are already available and lends them the status of categories. A network of relationships normally develops around a centred category with the help of a coding paradigm, as shown in Figure 28.

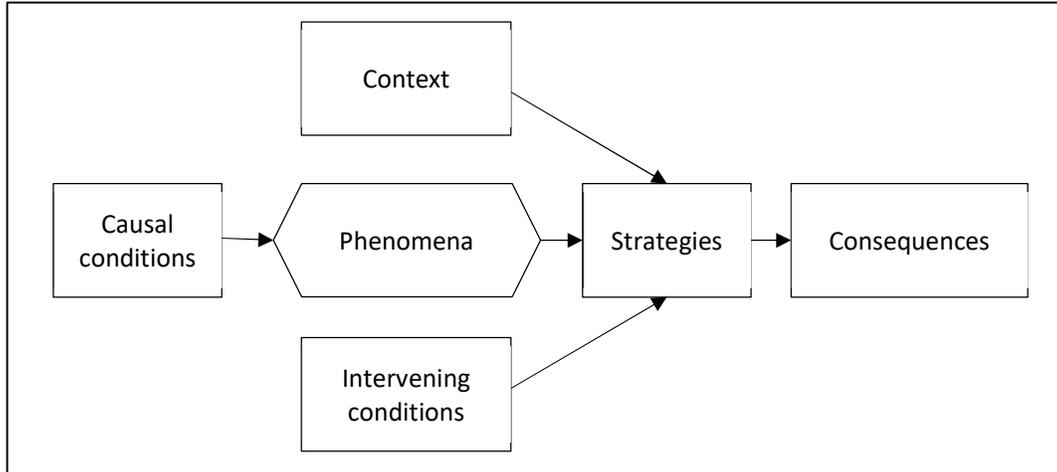


Figure 28: Coding paradigm (adapted from Morrow and Smith, 2007, p. 293).

The development of relationships between the axial categories and the concepts that are related to them in terms of their formal and content aspects is of particular importance for theory formation. The phenomenon denoted by the axial category might be an event or a fact (Böhm, Glaser, and Strauss, 2004).

Utilisation of diagrams and mapping to visualise relationships between categories is a common procedure. The proposed relationships are considered provisional until they are repeatedly

verified against incoming data (Alammar *et al.*, 2018). With the help of a coding paradigm, the conditions, context, strategies, and consequences are related to a category (Corbin and Strauss, 1990).

The coding paradigm is an organising scheme that helps the researcher connect subcategories of data to a central idea or phenomenon. It helps the researcher think systematically about the data and poses questions about how categories or data relate to each other. There are six predetermined subcategories that guide data collection and analysis. The axial category is the concept that holds the sections together. The causal conditions are the variables or events that lead to the occurrence or development of the phenomenon (Kendall, 1999).

Strauss and Corbin argue that the paradigm model can train grounded theory researchers to think in more complex, systematic, and accurate ways. According to them, using the paradigm model is similar to thinking of cause and effect, which is commonly used to explain why and how phenomena occur. The usage of the model is meant to help researchers capture as much of the complexity and movement in the real world as possible (Kendall, 1999).

In order to verify the created grounded theory, constant comparison and capturing of multiple perspectives are necessary, according to Strauss and Corbin (Corbin and Strauss, 1990; Howard-Payne, 2016).

3.6.2.3 Constructivist Grounded Theory

Charmaz proposes a fluid framework with at least two coding stages, as outlined in Figure 29. She stresses the principle of flexibility in particular, insisting that the researcher must “learn to tolerate ambiguity” and “become receptive to creating emergent categories and strategies” (Charmaz, 2008).

First of all, during initial or open coding, the researcher is advised to code for actions and potential theoretical cues rather than themes. Charmaz recommends using gerunds and in vivo codes, as the researcher can utilise the language of the participants as codes. In the next stage, refocused coding, the codes which are particularly significant in illuminating the studied phenomenon must be identified. The researcher is advised to elevate these codes as provisional theoretical categories which subsequently undergo selective or focused coding. Memo writing is particularly important, as it helps the researcher interpret the phenomena under investigation and construct a theory (Kenny and Fourie, 2015).

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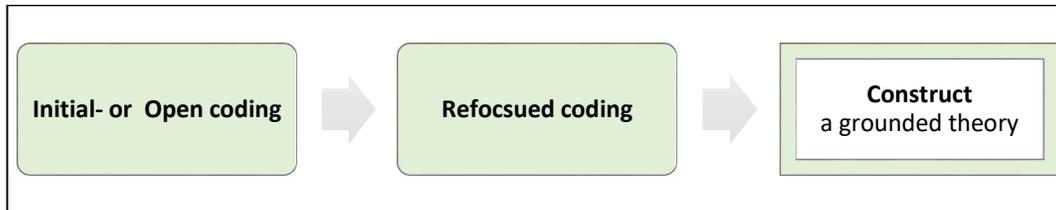


Figure 29: Coding stages in the constructivist grounded theory approach.

This coding procedure is more interpretative, intuitive, and impressionistic than Glasserian or Straussian grounded theory (Charmaz, 2006). Constructivist grounded theory research typically concludes with the researcher's interpretative understanding of how the participant creates his or her understanding and meaning of reality instead of an explanation of the studied social process. The analysis (which relates to time, culture, and context) thereby reflects both thought processes from the participant and the researcher (Hallberg, 2006).

For this research, constructivist grounded theory method was applied while following the coding procedure of Strauss. As this researcher is a novice, the Straussian coding approach helped her develop categories and identify the relationships between them. Due to her lack of experience, it seemed to be a good choice to apply a more structured coding procedure than Charmaz' intuitive approach. The organising scheme called "coding paradigm" and developed by Strauss and Corbin was used to help the researcher relate the categories and subcategories. The number of coding steps and the use of a coding paradigm are the only deviations. The rest of the study follows Charmaz' recommendations regarding a constructivist grounded theory approach.

3.6.3 Theorising in Constructivist Grounded Theory

According to Charmaz (2014, p. 233), theorising in constructivist grounded theory provides at its core the "fundamental contribution of grounded theory methods, residing in guiding interpretive theoretical practice, not in providing a blueprint for theoretical products". This study is meant to give an insight into the research participants' experience and develop a thematic framework that associates skill shortages in management with the effectiveness of the "CrossMentoring OWL"- mentoring programme.

The research invites the reader to interpret the findings, allowing the development of new perspectives and meanings. The reader plays a vital role in process development within this study and necessitates a deeper understanding, emphasising the philosophical notion of multiple realities. According to Charmaz (2014), it is vital to understand the concept of theorising rather than discovery theory. The applied constructivist grounded theory implies that this

research is meant to understand rather than objectify the participants' experiences. This is especially true because "theorising" attempts to answer the "how" and "why" questions raised within the objectives of this research, rather than "what" questions.

Birks and Mills (2015) draw emphasise the potential controversy when using existing models to develop a theory within constructivist grounded theory, suggesting that theorists seek to generate a theory that is grounded in the research data instead of trying to fit into a theory that has already been theorised.

3.6.4 Applied Analysis Process General Analysis Process

According to Morse *et al.*, (2009), a grounded theory approach must follow some key principles. These principles are: (a) initial coding and categorisation of data; (b) concurrent data generation and analysis; (c) memo writing; (d) theoretical sampling; (e) constant comparative analysis using inductive and abductive logic; (f) theoretical sensitivity; (g) intermediate coding; (h) identification of a central category; (i) theoretical saturation; and (j) theoretical integration. The design of this research is guided by these characteristics (Morse *et al.*, 2009).

The researcher used qualitative data analysis softwares (QDAS) called NVivo and Microsoft Excel. QDAS are well-established research tools in qualitative data analysis, according to Woods *et al.* (2016) and Gibbs (2014). Figure 30 outlines the utilised data analysis process. First of all, the gathered data were transcribed before the information was distilled, reorganised, and verified with the help of NVivo and Excel.

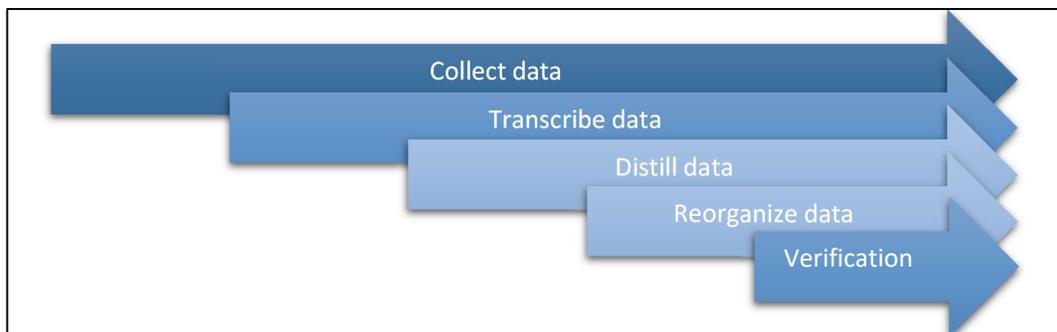


Figure 30: Data analysis process.

This process should outline that, even at the stage of data verification, it is still possible to gather more information if necessary. This method is based on the interactive model of Miles and Huberman (1994), which defines the data collection process as a continuous process. This matches this research's analysis, which was informed by grounded theory.

3.6.4.1 NVivo

The coding process was started and supported by the software NVivo 12. The software uses the term “node” for codes and is relatively flexible with regard to reorganisation. An advantage of it is that all documents related to a project can be stored within one project, which helps researchers not forget any important information. However, not all of the data analysis was conducted in NVivo; some of it was performed in Microsoft Excel, as this facilitated analysing patterns and relationships. Therefore, NVivo was mainly used for the first and second rounds of coding (open coding and focused coding, respectively). The aim of the coding was to generate descriptive themes through the support of code categories, as shown in Figure 31.

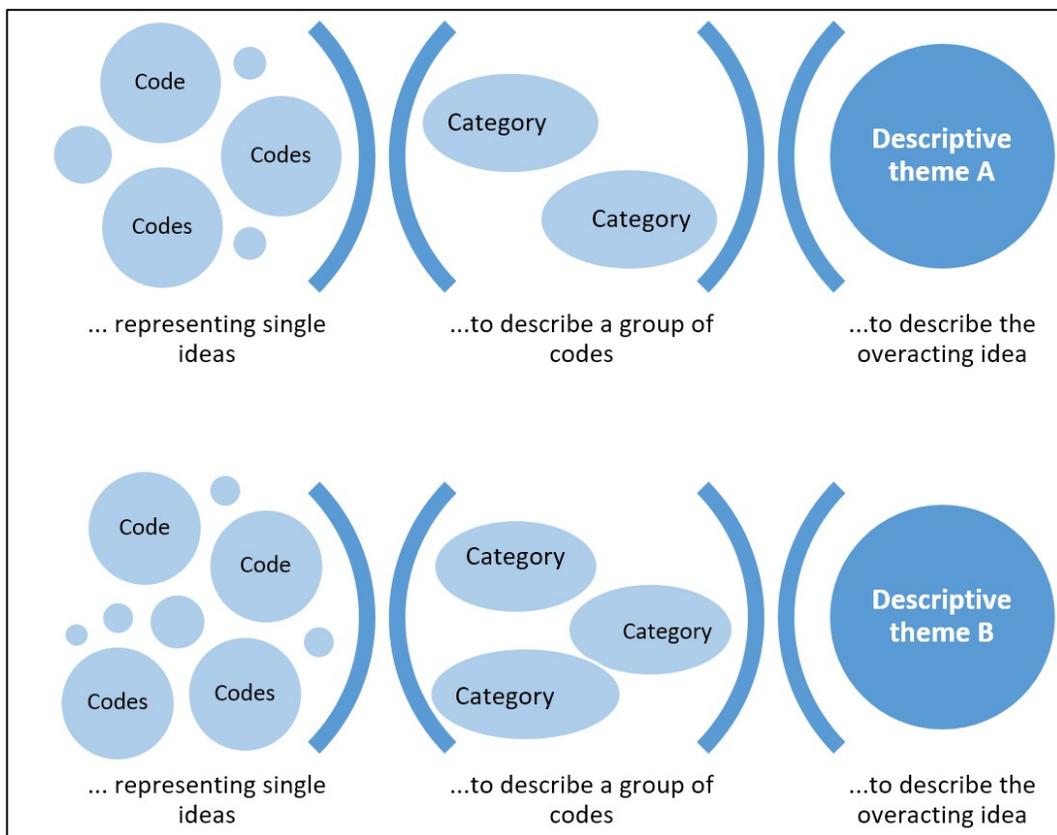


Figure 31: Coding process.

3.6.4.2 Different Stages of Coding

The data was coded in segments. The researcher tried to keep the codes as close as possible to the research question. Hence, the researcher tried to avoid getting too much carried away by the richness of information. Thus, the researcher kept on going back and forth between the codes, the transcripts, the recordings and her notes. Based on the constructivist approach the codes were constructed through the data. Hence, new participants led to new findings, thus to

new codes or to the adaption of the codes. This means, the researcher went through all codes all over again to see if they have to be adopted.

3.6.4.2.1 Selection of Codes

Qualitative codes are used to break down data segments and define with a short name what the data is about. Coding is therefore the first step in making analytical interpretations of your data (Charmaz, 2006). In a constructivist grounded theory approach the codes are constructed by the researcher (Thornberg and Charmaz, 2014). According to Glaser (2002) the researcher's own meanings and values can dictate how interpretations are made and reflected upon from the narrative between participant and researcher. And as a result, the participant's voice is somewhat lost and the meaning can be distorted by the researcher. Nevertheless, the researcher is confident that this is not the case. The reason for this is that according to Charmaz (2014), constructivist grounded theory is an interactive process in which data is continuously analysed in terms of its meaning, interpretation and action. During the process of coding, newly created data is examined (Glaser, 1978) while further data is collected. As a result, findings are defined that are worthy of being categorized. For this very reason constructivist grounded theory is an "iterative process of simultaneous data collection and analysis" (Charmaz and Bryant, 2010, p. 406). The codes chosen show "how you select, separate, and sort data to begin an analytic accounting of them" (Charmaz, 2006, p. 43).

According to Charmaz (2014), constructing the codes is a challenging learning process for the researcher when it comes to his or her own preconceived ideas about a topic. During the process of trying to understand the world of the participant and the researcher, both the objective and the subjective are continuously questioned. This means that analytical questions are asked and the data, which are constantly being compared, are further developed towards theory building.

3.6.4.2.2 Process of Code Selection

In grounded theory the process of code selection is performed by "constant comparative methods" (Glaser and Strauss, 1967, p. 101) to make analytical distinctions. At every level of analytical work you compare data with data to find similarities and differences (Charmaz, 2014). Because constant comparison is central to grounded theory coding it requires the researcher to review transcripts and notes as soon as any observation or interview has taken place. The aim is to detect trends or themes in the data (Glaser and Strauss, 1967). With the help of theoretical sampling - which was discussed in section 3.4.5.2 - the identified trends or themes can be pursued. The process remains the same throughout the analysis and aims to identify similarities

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and differences between the resulting categories. It is vital to make comparison between “data and data, data and codes, codes and codes, codes and category, category and category, and category with concept” (Charmaz, 2014, p. 342). Until categories were defined, similar codes were combined into a superordinate code to bundle their meaning. The constant comparison method is a tool that is constantly used throughout the data analysis which is demonstrated in the following sections.

3.6.4.2.3 Initial and Open Coding

Open coding was done in German, as the interviews were conducted in German and the researcher’s first language is German. Nuance was thereby not lost in translation. In this procedure, the researcher repeatedly read the transcripts to develop a sufficient understanding of the information. Open coding led to 281 codes, as shown in the lower left corner of Figure 32.

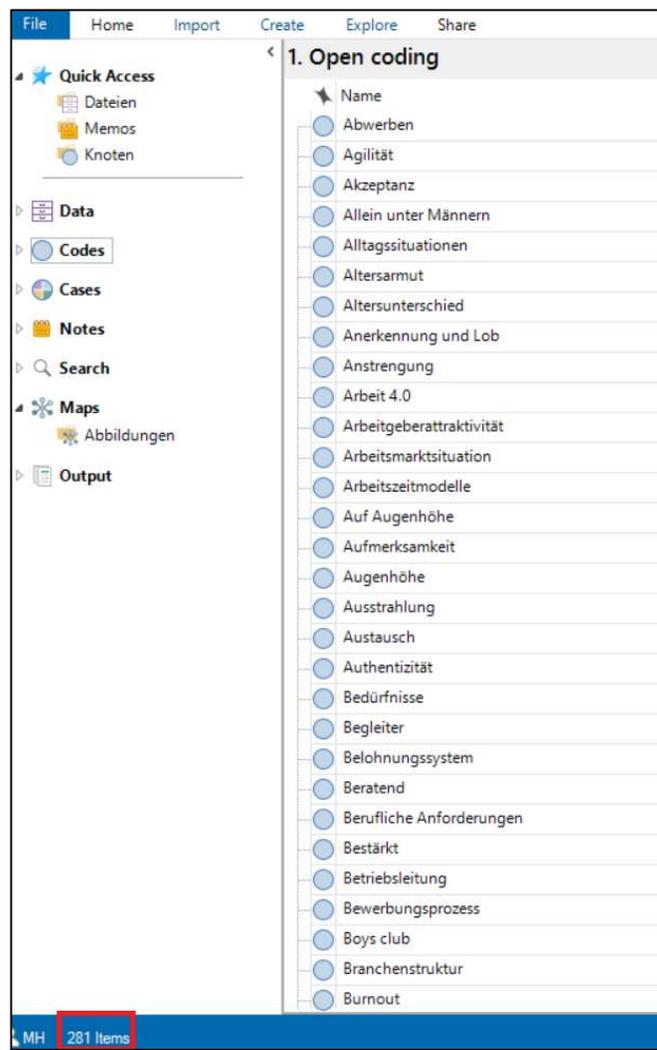


Figure 32: Open coding in NVivo 12.

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According to Charmaz (2006), the aim of initial coding is to mine for analytical ideas in order to pursue collection and analysis of further data. It is important to remain open to all possible theoretical directions indicated through repeated data analysis.

3.6.4.2.4 Focused Coding

According to Charmaz (2006), focused coding is used to pinpoint and develop the most prominent categories in large batches of data. Within this research, focused coding led to the development of 28 categories, as outlined in the lower left corner of Figure 33.

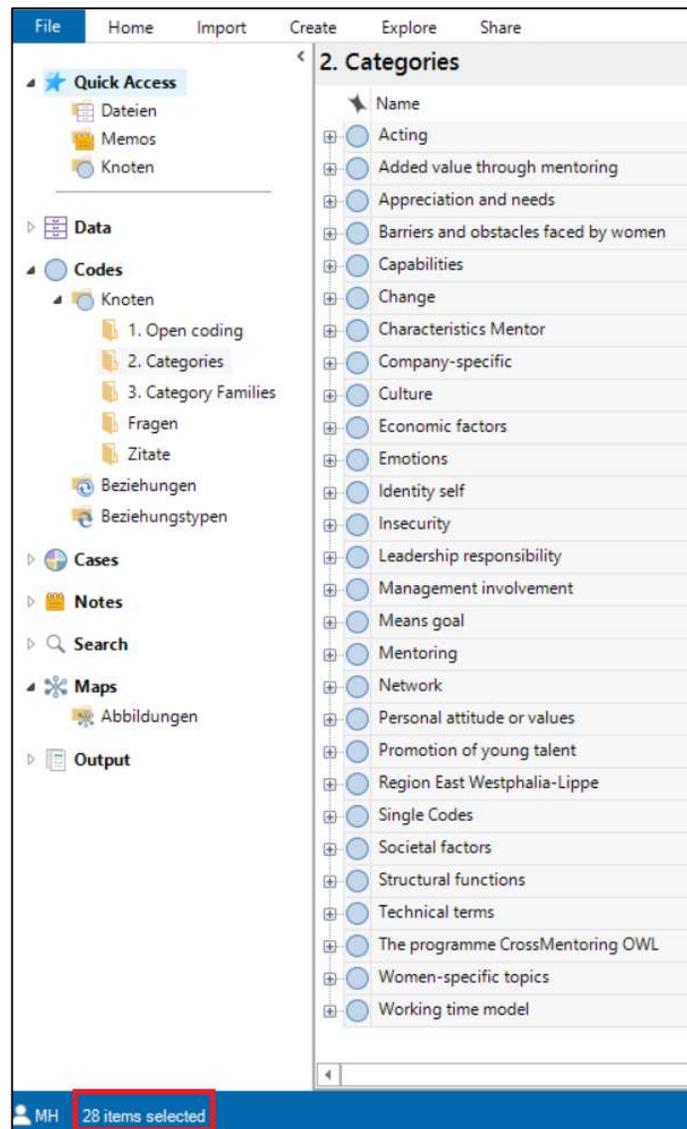


Figure 33: Focused coding in NVivo 12.

Focused coding is the beginning of theoretical integration and proceeds through all subsequent analytic steps (Charmaz, 2006). The terms for the code categories were in English. As a code

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category comprises more codes than one, it is easier for a non-native speaker to find suitable terms without the risk of losing too many details due to translation. All of these terminologies were discussed with a native English speaker to ensure accuracy of the translation. Within the next step, the 28 categories were grouped into four category families (also called descriptive themes), as outlined in the lower left corner of Figure 34.

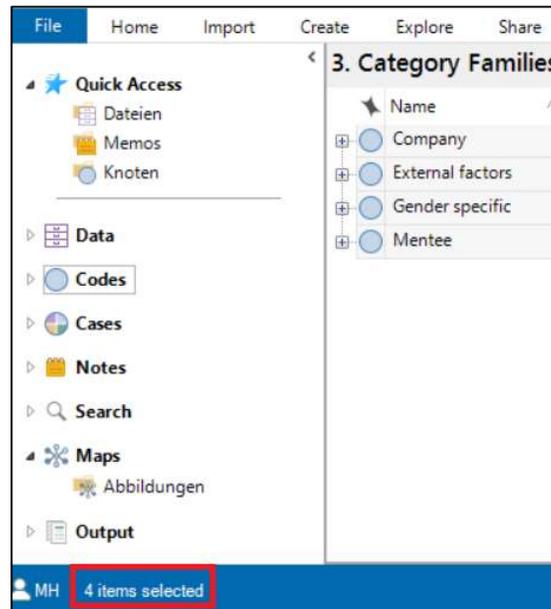


Figure 34: Category families in NVivo 12.

3.6.4.2.5 Selective Coding

The aim of selective coding is to maintain a central proposition of the subject under investigation. However, this endeavour is difficult, as one readily becomes distracted by other seemingly important details. Through selective coding, the researcher lets the data tell a story. The story is mostly focused on one core category and shows relationships to other important categories. The coding paradigm plays a vital role in this step, as it helps the researcher outline the properties, dimensions, and relationships of all relevant categories.

3.6.4.2.6 Coding Paradigm

Kelle (2007, p. 201) states that the coding paradigm “fulfils the same function as a Glaserian coding family; it represents a group of abstract theoretical terms which are used to develop categories from the data and to find relations between them”. After the relationships to the core category are defined, it is important to compare their regularities and patterns. It is the researcher’s obligation to document the route from the data to the categories in every detail (Böhm, Glaser, and Strauss, 2004).

Rationale for Using the Coding Paradigm

According to Kelle (2007, p. 204), the coding paradigm is “specifically linked to a micro-sociological perspective on social phenomena emphasizing the role of human action and agency in social life.” Thus, the coding paradigm is a good fit for this research. Taking into consideration that the researcher is a novice and thus has limited experience in the application of theoretical knowledge, the application of Strauss and Corbin’s coding paradigm helps to use grounded theory methodology without the risk of being overwhelmed by the data. Generally speaking, the coding paradigm is regarded as a more user-friendly concept as it is more instructive and thus especially helpful for novice researchers (Kelle, 2007).

Development of Categories

The CrossMentoring OWL programme, as discussed in chapter 1.1.5, is meant to assist in the recognition and development high-potential females’ potential and competencies. It is also meant to help companies increase their levels of diversity within their management teams.

There are many influencing factors which must be considered when establishing strategies to accomplish the set goals.

Strauss and Corbin advise the researcher to build a skeleton or an ‘axis’ for the developing categories and their relations (Kelle, 2007). Hence, after the initial data was gathered and analysed the first concepts were developed. These concepts were then compared with others to highlight similarities and differences. As soon as different incidents appeared to resemble the same phenomena, they were grouped together. As a next step, categories were developed in the same way as the concepts were, through constant comparison. Categories are more abstract than the concepts which they represent (Corbin and Strauss, 1990).

Thus, categories and the related higher and lower concepts were developed through the coding process. Next, the researcher has to relate the developed categories to the six different rubrics outlined by Strauss and Corbin, including: (1) phenomena, (2) causal conditions, (3) context, (4) intervening conditions, (5) actions and strategies to handle the phenomena and (6) consequences of their actions and interactions, in order to develop an ‘axis’ for the grounded theory (Kelle, 2007).

Because both goals of the programme are closely linked to the theme “Corporate Factors”, it was identified as the central phenomenon. As discussed in chapter 4.6.2, corporate structure and culture play a central role in accomplishing programme’s goals. This category is directly influenced by the theme “Gender Specific”. The causal conditions are influences on the central phenomenon. This is why the theme “Gender Specific” was declared to be one of them. This

category refers to why women seek same-gender mentoring, and it was explained in detail in chapter 4.4. When developing strategies for improving the programme, one must seriously regard possible influences and constraints. Therefore, the theoretical categories of context and intervening conditions were also defined.

Context pertains to conditions which influence the strategy, which is why the theme “External Factors” was designated as context. These factors are, as discussed in chapter 4.7.1, the economic, societal, and legal factors which directly influence strategies. The intervening conditions are the factors which shape and facilitate the developed strategies. Therefore, the theme “Mentee” was identified as an intervening condition. This category contains the programme’s influences on the mentee’s private and professional life, as discussed in chapter 4.5, as well as the necessary ambition of a mentee, which was discussed in chapter 4.6.3. As such, this theme can shape strategies developed for the programme. In chapter 4.7 it will be discussed in detail why some of the categories can be directly influenced by the programme and others cannot. All of this informed the recommended changes to practice discussed in chapter 4.8. The “strategies” and “consequences” refer to methods of improving the programme so that it better meets the needs of the region in terms of skill shortages, and these are discussed in the following chapter 4.8. “Future Prospects”.

3.7 Role of the Researcher

The aim of the researcher in qualitative research is to gain insight into experiences of individuals participating in the study and discover the nuances in their stories (Jacob and Furgerson, 2012). According to Leckie (2008), the researcher in qualitative research has a multiplicity of often simultaneous roles and responsibilities. Most of the roles are intuitive and commonly understood, which is why they are rarely discussed in research. However, the role of the researcher in relation to study participants is debated endlessly across all disciplines in which qualitative research has both methodological and epistemological acceptance (Leckie, 2008). Leckie (2008) divided the role of the researcher into two sections: tacit roles and interactionist roles.

3.7.1 Tacit Roles

Leckie (2008, p. 772) stated that tacit roles “have to do with the knowledge and commonly understood practices that the researcher brings with him or her to the study concerning how scholarly research should proceed”. According to Leckie (2008), tacit roles of the researcher

include the roles of an “ideas” person, research administrator, manager, research ethicist, and mentor.

3.7.1.1 “Ideas Person”

In any of the tacit roles, the researcher is regarded as an expert who is therefore responsible for ensuring that the research proceeds according to accepted procedures and standards. This role begins at the conceptualisation phase of a research process, as at this stage the researcher is already using her prior knowledge of an area of study within a discipline or even across disciplines (Leckie, 2008). Leckie (2008, p. 772) refers to this role as the “ideas person”. The researcher maintains this role throughout the research.

For this study, the researcher was the “ideas” person, as she is a female manager in a male-dominated industry who once participated in the mentoring programme. Because of this, she had enough experience to conceptualise the research as such. In addition, the researcher maintained a critical awareness of the issues under investigation to determine whether further examination is needed, as was recommended by Leckie (2008). Among other responsibilities is the researcher’s obligation to ensure that the research is meaningful in terms of its contribution to knowledge and practice (Leckie, 2008).

3.7.1.2 Research Ethicist

In qualitative research, ethical considerations are at the forefront and should not be underestimated (Hiles, 2008). The researcher is aware of the importance of ethical considerations, so a separate section of this paper is devoted to it. For further details, please refer to section 3.9.

3.7.1.3 Manager and Administrator Role

As the manager and administrator of this study, the researcher tracked it to ensure that its further development was satisfactory. Leckie’s role of “mentor” refers to researchers who have graduate students or research assistants. Such individuals work with whoever needs the support of a mentor, but this role did not apply to this research.

3.7.2 Interactionist Roles

Leckie (2008, p. 772) defines interactionist roles as roles that “have to do with how the researcher conceptualizes and frames his or her role in relation to study participants and what effect the researcher’s presence might have on the thoughts and actions of research participants

and the knowledge that accrues from the study.” According to Leckie (2008), a researcher’s interactionist roles are: non-participant, complete observer, observer as participant, participant as observer, complete participant, complete member, insider researcher, outsider researcher, friend, mentor, negative agent, parent, professional, social activist, therapist, and the reflexive role.

In this study, the researcher had the role of “observer as participant” in the focus groups. The researcher was present and asked the questions. However, she primarily observed the discussions of the participants. The group was former mentees who had participated in the mentoring programme, a group to which the researcher belonged. The researcher is a female manager and therefore part of the other interviewed group. Thus, the roles of the “complete participant” and the “complete member”, according to Leckie's (2008) definitions, applied to the researcher of this study.

3.7.2.1 Insider and Outsider Researcher

Other key roles which arise during the course of a qualitative study are the roles of an “insider-and/or outsider researcher”. Given (2008) regarded an “insider researcher” as somebody who is part of the investigated topic. This was the case in this research, as the researcher is a female manager in East Westphalia-Lippe who has participated in the CrossMentoring OWL-programme. Thus, the researcher will be part of the topic. There were also private relationships between the researcher and the participants, so the researcher had the role of a “friend” within this study, according to Leckie’s (2008) definition. That is the reason why most, if not all, participants trusted the researcher and did not regard her as an “outside researcher”. This fact is particularly important with the mentees, as there was particular interest in their experiences, problems, challenges, failures, fears, ambitions, and success stories. This means that the researcher especially heeded the fact that she could have been aware of sensitive topics which the participants do not want to be included in the study. Further discussion on sensitive topics within this research can be found in section 3.9.3. The role of a “professional” was fulfilled by the researcher, and her professional experience aided her in gaining access to certain experts and communities (Leckie, 2008).

3.7.2.2 Reflexive Role

Another important role of the researcher during a qualitative research is the “reflexive role”. This means that the researcher must reflect on her role and on the general nature of the relationship between the topic and the researcher (Leckie, 2008). Curiosity and passion for this

topic arose because of the researcher's experience. After an in-depth literature review, the conceptualisation of the project started, and it became clear how focused the research needed to be for meaningful results to be acquired.

Within qualitative research, the reflexive role begins when defining the epistemological assumptions and theoretical frameworks applied for the research (Leckie, 2008).

Colleagues and friends initially challenged the scope of this research project. They questioned whether a qualitative approach was a suitable one. Essentially, they doubted that an analysis of a mentoring programme of East Westphalia-Lippe could offer anything of value. Furthermore, they doubted whether this study could contribute to developing a theory. They trusted figures more than words, so they thought a quantitative approach would have been a better choice. After long hours of more closely examining the available epistemological positions, the researcher realised that the challengers of this project had different worldviews. It is important to mention that an individual researcher completed this study. Therefore, the aforementioned tacit and interactionist roles were adopted by the researcher.

3.8 Research Quality

According to Charmaz (2006, p. 18), "the quality – and credibility – of your study starts with the data". In order to enhance the trustworthiness of this qualitative study, a five-phase-framework developed by Kallio *et al.* (2016) was followed. It observes Lincoln's and Guba's (1985) principles of credibility, confirmability, and dependability. Trustworthiness is the constructionist equivalent of internal and external validity, objectivity, and reliability. It consists of four components: dependability, credibility, transferability, and confirmability (Esin, Fathi and Squire, 2014). The concept of trustworthiness is relevant for this qualitative research. Like with any qualitative research, it is important to ensure transparency in order to establish quality (Hiles, 2008).

Embedded in the constructivist paradigm, an extension of the trustworthiness criteria is the principle of authenticity (Schwandt, Lincoln and Guba, 2007). By this, questioning the way interpretations are made and how this process has developed is possible (Johnson and Rasulova, 2017). These authenticity criteria including fairness, ontological authenticity, educative authenticity and catalytic authenticity are meant to be part of an inductive, grounded and creative process (Schwandt, Lincoln and Guba, 2007). Based on the assumption that people and groups have different value systems that affect their constructions, the authenticity principle

thus is concerned with fairness and negotiation to help address ethical and ideological problems. Based on a constructivist epistemology, the main mechanism for the authenticity principle is negotiation. For all these five principles of authenticity, achieving consensus is the goal. The authenticity principle promotes recognition of diversity of values and constructions (Johnson and Rasulova, 2017). However, as stated by Johnson and Rasulova (2017, p. 271), “it is unclear how exactly consensus is to be reached or how disagreements are dealt with”. Therefore, it is not further followed in this research. In Appendix 3.4, additional information about the quality of this research based on Charmaz's (2006) as well as Birks's and Mills's (2015) quality criteria are provided.

3.8.1 Confirmability

Confirmability was reached by making the research process as transparent as possible and by outlining the data collection in detail (Jensen, 2008). Hiles (2008, p. 891) stated “Transparency is the key”. Unfortunately, it is too often taken for granted despite its urgent necessity in qualitative research (Hiles, 2008). As this research was situated in a subjectivist epistemological position and a relativist ontological position, the researcher cannot be separated from the subject under investigation.

3.8.2 Dependability

Dependability refers to the possible replication of a study under the same conditions (Shenton, 2004) and the consistency of the study results (Hays et al., 2016). Therefore, an audit trial was implemented to attain dependability of the study results. In addition, interview protocols and scripts were used to standardise the data collection process. The research process was made as transparent as possible in order to address the concept of dependability. However, a well-known limitation of qualitative studies is the inability to replicate their results due to the natural setting (Patton, 2015).

3.8.3 Credibility

Credibility refers to accurate recording of the subject, as reported by Shenton (2004). Selecting appropriate data collection methodology is an essential basis of the study results' credibility, as stated in Kallio *et al.* (2016). This study was meant to address credibility through a detailed description of the research process and coherent conclusions.

3.8.4 Trustworthiness

According to Esin, Fathi, and Squire (2014, p. 576), trustworthy materials are “subjected to the constant comparative method of analysis that grounded theory deploys, that is, comparing incidents applicable to categories, integrating categories and their properties, delimiting and writing the theory.” This research addressed the issue of trustworthiness: it was conducted according to the guidelines of the University of Worcester’s Handbook of Research Ethics.

3.8.5 Experience of the Researcher

This research was the first qualitative study conducted by the researcher. As such, she lacked experience. However, a considerable amount of academic literature related to qualitative studies was reviewed. Nonetheless, the findings of the research might have been impacted by the inexperience of the researcher (West and Byrne, 2009). This research was conducted according to accepted ethical and methodological standards, and the researcher spared no effort in ensuring that the research is meaningful to the discipline and society in general. A more detailed discussion on the quality of this research is provided in the Appendix 3.4 “Judging the Quality of the Study”.

3.9 Research Ethics

As stated by George (2016, p. 4), “[c]onducted ethically, research is a public trust.” According to Saunders, Lewis, and Thornhill (2009, p. 188), the general ethical issues of research are: privacy, voluntary nature, consent, deception confidentiality, anonymity, embarrassment, stress, harm, discomfort, pain, objectivity, and quality of research. Such questions are often of ethical nature, according to Olivier (2003). The research and data collection were based on informed consent. Discussing experiences was likely emotional for participants. This research needed to account for these sensitivities, as participants might have felt exposed and vulnerable. Participants possibly feared negative impacts on their careers through the participation in this study. In addition the fact that the researcher has both an insider and outsider role, it is especially important to look at research ethics in more detail.

Therefore, anonymity and confidentiality are of utmost importance. The goal of qualitative research is to gain a rich understanding, as stated by Constantinou, Georgiou, and Perdikogianni (2017).

3.9.1 Ethical Research

Qualitative studies are meant to not only contribute to knowledge and practice, but also transform the lives of participants. However, this research was only meant to contribute to knowledge and practice. Qualitative researchers work closely with participants, sometimes even in sensitive situations. These scholars must develop relationships with their participants in order to understand their responses (Given 2008). Especially in social sciences in which data are collected from people, questions must focus on how participants should be treated.

Interpretive research tends to be more intimate and open-ended, so the participants' privacy can be compromised. The researcher must protect the participants' interests during the research (Howe and Moses, 1999). Studying a mentoring programme for female managers reflects a real-life situation, and this study was meant to gain a rich understanding of the context. According to Dickson-Swift *et al.* (2007), qualitative research is also a challenge for the researcher. A study determined that such challenges include, among others, the use of researcher self-disclosure, listening to untold stories, feelings of vulnerability and guilt, and researcher exhaustion.

Within this research, the main ethical problems were the interest in the experiences of the participants and anonymity of the target group. The participants might have feared influence on their careers through their participation. The research followed the university's ethical approval processes to ensure that ethical rigour was maintained. Relevant university ethical approval processes were utilised to document this in detail.

3.9.2 Participant Recruiting

Participants were invited to participate in the study voluntarily. Furthermore, participants could withdraw at any stage during the process. Ethical consent was gained from participants through a signed form which detailed the full objectives of the study, how the data would be used, and how confidentiality would be maintained. A limited "cooling-off" period was offered as well, in case participants reconsidered the use of their personal narratives after the interviews.

3.9.2.1 Participant Information Sheet

All of the participants were invited through emails which included participant information sheets. Before they decided whether to participate, it was important that they understand why the research was being conducted and what it would involve. Therefore, they were asked to read the participant information sheet carefully and contact the researcher if they had any

questions. They had at least 14 days to decide whether they wanted to participate. Follow-up emails were sent if the participants did not contact the researcher within 14 days. It is important to mention that there was no compensation or incentives offered or given to the participants. An example of a participant information sheet is provided in the appendix of chapter 3 “Methodology”.

3.9.2.2 Consent Form

A participant information sheet translated into German was sent to the participants with the emails. The participants were asked to sign consent forms before the interviews. In addition, they were again asked during the interview about whether they were fully informed about what their participation in this study involved. An example of a consent form is provided in the appendix of chapter 3 “Methodology”.

3.9.2.3 Mentees

The former mentees who were recruited for the interviews had participated in the same mentoring year as the researcher in 2015-2016. The group had remained privately in contact since the programme ended and met regularly. Therefore, the contact details were known to the researcher.

3.9.2.4 Managers

The researcher is member of several associations of managers in East Westphalia-Lippe and therefore used her networks to recruit managers as participants. Most of the associations have regular meetings after work, so accessing contact details of managers was not a problem. However, the challenging part was finding time slots wherein all participants of a focus group could meet. It was difficult to coordinate their schedules.

3.9.2.5 Experts

Institutions like the Chamber of Industry and Commerce, the Equal Opportunity Office in East Westphalia-Lippe, the Competence Center Women and Career in East Westphalia-Lippe, the Economic Development Corporation of Bielefeld, and the Intelligent Technical Systems Office of East Westphalia-Lippe were approached through their official email addresses. Their participation helped the researcher gain even deeper insight into the topic.

3.9.3 Sensitive Topics

As stated in Wiles (2013, p. 67), “[t]he greatest risk in social research is to researchers’ and their participant’s emotional and psychological well-being.” Every kind of activity poses some level of risk, so research participation does as well. It is, according to Wiles (2013), impossible to identify all risks that a participant might encounter. Nevertheless, the researcher was responsible for ensuring the well-being and safety of the participants. This is especially true due to the fact that this research covered sensitive topics on account of the researcher’s special interest in experiences. In order to protect the participants’ well-being, the researcher had an obligation to sense any unspoken expressions of reluctance to continue to participate during data collection, as stated in Wiles (2013).

This research involved collecting data relating to sensitive topics, as participants – especially former mentees and female managers – were asked about their experiences. Therefore, some data were related to sensitive topics. If participants needed personal support due to the interview unearthing unaddressed personal issues, the research directed participants to supportive resources (e.g. organisational counselling). Support information was also provided on the participants’ consent form. Significant concerns over participants’ well-being were immediately escalated to the supervisory team for advice and guidance.

3.9.4 Power Relations

Power relations between the participants and the researcher are key considerations within ethical research. No matter which power relationship the participants and the researchers have, the consent to participate must be freely given and not based on encouragement. The researcher did not hold authority over any of the participants; none of them was an employee or supervisor.

The researcher attempted to ensure that participants were always fully informed of the study’s purpose and possible implications. The participants were informed about who to contact in case they had any complaint or worries about any aspect of their involvement in the study, as suggested by Wiles (2013, p. 60).

Especially regarding the focus groups, the researcher ensured that none of the participants had power over another participant in the group. This was possible because the participants were recruited from different networks known to the researcher.

3.9.5 Right to Withdraw

Sometimes participants are not aware of the fact that they can withdraw from something to which they have agreed. The participants of this research were repeatedly informed, both in writing and orally, that they could withdraw from the study at any time for any reason. The interviewees had 14 days after the interview to decide to withdraw. If they wished to have their data withdrawn, they needed to contact the researcher with their participant numbers. If they did this, their data were not used. The focus group participants were informed that withdrawal was possible within 14 days after the interview. However, the removal of data provided might not have been possible, as the removal of some data might compromise the understanding of other data.

3.9.6 Confidentiality

In order to avoid the data being used to identify the participants, their identities were separated from the information. Pseudonyms or aliases were applied to link data from the same source, as was suggested by Iphofen (2011). However, according to Wiles (2013), confidentiality through the process of anonymity can only be sought, not guaranteed. This was made clear to the participants at the consent stage as well as at the beginning of each interview and focus group.

3.9.7 Anonymity

Participation was anonymous to ensure data protection and to avoid any harm to the participants' careers. Anonymisation was not only important to protect the participants, but also their employers, mentors, etc. Respect for ethical principles was prioritised (Gray, 2004, p. 277). It is important to also think about the ethical issues of anonymity and confidentiality during the reporting stage. Therefore, it is of utmost importance to use direct quotes very carefully to ensure that these cannot reveal the identities of the respondents.

Especially for focus groups, it is important that all participants understand the need for anonymity and do not share any information from the group discussions with others who did not participate in it. This was briefly discussed with the participants before the discussions, and all participants agreed to it.

3.9.8 Data Protection, Data Storage and Disposal Plans

One of the most difficult aspects to fulfil in data storage is the effective anonymisation of individuals. Therefore, no names were recorded. The data were stored on an encrypted private

server. However, even if the researcher regarded the information as highly sensitive, there was no guarantee that future researchers would also think so. This is why the researcher only kept anonymised excerpts in the thesis to support the arguments and analysis. This means that the researcher will not make all data available to future researchers. Despite this, the participants were informed that the data may be used for subsequent academic publications besides the thesis. All data generated in the course of this research project were stored securely. Furthermore, the researcher keeps all digital data and regularly copies other data formats. In alignment with this, the researcher will keep the data for 10 years. After this period, the data will be destroyed.

3.10 Brief Summary of the Chapter

This chapter presented the methodological composition of the study. First, the research setting was outlined, including an explanation of the constructivist paradigm and the applied ontological and epistemological positions. It then discussed the methods of this research, including the case organisation and data collection methods. The chapter then justified the sample size before outlining a pilot interview. The next section provided a deeper understanding of the methodology, including some background information on the origins of grounded theory. It then provided a rationale for selecting the constructivist grounded theory approach. The description of the data analysis process was given, wherein the different logics of coding and the three main versions of grounded theory were discussed. The chapter then gave an overview of the different roles of the researcher in qualitative research. This was followed by an outline of the quality of the research in terms of dependability, credibility, transferability, and confirmability. Finally, the ethical considerations of this research were discussed.

The next chapter presents the findings of the collected and analysed data according to the structures described in this chapter. The findings were structured according to the objectives of this research.

4 Findings

The previous chapter dealt with the methodological frame of this research. This chapter provides an overview of the findings of this research. The following chapter will then link the findings of this research to the literature outlined in chapter 2.

4.1 Brief Introduction to the Chapter

The purpose of this study was to explore management actions available to the manager of the cross-mentoring programme. Such actions concern adjusting the programme in order to make it a better tool for combatting skill shortages in management from the case study Participant's perspective. This chapter presents the collected and analysed results from the data in Chapter 3.

This study provides some insights into why women seek same-gender mentoring and how the lives of the mentees had been influenced two years after the programme ended. It also discusses the extent to which the programme meets its goals based on the perspectives of the mentees and experts. In addition, a thematic framework helps the study associate skill shortages in management with the effectiveness of the CrossMentoring OWL-programme. Before providing the prospects developed in this research, this chapter supplies a coding paradigm to give the reader a chance to better understand the relationships between the developed theoretical categories. It must be noted that the commentary about men and their role is the participants' voice.

4.2 Identification of Categories

This study was meant to further scrutinise the data through additional coding after initial and focused coding were conducted. As such, it could develop and sort concepts according to relevance. Details of the assimilation of each category are presented in the respective subchapters to give the reader the chance to follow the thoughts of the researcher. This chapter presents a table for each category with two columns: "higher concepts" and "lower concepts". The concepts which led to the assimilation of the theme are listed in these columns. Each category and its concepts are then briefly explained using corresponding anonymised quotes from research participants to further strengthen the illustration of the data analysis process. The data was structured into four categories, as outlined in Table 4. The categories were developed through the help of the coding paradigm and constant comparison as explained in Chapter 3.6.4.

THEMES
COMPANY
GENDER SPECIFIC
EXTERNAL FACTORS
MENTEE
MENTORING PROGRAMME

Table 4: Overview of developed themes.

4.3 Research Objectives

This study outlined four research objectives, and these are summarised in the following Table 5. All of these objectives are explained in detail in the corresponding sections.

RESEARCH OBJECTIVES
Why do women seek same gender mentoring?
How has the life of the mentees been influenced, two years after the programme ended?
To what extent does the programme “CrossMentoring OWL” meet its goal based on the perspective of the mentees and the experts?
Thematic framework that associates skill shortages in management with the effectiveness of the “CrossMentoring OWL”.

Table 5: Research objectives.

The developed categories and their concepts were then assigned to the corresponding research objectives. This resulted in the allocation outlined in Table 6. In the following section, the individual research objectives are answered according to the assignment as shown in Table 6, starting with the research objective “Why do women seek same-gender mentoring?”.

RESEARCH OBJECTIVES	THEMES	HIGHER CONCEPTS
Why do women seek same gender mentoring?	Gender specific	<ul style="list-style-type: none"> Barriers and obstacles faced by women Compatibility of family and career
How has the life of the mentees been influenced, two years after the programme ended?	Mentee	<ul style="list-style-type: none"> Influence from a professional perspective Influence from a private perspective
To what extent does the programme "CrossMentoring OWL" meet its goal based on the perspective of the mentees and the experts?	Mentee	<ul style="list-style-type: none"> Motivation
Thematic framework that associates skill shortages in management with the effectiveness of the "CrossMentoring OWL".	External factors	<ul style="list-style-type: none"> Economic Societal Legal
	Corporate factors	<ul style="list-style-type: none"> Structure Culture

Table 6: Research objectives and the corresponding themes and higher concepts.

4.4 Why Do Women Seek Same-Gender Mentoring?

There are different reasons why women seek same-gender mentoring. In order to better understand them, this chapter must briefly discuss the theme "Gender Specific". This category groups the concepts discussed by the research participants when discussing the need for a same-gender mentoring approach. The explanation of the theme "Gender Specific" is followed by the mentees' experienced advantages. This section therefore deals with the main advantages named by the participants and also briefly discusses prejudices which are common when women-only groups are discussed. The following Table 7 outlines the structure of this section.

OBJECTIVE: WHY DO WOMEN SEEK SAME GENDER MENTORING?		
THEME	HIGHER CONCEPTS	LOWER CONCEPTS
GENDER SPECIFIC	Barriers and obstacles faced by women	<ul style="list-style-type: none"> • Hire by resemblance • People having issues with dealing with strong women • Missing acceptance • Higher expectations • Disappearance of young female professionals • Missing female role models • Missing self-confidence • Discrimination of women • Prejudice as potential mothers
	Compatibility of family and career	<ul style="list-style-type: none"> • Parenting a gender neutral issue • Conflict of interest • Difficulty to get a childcare place • Family care • Missing flexibility of employers
ADVANTAGES	<ul style="list-style-type: none"> • Open exchange • Overcome problems and barriers • Exchange of experience • Role model • Family related topics • Sense of belonging 	
PREJUDICES	<ul style="list-style-type: none"> • Jealousy & catfight • Competitive thinking 	

Table 7: Objective: Why do women seek same gender mentoring?

Even those young women who did not take part in the programme because of the purely female approach were very grateful to have the chance for a solely female exchange. They learned to understand many differences between men and women in their professional lives through this exchange with other women.

[...] so for me it wasn't decisive that it was purely female. Afterwards, of course, I have to say that it was an advantage. [...] I realized that women and men had different approaches.

4.4.1 Category “Gender Specific”

The category “Gender Specific” includes the concepts of barriers and obstacles faced by women and the challenge of harmonising family and career. Each of these concepts is explained in this section. The following Table 8 provides an overview of the theme and the related concepts found during this research. The concepts discussed in this category seemed to be personally important to all participants, regardless of whether they were women, men, young professionals, experts, or experienced managers.

OBJECTIVE: WHY DO WOMEN SEEK SAME GENDER MENTORING?		
THEME	HIGHER CONCEPTS	LOWER CONCEPTS
GENDER SPECIFIC	Barriers and obstacles faced by women	<ul style="list-style-type: none"> • Hire by resemblance • People having issues with dealing with strong women • Missing acceptance • Higher expectations • Disappearance of young female professionals • Missing female role models • Missing self-confidence • Discrimination of women • Prejudice as potential mothers
	Compatibility of family and career	<ul style="list-style-type: none"> • Parenting a gender neutral issue • Conflict of interest • Difficulty to get a childcare place • Family care • Missing flexibility of employers

Table 8: Theme "Gender Specific".

4.4.1.1 Barriers and Obstacles Faced by Women

The concept of barriers and obstacles faced by women is manifold, as outlined in the following Table 9. Based on the interviews and focus groups with the research participants, a range of barriers and obstacles faced by women could be highlighted, and these are discussed in this section.

THEME	HIGHER CONCEPTS	LOWER CONCEPTS
GENDER SPECIFIC	Barriers and obstacles faced by women	<ul style="list-style-type: none"> • Hire by resemblance • People having issues with dealing with strong women • Missing acceptance • Higher expectations • Disappearance of young female professionals • Missing female role models • Missing self-confidence • Discrimination of women • Prejudice as potential mothers

Table 9: Theme "Gender Specific" and its higher concepts of "Barriers and Obstacles Faced by Women".

Many of the unmentioned lower concepts are already very well-established through diverse literature, which is why they are not discussed within this research. Such concepts include invisible barriers, gender pay gap, and the "Queen Bee syndrome" as discussed in chapter 2.

4.4.1.1.1 Hire by Resemblance

There were many discussions on the issue of men preferring to hire by resemblance and how this is regarded as a significant invisible obstacle for women due to their sex difference with men:

[...] the subject that men like to hire in positions set by men according to similarity.

[...] has something to do with the networks. So that's why they always pull out of their own networks.

4.4.1.1.2 People Having Issues with Dealing with Strong Women

Other participants went one step further and noted that, from their perspectives, men must first learn how to deal with strong women. According to the research participants, this lack of experience is one reason why they prefer to hire men:

[...] Birds of a feather flock together. This means that men often follow men. And they first have to learn how to deal with strong women in their careers.

4.4.1.1.3 Missing Acceptance of Women

Not being accepted as an equal colleague was experienced by many of the women during their careers. Some said they feel that they must fight against classic gender stereotypes. Many women shared that they experienced situations in which their male colleagues automatically expected them to prepare the rooms for meetings including drinks and food. Some said that they had difficulty in warding off such prevailing expectations. They found saying “no” to such requests difficult.

Another experienced woman shared her experience of her male colleagues denigrating her because she was a woman working in a technical department. She said that she had a constant struggle to prove that she was capable of her job because she is a woman. She said that she had become somewhat accustomed to it, though it was still frustrating and exhausting:

[...] but that they really doubt that a woman could even in the slightest explain any technical things.

4.4.1.1.4 Higher Expectations of Women

One participant answered this question with her experience. She belongs to the same generation as the previously mentioned participant, has no children, and explained that she had to justify why she wanted to work as a woman in a technical profession at the time of her hiring. She struggled to succeed as a single woman working at an occupation in which, according to her statements, she was always better prepared than her male colleagues and was therefore well-informed. This was her personal recipe for success. However, she also described this as somewhat of a hurdle because, in her eyes, it also exerts enormous pressure on women. From her point of view, more knowledge and skills are expected from women than from men. Her

opinion was that this expectation is also a corresponding obstacle to the advancement of women:

[...] my recipe is always so this being better than men, so do more, be more prepared, deeper in the topic.

4.4.1.1.5 Disappearance of Young Female Professionals

One point was discussed very heatedly among the somewhat older participants, namely the highly qualified and very well-educated young women who have just finished their studies and mostly behave in a manner that is relatively detached from gender-specific norms. The experts and managers wondered where these young ambitious women all disappear.

The women among the participants had their own explanations for this; they believed that these young women are either deterred by the old structures or are frustrated to such an extent that they stop promoting their careers for various reasons. Another manager mentioned that she had the same experience in the field of natural sciences and said that she wonders where these women disappear and why:

[...] the number of women who do these degrees is increasing, also have good grades, and that they then disappear somewhere [...] that makes you wonder: Where are they?

4.4.1.1.6 Missing Female Role Models

There is one issue that is relevant to all women of every age: all of them are missing female role models. According to the research participants, this is an aspect to be regarded as an obstacle faced by women. All of them start looking for female role models among their families and friends, but most of them do not find any. These women looking for role models seek to exchange guidelines and lessons learned by other women in similar situations. All of the women stated that, for them, sharing certain thoughts was easier with women than with men. They do not only seek advice on topics like family and career, but also on life in general:

[...] would sometimes be somehow easier if you had specific people with whom you could perhaps talk about it

4.4.1.1.7 Missing Self-Confidence

An important aspect that was extensively discussed by the participants was the lower self-confidence of women when compared to their male counterparts. One participant described a potential leadership role that was promised to her which she did not have the courage to accept.

She thus refused even though the position would have been interesting to her. She believed that if she had had a mentor to encourage her and give her the necessary confidence, she might have taken the job:

[...] Maybe I would have believed myself if I had had a mentor at this point in time, who would have pushed me there.

Another participant summarised this with the term “inner strength”. Without this strength, she found developing self-confidence difficult.

4.4.1.1.8 Discrimination of Women

An area manager was motivated to do something about the underrepresentation of women in his field and explained his experience of once hiring a woman. According to his stories, the output of the male colleagues dropped rapidly due to the new female colleagues, which is why he decided to put the woman somewhere else to counteract this:

[...] They were just staring as she was passing by. They couldn't work anymore when only this woman passed by."

The female participant who shared this story was furious about it. In her eyes, the young woman being placed somewhere else while the men suffered no consequences was unacceptable. For her, this was a kind of discrimination against the young woman who had not behaved incorrectly, but simply done her job. She believed that setting an example and cautioning the male employees would have been better. According to the expert, this kind of discrimination is unfortunately still very present. This is why corporate cultures must change with regard to it. Men and women working in the same teams and offices must become normality.

A female manager described an experience from when she had been working at her job for two years. Her supervisor took her to an upper-management meeting. That was a great thing in itself because she was able to gain new impressions. However, her boss also said that she had to be there only because she is a woman. Of course, this had a negative effect on the experience because, as she was degraded to her gender:

[...] He invited me to a top management round and said: "You just have to be there because you're a woman".

4.4.1.1.9 Prejudice as Potential Mothers

Based on their experiences or because of stories about this, the participants described how women are automatically regarded as potential mothers, in a negative sense:

[...] This means for women that it is almost irrelevant whether they actually have children or not, because the prejudice exists for the time being. They could.

The participants said that, according to their experiences, some male decision makers even question whether investing into a woman is worthwhile, as she could become pregnant:

[...] it is still this topic with "invest in a woman, do we get that back at all?"

One participant described a friend who was 30 years old and unsuccessfully looking for a new job, as potential employers assumed that she might become pregnant due to her age. This would not happen to a man. Unfortunately, women are automatically connected with the need for part-time labour, which inherently means less flexibility for the employer. Thus, such employees are less attractive.

One female participant shared her experience of being offered a leadership role with the condition that she have no further children. The participant already had a child at that time. As such conditions are illegal, the employer meant it as a joke. Still, the statement left a strong effect on her and also exerted enormous pressure:

[...] "But then not, not a second anymore?"

Although she had reconciled her first child and her leadership position, her employer immediately engaged in stereotypical thinking when she told him that she was pregnant with her second child. From then on, she was assumed to have permanently left to become a housewife and mother. This notion did not match her performance or personality:

[...] and then the traditional roles met me

To her astonishment, and without having voted on it with her, her successor had already been arranged. There was an assumption that she would only return for a part-time position. This offended her and shattered her trust in her employer. When she announced that she wanted to return to her leadership role after eight weeks of maternity leave, neither her supervisor nor other colleagues could understand how this would work. Despite this, she reassumed her position, and she felt it opened the eyes of many of her male colleagues. She tried to make especially clear that childcare was not exclusively her responsibility, as her husband had an equal obligation to the family. According to this experience, she argued that there should be many more such examples to change corporate cultures.

4.4.1.2 Compatibility of Family and Career

Another heavily discussed concept of gender-specific issues was the compatibility of family and career, as outlined in the following Table 10. This section will focus on both the higher concept "Compatibility of Family and Career" and its lower concepts.

Because these issues were raised so often within all these interviews, regarding them as their own concept seemed fitting. However, this topic should not be specific to women, even though the research participants expressed this sentiment.

THEME	HIGHER CONCEPTS	LOWER CONCEPTS
GENDER SPECIFIC	Compatibility of family and career	<ul style="list-style-type: none">• Parenting a gender neutral issue• Conflict of interest• Difficulty to get a childcare place• Family care• Missing flexibility of employers

Table 10: Theme "Gender Specific" and its higher concepts of "Compatibility of Family and Career".

4.4.1.2.1 Parenting as a Gender-Neutral Issue

Different participants argued that the compatibility of family and career should be a gender-neutral issue, as involves equal teamwork between children's caretakers:

[...] it can't be the women's issue again. So the compatibility of family and career must not hang with the woman.

Another female participant described one of her female colleagues who was successfully sharing parenting with her partner. According to the participant's observations, this colleague encountered difficulty due to always having to justify being a full worker despite having children. She was confronted with the reproach of being a bad mother:

[...] she rather gets a defamation: "How can you do that?"

She concluded that men are never regarded as bad fathers due to simultaneously working and raising children. This differentiation was unacceptable from her perspective.

4.4.1.2.2 Conflict of Interest

For many people, not only is compatibility in the general sense an obstacle, but also the conflict of interest between the desire to be a good mother and the ambition to have a successful career. The participants described feeling a kind of guilt towards their children and partners when they became involved in their work, as this meant they were not at home. However, they also

perceived themselves somewhat as failures if they were more involved with their families and thereby disappointed their colleagues and superiors:

[...] I just call it simple now, an obstacle? Because you want to make a career, you want to be with your child, you have a guilty conscience.

4.4.1.2.3 Difficulty to Get a Childcare Place

Once people decide to have children, they learn the difficulties of reconciling family and career:

[...] so when it comes to obstacles, there was certainly the barrier of childcare.

Finding a fitting daycare is difficult, as it should suit the family and have acceptable hours of operation. Combining family and career simply seems difficult under these conditions. Nevertheless, the participant added that even if a family finds a suitable daycare, the hours of operation might be unsuitable for a pair of managers:

[...] But when there is a family, one quickly finds oneself in completely different structures, namely a lack of childcare.

There was an interesting exchange between two female managers during one of the group discussions. One manager realised that the other manager had much greater difficulty in working overtime due to her children. This was not because the mother was unwilling, but because childcare is not flexible enough and the children needed to be punctually retrieved:

[...] it must be more difficult for you to reconcile than for me.

One expert added that adequate childcare is the crucial factor in ensuring a secure workforce:

[...] For me, childcare, reconciling family and career is not an instrument for the advancement of women, but rather an approach to ensuring the security of the workforce.

4.4.1.2.4 Family Care

Another important aspect of discussion was caring for older family members. This is relevant to reconciling family and career, but without the topic of childcare:

[...] Nowadays, there is also the issue of reconciling family and career, i.e. also reconciling care and work.

Once again, this work was described as being often managed by women:

[...] This often depends on women again.

4.4.1.2.5 Missing Flexibility of Employers

However, from the participants' perspectives, such flexible structures are hardly, if at all, available:

[...] again there are no structures or totally missing structures for such cases and a lack of flexibility above all.

According to the participants, there is an urgent need for new work models to enable reconciliation between family and career. Moreover, the desires of the young generation of men differ from those of their fathers; now they want to participate in childcare:

[...] the needs have become completely different.

According to the participants, companies would also have to position themselves much more flexibly in order to create corresponding structures. Participants listed aspects such as having a home office, flexible working hours, and job sharing, among others:

[...] Well, that's where it starts with home office. How many companies really find it difficult to set up meaningful home office concepts? Catastrophe.

Additional aspects regarding the flexibility of companies can be found in section 4.7.2.1, "Corporate Structure".

This category ("Gender Specific") provided some concepts concerning why women seek same-gender mentoring. Barriers and obstacles faced by women play an important role, while the question of how to combine family and career (and contend with the consequences of this endeavour) is also significant. These insights into the experiences and opinions of the participating women provide a workable basis for developing a better understanding of the experienced advantages, which will be discussed next. The following section will explain how same gender mentoring was able to address these obstacles.

4.4.2 Experienced Advantages

All of the participating former mentees said that they experienced advantages through their participation in this same-gender mentoring programme. The following Table 11 outlines an overview of these advantages. Within the following section, all of them are briefly discussed to answer the question of why women seek same-gender mentoring.

OBJECTIVE: WHY DO WOMEN SEEK SAME GENDER MENTORING?	
ADVANTAGES	<ul style="list-style-type: none">• Open exchange• Overcome problems and barriers• Exchange of experience• Role model• Family related topics• Sense of belonging

Table 11: Experienced advantages of women in same gender mentoring.

4.4.2.1 Open Exchange

The advantage which seemed to be the most important to all of the mentees was that they perceived open exchange between the women:

[...] you get more understanding when you talk from woman to woman at this point.

Women who had experienced same-gender mentoring said that they were unlikely to have an equal open exchange with men. This paper should note that some women had already gained experience with mixed mentoring, and this helped them to compare the two arrangements:

[...] So what I like about the same-sex mentor is that it is possible to talk openly about things of the female life context. That's the big chance.

The women felt that they were better understood and more open in their methods of approaching others and asking for help:

[...] with a mixed-gender approach, the openness among each other would not have been the same.

Others mentioned that they think some women, especially more introverted ones, could have been less active in a mixed group. This might have hindered their development throughout the programme.

One woman even mentioned that, according to her experience, some women imitate men in order to feel comfortable in the male-dominated management level. Therefore, she said that this could also have happened in a mixed group, which would then have hindered open exchange:

[...] I simply have the impression that women try to be like a man in order to go to the same level and that's not the case with a purely female group.

The same-gender dyad mentoring also helped them exchange experiences of male colleagues. This was felt to be especially important, as most of the women believed they were working in a male-dominated industry due to their management levels being so:

[...] The purely female approach of the programme creates a more open atmosphere in terms of the experience the participants have had with the opposite sex in the world of work.

4.4.2.2 Overcoming Problems and Barriers

Some women mentioned that they still feel disadvantaged in their careers because of their sex. They lack role models, suitable networks, and helpful advice. For them, this women-only approach was a significant advantage of this mentoring programme:

[...] I thought it was a plus point for this mentoring, that it's purely feminine.

Besides this perceived disadvantage, the women participating in this research highlighted that, from their perspectives, women and men encounter different problems in leadership roles:

[...] I believe that the problems that women have in management positions or in perspective management positions are different from those that men have.

This is why they said that an advantage of having a same-sex mentor is that one can share thoughts and experiences. This is reassuring in that it shows how women in other companies and other fields experience similar problems:

[...] So I got the perspectives, possibilities, impressions that many women are struggling with the same challenges and problems that you struggle with yourself.

This same-gender approach also helped them by allowing them to share knowledge of how to overcome certain problems and barriers:

[...] I believe women, no matter what their profession and whether they want or don't want to take up a management position, are struggling with the same problems.

According to these women, this purely female approach helped them talk about their problems and understand those of other women. One can conclude that, for them, discussing situations they might have encountered between men and women was easier, as most women in this mentoring programme could easily understand the problem. Furthermore, all women agreed that this would not have been possible in this intensity in a mixed mentoring programme.

4.4.2.3 Exchange of Experience

The women described how the purely female approach helped them not only become open and share experiences about certain problems and barriers, but also find suitable ways to position themselves as women in their positions:

[...] it was important to me to run this purely female mentoring programme and exchange these experiences.

Another important point was the typical distribution of gender roles perceived by these women. A mentee mentioned that, due to the fact that she was the youngest employee and the only woman in her office, her male colleagues expected her to make coffee for meetings. She was initially insecure and thought she had to do it because of her age. She added that she does not inherently disagree with preparing coffee, but she eventually felt that they expected her to do it due to merely her sex. She said the programme helped her understand that, even if there are gender-related expectations, one need not necessarily fulfil them. She learned that denying this request without remorse was acceptable. In addition, she reflected on how she might approach other clichés in the future:

[...] The programme has helped me enormously to gain the experience that you simply don't have to fulfil these clichés.

Another important advantage of same-gender mentoring was that the females widened their perspectives through exchange with other women, which is of course closely linked to the aforementioned “open exchange-advantage”. However, the women still thought that there was a substantial difference between women and men pursuing careers. The women-only setup helped them freely share experiences:

[...] the challenges for women and men in making careers are still very different

Another important aspect was exhibited by a mentee who said that she luckily already had a mentor as her supervisor and that she was grateful for it. However, she also mentioned that she occasionally felt uncomfortable with the approaches he suggested in certain situations; she thought his suggestions were too dominant for her. She also thought that something was wrong with her. However, her female mentor made suggestions on how to deal with these situations, and she could relate to these and therefore successfully apply them:

[...] I could simply identify myself better with these approaches or suggestions.

4.4.2.4 Role Model

There are not enough female role models for young female professionals. Role models are the proof that something can be achieved. In particular, they help women understand that fighting for something and achieving their goals is possible. This factor is a substantial motivator and provides security as already outlined in chapter 2.4.4.3.

Because finding a female role model within one's company or family is difficult, the mentoring programme helped fill this void via the experienced female managers who participated. This meant that, after the tandems and networks were established, the women were responsible for seeking advice if needed:

[...] you yourself - have the appropriate contact persons and have had your questions answered.

Although some of the women mentioned that they had not thought about the advantages of having a female role model before participating in the programme, they learned to appreciate its value:

[...] For a long time I didn't even think about whether there must be female role models at all.

However, one mentee mentioned that she not only regarded more experienced women as role models, but also the mentees who were her age. She said that, for her, being able to compare herself to other young woman with similar problems was reassuring. This is because comparing oneself – a less experienced woman – to a very experienced and successful woman can sometimes be intimidating. She concluded that the combination of both highly experienced and inexperienced women was perfect for her, as she could choose who to ask for the advice she needed:

[...] just the idea of seeing what others are doing at my age.

4.4.2.5 Family-Related Topics

Another important topic to many of the participating women was the question of combining family and career. This was especially interesting for the women who wanted to attempt this, and for them this opportunity to share experiences and learn from others was significant.

Most of the woman said that discussing this with men was impossible, as most of them have partners at home who care for the family in order to support their careers. These women thus did not feel understood or taken seriously in this regard. They were also afraid of being labelled as housewives and mothers who do not want careers merely because they discuss this topic:

[...] topics about which one would not exchange views in the context between women and men in case of doubt.

4.4.2.6 Sense of Belonging

The exchange among women gave the participants a sense of belonging which they had lacked until then for various reasons:

[...] the exchange has given me such a feeling of belonging, something like that - "It's not just you, it's others, too".

The feeling of not being the only person whose life was not transpiring smoothly was relieving and reassuring:

[...] This is the first time I've ever noticed that not only do I have the feeling that my professional career sucks somehow or is stuck somewhere, but that this is also the case with others.

In general, all women expressed favour towards participating in a purely female programme again due to the aforementioned reasons. Although some mentees did not specifically choose the programme because of its same-gender approach, all of them were happy to have had this opportunity for woman-to-woman mentoring due to being able to discuss experiences. The same-gender mentoring programme helped the participating women to overcome their barriers, such as lack of role models, lack of networks, and lack of like-minded people through the exchange with other women who might have experienced similar situations and problems. It gave them a sense of belonging and helped them to strengthen their self-confidence.

Nevertheless, some women also talked about prejudices they initially had against this purely female approach. These prejudices are widespread among women. None of these prejudices had been confirmed, and sharing this experience was also important.

4.4.3 Prejudices Against a Purely Female Mentoring

The following Table 12 outlines the two prejudices which are discussed in the following section.

OBJECTIVE: WHY DO WOMEN SEEK SAME GENDER MENTORING?	
PREJUDICES	<ul style="list-style-type: none">• Jealousy & catfight• Competitive thinking

Table 12: Initial prejudices against the purely female approach.

4.4.3.1 Jealousy and Catfights

Jealousy and catfights were the prejudices most often mentioned by the women thinking about this women-only approach before entering the programme:

[...] Which is perhaps a prejudice in the beginning: when so many women sometimes meet that it - that envy arises or it can become catty, but I have not experienced that at all, quite the opposite.

The women emphasised that, to them, the fact that these prejudices did not occur was surprising in the most positive way possible. This motivated them to seek further such exchanges.

4.4.3.2 Competitive Thinking

Another prejudice often highlighted at same-gender meetings was competition. Some individuals find competition appealing and are motivated by it, but others do not, as it might frighten or discourage them. The women in the programme explained that their experiences within it had been the opposite of competitive:

[...] it was a very harmonious atmosphere without competition and a lively exchange.

In general, these impressions and experiences were not only gained in the purely female tandem relationships, but also in the open exchange with other participants:

[...] you could also address other mentors or other mentees.

4.4.4 Brief Summary – “Why Do Women Seek Same-Gender Mentoring?”

The previous sections discussed the advantages experienced by the participants to help the reader better understand the need for same-gender mentoring in order to support women. Linking these experiences back to the category “Gender Specific” and the barriers and obstacles faced by women, one can clearly see that such a same-gender mentoring approach can help women better understand their situations.

The same-gender mentoring programme gave the participating women a sense of belonging through the exchange with other women who might have experienced similar situations and problems. In addition, the programme helped the participating women to overcome barriers, such as lack of role models, lack of networks and lack of like-minded people as well as helping them to strengthen their self-confidence.

This purely female approach helped the women more effectively handle barriers and obstacles as well as the question of combining family and career. The women could understand that they

were not alone with their questions and problems, and the network gained through this programme gave them a sense of belonging, which in turn provided motivation and some stress relief.

4.5 How Have the Lives of the Mentees Been Influenced Two Years After the Programme Ended?

The aim of the programme is to support young professional females into leadership roles. The focus is thus on the professional development of the mentees. The former mentees perceived the programme's influence in both their professional and private lives. In the category "Mentee" all concepts relating to the influence of the programme on the mentees were grouped together. The theme "Mentee" therefore includes the higher concepts of "Influence from a professional perspective" and "Influence from a private perspective". Both concepts will be discussed in detail in the following section.

4.5.1 Category "Mentee"

The following Table 13 outlines the main areas of influence experienced by the mentees. All of these concepts are discussed to give the reader a chance to understand the mentees' perspectives and thoughts. The section is divided into professional and private perspectives.

THEME	HIGHER CONCEPTS	LOWER CONCEPTS
MENTEE	Influence from a professional perspective	<ul style="list-style-type: none">• Improved self-confidence• Networks with like-minded people• Positioning in the company• Attention from top management• Conflict management• Self-perception• Positively charged
	Influence from a private perspective	<ul style="list-style-type: none">• Stress management• Better exchange with partner• New perspectives

Table 13: How the life of the mentees has been influenced since the programme ended.

4.5.1.1 Influence from a Professional Perspective

All of the mentees named the areas outlined in Table 14 when referencing the programme's influence on their professional lives. All of these concepts will be briefly discussed in the following section.

THEME	HIGHER CONCEPTS	LOWER CONCEPTS
MENTEE	Influence from a professional perspective	<ul style="list-style-type: none"> • Improved self-confidence • Networks with like-minded people • Positioning in the company • Attention from top management • Conflict management • Self-perception • Positively charged

Table 14: Theme "Mentee" and its higher concept of "Influence from a professional perspective".

4.5.1.1.1 Improved Self-Confidence

Self-confidence seemed to be fundamental to all of them. As already discussed in a previous section, the participants agreed that many women lack self-confidence. Regarding the influence on their lives, all of the mentees stated that they felt much more self-confident and generally stronger as a result of the programme:

[...] through this programme I actually had more self-confidence, more strength.

This increased self-confidence had extensive influence on their lives. It made mentees appear stronger and more determined, giving them, their colleagues, and their superiors more confidence in their work:

[...] how I act in some roles has changed, that has had a positive effect and I have become more confident through the programme.

Others even reported that they finally felt confident in their leadership roles as a result of the programme. Some of the mentees who struggled with their leadership roles reported that they were already considering resignation due to feeling that they were not capable of filling leadership positions:

[...] I actually had this influence by feeling comfortable in my position now.

Of course, the mentees did not merely hope for more self-confidence. Rather, their existing confidence served as a foundation for further development in other areas. They felt insecure in their roles due to their low confidence, and this significantly pressured them while making them unhappy. However, thanks to the mentoring, they could finally succeed in their roles as leaders. They attributed success to themselves, which was a fundamental change:

[...] I believe that the programme has helped me to improve my self-confidence, to question and reflect on my own successes, to attribute certain successes to myself - we are often not so good at that as women - and that has already brought a lot in terms of standing.

4.5.1.1.2 Networks with Like-Minded People

As discussed in the previous section “barriers and obstacles faced by women”, the female participants said that they lack networks, unlike men. Some mentees stated that because of the programme, they finally understood how important exchanging thoughts and experiences is. Some were worried that asking others for help might show weakness:

[...] what I have additionally learned is that it generally makes sense to exchange.

Interestingly, almost all of the mentees were lacking like-minded people with whom they could create networks before they entered the programme. Even mentees who already had strong social networks said that they lacked women striving for careers:

[...] I found very positive, that you really meet people who want to achieve similar things, but who may also face the same challenges as you do at that moment.

[...] not only the professional network, but also the social network that allows you to meet like-minded people and exchange ideas. So I found it very interesting, very exciting and also very stimulating.

According to them, their networks had a particular dearth of women who were looking for development in professional terms in order to assume leadership responsibilities in male-dominated industries.

One mentee even mentioned that, because of the exchange with other mentees, she became more secure in her current status. It helped her compare her career and ambitions with others’:

[...] a need of mine was an exchange with others to see if I was right. That has been fulfilled.

However, the possibility of comparing oneself to others was not the only factor that helped the mentees. Use of a network was another important point which, according to the mentees, they learned because of the programme. Networking is something that must be trained, and it is easier for some individuals than for others. Being in a network is beneficial, but utilising this network on different levels is even more advantageous.

4.5.1.1.3 Positioning in the Company

Another important aspect mentioned by the mentees was their positions in their companies. As already discussed, some of the mentees had trouble feeling comfortable and confident in their leadership roles. Others felt that they had to adjust their positions within the companies. Of

course, this problem of positioning is closely related to having more self-confidence, as positioning oneself is nearly impossible without believing in oneself or one's skills:

[...] The most important thing for me was simply to position myself in the company, to feel good about myself and to strengthen my self-confidence.

One mentee who had a mentor from the same field mentioned that positioning even helped her become an expert, which had been her goal. She also mentioned that exclusively discussing personal development during the tandem meetings was occasionally difficult, as the partners easily slipped into discussions about their professions:

[...] It was important for me to position myself, to become an expert, to become indispensable, and those were the goals that the mentoring programme could definitely support.

Another mentee mentioned that she learned via the mentoring programme that she was capable of taking on a new, even more substantial leadership position. She said that she would not have considered it without the programme. It helped her understand that she was able to assume such a role and that she needed to fight for herself and the strength she gained from this helpful mentoring:

[...] I'm not sure if there would have been this step in the form if I hadn't been in this mentoring programme.

4.5.1.1.4 Attention from Top Management

Besides their positions in their companies and helpful networks of like-minded people, some mentees mentioned that they recognised a greater attention from their top management as a result of participating in the programme. One mentee felt that she was given much more regard from her top management, which she liked due to it helping her show her skills:

[...] through the programme, I was certainly given a bit more attention by the company than I would have had without participating in the programme.

4.5.1.1.5 Conflict Management

Another aspect which was mentioned by several mentees was the fact that they had become more skilled in conflict management. Most of them were convinced of this due to having perceived it. One mentee mentioned that her colleagues told her that they recognised substantial improvement in her conflict management skills:

[...] in appointments that were very critical, one or the other colleague told me afterwards that I solved this very well.

The mentee mentioned that she believed managing this situation could have been troublesome for her colleagues who had not had the chance to participate in the mentoring programme. Increased assertiveness was also mentioned, and the mentee believed that this also helped in managing conflicting situations:

[...] I have become more assertive in any case, what - everything related to my work of course - and so in conflict situations with my work colleagues or my superiors.

4.5.1.1.6 Self-Perception

Another important aspect relevant to most of the mentees was the change in their self-perceptions. This relates to aspects of realising and understanding one's strengths and weaknesses as they change with self-esteem and self-reflection:

[...] I had the ambition to be able to assess myself better and perhaps to perceive the strengths and weaknesses even more differentiated.

Knowing one's strengths and weaknesses is important, as it helps one better judge certain situations. It facilitates positioning, as previously discussed, and increases one's self-confidence due to increasing awareness of what one can or cannot accomplish:

[...] through mentoring you get the topic of reflection.

Self-esteem was also developed through participation in the programme, according to the mentees. They maintained that self-esteem is important, especially when assuming leadership roles. One mentee mentioned that, thanks to the programme, she was finally told by her mentor that she was capable of taking on more responsibility. Her employer had never told her this, and it increased her self-esteem significantly:

[...] for myself has simply the self-esteem, that has risen so immensely

4.5.1.1.7 Positively Charged

Finally, almost all of the mentees said that the tandems with their mentors and the exchange with other mentees positively motivated them. They felt empowered, strengthened, and eager to continue their professional developments:

[...] I was so positively charged and so enthusiastic about this exchange that I took this feeling home with me every time.

4.5.1.2 Influence from a Private Perspective

Some of the mentees said that they expected the mentoring programme to influence their private lives, and this was confirmed. Others related that they did not expect any influence on their private lives. However, most of these also perceived significant influence. Each of the lower concepts outlined in the following Table 15 will be briefly discussed in the following section.

THEME	HIGHER CONCEPTS	LOWER CONCEPTS
MENTEE	Influence from a private perspective	<ul style="list-style-type: none">• Stress management• Better exchange with partner• New perspectives

Table 15: Theme "Mentee" and its higher concept of "Influence from a private perspective".

4.5.1.2.1 Stress Management

Mentees mentioned that they generally felt more balanced as a result of participating in the mentoring programme. They had normally brought their occupational stress home with them, and this had substantial influence on their families and friends; the mentees were unable to stop worrying about their work, performance, and standing in their companies. Thanks to the programme, they learned to better manage stress:

[...] the programme gave me a lot of security and I therefore had the feeling that I could go home more relaxed without pondering any longer.

4.5.1.2.2 Better Exchange with Partner

One particularly interesting aspect was mentioned by a mentee who is married to a man who, like her, is career oriented. She said that the programme was especially helpful for her because she found a way to converse with her husband about how to combine their careers and family life, both of which they wanted. She said that, before the programme, she had extreme difficulty in finding support for her opinion due to lacking a role model, and her husband and family had not shown that this was possible. Thanks to the mentoring programme, she learned of many role models and was able to combine career and family. Through this, her partner could better understand what she sought and see that there was a way to simultaneously manage two careers and a family:

4.5.1.2.3 New Perspectives

Another interesting aspect mentioned by one mentee was that the mentoring programme made her realise how she had gained new perspectives. She particularly mentioned that she started

to talk about women-relevant topics with her family and friends, something she had not previously preferred:

[...] I but noticed that I talked with my husband and also with the family, parents and siblings, but also with the circle of friends about topics that were not on my agenda before, such as "the role of woman and man". [...] I wouldn't have expected that.

4.5.2 Brief Summary – “How Have the Lives of the Mentees Been Influenced?”

The mentees participating in this research clearly mentioned that they were still using the skills they had learned and improved during the programme. Linking the findings of this section to the findings in chapter 4.4, one can understand that factors such as a lack of self-confidence or networks are regarded as major obstacles for women striving for careers in management positions. The findings discussed in this chapter made clear that mentees’ participation in such a mentoring programme had an overall positive influence on them. This was especially true given the fact that the largest influence was felt with regard to self-perception, including self-confidence and self-esteem. They also mentioned that they were very grateful that they could better understand the importance of networking and that they were particularly thankful for the networks of like-minded people they met in the programme.

4.6 To What Extent Does the Programme “CrossMentoring OWL” Meet Its Goal According to the Perspectives of the Mentees and Experts?

As is clear from its title, this objective is meant to explain the extent to which the programme meets its goal according to the perspectives of the mentees and experts. The following Table 16 provides an overview of the goals of the mentoring programme called CrossMentoring OWL.

GOALS OF THE PROGRAMME CROSSMENTORING OWL
<ul style="list-style-type: none">• Help recognise and develop the potentials and competencies of high-potential females• Help companies increase their levels of diversity within their management teams

Table 16: Goals of the mentoring programme CrossMentoring OWL.

As outlined in Table 17, the answer to this research objective is divided into the two goals of the programme. These are followed by the category “Mentee” and its higher concept of “Ambition”. The answer to both goals was structured according to the aspects discussed during the interviews and focus groups with the research participants.

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OBJECTIVE: TO WHAT EXTENT DOES THE PROGRAMME "CrossMentoring OWL" MEET ITS GOAL ACCORDING TO THE PERSPECTIVES OF THE MENTEES AND EXPERTS?		
GOALS OF THE PROGRAMME CROSSMENTORING OWL		ASPECTS
HELP RECOGNISE AND DEVELOP THE POTENTIALS AND COMPETENCIES OF HIGH-POTENTIAL FEMALES		<ul style="list-style-type: none"> • Empowerment of women • Changing perceptions – creating new realities • Network
HELP COMPANIES INCREASE THEIR LEVELS OF DIVERSITY WITHIN THEIR MANAGEMENT TEAMS		<ul style="list-style-type: none"> • Change of corporate culture • Stereotypical thinking • Integration of society and politics • Programme supporter • Transparency • Exemplary programme
THEME	HIGHER CONCEPTS	LOWER CONCEPTS
MENTEE	Ambition	<ul style="list-style-type: none"> • Personal initiative • Motivation • Making demands

Table 17: Objective: To what extent does the programme "CrossMentoring OWL" meet its goal according to the perspectives of the mentees and experts?

4.6.1 Help Recognising and Developing the Potential and Competencies of High-Potential Females

The programme is meant to help the participants recognise and develop their potential and competencies as potential future managers. This goal should help with the recognition and development of skills among the mentees who, according to their employers, are regarded as having high potential. This involves a further implied aim of helping companies form strong future leaders, which is essential for the other goal of the programme: helping companies increase their levels of diversity within their management teams. This also helps participating companies recognise the potential of female employees as leaders.

One should remember what was discussed in the previous sections regarding the barriers and obstacles faced by women and how the programme supports the participants in overcoming these. A further point to recall is the programme's influence on its participants' lives.

The following Table 18 outlines the main aspects named by the participants when questioned about the programme's goal of helping recognise and develop the potential and competencies of high-potential females. All of these aspects will be briefly discussed in relation to the goals set by the programme.

As outlined in the following Table 18, the main aspects regarding these goals were: a) the empowerment of women; b) changing perceptions and creating new realities; and c) networks.

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GOAL OF THE PROGRAMME CROSSMENTORING OWL	ASPECTS
HELP RECOGNISE AND DEVELOP THE POTENTIALS AND COMPETENCIES OF HIGH-POTENTIAL FEMALES	<ul style="list-style-type: none">• Empowerment of women• Changing perceptions – creating new realities• Network

Table 18: Aspects of how the programme helps to recognise and develop the potential and competencies of high-potential females.

4.6.1.1 Empowerment of Women

Participating experts saw the task of such a mentoring programme as giving the participants the appropriate self-confidence to show them what they can do and where they might still have weaknesses. In addition, appropriate marketing of these strengths in such a programme should also be discussed so that the mentees are prepared for their further careers:

[...] what the programme has to achieve is actually: to make the young women who go through the programme self-confident.

The experts and mentees agreed that the programme helps empower the participating women. It assisted the mentees in the developing different perspectives:

[...] the programme has helped the mentee to progress in his personal development.

This aspect was already explained in detail in the previous section, wherein the influence of the programme on the mentees' lives was discussed. Nevertheless, the participants also highlighted that only helping the mentees is insufficient; improving structures within a company is as important, if not more:

[...] I simply see the problem that the programme as such does something with the mentee, but not necessarily with the company in which the mentee works.

The participants were very clear in their opinions that the programme helps the participating women empower themselves. However, there are two sides to every question, and the participants accordingly argued that companies must improve their structures in order to successfully promote young women. The participants believed that women's potential would otherwise be made visible, but not be used to its full extent. From the perspective of the study participants, companies are responsible for implementing such measures. After all, they are the ones who need managers trained for the future:

[...] we must do more to promote young women. But again, this must go hand in hand with the companies. Companies have the main responsibility because they need these workers.

4.6.1.2 Changing Perceptions – Creating New Realities

Besides being a great tool for allowing the participating women a chance to exchange ideas, the programme was also regarded as particularly useful in changing perceptions and creating something like a new reality in terms of equality:

[...] it helps to create realities and I believe it also creates a perception in the management environment of how much potential there still is.

Reality is changed in a sense that other decision makers in companies –usually men- can see that these women have potential and that empowering them is worthwhile:

[...] we create a new reality by presenting what is perhaps more exotic at the moment as the normality of tomorrow.

This new reality might even help encourage some of the companies to reflect on their approaches towards dealing with their female employees:

[...] CrossMentoring OWL is a good instrument that can give companies a hand on how to deal with the issue.

4.6.1.3 Network

The programme provides the participants with a substantial network, and this plays an important role in the empowerment and skill development of women:

[...] I believe such a mentoring programme gives the mentee the opportunity to access an enormous wealth of experience.

Among other things, groups can better enforce demands and are more likely to be recognised than individuals are. According to the participants, for this reason alone the programme already fulfils an important part of the goal. The programme gives the women the incomparable opportunity to create networks and thus become conspicuous as a group and demand rights, including equal rights in management.

4.6.2 Helping Companies to Increase Their Levels of Diversity Within Their Management Teams

The second goal of the programme is to help companies increase their levels of diversity within their management teams. The participants were very clear about this goal and felt that this programme alone was not enough to increase the levels of diversity in management teams or remedy the shortage of skilled workers at the management level. In order to be able to reach

this goal, companies must improve their structures and cultures, as is discussed in more detail in chapter 4.7.2 – Category “Corporate Factors”.

The following Table 19 outlines the main aspects that were discussed by the participants in relation to this goal of the programme. Most of these aspects either cannot be influenced through the programme or can only be influenced to a limited extent.

GOAL OF THE PROGRAMME CROSSMENTORING OWL	ASPECTS
HELP COMPANIES INCREASE THEIR LEVELS OF DIVERSITY WITHIN THEIR MANAGEMENT TEAMS	<ul style="list-style-type: none">• Change of corporate culture• Stereotypical thinking• Integration of society and politics• Programme supporter• Transparency• Exemplary programme

Table 19: Aspects in which the programme reaches its limits regarding the goal to help companies to increase their levels of diversity within their management teams.

As described above, all participants agreed that the programme is able to prepare participants for leadership positions on a personal level. However, from the participants' point of view, the programme fails at training the organisations themselves, as they must also change and adapt in order to achieve a more favourable gender mix among their management teams.

4.6.2.1 Change of Corporate Culture

Both male and female participants mentioned that corporate cultures must change and structures must be developed in order to increase the diversity of management teams:

[...] the programme is reaching its limits, regarding the whole issue of corporate development and social change". And that's where every programme reaches its limits.

4.6.2.2 Stereotypical Thinking

Another participant noted that stereotypical thinking still blocks women. Even if the programme manages to change perceptions and create some kind of new reality, much more time will be necessary to alter how people think about gender roles. Until then, this will continue to be a hindrance for women:

[...] the stereotypical behaviour of men and women. And I don't even know whether such a programme can ultimately achieve this goal.

4.6.2.3 Integration of Society and Politics

Some participants even argued that integrating society and politics might be necessary to force changes within companies. This was regarded as another limit of the programme, as it is very much closed in itself:

[...] I believe these are also the sticking points of integrating the company more strongly and perhaps also integrating society and politics more strongly.

4.6.2.4 Programme Supporters

This links to what another participant said, namely that such a programme needs supporters, i.e. companies who are willing to make it a success:

[...] Such a programme needs above all supporters who want to do the same. In other words, companies that stand behind it.

From the participants' perspectives, the programme's influence was too insubstantial. As many influential companies are based in the area, the participants believed that these should somehow be integrated to increase support for the programme. This could then significantly impact the achievement of the programme's objectives.

4.6.2.5 Transparency

Another expert said that the programme might even lack transparency from the perspectives of the decision makers of companies. A manager told the researcher of this paper that, within her company, the top management simply doesn't know about the programme, as it is handled by the human resources department, the supervisor, and the mentee:

[...] It just doesn't reach the decision makers and I think you just have to think about it again: How can you make this more transparent, so that the right minds at the pivotal points in the company also care?

From the participants' points of view, the decision makers of the participating companies must be significantly further integrated so that they can better assess the benefits of the programme. As mentioned in the previous paragraph, communication about the programme is currently limited. As such, key decision makers are often unaware of it.

4.6.2.6 Exemplary Programme

Despite these issues, the programme is meant to serve as an example, which shows how such a programme could be established:

[...] for me this is above all a role model programme, how you can implement such a mentoring or such a sponsorship system.

One expert concluded that the programme is clearly beneficial, as every contribution helps increase diversity within management teams:

[...]. I think it helps, clearly, every little thing helps in the end. If there would be an ultimate method, then we wouldn't have any shortcomings.

According to the participants, this topic concerns not only corporate development, but also social change. However, this is the point at which the mentoring programme clearly reaches its limits:

[...] where the programme is reaching its limits, the whole issue of corporate development and social change is.

The participants of this research made very clear that the programme's utility is limited to helping companies increase their levels of diversity within their management teams. The reasons for this are numerous, as was previously discussed.

The mentees themselves are another important aspect that should not be overlooked when considering the achievement of the programme's objectives. The higher concept of "Motivation" is especially important, as the motivation of the mentees is as vital as that of the companies. These points are briefly discussed again in the next section, as they were mentioned by many study participants.

4.6.3 Category "Mentee"

In order to assess the success of the mentoring programme, it is also important to understand the individual influence of the mentees. The category "Mentee" includes the lower concepts of "Personal Initiative", "Motivation", and "Making Demands", as outlined in Table 20. All three concepts are briefly discussed in the following section. Without the mentees' ambition to learn and grow, a programme will not succeed, which is why this concept was included when answering this question.

THEME	HIGHER CONCEPTS	LOWER CONCEPTS
MENTEE	Ambition	<ul style="list-style-type: none">• Personal initiative• Motivation• Making demands

Table 20: Category "Mentee" and its concepts.

4.6.3.1 Ambition

One concept of the theme “Mentee” is “Ambition”, and it is comprised of the personal initiative of the programme’s mentees, their motivation to improve, and their ability to make demands.

4.6.3.1.1 Personal Initiative

The concept of personal initiative refers to the mentees’ attitude. Participants who had mentoring proficiency talked about their different experiences. There were differences, of course, but the clear result was that the experienced managers and experts were convinced that a mentee must show personal initiative:

[...] I always find the own initiative, which must be there

An experienced manager and mentor discussed her experiences with three different mentees. In addition to mentoring highly motivated individuals, she had also already gained experience with less focused mentees. From her point of view, a mentee will not be successful if he does not show initiative. She believed that promoting such a mentee according to her potential was impossible. Such a programme does not allow one to passively await other individuals to solve one’s problems.

One manager replied that she would not solve problems, but rather try to involve the mentee in the discussion and tell her that the success of this mentoring depends on her initiative:

[...] yes, but if they would wish that, then I would say: "Come on, that's your own initiative."

The managers with experience as mentors agreed that a mentee cannot successfully complete the programme without initiative. The worst case is when the tandem relationship fails or the mentoring year ends without the participants being able to draw great value from it.

4.6.3.1.2 Motivation

From the perspective of experienced managers and experts, the motivation of mentees to participate in the programme was a fundamental building block for the success of such a programme. However, some critically questioned whether all mentees participated in the programme due to their own volition or whether some were simply nominated by their companies without further plans. This might be done to only superficially address a woman's advancement or temporarily calm a woman who is making further demands due to already being supported by mentoring:

[...] how many women were sent in there by their superiors.

A manager who was also a mentor in the programme confirmed this. She said that she found on several occasions that participation in the programme was not a desire of the mentee, but rather of the company. These mentees often lacked plans; they did not know what to expect from the programme and were therefore unprepared:

[...] that the women who take part are often just recruited and are not really prepared.

According to the study participants, another significant point could also be that mentees may not even know what a career is and therefore cannot imagine one:

[...] I think the women really don't know: How do I imagine a career? What is a career?

One participant considered whether too little was expected from mentees in this situation. Only after the programme did she notice that she had made a career. Even such important developments can occasionally arise without one being aware of them:

[...] But don't you assume too much then? Because we ourselves have just said that we have also more or less slipped into it sometimes at the beginning.

At least a small portion of self-motivation would be enough to motivate the mentor to actively support the mentee:

[...] yes, exactly, but as I said, maybe they themselves have such a small motivation and say: "Oh well, I'm interested, but it's not that concrete."

4.6.3.1.3 Making Demands

For the experts and managers, the lynchpin for the success of such a programme is the mentees' self-organisation, i.e. the mentees being able to formulate and put forward demands:

[...] but I think the lynchpin is really the self-organisation of the mentees, the demand for things and not the presentation of finished templates and finished programs, as I have experienced it now so much earlier.

An experienced manager compared a mentee who makes clear demands and one who is more likely to be driven by the programme. Such a programme requires accessions and impositions from both parties. The manager thus believed that working with a demanding person is more effective, as this necessitates substantial self-organisation and motivation:

[...] that's always giving and taking on both sides. [...] such a sponsorship doesn't happen in the first place. So I think they have to use it a bit for themselves and demand it.

A manager who had participated in a mentoring programme consciously and actively demanded this from her employer. According to her, consciously making demands is an important experience even if the idea is not immediately welcomed:

[...] I had to demand it: "I want this and that, I heard about it, I want it." It's a first step in such a company to demand something like this. [...] And that's, I think, a very important experience to enforce and do something like that, isn't it?

4.6.4 Brief Summary – “To What Extent Does the Programme Meet Its Goals?”

As already mentioned, all of the experts and mentees who participated in this research agreed that the programme meets its goal of helping recognise and develop the potential and competencies of high-potential females.

However, the participants of this research were very clear that the programme's utility is limited when it comes to helping companies increase their levels of diversity within their management teams. The reasons for this are numerous, as was previously discussed. There is a clear need for a change of corporate culture in order to stop stereotypical thinking which denigrates women. Furthermore, in order to support the programme and achieve its goal, the participants suggested integrating society and politics. In their opinions, this would help force companies to change. The programme also requires additional support to achieve further success. The participants believed that the region's influential companies could give more support to the programme.

Another important aspect discussed in this section was the lack of transparency from the perspectives of the decision makers of the participating companies. Both the managers and the former mentees agreed that the real-decision makers within a company are usually unaware of the programme and its aims. However, all of the participants concluded that the programme acts as an important example to sensitise companies to the need for corporate and social change in order to increase the levels of diversity within the management teams.

When looking at the achievements of a programme, regarding each influencing factor is important, which is why the theme “Mentee” and its higher concept of “Ambition” were also discussed. The experts and managers very clearly stated that mentees must be motivated to

develop and participate in the programme, as it is otherwise unable to reach its goals. Therefore, the mentees are as important as the companies and their decision makers.

4.7 A Thematic Framework That Associates Skill Shortages in Management with the Effectiveness of “CrossMentoring OWL”

This section explains how skill shortages in management can be associated with the effectiveness of the CrossMentoring OWL programme. This section’s purpose is to provide the reader a chance to develop a clear picture of the connections between the two aspects. In order to answer this question, different categories are used. First, the categories “External Factors” and “Corporate Factors” are discussed in the following section. After this is an analysis of the effectiveness of the programme on each of the discussed concepts. The category “Gender Specific” was discussed in detail in sections 4.4 “Why Do Women Seek Same-Gender Mentoring?” and 4.5 “How Have the Lives of the Mentees Been Influenced Two Years After the Programme Ended?”. As such, this category is not discussed in detail again in this section. The following Figure 35 is meant to help the reader better understand the relationships discussed in the following section.



Figure 35: Influence of the CrossMentoring OWL-programme on skill shortages in management.

4.7.1 Category “External Factors”

In order to be able to assess the interplay between management skills shortages and the effectiveness of the mentoring programme, the category “External Factors” needs to be considered. The category “External factors” is comprised of economic, societal, and legal factors, as outlined in Table 21. All of these concepts were grouped into “External Factors” because they

exhibit substantial external influence on the development of gender diversity in management positions. These external factors do have a big influence on the skills shortages, but the influence of the programme itself on them is very limited. Thus, it is important to be aware of these external factors when associating skill shortages in management with the effectiveness of the mentoring programme “CrossMentoring OWL”.

THEME	HIGHER CONCEPTS	LOWER CONCEPTS
EXTERNAL FACTORS	Economic	<ul style="list-style-type: none"> • Labour market situation • Skills shortage in management
	Societal	<ul style="list-style-type: none"> • Culture • Networks
	Legal	<ul style="list-style-type: none"> • Women’s quota • Legal regulation of child care • Socio-political aspects

Table 21: Category “External Factors”.

As Figure 35 shows, the influence of the programme on the external factors (and therefore its effectiveness) is limited to its societal concept. Nevertheless, for the sake of completeness the other concepts are briefly discussed, as they also provide the reader an opportunity to develop an effectual understanding of the aspects of management skills shortages which the participants considered to be relevant. The section starts with an explanation of the higher concept of “Economic Factors” and continues with an explanation of the related lower concepts.

4.7.1.1 Economic Factors

The concept of economic factors is comprised of the participants’ perceptions of the labour market and skills shortages in management. The following Table 22 outlines the concepts which are discussed in this section. A more detailed explanation on why the CrossMentoring OWL programme hardly influences the concepts of the economic factor is provided at the end of this section.

THEME	HIGHER CONCEPTS	LOWER CONCEPTS
EXTERNAL FACTORS	Economic	<ul style="list-style-type: none"> • Labour market situation • Skills shortage in management

Table 22: Economic factors and its concepts.

According to the participants, the economy lacks willingness to change. Women particularly criticised how gender roles had not been counteracted:

[...] in the economy there is still a bit of reluctance to break down these classic structures.

Participants called for a stronger public debate to highlight the link between leadership shortages and female potential:

[...] I also believe that a stronger public discussion would be helpful.

4.7.1.1.1 Labour Market Situation

According to the participants, the economy should be constituted in terms of positions, not gender. Participants said they believed that differentiating between men and women when distributing roles is obsolete.

Some of the participants agreed that there had been no change in the understanding of the roles of women who consciously and actively improve. They believed that the lack of skilled staff is only due to pressure in the labour market:

[...] But I don't think the image of women has changed, it's simply a labour market situation that exerts pressure.

According to the participants, economic necessity leads to the fact that women are also considered for certain positions. Some also remarked that the source of the change is irrelevant as long as change exists and is developed:

[...] So, it has nothing to do with conviction, but simply with economic necessities.

4.7.1.1.2 Skills Shortage in Management

Some of the participants reacted to the general shortage of skilled workers, but there was particular focus on management. This focus can be supported by severely critical figures. The majority of the participants agreed that they had difficulty believing there was truly a shortage, given the economy's behaviour:

[...] Well, I know numbers of this kind, you only ask yourself sometimes: Does this really exist? I'm probably not the first to say that.

The core statement is "as long as companies can afford to differentiate by gender, there is no real shortage". Available figures from various sources such as the International Chamber of Commerce, various studies, and magazines did not predict this reaction. The participants were visibly annoyed by the fact that women constantly receive suggestions that they must change in order to fulfil certain requirements or counteract potential deficiencies. An expert said quite clearly this was not due to women; they lack these supposed problems and would like to fill the

positions. Rather, this issue is due to the companies that are unwilling to surrender their ideas of male executives:

[...] The need doesn't seem great enough, otherwise we wouldn't have to talk.

[...] as long as companies can afford to differentiate by gender, they have no real need. And you can't blame women for that.

Another participant shared a similar opinion. She also doubted that there was a skill shortage in management; in her opinion, the behaviour of the companies did not reflect such a situation. Rather, they seemed to be reluctant to change. However, she also made clear that she would never say something like this in public:

[...] you sometimes ask yourself in the behaviour of companies: Is it really? And I wouldn't say that in public now, I would never say that.

[...] I just wonder if that's really true sometimes, because you see no willingness or sometimes little willingness to change anything about it.

One participant discussed whether there might be a shortage because of a matching problem; perhaps companies seek individuals who either do not exist or are unwilling to work for them:

[...] Maybe we just can't find the ones that suit us. And perhaps those who fit in with us don't even want to fit in with us.

Reasons why a potential employee might not feel addressed by a potential employer could be, according to this participant, the problem of family and career being incompatible or the employer's lack of flexibility. This concept is discussed in more detail in the following subsection "Flexibility of Employer":

[...] In my opinion, it also plays a role here: what about the compatibility of career and family, how are women promoted.

Another reason could be that women's perspectives are not heeded:

[...] this shortage of skilled workers can also arise from the fact that I do not give women the perspective.

The participants believed that this programme therefore helps counteract the shortage of skilled female workers on the management level:

[...] it can counteract the shortage of female skilled workers simply because it brings so many women together. I think that alone is a point that should not be underestimated.

Interestingly, all of the experts and mentees who participated in this research agreed that the programme contributes to the recognition and development of the potentials and competencies of high-potential females, which thereby offsets the skill shortage in this area.

4.7.1.1.3 Brief Summary: Influence of the CrossMentoring OWL Programme on the Economic Factors

The influence of the CrossMentoring OWL programme on the higher concept of “Economic Factors” is very limited, if it exists at all. As outlined by the following Table 23, the programme has hardly any direct influence on the discussed concepts.

OBJECTIVE: THEMATIC FRAMEWORK THAT ASSOCIATES SKILL SHORTAGES IN MANAGEMENT WITH THE EFFECTIVENESS OF THE "CROSSMENTORING OWL"-PROGRAMME:			
THEME	HIGHER CONCEPTS	LOWER CONCEPTS	DIRECT INFLUENCE OF THE PROGRAMME
EXTERNAL FACTORS	Economic	• Labour market situation	✗
		• Skill shortages in management	✗
Key:	✓	Direct influence of the programme	
	!	Potential direct influence of the programme	
	✗	No direct influence of the programme	

Table 23: Influence of the "CrossMentoring OWL"-programme on the higher concept of "Economic Factors".

The programme offers support to fill the need for stronger public debates linking leadership shortages and female potential, which might help dissolve certain gender roles over time. However, the programme cannot influence the labour market’s general developments. If the economy is growing alongside an according demand for employees, shortages in skilled employees and managers will also increase. However, this is beyond the scope of the programme.

4.7.1.2 Societal Factors

The so-called “societal factors” are another concept within the theme “External Factors”. This concept is the one on which the CrossMentoring OWL programme has the largest influence due to its direct impact on the participants of the programme. The concept of “Societal Factors” is comprised of the aspects of culture and networks. The following Table 24 outlines the concepts which are discussed in this section.

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THEME	HIGHER CONCEPTS	LOWER CONCEPTS
EXTERNAL FACTORS	Societal	<ul style="list-style-type: none">• Culture• Networks

Table 24: Societal factors and its lower concepts.

A more detailed explanation on how the CrossMentoring OWL programme influences the different concepts of “Societal Factors” is provided at the end of this section.

4.7.1.2.1 Culture

The concept of gender stereotypes is manifold. Within this research, certain aspects regarding social change, dogmas of child rearing, language, and men on parental leave are discussed based on the experiences of the research participants. These include aspects of gender stereotypes regarding society and the economy. Some of the discussions are minimised, as they reflect what is already known through literature. However, an important aspect of this research is that the participants confirmed certain established concepts.

Social Change

According to the participants, a change in society is important for finally eliminating archaic role models. An experienced manager described an experience in which she applied for a job and was convinced that she was a suitable candidate with prospects of success, but then another woman told her that she had no chance because of her gender. This occurred approximately 20 years before this research was conducted, but she could still recall it because she ultimately was not hired for the job, which she interpreted as a confirmation of what she had already decided was true:

[...] "If you were a man, you would be a bearer of hope and so you are only a young woman."

According to an expert, these structures are valid not only for the region of East Westphalia-Lippe, but also for all of Germany. From the expert’s perspective, these structures are exactly what must be dissolved or changed in order to achieve equality.

Precisely these social structures hamper women’s ability to dismantle them, according to one participant. She described her experience as a full-time worker and mother. She found justifying this to be a daily struggle, as she did not correspond to the common role model and needed to expend exhaustive amounts of energy:

[...] that social acceptance is difficult.

Often, women decide to have families instead of careers, which is the old role model. This hinders women's attempts to accommodate both. Women who decide to renounce their careers are especially responsible for the difficulty other women experience in the efforts to reconcile their families and careers:

[...] even the issue of career and family is not accepted socially. And above all, especially not by women. [...] I notice that very strongly, it's an extreme obstacle.

This means that according to the participants, while male decision makers in companies do not trust women with early retirement for various reasons, women also do not trust their female peers with such reconciliation. As such, this phenomenon is more complex than it initially appears.

The participants also agreed that many of the social structures are not necessarily malignant towards women in particular, but rather can become so incidentally. These must be dissolved and changed. These structures may be public or private, and they should be altered accordingly.

Dogmas of Child Rearing

Education is another significant reason why a certain role model still prevails. Some participants openly shared their experiences regarding old-fashioned role models:

[...] Women belong at home to the stove - no, not quite, but almost - and the men are allowed to work as long as they want.

One participant said that she was aware of the fact that her perspective was somewhat outdated, but she found renouncing her inculcated ideas prohibitively difficult:

[...] I still reflect that I really can't get out of certain beliefs.

The younger participants also showed understanding towards their older superiors in this respect. They understood that relinquishing the previous role model was difficult. However, this was no reason for them to not demand it; just because it is difficult does not mean that it is impossible.

One expert described a conversation with a company owner who repeatedly mentioned suffering due to having only three daughters and no son. She was convinced that his intent was not as negative as this seems; rather, he was thinking in terms of the tradition taught to him. This tradition is that a son, not a daughter, inherits a company. That is why the owner of the company described himself as suffering from a lack of sons:

[...] "I am punished with the fact that I have only three daughters."

Some older female participants discussed their childhoods, in which they were unequivocally told that they will marry for the primary purpose of being a wife. An education or career was not an option. At the time, women believed that they would fulfil this expectation. Only across many years did they develop and implement their own ideas.

The question of how a woman should be is fitting here, as it was mentioned by the participants. One of them believed that if a woman must fulfil the ever-frequent role of housewife, then she will hardly become a leader:

[...] the female socialization that conveys completely different values and things that are not suitable for bringing women into management positions.

Language

One male participant stressed his belief that language has a great influence on society. He shared one of his experiences on the subject of care providers. In German, the female form of the word for "nurse" (*Krankenschwester*) is the most common. Literally translated, it means "ill sister". In English, the term "nurse" is neutral and used for both sexes. In his example, the participant addressed a care facility directly and asked why the word for nurse always referred to female nurses (ill sister) and never male nurses (ill brother). He changed the German term to be masculine in order to clarify how some gender stereotypes are anchored in the language:

[...] I never see a man on your posters and when I talk to nursing homes. [...] And when you say "ill brother", nobody knows what it means. Language creates sensitivities, right?

The fact that much has changed in the public image of women is no secret, especially with regard to the advertising industry. One expert compared modern advertisements with past ones, noting how many of the latter would now be unthinkable. One advertisement in a football field bore the words "women and disabled half price". This would not be accepted today. He used this example to show how much has already been achieved. Indeed, he emphasised the importance of recognising established accomplishments in sensitising the general population:

[...] on the football field in Münster a sign said "women and disabled half price".

One expert used a more recent example: an advertisement from the food manufacturer Dr. Oetker for the 2018 World Cup. The company produced an advertisement with a woman baking a kind of football cake with the slogan "Make your husband happy by baking - even if he has a second love". The company was heavily criticised for this advertisement, and the expert found

the societal reaction justified and beneficial, expressing a desire for similar reactions when traditional gender roles are publicly used in the future. In his point of view, language creates mentality.

The expert is certain, as long as these antiquated gender roles are publicly used, nothing will change about the image of women. One participant was sure of that, as women are still repeatedly referred to "old" positions:

[...] I also think it is important to counter gender role stereotypes and sexist images of women in public spaces or advertising.

In addition to raising awareness through language use, the participants also said that making companies and society cognisant of diversity is also important.

Men on Parental Leave

One example that is influenced by both personal and public structures is childcare. In Germany, women still quite frequently choose to be responsible for the majority of childcare, including parental leave. But, as this paper mentioned, the experiences reflected by the participants show how there are now men who do not want to fulfil these clichés, instead desiring to be responsible for the greater part of child rearing. There were examples from both entrepreneurial and socio-political perspectives.

The examples pertain to men who were critically judged by both female and male colleagues because of their decisions to take parental leave. This also shows that there has been a change in society's understanding of roles, although older individuals do not agree with this:

[...] the older colleagues, they have a hard time with that.

Another participant explained that men were only able to take parental leave for one year in her company. Previously, they would not have dared to do so due to the threat of dismissal.

However, not only men have had to accept criticism; their wives are also often suddenly subjected to criticism. Participants related experiences in which the wife of a man on parental leave was immediately criticised because she did not leave instead of her husband, as though he would not do it of his own free will and it were the unspoken duty of the woman to fulfil this role:

[...] What kind of a woman this is who leaves her husband at home.

The participants said that there is much to do regarding cultural change in order to reach equality in management positions.

4.7.1.2.2 Networks

The concept of “Networks” in this paper consists of a brief discussion about the younger generation and its networking behaviour, men’s networks in general, a women’s network in the region of East Westphalia-Lippe, like-minded networking, and the aspect of having a sense of belonging:

Network Generation Among Youths

The importance of a strong network was undisputed among the participants of this research. Interestingly, the various discussion rounds revealed different views on the younger generation and its networking behaviour when compared to the somewhat older generation. Some participants argued that the younger generation has a much larger network than the older one:

[...] The young people have a much larger network than those who are now 55 years old.

Some participants even saw younger aspirants as natural networkers. Others regarded them as social media networkers instead of real-life networkers. Some found that these young people do not understand the benefits of a network in the first place, while others questioned whether networking has changed so much due to the advent of the various social media channels that a different understanding developed between the generations:

[...] so we always have to personally go there. Is this still contemporary for the young generation at all?

An experienced manager also admitted an increasing realisation that she started establishing and using her networks far too late. She wished she had started earlier.

One older participant mentioned an event in which she observed how young people were more interested in social media and their mobile phones than networking. Another participant had a different perception. According to her, her environment bore substantial differences; the younger colleagues were well-connected with everyone, regardless of employer. In contrast, the older colleagues wondered whether they should talk to someone who might work for their competitors. From the participants’ perspectives, the younger generation has much more networking affinity than their older colleagues:

[...] So my young colleagues, they go to events, they address everybody [...] They do that a lot more naturally than we do.

In other words, this perception was quite the opposite of the other participant’s assessment. This could also be more closely examined by further research.

Men's Networks

Men's networks were a topic of this study that women were also concerned with. According to the participants, these men's networks are closely and unavoidably interwoven with corporate structures. Many women also reported that these men's networks are a major barrier for them:

[...] One is the structure in the companies, which does not really promote women, which has good networks of men or one can also say old-boy network of men.

Many women felt discouraged by these strong male networks from which they felt excluded:

[...] it's important again to realize how stable these networks of men are and what depressing or discouraging effects this has on women

The participants, however, saw a role model function in the men's networks, which is a structure they wished to also see in women's networks. Among men it is called the buddy system because they support each other as friends or "buddies". According to the participants, same-gender mentoring therefore also occurs among men, though it is more natural within their networks:

[...] Well, mentoring also takes place for men, but it's a buddy system or whatever it's called.

To the participants, the goal should be that the networks are so tightly interwoven that equality renders no difference between male and female networks:

[...] hopefully at some point that it doesn't matter which gender is behind it.

"MIOs" – Women's Network in East Westphalia-Lippe

Since 2015, there has been a women's network for female managers in East Westphalia-Lippe, the so-called MIOs - "Managerinnen Ostwestfalen Lippe". The network was founded by former mentors of "CrossMentoring OWL" and their acquaintances. The network describes itself as an independent network of female managers of the East Westphalian economy with leadership responsibility and entrepreneurial thinking and action. Strengthening the presence and positioning of female managers in the economy of East Westphalia-Lippe is the declared goal of the network.

Although the participating experts from the MIOs were not explicitly addressed, the network was nevertheless cited by both male and female participants as an extremely positive example of women's networks. They noted that they are impressed by the professionalism of the women's network; it manages to be successful without a confrontational course concerning gender:

[...] There are many refreshing initiatives, for example the MIOs in OWL.

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The participants were particularly pleased that the MIOs acted normally and did not present themselves as exotic. Although it is a women's network, the MIOs also host high-profile events for a mixed audience.

However, the participants also agreed that women find participating in informal networks, e.g. requesting assistance, much more difficult.

4.7.1.2.3 Brief Summary: Influence of the CrossMentoring OWL Programme on the Societal Factors

The CrossMentoring OWL programme influences the higher concept of "Societal Factors", as outlined by the following Table 25. With regard to each concept, the programme has either direct influence, potential direct influence, or no direct influence at all.

OBJECTIVE: THEMATIC FRAMEWORK THAT ASSOCIATES SKILL SHORTAGES IN MANAGEMENT WITH THE EFFECTIVENESS OF THE "CROSSMENTORING OWL"-PROGRAMME:			
THEME	HIGHER CONCEPTS	LOWER CONCEPTS	DIRECT INFLUENCE OF THE PROGRAMME
EXTERNAL FACTORS	Societal	<ul style="list-style-type: none"> • Culture • Network 	 
Key:		Direct influence of the programme	
		Potential direct influence of the programme	
		No direct influence of the programme	

Table 25: Influence of the "CrossMentoring OWL"-programme on the higher concept of "Societal Factors".

The lower concept of "Network" is directly influenced by the programme, and this influence is manifold. First, it clearly outlines the importance of networks through in-depth discussions and oral presentations. Second, it helps women understand the strengths of men's networks via experiences of participants. Third, the programme acts as a network for the participants. Fourth, the programme even led to the foundation of a women's network in East Westphalia-Lippe. Hence, there is no doubt that the programme has direct influence on the lower concept of "Network".

The programme might have some influence on the lower concept of "Culture", but not to its maximum extent. The possibility of exchanging ideas with like-minded people (such as women attempting to combine career and family) contributes to altering dogmas of child rearing for future generations. It might also have an influence on the acceptance of men taking parental leave, as the programme could act as a place where this can be discussed and experiences can be shared. Through further discussions about this topic with family members, friends, and colleagues who are not in the programme, it might even help normalise men taking the bigger share of parental leave.

The programme might raise awareness of the problems of male decision makers mistrusting women in management roles and women questioning the compatibility of family and career. Again, the programme influences these concepts because of the open exchange between the participants and the visualisation of successful role models. However, both concepts need time to change. The programme thereby raises awareness of women's potential in leadership roles. As outlined in Table 25, the programme might influence the lower concept of "Culture", but not directly. One example of this is the cultural aspect of language used in advertising. The programme helps raise awareness of these aspects in terms of gender equality. However, the programme is not designed to change them.

4.7.1.3 Legal Factors

The concept of legal factors relates to aspects of equality through its lower concepts of legal regulation of the women's quota, legal regulation of child care, and related socio-political aspects. These are outlined in Table 26. A more detailed explanation on why the CrossMentoring OWL programme hardly influences the different concepts of "Legal Factors" is provided at the end of this section.

THEME	HIGHER CONCEPTS	LOWER CONCEPTS
EXTERNAL FACTORS	Legal	<ul style="list-style-type: none">• Women's quota• Legal regulation of child care• Socio-political aspects

Table 26: Legal factors and its lower concepts.

The general idea is that there is a need for a stronger legal basis for changing the existing attitudes of decision makers and company cultures. Women who participated in this study shared their particular dissatisfaction that, based on their experiences, less qualified men are preferably hired in order to avoid the risk of hiring a woman who might become pregnant:

[...] the less qualified man is always hired by men. "Come on, at least he won't get pregnant."

4.7.1.3.1 Women's Quota

Many of the participants – female and male – argued in favour of a legal regulation of the women's quota in order to reach equality in the labour market. Interestingly, several participants used similar terminology of prejudices against female applicants and in favour of

male applicants due to the former's potential for pregnancy. This prejudice seems to occur frequently:

[...] There must be a quota.

However, there were also doubts about the quota due to the conviction that pressure often leads to counter pressure. There was a particular fear that a corresponding quota of women could lead to less flexibility in child and family care. In short, a quota could have a counterproductive effect on the compatibility of family and career. Other participants were certain that companies will only change their behaviour if they are forced to:

[...] I fear that this is only - yes, actually only really done at the moment when they have a compulsion.

However, much has been said about the possible interpretation or definition of the quota. Someone asked whether fixing it as a percentage is correct, as this might lead to something lower than one. A better policy might be that one in every three employees must be female. There was even a question regarding whether making determinations based merely on gender is correct.

The participants believed that there is a clear need for action to change the inequality in management positions. In their opinions, this has not happened despite the possibility of willing implementation having existed for some time:

[...] there's a need for action, so something has to happen now, because today it's not being used properly.

4.7.1.3.2 Legal Regulation of Childcare

Another aspect that was discussed with regard to a legal requirement was parental leave. The participants discussed the sensibility of making a legal requirement that parents only take parental leave as long as they share it fairly among themselves.

From the perspectives of some participants, this would lead to a dissolution of the prejudice against women "because of which they become pregnant and then stay at home for a long time". It would lead to equal rights for both sexes because men could also become fathers:

[...] then this topic would be omitted, that women in any case or that is assumed, it is only assumed that women stop longer than men.

Others, especially women, were against a legal regulation of parental leave distribution; for them it was too strong an invasion of privacy:

[...] I'd find a little too much prescribed now.

Currently, the situation in Germany is regulated in such a way that parents may freely choose. However, if both partners take at least two months of parental leave, then the entire parental leave period can be extended by two months. However, some criticise the current approach, as a man usually takes parental leave in parallel with his wife. This means that even though the man is with the child, the woman cannot go back to work and therefore has no interruption of her parental leave:

[...] that doesn't help us women either.

4.7.1.3.3 Socio-Political Aspects

Some experts even thought that young women should more forcefully conglomerate and consciously invite politicians into their networks in order to make their demands for equal rights known:

[...] call for compatibility, family-friendly businesses, childcare and the like.

The responsibility for rethinking gender roles is seen not only in companies, employers, and superiors, but also in politics:

[...] these are also the sticking points to involve the company more strongly and perhaps also to involve society and politics more strongly.

4.7.1.3.4 Brief Summary: Influence of the CrossMentoring OWL Programme on the Legal Factors

The influence of the CrossMentoring OWL programme on the higher concept of "Legal Factors" is very limited, if at all extant. As outlined by the following Table 27, the programme has hardly any direct influence on the discussed concepts.

OBJECTIVE: THEMATIC FRAMEWORK THAT ASSOCIATES SKILL SHORTAGES IN MANAGEMENT WITH THE EFFECTIVENESS OF THE "CROSSMENTORING OWL"-PROGRAMME:			
THEME	HIGHER CONCEPTS	LOWER CONCEPTS	DIRECT INFLUENCE OF THE PROGRAMME
EXTERNAL FACTORS	Legal	• Women's quota	✗
		• Legal regulation of child care	✗
		• Socio-political	✗
Key:	✓	Direct influence of the programme	
	!	Potential direct influence of the programme	
	✗	No direct influence of the programme	

Table 27: Influence of the "CrossMentoring OWL"-programme on the higher concept of "Legal Factors".

The programme helps women better perceive their strengths and assert them accordingly. This influence can also have an impact on the discussed socio-political level in which women draw

more attention to themselves and correspondingly demand equal rights. However, the programme itself has no ability to amend legislation, be it the women’s quota or the legislation of child care.

4.7.2 Category “Corporate Factors”

The category “Corporate Factors” was fundamental to all groups of participants and acted as the pivotal link in each interview. All groups of participants were very clear in their arguments that every necessary change to support women in attaining management positions must begin in this category. There were two main concepts which were closely linked and therefore grouped into the main theme “Corporate Factors”, as outlined in Table 28. Both the higher and lower concepts are discussed in the following sections.

THEME	HIGHER CONCEPTS	LOWER CONCEPTS
CORPORATE FACTORS	Corporate structure	<ul style="list-style-type: none"> • Company size • Talentmanagement • Sensitisation of male decision makers • Employer flexibility
	Corporate culture	<ul style="list-style-type: none"> • Creating normality • Benefit through diversity • Manifested attitudes • Change of mentality

Table 28. Category “Corporate Factors”.

4.7.2.1 Corporate Structure

The higher concept of “Corporate Structure” is comprised of lower concepts, as outlined in Table 29. A more detailed explanation on how the CrossMentoring OWL programme influences the different concepts of “Corporate Structure” is provided at the end of this section.

THEME	HIGHER CONCEPTS	LOWER CONCEPTS
CORPORATE FACTORS	Corporate structure	<ul style="list-style-type: none"> • Company size • Talentmanagement • Sensitisation of male decision makers • Employer flexibility

Table 29: The concept of “Corporate Structure” and its lower concepts.

4.7.2.1.1 Company Size

There were lively discussions about the possible influence of a company’s size on the promotion probability of women. East Westphalia- Lippe is characterised by medium-sized companies. Some participants saw a clear competitive disadvantage here due to limited promotion possibilities in comparison with large enterprises. These participants maintained that such

would be the case unless there were personnel managers especially committed to the promotion of young women:

[...] big companies are better off again because they have much more possibilities.

In addition to limited development opportunities, the size of a company also influences the acceptance of women as managers, according to the participants. Male tradition can become an especially hindering obstacle for women. For example, some participants believed that women have more difficulty in assuming leadership roles, especially in smaller and medium-sized companies:

[...] it is probably more difficult for women.

Others, however, saw an advantage in the flat hierarchies of small companies, as these lead to changes being implemented more quickly than in large companies. Either way, everyone agreed that the situation depends on the individual manager. Without this one's help and commitment, promotion of women will not succeed:

[...] but it is still up to individual managers, isn't it?

Above all, there is a lack of female pioneers who leave positive impressions and thereby show that women are able to successfully fill management positions:

[...] so mentality, tradition, missing, a missing pioneer..

4.7.2.1.2 Talent Management

An important point in the normalisation described above is the promotion of young females to positions among the junior staff. The participants agreed that, due to the tense labour market, companies have a duty to offer potential junior managers the prospect of development potential and promotion:

[...] you just have to recognise these talents and then you have to see that you really train them so well that they can continue there.

Some participants were convinced that well-networked colleagues could also assume this role if superiors or managers failed to do so. Regardless of who fulfils this duty, taking care of the young employee's potential is important.

4.7.2.1.3 Sensitisation of Male Decision Makers

Due to the fact that most leadership positions are still filled by men, the participants were concerned about sensitising decision makers and personnel managers in particular so that they think in terms of gender diversity and change company structures accordingly.

One of the experts described a parental meeting at a school as another example which illustrates the need to sensitise male decision makers to gender stereotypes. According to the expert, parent-teacher evenings are always attended by the parents of successful pupils, but not the parents of problematic children. This expert explained that events for the promotion of women in management are similar; only women are present at such events, and the few men who are present are already active in the promotion of women. Similarly, companies which are deemed to have not satisfied demands for gender equalisation are not to be seen:

[...] there are always those who find the topic good and have actually already understood it. And those who actually need it are not there.

The participants seemed certain that gender diversity must become a topic of discussion in these companies, as otherwise nothing will change. Pioneers are needed to realise this, and the participants saw no other possibility:

[...] but in any case, it is about sensitising companies to the idea of gender issues or diversity as a topic [...] you need icebreakers, there has to be openness, otherwise it's really difficult.

A female participant added that she believed women no longer being overlooked for promotion due to trepidation about potential pregnancy would be advantageous.

4.7.2.1.4 Employer Flexibility

In addition, the study participants expected greater flexibility from employers. The participants particularly focused on flexible work schedules. The topic of linking family and career is worthy of mention here as well. However, flexible work schedules also entail risks. In Germany, offices have a culture of presence, which means that employees in many companies feel obliged to remain physically present in their offices for extended periods in order to be appreciated:

[...] especially as far as management positions are concerned, it is of course important to have a lot of presence right from the start, to work a lot of overtime.

This culture of presence means that career-oriented employees attach great importance to whether they are noticed in their companies. Thus, participating in meetings physically and not digitally (via video chat, telephone connections, etc.) is still common.

Therefore, a question developed concerning how to ensure the visibility of employees who, for various reasons, require flexible work schedules. Such employees may arrive at and leave their offices earlier, or perhaps they work from home offices instead.

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According to the participants, part-time leadership roles should be more emphasised by employers. From the participants’ perspectives, employers of the future will normally fill certain positions, such as project managers, with part-time staff. However, in order to ensure the functionality of such a world, employers must study and make changes:

[...] you can also do a project management in part-time.

This desired sensitisation of companies is a goal in several areas, namely more flexible work schedules and departure from gender-specific stereotypical thinking about family planning.

4.7.2.1.5 Brief Summary: Influence of the CrossMentoring OWL programme on Corporate Structure

The CrossMentoring OWL programme influences the higher concept of “Corporate Structure”, as outlined by the following Table 30. There are certain concepts over which the programme has direct influence, while it has potential influence over others.

OBJECTIVE: THEMATIC FRAMEWORK THAT ASSOCIATES SKILL SHORTAGES IN MANAGEMENT WITH THE EFFECTIVENESS OF THE "CROSSMENTORING OWL"-PROGRAMME:			
THEME	HIGHER CONCEPTS	LOWER CONCEPTS	DIRECT INFLUENCE OF THE PROGRAMME
COMPANY	Structure	<ul style="list-style-type: none"> • Company size • Talentmanagement • Sensitisation of male decision makers • Flexibility of employer 	
Key:		Direct influence of the programme	
		Potential direct influence of the programme	
		No direct influence of the programme	

Table 30: Influence of the "CrossMentoring OWL"-programme on the higher concept of "Corporate Structure".

The programme directly influences the lower concept of the “sensitisation of male decision makers” through the visualisation of successful female managers. This influence might not be limited to only involved male decision makers, as these men might share their experiences within their networks with other men.

There are lower concepts over which the programme might have some influence, but not to its maximum extent. Such concepts include “company size”, its influence on the promotion of women, the importance of “talent management”, and the participants’ demand for an increase in the “flexibility of the employers”. Each of these concepts is influenced through the exchange between the programme participants. This exchange is not limited to the mentees and mentors, but can also be extended to the decision makers of the company.

Each year, there are three scheduled events at which the participating company representatives can exchange information. In addition to the opening and closing events (to which all participants are invited), the entrepreneurs' meeting is where diverse experiences can be exchanged without disturbance. This exchange can lead to dissolution of the business structures of various SMEs and their adaptation to mixed teams. In addition, the programme clearly shows the potential of women as managers. An exchange at the entrepreneurial level is also helpful in further advancing the cultural change initiated by the programme. Thus, decision makers can more easily notice the importance of promoting women's talents and distancing themselves from possible gender stereotypes. In addition, the exchange allows companies to learn from each other about the implementation of more flexible work models, be they home offices, flexible working hours, job sharing, or other innovations.

However, the programme has the potential to much more greatly impact this area. In the interviews with the study participants, they repeatedly noted that company representatives and decision makers should be more integrated into the programme not as mentors, but rather as parts of the existing framework. This would lead to a closer exchange, and companies could more effectively and intensively learn from each other. From the study participants' perspectives, this would also lead to some male decision makers losing their fear of change. The exact suggestions for improvement in this respect are described in chapter 4.8, "Future Prospects".

4.7.2.2 Corporate Culture

As outlined in Table 31, the higher concept of "Corporate Culture" is comprised of discussions about creating normality, benefit through diversity, manifested attitudes, and changing a company's mentality. A more detailed explanation on how the CrossMentoring OWL programme influences these concepts is provided at the end of this section.

Different definitions about corporate culture exist. Cremer (1993) sees culture as an representation of the unspoken code of communication among members of an organisation. Another possible way of looking at culture is to view it as a convention that helps coordinate (Guiso, Sapienza and Zingales, 2015). To understand culture as "a set of norms and values that are widely shared and strongly held throughout the organization" is common in managerial literature (O'Reilly and Chatman, 1996; Guiso, Sapienza and Zingales, 2015). For this research O'Reilly's and Chatman's (1996) definition of corporate culture is applied.

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THEME	HIGHER CONCEPTS	LOWER CONCEPTS
CORPORATE FACTORS	Corporate culture	<ul style="list-style-type: none">• Creating normality• Benefit through diversity• Manifested attitudes• Change of mentality

Table 31: The concept of "Corporate Culture" and its lower concepts.

A repeatedly mentioned problem regarding the acceptance of women was these companies' lack of tradition. The participants did not see this as an excuse, but rather as a justification for the mainly male leadership culture.

4.7.2.2.1 Creating Normality

Due to the fact that there are hardly any women in leadership positions, such women seem abnormal. This is why many participants argued that the primary focus should be on normalising the notion of women in leadership positions.

From the participants' perspectives, hiring a woman due to merely not finding a man is insufficient. This suggests that a woman is automatically only a second choice, which the participants found morally disagreeable. The existence of such a notion shows that normalisation must occur so that these views and traditions will change and women will finally have equal opportunities. The participants believed that the mentoring programme could help in this:

[...] Well, I think such mentoring could help if it does not serve to cement any special features, but rather creates normalities.

Paired team appointments can, according to a participating expert, also help normalise filling management positions with women. However, this must be enforced by the mostly male superiors and managers. From the expert's point of view, the creation of normality is the most important step in this context; no longer differentiating between men and women must become standard:

[...] it is important, at the moment, that male specialists and managers are also aware of this normality, for example of a parity team.

4.7.2.2.2 Benefit Through Diversity

In order to be able to change something, one must have become aware of it. As such, the study participants believed that companies must be made clearly aware of how important women are for economic success:

[...] Of course, it is also due to the awareness of the companies, which first have to recognise for themselves that women are important - or that it is not possible without women.

The participants in the study agreed that the head of a company is responsible for designing its corporate awareness. This will only be reflected in the corporate culture if the decision makers are convinced that women add value:

[...] but that's a question of corporate culture. So that's actually the case. And a question of the bosses.

Mentoring can help one reflect on his corporation's culture. One participant was convinced that the cross-company aspect of the programme could be particularly helpful. However, he doubted that mere mentoring would be able to propagate a change in mentality. It is an important tool, but more tools are needed:

[...] I think mentoring is a building block, I think it's really good.

4.7.2.2.3 Manifested Attitudes

With regard to manifested attitudes, a realistic assessment of the current situation must first be made before it can be adapted accordingly. The study participants believed that time will be necessary for the manifested attitudes to change. From their perspectives, there is a necessity for continuous visible examples of companies that have successfully implemented the concept of gender diversity in management. This was, according to the participants, the only way to convince the remaining dissenting executives that a successful change must be made now:

[...] somehow make it clear to even the most robust boss of small and medium-sized businesses.

According to an expert, one should not be deterred by an old-fashioned leader who rejects women in management on principle. The expert believed objective discussion with such people to be impossible:

[...] "I don't want a woman in a certain leadership position." You can't get to such retro alpha animals argumentatively.

4.7.2.2.4 Change of Mentality

From the perspectives of the study participants, the desired change in mentality will only be possible through positive examples. Once again, the topic of creating a new reality is being addressed in relation to corporate culture.

With regard to such positive examples of successful career women, a male participant pointed out that these should not necessarily be women who have lost their femininity during their careers due to adaptation to their male colleagues. He believed that this would again result in a false idea of a successful career woman:

[...] thus positive examples, but then please also not such streamlined, sharp-edged career women.

One expert believed that this change in mentality must be proactively initiated and implemented by the current young generation. She thought that this generation must demand it, perhaps even more aggressively than previous generations. Her opinion was that only by changing people's mindsets changes in companies' mentalities could be made possible:

[...] I believe that the mentality will change in the next step.

A former mentee stated that, by participating in the programme, she realised that much about corporate cultures had already changed. She thought that her mentor's generation had had much greater difficulty. This left her with two impressions. The first was the confirmation that change had already begun. The second was her belief that the mentors' generation could be proud of their success in initiating changes:

[...] I think they had it a lot harder and I think you learn to appreciate that a bit.

A certain reconsideration has already occurred among men of the younger generation. The participants believed that they have hardly any problems working in mixed teams or accepting a woman as CEO. This is a result of generational change, according to the participants:

[...] for them it's normal to work in mix teams and I think they accept afterwards if the CEO is also a woman.

Nevertheless, there is still much to be done before equality on the labour market is achieved, which is why companies' mentalities must still considerably change, according to the participants. This is especially true because the decision makers in companies are men of the older generation or men who are still in the early stages of mentality change.

4.7.2.2.5 Brief Summary: Influence of the CrossMentoring OWL programme on "Corporate Culture"

The CrossMentoring OWL programme influences the higher concept of "Corporate Culture", as outlined by the following Table 32.

OBJECTIVE: THEMATIC FRAMEWORK THAT ASSOCIATES SKILL SHORTAGES IN MANAGEMENT WITH THE EFFECTIVENESS OF THE "CROSSMENTORING OWL"-PROGRAMME:			
THEME	HIGHER CONCEPTS	LOWER CONCEPTS	DIRECT INFLUENCE OF THE PROGRAMME
COMPANY	Culture	<ul style="list-style-type: none"> • Creating normality • Benefits through diversity • Manifested attitudes • Change of mentality 	   
Key:			
		Direct influence of the programme	
		Potential direct influence of the programme	
		No direct influence of the programme	

Table 32: Influence of the "CrossMentoring OWL"-programme on the higher concept of "Corporate Culture".

There are certain concepts over which the programme has direct influence, while it has potential influence over others. The programme directly influences the lower concepts of "Creating Normality" and "Change of Mentality". Again, the programme helps create normality via visualisation of successful female managers who might even manage to have both families and careers. Therefore, the programme also helps change companies' mentalities, as it provides positive examples of women in leadership positions. This might help the older generation of male decision makers realise that a change of corporate mentality towards gender equality should occur.

There are lower concepts over which the programme might already have some influence, but not to its maximum extent. These concepts are "benefits trough diversity" and "manifested attitudes". Regarding corporate culture, one can say that, through the visualisation of successful female managers, the programme might help convince decision makers to reflect on their corporate cultures and realise that change should be made. This is how the programme might also help change manifested attitudes.

However, this is also the point at which the programme reaches its limit. The programme is not designed to actively change corporate culture, though this is desirable side effect. The programme also does not convince people opposed to women in management roles. These people will neither participate in the programme nor proactively engage with people with different opinions.

Nevertheless, the programme could have a much greater impact in the concept of "Corporate Culture". Again, the study participants repeatedly noted that company representatives and decision makers should be more integrated into the accompanying programme. This would lead to a closer exchange, and companies could learn more effectively and intensively from each

other. This might instigate self-reflection about corporate culture. The exact suggestions for improvement in this respect are described in Chapter 4.8, "Future Prospects".

4.7.3 Brief Summary – "A Thematic Framework That Associates Skill Shortages in Management with the Effectiveness of the CrossMentoring OWL Programme"

The topics discussed in this section are summarised in Table 33. It outlines the related categories, including the higher and lower concepts. In the last column, the table shows whether the programme directly influences these concepts.

OBJECTIVE: THEMATIC FRAMEWORK THAT ASSOCIATES SKILL SHORTAGES IN MANAGEMENT WITH THE EFFECTIVENESS OF THE "CROSSMENTORING OWL"-PROGRAMME:			
THEME	HIGHER CONCEPTS	LOWER CONCEPTS	DIRECT INFLUENCE OF THE PROGRAMME
EXTERNAL FACTORS	Economic	<ul style="list-style-type: none"> Labour market situation Skill shortages in management 	<ul style="list-style-type: none"> ✗ ✗
	Societal	<ul style="list-style-type: none"> Culture Network 	<ul style="list-style-type: none"> ! ✓
	Legal	<ul style="list-style-type: none"> Women's quota Legal regulation of child care Socio-political 	<ul style="list-style-type: none"> ✗ ✗ ✗
CORPORATE FACTORS	Structure	<ul style="list-style-type: none"> Company size Talentmanagement Sensitisation of male decision makers Flexibility of employer 	<ul style="list-style-type: none"> ! ! ✓ !
	Culture	<ul style="list-style-type: none"> Creating normality Benefits through diversity Manifested attitudes Change of mentality 	<ul style="list-style-type: none"> ✓ ! ! ! ✓
Key:	✓	Direct influence of the programme	
	!	Potential direct influence of the programme	
	✗	No direct influence of the programme	

Table 33: A framework that associates skill shortages in management with the effectiveness of the "CrossMentoring OWL"-programme

Looking at Table 33, one can clearly notice that the factors influencing skill shortages in management are manifold and that the CrossMentoring OWL programme has only limited influence on some factors. Nevertheless, the programme is effective within its intended scope. The influence of the programme could even be widened if there were implementation of changes such as recruiting the companies' real decision makers. In chapter 4.8, "Future Prospects", certain suggested improvements are discussed in great detail.

4.8 Future Prospects

The purpose of this research is to determine how the programme can be improved in order to better meet the needs of the region in terms of counteracting skills shortages. Therefore, goal-oriented activities for addressing the central phenomenon and its consequences are outlined in the following Figure 36. The strategies were developed based on the interviews and focus groups and later discussed with a mixed focus group.

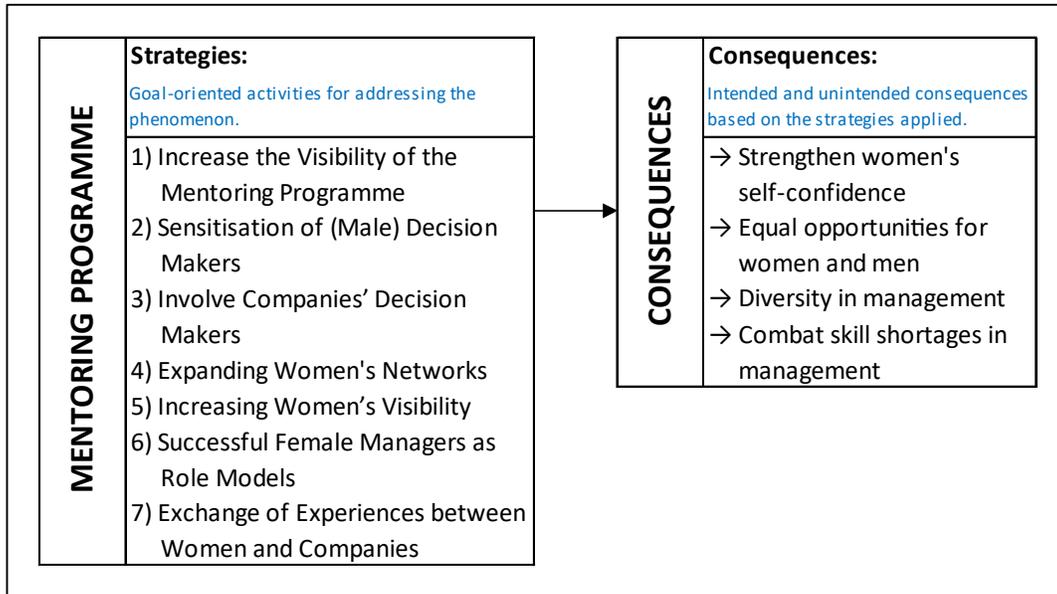


Figure 36: Developed strategies to improve the mentoring programme and expected consequences thereof.

The mixed focus group consisted of four participants of differing sex, age, and background. These were two human resource managers who knew the programme, a former mentee, and a young male manager of the region.

4.8.1 Desired Consequences

These are the desired consequences based on the goal-oriented strategies for addressing the phenomenon: a) strengthening women's self-confidence; b) creating equal opportunities for women and men; c) increasing the level of diversity in management; d) counteracting skill shortages in management in East Westphalia-Lippe. All of these consequences were generated through the interviews and focus groups and aim to enable the programme to better meet the needs of the region in terms of skill shortages. In the following section, the potentials of the developed strategies to improve the cross mentoring programme are discussed as outlined in Figure 36.

4.8.2 Proposed Strategies

In order to achieve the consequences of diversity in management and more effectively promote equal opportunities for women and men, several recommendations were identified in the interviews with former mentees, successful managers, and experts from the region. These recommendations were then discussed and agreed with the mixed focus group. The purpose of the CrossMentoring OWL programme is to contribute to counteracting the shortage of skilled workers in management and to strengthen women's self-confidence. The following Table 34 outlines the questions discussed in the mixed focus group for each developed strategy. The outcomes of these discussions are provided in the following sections.

Questions discussed in the mixed focus group
1) Do you believe that the implementation of the recommendation would have an impact on the success of the mentoring programme in achieving the objective of tackling management skills shortages in East Westphalia-Lippe?
2) What difficulties do you see in implementing recommendation?
3) What resources would be necessary to implement it?

Table 34: Mixed focus group questions for each proposed strategy.

4.8.2.1 Increase the Visibility of the Mentoring Programme

The programme has existed since 2006 and helped 237 mentees. Although its reach is limited to a relatively small group of companies, many mentors and companies participate regularly. There are likely other companies which do not even know of the programme even though they might be interested in participating.

The need for programme supporters was discussed in 4.5.2., and this need is why there was a proposition to increase its visibility in order to acquire more supporters.

Thoughts of the Mixed Focus Group Participants

In general, the participants agreed that the proposed action to increase the programme's visibility would have a positive impact on its success in tackling management skills shortages in East Westphalia-Lippe.

According to one participant, few people know of the programme, which is why young female professionals find difficulty in expressing their desires to participate. Potential supporters cannot offer their patronage if they are unaware of the programme:

[...]I think many people don't even know that this programme exists.

A female participant even said that, based on the programme's lack of visibility, she thinks that women might not even be aware that there are like-minded people around them. This links to what was discussed in chapter 4.4.2.6, "Sense of Belonging", and chapter 4.5.1.1.2, "Networks with Like-Minded People". According to the participants, women must experience a change in order to exchange knowledge with like-minded people:

[...] I believe that perhaps even some women in particular do not necessarily realise that there are like-minded people in this respect.

The participants agreed that the best way to increase the visibility of the programme is to show that effective female managers emerge from it, as it allows participants a chance to relate to practical experiences:

[...] good managers and women specialists emerge from this mentoring programme.

Potential Difficulties

The participants agreed that advertising could be done on social media websites like Xing, LinkedIn, or even Facebook. Their arguments for this suggestion were cost savings.

[...] I think you can advertise relatively cheap via social media, via LinkedIn, via Xing.

Necessary Resources

The participants believed that some sort of marketing must be done to increase the programme's visibility:

[...] You need marketing.

This could be done via additional labour in the programme's management or the help of external marketing agencies. Regardless, all implementations require time and money, as this additional labour must be paid.

4.8.2.2 Sensitisation of (Male) Decision Makers

The need for sensitisation of male decision makers was discussed in chapter 4.7.2.1.3. Based on the interviews and focus groups at the beginning of this research, sensitisation to gender stereotypes was identified as a potential management action for improving the programme.

Thoughts of the Mixed Focus Group Participants

All of the participants agreed with this suggestion and added that sensitising the decision makers of the companies was especially important, as they are the ones who pay for participation in the programme. If decision makers are aware of the potential benefits of making hiring decisions based on participation in the programme, they are more likely to spend money on it:

[...] Especially when they have to be brought into the boat in monetary terms.

Potential Difficulties

Although all participants agreed that the proposed action would be a good choice for improving the programme, they also expressed concerns regarding its implementation. They thought it would be particularly difficult due to requiring a case-by-case approach instead of a general one:

[...] I think it's relatively difficult. I think it's relatively individual.

One must be certain that decision makers will be receptive towards the implementation, else it is a waste of resources:

[...] It has to hit a certain fertile ground, otherwise I think this is a difficult event.

One of the participants highlighted an interesting point: she said that the stubbornness of some elderly male executives might arise from fear. Perhaps they should be reeducated to believe that “your money is not lost if you invest into a young woman”. Even if she might have a family, she can still work full-time:

[...] I think, despite all the stubbornness of one or the other male executive [...] you also have to take their fears seriously. So there's the fear that I'm building someone up and they disappear into this parental role, right?

All of these aspects are related, and this approach highlights the need for labour power. This reeducation of elderly male decision makers might, according to the study participants, help stop companies from choosing a less suitable male candidate merely due to fear of potential pregnancy. It might also teach them that having a child need not entail ending one's career:

[...] that is the sensitising function I still see there. Because you might then decide on a worse male candidate because of precisely this fear.

Necessary Resources

Once again, the participants emphasised that labour and money are the necessary resources:

[...] Well, for resources, I'd say manpower.

The participants also made an interesting implementation proposal. They believed that the best way to approach male decision makers is through other male decision makers. From the participants' points of view, men in certain hierarchical positions communicate in their own ways. If a male decision maker talks to other male decision makers, they might be more easily convinced and boost support for the programme:

[...] Actually, I think you need a male example that goes first for the one or other male decision maker who advertises it.

4.8.2.3 Involve Companies' Decision Makers

This strategy is closely linked to the previously discussed activity, though it is meant to involve the decision makers in the mentoring programme and not in the tandem relationships, as they should remain segregated by gender.

Thoughts of the Mixed Focus Group Participants

The participants agreed that there is a need to more closely involve the decision makers of the participating companies. One participant noted that not all of the decision makers in his company were aware of the programme or its benefits. This was the case despite the fact that the company had already participated in this programme for years:

[...] I can say that about our company, there were some managers who didn't know that at all.

One participant concluded that involving people affected by the programme would help and that East Westphalia-Lippe's small size would enable word-of-mouth advertising to do the rest:

[...] Turning those affected into those involved helps in any case.

Potential Difficulties

The main question discussed regarding the potential difficulties was how to motivate male decision makers, preferably older ones, to participate in the programme. One suggestion was to give them roles such as leading workshops or presentations:

[...] it might also be attractive to give them a role. That means that the decision makers themselves give a lecture or a workshop.

A male decision maker might thereby attribute the success of the programme to his engagement, which would encourage other men to participate.

Necessary Resources

The participants believed that, in order to recruit other decision makers, there must be a "connector" in the form of a person who recruits the first potential male decision maker as an active participant.

4.8.2.4 Expanding Women's Networks

There was a discussion about whether expanding women's networks would improve the programme, and most of the female participants believed that they lacked networks of like-minded individuals. This need for networks was extensively discussed from different perspectives in chapters 4.5.1.1.2, 4.6.1.3, and 4.7.1.2.2. Due to its significance, this factor was designated as a potential action for improving the programme.

Thoughts of the Mixed Focus Group Participants

The participants agreed that networks are essential to every undertaking:

[...] Without networks, today nothing is possible.

However, they questioned whether expanding women's networks would influence the programme's success:

[...] I would doubt whether an expansion of the women's network would actually help to further focus and strengthen a mentoring programme.

In the participants' point of view, this mentoring programme is widely accepted among female managers, but it needs more acceptance from male managers.

After considering this notion, they concluded that it would have little impact:

[...] I would even say that this has the least, the least input at the moment on the mentoring programme.

Potential Difficulties

The different target groups of the mentoring programme and the existing women's network called MIO were topics of substantial conversation. The mentoring programme targets young, high-potential females who strive for management positions, whereas the MIO network targets female managers who have held their positions for years. There is thus a gap between these institutions:

[...] the mentoring programme works for women who are in junior management positions or want to develop further in the specialist area. But the MIOs programme, [...] presupposes that I have a certain management experience.

Furthermore, there are other women's networks, which is why the participants discussed whether discriminating based on gender or targeting mixed networks would be more helpful.

They also discussed whether something like an alumni-programme for mentees would be sensible. This would be a continuously growing network based on the mentoring programme, and it could be used to support mentors:

[...] a kind of alumni programme, so now of course not exclusively, it should actually have a support function.

An elderly female participant mentioned a particularly interesting point. She said that her generation was somewhat reluctant to adopt purely female networks. Being part of a women's network is a source of shame rather than pride, she thought. She was convinced that women's networks had been unpopular during her youth. For her, publicly claiming to be in a mixed network was easier, as women's networks might elicit unsavoury connotations. She was aware, however, that her perspective was obsolete, which is why she had been willing to engage in the female-only mentoring programme. Despite this, she was still reluctant to be a member of such a network:

[...] I also don't know what it's like with such young women these days. So with my generation, i.e. 40 plus, it's more of a bitter aftertaste: "I'm in a women's network".

A younger female participant believed that she had recognised similar behaviour from her mentor, though she was rather proud of being part of such a women-only network. From her perspective, this had almost been the case for the women of her generation as well:

[...] I proudly or gladly go to such events.

Necessary Resources

Because the participants did not agree that expanding women's networks would improve the programme, there was no further discussion on the resources necessary for its implementation.

4.8.2.5 Increasing Women's Visibility

The need to change perceptions (i.e. create new realities) was discussed in chapter 4.6.1.2. One way to do so is to increase women's visibility in order to illuminate their potential. Although the programme already increases women's visibility, it still needs to do more in the participant's perception. This suggestion was proposed to the focus group so that its members could express whether they thought it would improve the programme.

Thoughts of the Mixed Focus Group Participants

The participants agreed that seeing women in leadership positions must become normalised:

[...] and it has to become more natural that the women are simply there.

They also agreed that seeing examples of successful women encourages other women to work on their careers, assuming they desire to:

[...] That gives courage, if the women are more often visible or so, the successful women.

Hence, this would improve the mentoring scheme as the potential of women becomes visible, but it would also help women's careers generally.

Potential Difficulties

Decision makers' support is necessary to make successful women visible, as previously discussed.

Necessary Resources

There must be willing successful female managers who agree to be advertised publicly. Again, some labour and funds are needed for implementation:

[...] Advertising budget.

4.8.2.6 Successful Female Managers as Role Models

The need for female role models was extensively discussed in chapters 4.4.1.1.6 and 4.4.2.4. Provision of such role models was designated as a potential action for improving the programme. Although the mentees already gain access to female role models through the programme, it is not enough in the participants' view. There is a need for many more female role models beyond the programme.

Thoughts of the Mixed Focus Group Participants

The participants agreed with this suggestion without reservation. According to them, providing role models was similar to increasing women's visibility. If there were more visible role models in addition to the existing mentors who successfully worked into management positions, then other women would have somebody to mimic:

[...] you have a guideline to follow.

Potential Difficulties

According to one participant, there are some female managers in East Westphalia-Lippe, though they do not seem to be publicly connected to women's empowerment. There was a discussion about why this might be:

[...] but I don't know of any of them that are strong advocates for the growth of female junior staff.

The participants made a connection to a previous suggestion: perhaps this is the case because those successful female managers are parts of the same generation as the older female participant. This would suggest that these successful women do not want to be involved in a mentoring scheme like this or do not want to advocate a women's network due to fear of untoward associations:

[...] Maybe it's also a pale aftertaste for them when I now say: "I'm especially committed to it".

Another explanation was related to the careers of these successful women. Perhaps they had struggled to success without networks and therefore did not see their benefits:

[...] They fought their way through alone, they weren't even in networks yet. That's why it's not so important for them.

One male participant expressed his suspicion that these women had lost their female attributes while becoming successful and adapting to the male-dominated working world, which is why they were unwilling to or could not identify with the promotion of women:

[...] they often lose their female attributes, visually as well.

Necessary Resources

One participant devised a clear summation to which the others agreed. In order to be able to implement this management action, there must be a successful manager acting as a mentor / role model and advertising the programme in her networks.

In this way, there would be visible role models who would motivate younger women to pursue careers and accustom men to the idea of female managers, thereby changing their attitudes:

[...] it would then be optimal to be a manager who has been in a cross mentoring programme, who has made it and who is then a role model to encourage young women to join the programme and then become a manager again.

The participants also agreed that this is unfortunately not yet the case, despite there being potential.

4.8.2.7 Exchange of Experiences between Women and Companies

This management action was proposed because of the findings discussed in chapter 4.7.2. According to one participant, the reason why the mentoring programme does not fulfil its goal of increasing the levels of diversity in management teams is that corporate structures and cultures need to change. Such a change must be driven by company owners or top managers.

Therefore, someone questioned whether encouraging experiential exchange between women and companies might be sensible in improving the mentoring programme.

The women could act as successful role models in terms of successful investment of their employers. They could share their expertise on how female high-potentials could best be encouraged to become successful managers. The companies can raise all kind of questions regarding women in management and might consequently be able to gain some confidence in dealing with women in management positions. They might also start to reflect on their corporate structure and thus implement some changes to increase the level of diversity in management positions.

Thoughts of the Mixed Focus Group Participants

The participants agreed that this might be an essential point, but they believed that mere exchange was insufficient. The aim of such meetings should be to persuade company owners, top managers, and other influential individuals:

[...] I think that's one of the essential points. So what of course should be included is not only exchanging experiences, but also persuading people.

Potential Difficulties

In order to arrange such meetings between women and companies, timeslots suitable to all parties must be found, and the participants believed that this could become troublesome. Nevertheless, two appointments per year should be manageable for all owners and top managers if they are interested in the topic.

[...] two dates a year should be realistic.

Necessary Resources

The participants again decided that a male pioneer who advertises the programme in his network is necessary to achieve this goal.

[...] male pioneer

Another possible resource for this management action could be an alumni network, as already discussed the section "Expanding Women's Networks".

4.8.3 Summary – "Future Prospects"

In total, seven potential strategies for improving the programme were discussed. Of these, five received absolute approval from the group. These ratified strategies were: increasing the mentoring programme's visibility, sensitising male decision makers, involving these men more

extensively, increasing women's visibility, and creating role models of successful female managers. The suggestion of expanding women's networks was rejected because of interesting insights. In the focus group's view, establishing an alumni network would be more sensible. The proposed strategy of encouraging experiential exchange between women and companies was accepted, but the participants emphasised that mere exchange was insufficient, as the aim should instead be persuasion. Generally speaking, the researcher was interested to hear that the participants believed that there would be an advantage in having a male mentor. This would be someone sufficiently influential to convince other men to support the programme. The participants thought that a man supporting the programme could also more significantly influence corporate factors, as discussed in chapter 4.7.2. This would therefore push the programme further towards achieving its goals. The following Table 35 provides an overview of the suggested strategies and the participants' response.

Suggested strategies	Status
1) Increase visibility of the mentoring programme	✓
2) Sensitisation of (male) decision-makers	✓
3) Involve decision-makers of companies	✓
4) Expand women's networks	✗
5) Increase visibility of women	✓
6) Role models of successful female managers	✓
7) Exchange of experiences between women and companies	!

Table 35: Status of suggested strategies.

In any case, the participants concluded that the programme should be kept, but the suggestions for improving its structure should be revised:

[...] So basically one should keep the programme.

4.9 Brief Summary of the Chapter

Resource shortages depend on the dynamics of a region's labour market, which is strongly influenced by the region's economic development. A company's willingness to hire a woman in management depends not only on its corporate structure, but also its corporate culture.

The programme counteracts the lack of role models by gathering experienced female managers with high-potential females. The programme thus inevitably gives participants access to a network of like-minded people. By participating in the mentoring programme, these women's visibility is greatly increased, and this helps change the traditional image of their role. In some cases, participants reported increased visibility within their companies as a result of

participation in the programme. This could lead to a woman being considered for a corresponding vacancy for which she otherwise would not have been considered.

In addition, the programme succeeds in giving women more self-confidence through tandem relationships with successful managers. Moreover, it provides them tools for strengthening their own self-confidence. The women can exchange experiences, fears, and problems in a protected area and thus utilise an enormous wealth of experience.

The effectiveness of such a programme also depends on the participants' commitment, be it from mentors or mentees. The mentors volunteer their time to assist mentees. In return, mentors are given free access to the supporting programme. The willingness of the mentees' employers to consider them for management positions after participation in the programme is another important factor. Not all mentees explicitly intended to work towards such a goal, though.

Looking at the research participants "former mentees", it can be seen that three groups have emerged. A group of mentees who were promoted after their participation in the mentoring programme. The second group consisting of mentees who began to be more self-confident in their role and in consequence are happier. The third group consists of former mentees who have realized through the programme that a leadership position is not suitable for them.

In other words, the program is also successful as it helps the participants redefine their personal career goals. The program gave all participants access to experienced leaders and like-minded people. This enabled them to question and analyse their own goals. They were consciously asking themselves whether the step into management was still desirable for them. Furthermore, participation in the program helped the participants to strengthen their self-confidence. Last but not least, through their interaction with experienced managers and like-minded people, some of these women realized that a leadership role did not suit them and their goals and therefore they redefined their goals.

However, there are also areas in which the programme reaches its limits. According to the participants, the mentees' superiors, personnel developers, or even managing directors have not been integrated. In most cases, these positions are still filled by men, which makes their more effective integration even more important. This might lead to better exchange on a company level and thereby dissolve oft-criticised and outdated structures. A reconsideration of companies' predominantly male management would also lead to the minimisation of various barriers to women, which in turn would lead to greater diversity in management.

In summary, one can say that the programme is effective in networking women, and this results in advantages in East Westphalia-Lippe. As such, this also partially illuminates women's potentials, which in turn could counteract the shortage of skilled workers. However, companies and their decision makers should be much more involved in the programme in order to increase its effectiveness. This would inevitably support the programme in fulfilling its goal of increasing diversity in management.

The next chapter presents the contribution to knowledge and professional practice. In addition the practical managerial implications which might be implemented to help the programme better fulfil its objectives are outlined. Moreover this chapter includes some reflections on the outcomes of the study, including methodological discussion and personal learning. Finally, the chapter concludes with the limitations of this research and suggestions for further research.

5 Discussion and Conclusion

The previous chapter dealt with the findings of this research. This chapter acts as the concluding chapter and provides a discussion about the findings of this research presented in the previous chapter, thereby linking them to the literature outlined in chapter 2.

5.1 Brief Introduction to the Chapter

This final chapter begins with the research question: “How could a formal same gender dyad mentoring programme for women be adjusted to be a better tool to combat skill shortages in management, from the case study participants' perception? It makes use of a metaphor to explain the findings presented in chapter 4, thereby linking them to the literature outlined in chapter 2.

Next, the chapter outlines the contribution that the research made to knowledge and professional practice. The contribution to knowledge informs the section about the contribution to practice. Thus, the paper outlines practical managerial implications which might be implemented to help the programme better fulfil its objectives. This section is followed by reflection on the outcomes of the study, including methodological discussion and personal learning. The chapter concludes with the limitations of this research and suggestions for further research.

5.2 Metaphor

Metaphors are widely used in organisational research and help express visions and goals (Morgan, 2016). According to Cornelissen et al. (2008, p. 8), “Metaphors connect realms of human experience and imagination.” Morgan (2006, p. 4) states in his book *Images of Organizations* that “the use of metaphors implies a way of thinking and a way of seeing that pervade how we understand our world generally.” The creation of metaphors is a creative and expansive process (Morgan, 2006). The following metaphor is meant to explain the findings presented in chapter 4 and explain how the programme could be enhanced. Table 36 outlines the metaphorical language used to explain the findings of this research.

METAPHORICAL LANGUAGE	City	Society
	River	Workforce
	First river	Male workforce
	Second river	Female workforce
	Cultivated land	Management positions
	Harvest	Economic output
	Farmland	Men in management positions
	Rocky area	Obstacles faced by women
	Village elders	(male) decision makers

Table 36: Metaphorical language.

Let us imagine an old city surrounded by two rivers. These rivers provide food and prosperity for the city. On one side there are cultivated fields which were developed agriculturally. On the other side is an undeveloped rocky area where the river is mostly used for laundry. Over time, the river carried less and less water while the large cultivated fields had an increasing need for water, meaning their need could no longer be met. This city (society) is thus facing an increase in the need for water (economic growth) and a decrease in water supply (decreasing workforce).

The farmland is surrounded by the first river (male workforce) and is very well developed. The rocky land is surrounded by the second river (female workforce) and hardly developed as farmland, as it is mainly used for washing clothes and fishing (providing for the family). However, the total harvest (economic output) is divided among all of the inhabitants of the city, which naturally leads to dependence of the inhabitants who live in the less-developed area, as they are missing fields to cultivate.

The farmland surrounded by the first river (male workforce) was developed long ago; there the fields of the city (job positions) are cultivated (occupied) and a strong network of farmers (men network) evolved. A part of the second river is discharged into the sea (unused labour). This area is missing a strong network (women's network) like the one in the other area. However, the river has developed a few narrow forks, so some farmland (the few women who reached leading positions) could be created in the rocky area. However, this means that only a few inhabitants in this part of the city have the chance to cultivate arable land. Some of these branches are more developed, but most are weaker. All the branches serve the purpose of developing arable land and reducing the village's dependence on the other river (male labour). Nevertheless, there is

still much land in this part of the village that cannot be farmed due to water scarcity (unused economic potential).

For some years now, the first river (male workforce) has had difficulty providing enough water to the farmland due to the increasing need for water. Hence, the fields (job positions) cannot be completely irrigated (occupied) and a food shortage (shortage of skilled workers) threatens to lead to a lower harvest yield (lower economic output). Some of the villagers now argue in favour of expanding the second river (female labour force) so that the fields continue to receive enough water (to counteract the shortage of skilled labour) and further unused land can be developed (expansion of economic output). Other villagers are of the opinion that certain regions are too small (small companies) to support the city's harvest (economic output) and that there is not enough potential to be activated through the expansion of the second river (female workforce). Though, the farmland is in need of more water than the first river (male workforce) can provide, so expanding (talent management) to the second river (female workforce) is important.

But there are some difficulties. The expansion of the river would lead to a change in the structure of the city. Houses would have to be moved or rebuilt, some work would have to be done to maintain the irrigation system, and the inhabitants of the fields would have to lease part of their land to the other inhabitants. This means that changes are necessary to achieve the goal of securing the village's water supply. Such fundamental changes require flexibility and the commitment of the village elders. Old patterns of behaviour must be broken and adapted. Nevertheless, the village elders (male decision makers) will only agree to this if the villagers (society) manage to make successful examples of the developed farmland in the rocky area (creating normality). This way, the village elders (male decision makers) will be able to see and understand the potential of the rocky area and its river (corporate culture). After that, a realistic assessment of the current situation can be made and adopted accordingly (manifested attitudes).

However, since the urban population has a common interest in ensuring that the fields continue to produce income, various attempts are being made. One example is laws (women's quota) which regulate how much water from the second river (female workforce) is used to support the farmland. Another example is allowing the inhabitants to wash their laundry in the mayor's village pond (state support for childcare). This way, the water of the second river can be used to support the farmland instead. In addition, residents who have made canals or developed land in the rocky region are asked to help others do the same (women mentoring women) so that the

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second river (female workers) is as widely available for agriculture as possible. Table 37 provides an overview of the findings outlined in chapter 4 translated into the above metaphor. It should act as a summary of the metaphor to help the reader visualise it.

METHAPHORICAL LANGUAGE TO EXPLAIN THE FINDINGS					
THEME	HIGHER CONCEPTS	LOWER CONCEPTS	DIRECT INFLUENCE OF THE PROGRAMME	METAPHOR	
EXTERNAL FACTORS	Economic	• Labour market situation	✗	Less water in the river (decreasing workforce) and the farmland of the city increasingly needs more water (economic growth)	
		• Skill shortages in management	✗	Higher need of the farmland than one river can provide; not enough water	
	Societal	• Culture	!	There are two rivers. One river is used for agriculture, the other is used for washing clothes and providing for food	
		• Network	✓	The network around the agricultural land is much stronger compared to the "providing" area	
	Legal	• Women's quota	✗	Conversion of rocky land into farmland	
		• Legal regulation of child care	✗	Allowing the inhabitants to wash their laundry in the mayor's village pond; This way the water of the rocky area can be used for the farmland	
		• Socio-political	✗	Involving the town principle and other officials in the change process	
	CORPORATE FACTORS	Structure	• Company size	!	The land in the rocky area is smaller, and seems to offer less potential
			• Talentmanagement	!	The river of the rocky area has to be expanded because the other river's water is not enough to keep up with the need of the farming land
• Sensitisation of male decision makers			✓	Such fundamental changes require above all the commitment of the village elders ...	
• Flexibility of employer			!	... as well as the necessary flexibility	
Culture		• Creating normality	✓	Make visible the successful examples of farmland in the rocky area	
		• Corporate culture	!	The village elderly have to see and understand the potential of the rocky area and its river	
		• Manifested attitudes	!	A realistic assessment of the current situation must first be made before it can be adapted accordingly	
		• Change of mentality	✓	Old patterns of behaviour must be broken up and adapted	
Key:	✓	Direct influence of the programme			
	!	Potential direct influence of the programme			
	✗	No direct influence of the programme			

Table 37. Metaphorical language used to explain the findings.

The following sections of this chapter outline the contributions to knowledge and professional practice as well as managerial implications of this research in more detail before reflecting on the outcomes of the study. Finally, limitations of this research and potential fields for further research are provided.

5.3 Contributions to Knowledge and Professional Practice

Contributions of Doctor of Business Administration (DBA) research like this are manifold, as they contribute to both knowledge and practice. Both aspects are discussed in the following section, which is meant to explain the findings of this research and what they mean. In addition, the findings are linked to existing literature.

5.3.1 Contribution to Knowledge

This research followed calls from the literature for further research. The literature questioned the sustainability of a mentoring programme. This questions was answered in the following section. In addition a meta-theory of mentoring is provided, linking the findings of this research with the literature outlined in chapter 2.

5.3.1.1 Meta-Theory of Mentoring

Women and men require mentors equally (Noe, 1988). Nevertheless, White *et al.* (2017) state that access to female role models in powerful decision making positions is particularly important for women. As Bono *et al.* (2017) stated, "The challenge is not getting into organizations but getting to the top." As discussed in chapter 4, some of the participating women in this research mentioned that they still feel disadvantaged in their careers because of their sex. Besides this perceived disadvantage, the women participating in this research highlighted that, from their perspectives, women and men encounter different problems in leadership roles, which matches the findings of the literature. According to Woetzel *et al.* (2015), the four highest-ranked obstacles for women are: 1. the double burden of balancing work and domestic life, 2. the "anytime-anywhere" work model that requires employees to be available at all times and geographically mobile, 3. a lack of specific company measures to recruit, retain, and promote women, and 4. the absence of female role models. According to the participating women in this research, the compatibility of family and career, the lack of female role models, a lack of suitable networks, and a lack of helpful advice were the main obstacles faced by women.

The following Figure 37 outlines a meta-theory of mentoring which is based on the work of Garvey, Stokes and Megginson (2018).

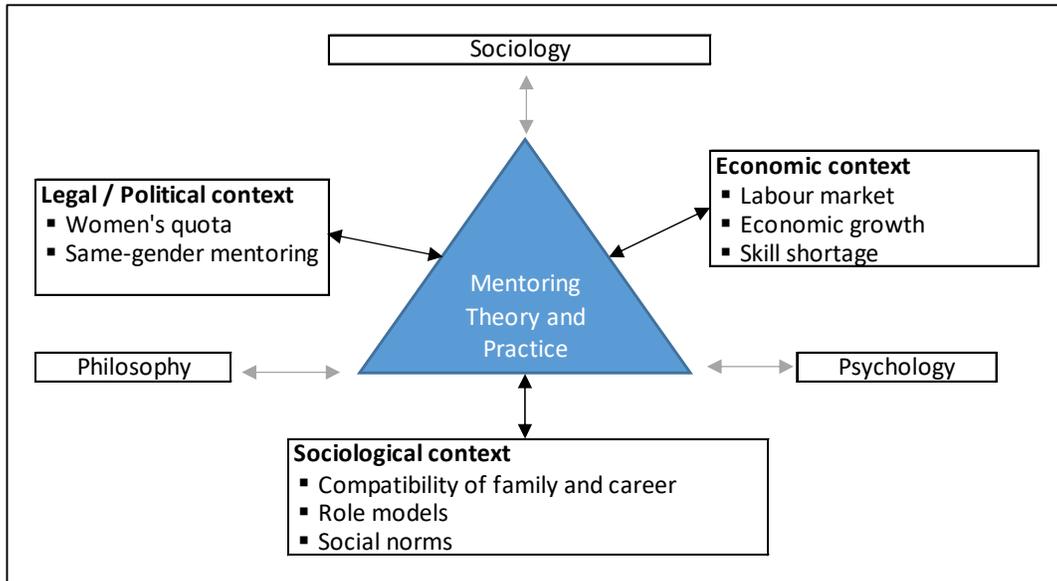


Figure 37: A meta-theory of mentoring (adapted from (Garvey, Stokes and Megginson, 2018)).

Each area highlighted provides a different set of lenses or perspectives on mentoring. According to Garvey, Stokes and Megginson (2018), theory and practice of mentoring can act as tools through which the basic disciplines of sociology, psychology and philosophy influence the political, sociological, legal, technological and economic context. As discussed in chapter two, the experiences from practice can and do influence the base disciplines. Thus, the relationships between mentoring and these various disciplines are two-way and iterative as indicated by the arrows in the graph.

5.3.1.1.1 Sociological Context

For example, in the sociological context the compatibility of family and career was a heavily discussed concept, as outlined in chapter 4. Although this topic should not be specific to women, the research participants expressed this sentiment. This matches the findings of Gabaldon *et al.* (2016), who stated that family life remains a career obstacle for women. Exchanging experiences of how to reconcile family and work was especially interesting for the women who wanted to attempt this, and for them this opportunity to share experiences and learn from other women was significant. Most of the participating woman said that discussing this with men was impossible, as most of them have partners at home who care for the family in order to support their careers. These women thus did not feel understood or taken seriously in this regard. They were also afraid of being labelled as housewives and mothers who do not want careers merely because they discuss this topic.

According to the research participants, there are numerous family-related topics that can be regarded as career obstacles for women. For many people, not only is compatibility in the general sense an obstacle, but also the conflict of interest between the desire to be a good mother and the ambition to have a successful career. The participants described feeling a kind of guilt toward their children and partners when they became involved in their work, as this meant they were not at home.

For example, research participants reported experiences in which full-time working mothers who shared parenting with their partners encountered difficulties due to always having to justify being a full worker despite having children. One such woman was confronted with the reproach of being a bad mother. The participant concluded that men are never regarded as bad fathers due to simultaneously working and raising children. This differentiation was unacceptable from the participant's perspective. This matches what was reported by Bygren and Gähler (2012), who stated that while fathers have greater chances of promotion, women's chances of promotion are not improved by motherhood (Bygren and Gähler, 2012).

Women are found to devote more hours to family activities than men, though some researchers believe that both devote the same number of hours to work (Eby *et al.*, 2005). The research participants highlighted that caring for (older) family members is often a career obstacle for women. Once again, this work was described as being often managed by women. This matches what is already known in the literature. As stated by Gabaldon *et al.* (2016), family life remains a career obstacle for women. This conflict was identified to be the most common obstacle for women reaching leadership positions (Greenhaus and Beutell, 1985; Newell, 1993; Wirth, 1998). Therefore, exchange regarding family-related topics was mentioned as an advantage of participation in the mentoring programme.

Only a few studies directly address the dynamic of role modelling in mentoring, and those doing so tend to separate role modelling and mentoring. Clutterbuck (2004) and Kram (1980) identified role modelling as one of the main functions of a mentor. For some reason, role modelling is regarded as a passive activity according to Clutterbuck *et al.* (2017). This research tried to evaluate whether role modelling is an essential function of a mentor, as identified by the mentees of this programme. As discussed in chapter 4, these study participants believed that role modelling plays a vital role. A lack of female role models was mentioned as a barrier faced by women. All the women in this research said that they are constantly looking for role

models because they seek exchange with other women in similar situations. Thus, because these participants believed finding a female role model is difficult, some said that this programme helped them fill this void. Some participants even said that having the chance to meet role models was the reason why they participated in the programme. Therefore, role models were mentioned as an advantage of participation in the mentoring programme and the participating mentees regarded role modelling as an essential function of a mentor. Seeing that women in other companies and fields experience similar problems and sharing knowledge of how to overcome these difficulties helped the participating women enormously. According to these women, this purely female approach helped them talk about their problems and understand those of other women. One objective of this research was to provide understanding on why women seek same-gender mentoring. The contribution to knowledge in this context is that the existing research findings were confirmed by the participants in this study. All participating women agreed that this would not have been possible in this intensity in a mixed mentoring programme. Therefore, the participants mentioned that the participation in the mentoring programme helped them overcoming problems and barriers. Especially the open exchange between women was perceived as the most important advantage of the same-gender mentoring programme.

5.3.1.1.2 Legal and Political Context

In the legal and political context women's quota led to a slight increase of the proportion of women in supervisory boards of fully co-determined and listed companies in Germany. This in turn helps women to be more visible in board positions and thus influences the cultural acceptance of women therein (Feste Quote - Privatwirtschaft, 2019). According to Thomas (1990), Koberg, Boss, and Goodman (1998) and Scandura and Williams (2001), same-gender mentoring relationships beget greater benefits than cross-gender ones. According to Bozer, Joo, and Santora (2015), these findings reflect the majority of studies relating to this topic. The participating women of this research who had also experienced cross-gender mentoring concluded that they were unlikely to have an equal open exchange with men. The women felt that they were better understood and more open in their methods of approaching others and asking for help, which matches the findings of the aforementioned literature. The contribution to knowledge in this context is that the existing research findings were confirmed by the participants in this study. Exchange among women gave the participants a sense of belonging they had lacked. Although some mentees did not specifically choose the programme because of

its same-gender approach, all of them were happy to have had this opportunity for woman-to-woman mentoring due to being able to discuss experiences. Therefore, open exchange was mentioned as an essential advantage of participation in the women-only mentoring programme.

5.3.1.1.3 Economic Context

In an economic context, Germany's companies are increasingly confronted with a new form of skilled labour shortage. 27% of these managers declared that the shortage of managers is the greatest challenge for their companies, as reported by Scholz (2017). In addition to engineers, doctors, and researchers, they are increasingly lacking suitable managers. This was stated by a study of a Basel-based research institute which was updated in August 2017 (Sorge, 2017).

Since 2011, European regional development funds (ERDF) have been made available to the Ministry of Labour, Integration, Health, and Social Affairs of North Rhine-Westphalia for the implementation of projects including projects to increase the employment rate of women (Jansen, 2015). Women are well-qualified (Bundesagentur für Arbeit, 2017; Bundesministerium für Arbeit und Soziales, 2017), but they largely work in part-time positions and hardly in top management. The Federal Employment Agency thus sees women as the greatest and most easily utilised potential for skilled specialists and noted that women in Northern and Western Europe have significantly higher labour force participation rates (Bundesministerium für Arbeit und Soziales, 2011, p. 6, 2013, p. 5). Highly qualified women rarely reach the top management of companies and organisations, even though greater diversity among board members has been linked to improved organisational performance due to the provision of new insights and perspectives, according to Rao and Tilt (2016).

Thus, organisations would benefit from the implementation of a developmental system (Bhanugopan et al., 2017). In such case, mentoring can be a helpful form of human resource development to combat skill shortage (Short, 2014). The contribution to knowledge in this context is that as discussed in chapter 4, the participants of this research believed that the CrossMentoring OWL programme helps counteract the shortage of skilled female workers on the management level in the region of East-Westphalia Lippe.

5.3.1.2 Elimination of Prejudices – Jealousy and Catfight / Competitive Thinking

Networking and access to resources are essential for career development (Villesèche and Josserand, 2017), as discussed in chapter 2. The “Queen Bee Syndrome” (Cohen, Broschak, and Haveman, 1998; Rindfleish, 2000) can be an obstacle for women, especially senior female

managers. Some women in this research also discussed prejudices they initially had against this purely female approach. These prejudices are widespread among women. None of these prejudices had been confirmed, and sharing this experience was also important, as discussed in chapter 4.4.3.

Jealousy and catfights were the prejudices most often mentioned by the women thinking about this women-only approach before entering the programme. A frequently highlighted prejudice at same-gender meetings was competition. The women in the programme explained that their experiences within it had been the opposite of competitive. In general, these impressions and experiences were not only gained in the purely female tandem relationships, but also in open exchange with other participants. The contribution to knowledge in this context is that the participants of this research did not confirm any of these widespread prejudices. The women emphasised that, to them, the fact that these prejudices did not occur was surprising in the most positive way possible. This motivated them to further seek such exchanges.

5.3.1.3 Assessment of the Sustainability of the Mentoring Programme

This research was also meant to respond to calls from Stufflebeam (2007) and Murphy and Lewes (2017) to follow mentees beyond the ends of their programmes to assess their sustainability. There was a suggestion which matches what Le Comte and McClelland (2016) recommend: further research in the field of ongoing utilisation of skills by participants after the mentoring programme's end. One objective of this research was to provide insight into how the lives of the mentees had been influenced two years after the programme ended. Interestingly, the former mentees perceived influence in both their professional and private lives. As discussed in detail in chapter 4, issues such as a lack of self-confidence or networks are regarded as major obstacles for women striving for careers in management positions. According to the former mentees, their participation in this mentoring programme had an overall positive influence on them. The mentees felt the largest influence with regard to self-perception, including confidence and esteem. In addition, they also highlighted that they were very grateful for the networks of like-minded people who they met in the programme.

As discussed in chapter 4, the participants of this research clearly mentioned that they are still using the skills they learned and/or improved during the programme. Hence, the sustainability of the mentoring programme with regards to the utilisation of learned skills was confirmed by the research participants.

5.3.2 Contribution to Professional Practice

The contribution to knowledge informs the section about the contribution to practice. This research emphasised that the awareness of professionals, experts, politicians, and society about some of the possible challenges for working women and their untapped potential should be strengthened. The mentoring programme itself has two goals. The first is helping recognise and develop the potentials and competencies of high-potential females. This goal should help with the recognition and development of skills among the mentees who, according to their employers, are regarded as having high potential. The second goal is helping companies increase their levels of diversity within their management teams. Both goals were analysed to see whether the programme actually meets them in the research participants' perspectives. This section aims to explain what the findings of this research imply and what needs to be done.

5.3.2.1 Help Recognise and Develop the Potentials and Competencies of High-Potential Females

As discussed in detail in chapter 4, the main influences of the programme regarding this goal were a) the empowerment of women, b) changing perceptions and creating new realities, and c) networks. First, the programme gave participants appropriate confidence to show them what they can do and where they might still have weaknesses. Second, besides being a great tool for allowing participating women a chance to exchange ideas, the programme was also regarded as particularly useful in changing perceptions and creating something like a new reality in terms of equality. Third, the programme provides the participants with a substantial network, and this plays an important role in the empowerment and skill development of women. All of the experts and mentees who participated in this research agreed that the programme contributes to the recognition and development of the potentials and competencies of high-potential females, which thereby offsets the skill shortage in this area.

5.3.2.2 Help Companies Increase Their Levels of Diversity Within Their Management Teams

As discussed in detail in Chapter 4, the participants of this research were very clear that the programme has only a limited ability to help companies increase their levels of diversity within their management teams. The reasons for this are numerous. However, there is a clear need for a change of corporate culture in order to stop stereotypical thinking which denigrates women. Furthermore, in order to support the programme and achieve its goal, the participants suggested integrating society and politics. In their opinions, this would help force companies to

change. The programme also requires additional support to achieve further success. The participants believed that the region's influential companies could give more support to the programme. In addition, the transparency of the programme must be improved both generally and specifically for the decision makers of the participating companies. However, all the participants concluded that the programme acts as an important example to sensitise local society to the need for corporate and social change in order to increase the levels of gender diversity within the management teams.

In total, seven strategies on how the programme can be better adapted to the needs of the region in counteracting skills shortages in management were developed based on the interviews and focus groups. Later, five of these strategies were agreed with a mixed focus group. In the subsequent section the strategies are summarised. For a detailed discussion, please refer to chapter 4.

5.3.2.3 Agreed Strategy: Increase Visibility of the Mentoring Programme

First, the study highlighted the importance of increasing the visibility of the mentoring programme in order to increase its influence. Based on the programme's lack of visibility, women might not even be aware that there are like-minded people around them. This links to what was discussed in 2.4.4.2, namely that networks are critical for the development of managerial careers (Forret and Dougherty, 2004; Rasdi, Garavan, and Ismail, 2013).

Young female professionals find difficulty in expressing their desires to participate, and potential supporters cannot offer patronage if they are unaware of the programme. The participants agreed that the best way to increase the visibility of the programme is to show that effective female managers emerge from it, as it allows participants a chance to relate to practical experiences.

This could be done via additional labour in the programme's management or the help of external marketing agencies. Regardless, all implementations require time and money, as this additional labour must be paid. In general, it can be said that, according to the participants, increasing the programme's visibility would have a positive impact on its success in counteracting management skills shortages in East Westphalia-Lippe.

5.3.2.4 Agreed Strategy: Sensitisation of (Male) Decision-Makers

Second, an intensively discussed aspect was the sensitisation of (male) decision makers. If decision makers are aware of the potential benefits of making hiring decisions based on

participation in the programme, they are more likely to spend money on it. Perhaps elderly male executives should be re-educated to believe that “Your money is not lost if you invest into a young woman”. Even if she might have a family, she can still work full-time. It might also teach them that having a child need not entail ending one’s career. This links to what was discussed in 2.3.8, that there is evidence that improved company performance correlates with increasing female participation in leadership positions (Woetzel et al., 2015).

The participants of this research believed that the best way to approach male decision makers is through other male decision makers. From their points of view, men in certain hierarchical positions communicate in their own ways. If a male decision maker talks to other male decision makers, they might be more easily convinced and boost support for the programme and therefore its success.

Although all participants agreed that the proposed action would be a good choice for improving the programme, they also expressed concerns regarding its implementation. They thought it would be particularly difficult due to requiring a case-by-case approach instead of a general one. Once again, the participants emphasised that labour and money are the necessary resources.

5.3.2.5 Agreed Strategy: Involve Companies’ Decision Makers

Third, the participants suggested that involving companies’ decision makers to participate in the programme through giving them roles such as leading workshops or presentations would help boost the reputation and influence of the programme. East Westphalia-Lippe’s small size would enable word-of-mouth advertising to do the rest. The idea is to engage the male decision makers so they might attribute the success of the programme to their engagement, which could encourage other men to participate. This links to what was discussed in 2.4.3.3, which is that the importance of senior management’s commitment to the success of a mentoring scheme (Cranwell-Ward, Bossons and Gover, 2004; Klasen and Clutterbuck, 2004; Megginson et al., 2006; Garvey, 2010). However, the difficulty is to motivate male decision makers, preferably older ones, to participate in the programme. Therefore, there could be a “connector” in the form of a person who recruits the first potential male decision maker as an active participant.

5.3.2.6 Agreed Strategy: Increase Visibility of Women

Fourth, increasing women’s visibility in order to illuminate their potential was suggested by the participants in order to normalise seeing women in leadership positions, which in turn would help the programme acquire additional participating companies who want increase their levels of diversity in management positions. This links perfectly to what was discussed in the literature

in 2.4.4.2. The visibility of women should be improved to increase the number of women in top management positions. There is thus a need to change perceptions (i.e. create new realities), as discussed in chapter 4. However, there must be willing successful female managers who agree to be advertised publicly. Additionally, the decision makers' support is necessary to make successful women visible, as previously discussed. Last but not least, some labour and funds are needed for implementation.

5.3.2.7 Agreed Strategy: Role Models of Successful Female Managers

Fifth, according to the participants, there is an urgent need for new work models to enable reconciliation between family and career. Moreover, the desires of the younger generation of men differ from those of their fathers; now they want to participate in childcare. Which links to what was discussed in 2.4.4.3, in that role models were found to be another way to strongly influence career development (Gibson, 2003, 2004). Women's motivation to strive for management positions can be increased through female role models (Waldman, Galvin, and Walumbwa, 2013). Providing role models was similar to increasing women's visibility, according to the research participants. If there are visible role models who successfully worked into management positions, then other women would have somebody to mimic. The need for female role models was extensively discussed in chapter 4. The idea was to use the help of a successful manager acting as a mentor / role model and advertising the programme in her networks. In this way, there would be visible role models who motivate younger women to pursue careers and accustom men to the idea of female managers, thereby changing their attitudes. The participants also agreed that this is unfortunately not yet the case, although the existing mentors are role models however, they are not yet visible enough.

5.4 Scalability

Scalability is a central guiding principle that enables us to take a differentiated view of both the micro and macro levels of society (Fischer, Florian and Malsch, 2005). It is the ability of a measure to remain effective while expanding to reach a larger part of the population under real conditions (Milat et al., 2012; Milat, Bauman and Redman, 2015; Kegler et al., 2019).

There are two ways of scaling, quantitative and qualitative. While quantitative scalability deals with problems such as a growing population, qualitative scalability deals with the increasing social complexity that requires new dimensions of perception and decision-making (Schillo and Spresny, 2005). Qualitative scalability depends on scaling the complexity of social relationships, from simple interactions to the creation of organisations or even artificial societies (Fischer,

Florian and Malsch, 2005). According to Kegler et al. (2019), the concept of qualitative scalability is related to translation and dissemination but elevates the importance of population impact and widespread reach. Evidence of effectiveness and efficacy, calls for financial information and implementation support materials such as training, technical assistance and implementation manuals are essential for the conceptualisation of scalability (Wilson, Brady and Lesesne, 2011; Gottfredson et al., 2015; Milat et al., 2016; Kegler et al., 2019). Because the conceptualisation of scalability is relatively new, there are few concrete examples of intervention research (Kegler et al., 2019).

For this research, scalability could be applied in the following way: First of all, the findings could be transmitted to the female cross-mentoring partner programme "X-Mentoring-Rhein-Ruhr" in the Ruhr area. As a next step the findings of this research could be rolled out to other women-only mentoring programmes in Germany. Subsequently, it could be transferred to Austria and Switzerland due to the similar culture. A possible approach to this roll-out would be a "train the trainer" concept. This means that one could train the programme managers of the other women's mentoring programmes and exchange information with the programme manager of the programme examined here. On the one hand, this would lead to a situation where the programme managers would be able to exchange experiences with each other and thus learn from each other's lessons. On the other hand, it would also create a network, which could lead to the mentoring programmes networking with each other in the broadest sense. This would probably be the best prerequisite for creating a large network for like-minded women, first in North Rhine-Westphalia, then in Germany and possibly across borders in Austria and Switzerland.

5.5 Reflection on the Outcomes of the Study

Reflection is a key aspect of constructivist grounded theory, so the following section deals with a reflection on methodological choice as well as personal learning. The paragraph on personal learning is written in first person.

5.5.1 Methodological Reflection

This research was conducted following a constructivist grounded theory approach in line with the researcher's epistemological and ontological position. This methodological approach allowed a co-construction of meaning (Charmaz, 2006). It also enabled the researcher to live her

beliefs in the process of inquiry (Mills, Bonner and Francis, 2006). As already mentioned at the beginning of this thesis, a systematic literature review was undertaken at the beginning of this research. Although according to Charmaz (2006), examining existing literature before the research can lead to tensions in an inductive framework. This systematic literature review nevertheless helped identify gaps in the research and propose its focus, therefore fulfilling the requirements of the University of Worcester. The effects of the researcher's prejudices and beliefs on the data were not disadvantageous to the research. In fact, following a constructivist approach, they were rather embedded jointly with the participants' experiences and opinions. Nevertheless, reflexivity and transparency during the research process helped the researcher. The developed categories and concepts were discussed and checked with the supervisors. The findings discussed in this thesis were developed out of the gathered data and not based on the literature review. Hence, it is evident that the literature review had no significant influence on the research outcome.

5.5.2 Personal Learning

At the beginning of this study, I had no experience in scientific research. However, I had and have interest in the topic of skill shortages and its development in relation to women in management. When I started drafting my research proposal, I thought I could change the world. But I realised that doing scientific research means focusing on a topic in detail and therefore narrowing its scope. At the beginning it was tough to become accustomed to the scientific world; it is completely different to my daily life in private business. But this was exactly what I've been looking for. I wanted to do my research in a surrounding where I could combine my professional life and the scientific world. Therefore, I decided to do a DBA. I would lie if I would say that combining my job and my study was easy, but it was worth it, as I learned a lot and grew in different aspects of my life.

The research journey has been an emotional rollercoaster. I was completely enthusiastic about my research, though I felt exhausted and sometimes lost in the process. At the beginning of this research, I felt inexperienced and I was afraid of making mistakes. I spent much time studying literature in the field of scientific research and how to gather data in order to become more comfortable in doing so. Thanks to the professional support of my supervisors and the emotional support of my course colleagues, I managed to stay on track during the downs of the rollercoaster.

Reflecting on the last couple of years since I became a researching student, I can see my personal and professional development. I started to question aspects in life which I hadn't before. I learned to leave my comfort zone, which helped me grow. And I got to know a fascinating new world, the world of scientific research, which to me is colourful, rich in variety, and full of possibilities.

5.6 Limitations and Further Research

Limitations are part of the research process, so the following section will outline the major limitations of this study. The application of a constructivist grounded theory engenders methodological limitations on the generalisability of knowledge constructed within a social context (Barnett, 2012; El Hussein *et al.*, 2014). However, as stated by Bryant and Charmaz (2007, p. 162), grounded theory researchers are “interested less in the generalization of specific substantive findings and more in the generalizability of formal theory that can be applied across a variety of settings”. This research focuses on a detailed and rich understanding of social life. Understanding the real world is much more important than generalisability (Gray, 2004).

Another possible limitation could be the multiple variations of grounded theory and the multitude of arguments surrounding the current methodological gap between constructivist and classical grounded theory; these might lead an amateur to be reluctant to start such a study (Barnett, 2012).

Another limitation of this methodology is that its process is exhaustive and complex, especially for novice researchers. First, coding is a time-consuming and laborious process. Second, the process of abstracting and encompassing concepts is challenging (El Hussein *et al.*, 2014). The requirement to distance oneself from existing theories in order to allow the theory to grow out of the data can cause insecurity among researchers, according to Böhm, Glaser, and Strauss (2004). The researcher planned to counteract these limitations through reading an immense amount of literature regarding the underlying methodology and discussing them with her experienced supervisors extensively, as they acted as mentors with more distance to the topic. All of this gave the researcher a solid basis for successfully accomplishing this research.

Another limitation could occur if only one source of data (such as interviews) is used (El Hussein *et al.*, 2014). This research was designed to make use of interviews, focus groups, observations, and memos in order to avoid this hazard.

A limitation of this study is its geographic boundary, as it focussed on a specific same gender-mentoring programme in East Westphalia-Lippe. For future research, it might make sense to study this topic across different women-only mentoring programmes or even across different cultures. Another approach for future research could be to establish a group of participants who have experience in different types of mentoring programmes, such as mixed-gender, same-gender, formal, informal, etc.

This research focused on participants who completed the mentoring programme two years ago to assess its sustainability. After completing the programme, participants long found difficulty in attributing specific achievements to it. For shorter periods, it was assumed that the participants did not have enough time to apply the knowledge they had learned to achieve the desired results. However, further research might attempt examining different graduate years to assess the sustainability of such mentoring programmes.

Nevertheless, it might make sense for further research to build on these findings and conduct quantitative research on a larger scale. Furthermore, the research scope was limited to one mentoring programme in East Westphalia-Lippe, it would be interesting to investigate female only mentoring programmes across Germany or even across cultures. In addition, it could be extended to other mentoring schemes. It would be interesting to compare women only mentoring programmes with mixed mentoring programmes, or formal women only mentoring relationships with informal women only mentoring relationships. Another question that evolved during this research regarded network generation among youths. The research participants had different perceptions concerning the networking affinity of the younger generation compared to the older ones. There is still a lot to explore.

The results of this research are based on the participants' experiences with same-gender mentoring for women. This research analysed 'how' the programme can be better adapted to the region as well as whether the programme fulfils its goals. Based on the intensive research approach, a number of management implications were identified. In addition, this research also provides extensive background information for those interested in increasing the proportion of women in management positions. In particular, decision-makers in companies already participating in the mentoring programme could use this research to find ways to make better use of the programme for which they are already paying.

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This study was conducted using a qualitative research approach in order to develop in-depth information, which helped conceptualise the findings. This research has demonstrated strategies how the women-only mentoring programme “Cross-Mentoring OWL” in East Westphalia-Lippe could be strengthened in order to become a better tool to combat skill shortages in management. Through these findings, this research offers to stimulate further research and increase awareness of the effects of mentoring programmes on women’s career paths and the diversity level in management teams. In conclusion, this study aims to broaden our understanding of the possible effects of women-only mentoring programmes in order to combat skill shortages in management.

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APPENDICES

Chapter 3

Appendix 3.1 Ethical Approval, Phase 1



HUMANITIES, ARTS AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE (HASSREC)
CONFIRMATION OF APPROVAL

23 April 2018

HASSREC CODE: HCA17180043-R

How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participant's perception?

Dear Martina

Thank you for your application for ethical approval to the Humanities, Arts & Social Sciences Research Ethics Committee on the 6 March 2018 and subsequent revised and resubmitted application for proportionate review received on the 29 March 2018.

Your application has been reviewed in accordance with the University of Worcester Ethics Policy and in compliance with the Standard Operating Procedures for full ethical review.

The outcome of the review is that the Committee is now happy to grant this project ethical approval to proceed.

Your research must be undertaken as set out in the approved application for the approval to be valid. You must review your answers to the checklist on an ongoing basis and resubmit for approval where you intend to deviate from the approved research. Any major deviation from the approved application will require a new application for approval.

As part of the University Ethics Policy, the University undertakes an audit of a random sample of approved research. You may be required to complete a questionnaire about your research.

Yours sincerely

Alison

ALISON KINGTON

Chair of the Humanities, Arts and Social Sciences Research Ethics Committee (HASSREC)

Appendix 3.1.1 Participant Information Sheet – Former Mentees

Participant Information Sheet

Participant: Former mentee
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Project Title: How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?

Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Invitation

I would like to invite you to take part in my research project. Before you decide whether to take part it is important that you understand why the research is being done and what it will involve. Please take time to read this carefully and ask the researcher if you have any questions. Talk to others about the study if you wish. You will have at least 14 days to decide if you want to take part.

What is the purpose of the study?

A trend already visible today will worsen in the next few years: Since the number of skilled specialists is decreasing, the number of potential managers adjusts accordingly in the near future. This shortage of managers is believed to be the greatest bottleneck already existing in potential managers according to 30 percent of HR managers (QZ, 2017; Scholz, 2017). This concern is shared by more than 36 percent of all companies in North Rhine-Westphalia by stating that skill shortage is the greatest risk to economic development (IHK NRW, 2015, p. 3).

In 2017, there are already lacking 20.000 managers in East-Westphalia-Lippe. In 2020, it is estimated to raise up to 31.000 missing managers, and in 2030 the Chamber of Industry and Commerce estimates that 47.000 managers will be missing (NRW, 2017).

A great potential lies within women: Around 6.3 million women of working age are unemployed - many with medium and high qualifications. In Germany, only 55 percent of employed women are employed full-time, with Germany ranked second to last in EU comparison. In many other EU countries there are more women working and by doing so display their potential in the labour market (Bundesministerium für Arbeit und Soziales, 2011, p. 20).

The programme "CrossMentoring OWL" has been set up in order to support women in East-Westphalia-Lippe to progress up the corporate ladder into management level and therefore to support companies in closing their skills shortage gap as requested in the action plan of the federal ministry (Bundesministerium für Arbeit und Soziales, 2011).

Participant Information Sheet

Participant: Former mentee
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

In order to address the identified gaps within the predominant understanding of same gender dyad mentoring for women in combating skill shortages in top management, it is proposed that the aim for this research study is to explore actions for the management of the mentoring programme CrossMentoring OWL on how to improve the programme to better meet the needs of the region in terms of skill shortage in management.

Even though the nature of this study may naturally change as new data is uncovered, the initial objectives of this proposed study are:

- to provide insight into how the life of the mentees has been influenced, two years after the programme ended.
- to provide understanding on why women seek same gender mentoring.
- to develop an explanatory theory*¹ that associates skill shortages in management with the effectiveness of the CrossMentoring OWL.
- to describe the extent to which the programme CrossMentoring OWL meets its goal based on the perspective of the mentees and the experts.

The aim of my study is to answer the question of “how could the formal same gender dyad mentoring for women be adjusted to be the perfect tool to combat skill shortages in top management, from the case study participants' perception?”

Why have I been invited to take part?

You have received this invitation because you have been a former mentee of the mentoring programme “CrossMentoring OWL”. We are hoping to recruit 12 mentees, three experts and up to 20 managers for this study.

Do I have to take part?

No. It is up to you to decide whether or not you want to take part in this study. Please take your time to decide; we will wait for at least 14 days before asking for your decision. You can decide not to take part or to withdraw from the study at any time during the interview. If you decide to withdraw after the interview the timeframe for withdrawal is 14 days. If you wish to have your data withdrawn please contact the researcher with your participant number and your data will then not be used. If you do decide to take part you will be asked to sign a consent form.

¹ The word 'theory' was changed to 'framework' with the approval of the college ethics committee chair.

Participant Information Sheet

Participant: Former mentee
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

What will happen to me if I agree to take part?

- If you agree to take part you will be part of a semi-structured interview with you where you will be asked about your personal experience in the mentoring programme "CrossMentoring OWL".
- The interview will be carried out in private rooms to ensure confidentiality.
- The interview will last 45 to 60 minutes
- If you agree, the interview will be audio recorded

Are there any disadvantages risks to taking part?

- Before signing a consent form, you will be provided with this information sheet. In case you do have further questions please do not hesitate and contact the researcher. The contact details can be found on the first page. The researcher is eager to answer all your questions regarding the research.
- If you agree to take part in the research after reading this information sheet, a consent form will be given to you. However even if you sign the consent form, you can decide not to take part or to withdraw from the study at any time during the interview.
- In case English is not your mother tongue, the interviews will be conducted in German to avoid misunderstandings. However as the thesis will be written in English, excerpts of the interview will be translated into English. I will work with a professional translator to minimize the risk of translation errors.
- Discussing personal experiences is likely to be an emotional subject for you as a participant. You may feel exposed, vulnerable and might fear negative impact on your career through the participation in this study. Therefore anonymity and confidentiality are of utmost importance. If talking about your personal experience at the mentoring programme is a sensitive topic to you it might trigger stress or anxiety. If you would like to speak to an independent person who is not a member of the research team, please contact Louise Heath at the University of Worcester. You will find the contact details at the end of this information sheet.
- As a researcher I am trying my best to mitigate the risk of psychological stress, anxiety or any negative consequences because of this research. You can decide not to take part or to **withdraw from the study at any time** during the interview. If you wish to have your data withdrawn please contact the researcher with your participant number and your data will then not be used.
- As the study focuses on East-Westphalia-Lippe the research is conducted outside the United Kingdom. The research is going to follow the data protection regulations which are identical for the United Kingdom and Germany. Moreover is the research going to obey the Federal Data Protection Act (§27 BDSG) (Vollmer, 2017).

Participant Information Sheet

Participant: Former mentee
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Will the information I give stay confidential?

Everything you say/report is confidential unless you tell us something that indicates that you or someone else is at risk of harm. We would discuss this with you before telling anyone else. The information you give may be used for a research report, but it will not be possible to identify you from our research report or any other dissemination activities. Personal identifiable information (e.g. name and contact details) will be securely stored and kept for up to 10 after the project ends in 2019 and then securely disposed of. The research data (e.g. interview transcripts) will be securely stored.

What will happen to the results of the research study?

This research is being carried out as part of my professional doctorate programme at the University of Worcester. The findings of this study will be reported as part of my dissertation and may also be published in academic journals or at conferences.

If you wish to receive a summary of the research findings please contact the researcher.

Who is organising the research?

This research has been approved by the University of Worcester Institute of Humanities, Arts and Social Sciences Research Ethics Committee.

What happens next?

Please keep this information sheet. If you do decide to take part, please contact the researcher using the details below.

Thank you for taking the time to read this information!

If you decide to take part or you have any questions, concerns or complaints about this study please contact one of the research team using the details below.

Participant Information Sheet

Participant: Former mentee
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

RESEARCH TEAM CONTACT DETAILS

Student researcher

- Martina Hammerschmid
hamm1_16@uni.worc.ac.uk

Supervisor

- Professor John Sparrow
profjohnsparrow@btinternet.com
- Dr. Catharine Ross
c.ross@worc.ac.uk

INDEPENDENT CONTACT PERSON DETAILS

If you would like to speak to an independent person who is not a member of the research team, please contact Louise Heath at the University of Worcester, using the following details:

Louise Heath

Secretary to Humanities, Arts and Social Sciences Research Ethics Committee (HASSREC)
University of Worcester
Henwick Grove
Worcester WR2 6AJ
ethics@worc.ac.uk

Teilnehmer-Informationsblatt

Teilnehmer: Ehemalige Mentee
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Projekttitel: Wie könnte aus Sicht der Teilnehmerinnen das formale paarweise Cross-Mentoring für Frauen in OWL angepasst werden, um ein besseres Instrument zur Bekämpfung des Führungskräfteemangel im Top-Management zu werden?

Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Einladung zur Veranstaltung

Ich möchte Sie einladen an meinem Forschungsprojekt teilzunehmen. Bevor Sie sich für eine Teilnahme entscheiden ist es wichtig, dass Sie verstehen warum dieses Projekt durchgeführt wird und was es beinhaltet. Bitte nehmen Sie sich ausreichend Zeit, diese Informationen sorgfältig durchzulesen und fragen Sie die Projektleiterin, wenn Sie Fragen haben. Sprechen Sie mit anderen über die Studie, wenn Sie möchten. Sie haben mindestens 14 Tage Zeit, um zu entscheiden, ob Sie teilnehmen möchten.

Was ist der Zweck der Studie?

Ein bereits heute sichtbarer Trend wird sich in den nächsten Jahren noch verschärfen: Da die Zahl der Fachkräfte abnimmt, wird sich die Zahl der potenziellen Führungskräfte in naher Zukunft entsprechend negativ entwickeln. Dieser Mangel an Führungskräften gilt nach Ansicht von 30 Prozent der Personalverantwortlichen als der relevanteste Engpass infolge des generellen Fachkräftemangels. (QZ, 2017; Scholz, 2017). Dieses Anliegen teilen mehr als 36 Prozent aller Unternehmen in Nordrhein-Westfalen mit der Feststellung, dass der Fachkräftemangel das größte Risiko für die wirtschaftliche Entwicklung darstellt (IHK NRW, 2015, S. 3).

Im Jahr 2017 fehlten in Ostwestfalen-Lippe bereits 20.000 Führungskräfte. Im Jahr 2020 wird diese Zahl auf bis zu 31.000 steigen, und für das Jahr 2030 liegt die Schätzung der Industrie- und Handelskammer bei 47.000 fehlenden Führungskräften (NRW, 2017).

Ein großes Potenzial liegt bei den Frauen: Rund 6,3 Millionen Frauen im erwerbsfähigen Alter sind arbeitslos - viele davon mit mittlerer und hoher Qualifikation. In Deutschland sind nur 55 Prozent der erwerbstätigen Frauen vollzeitbeschäftigt, womit Deutschland im EU-Vergleich an vorletzter Stelle liegt. In vielen anderen EU-Ländern arbeiten mehr Frauen und zeigen damit ihr Potenzial für den Arbeitsmarkt (Bundesministerium für Arbeit und Soziales, 2011, S. 20).

Das Programm "CrossMentoring OWL" wurde ins Leben gerufen um Frauen in Ostwestfalen-Lippe dabei zu unterstützen, die Karriereleiter in die Führungsebene zu erklimmen und damit Unternehmen dabei zu

Teilnehmer-Informationsblatt

Teilnehmer: Ehemalige Mentee
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

unterstützen ihre Führungskräfteücken zu schließen, wie es im Aktionsplan des Bundesministeriums für Arbeit und Soziales (2011) gefordert wurde.

Um die Schwachstellen des Mentoringprogramms, auch in Anbetracht möglicher Voreingenommenheit Außenstehender gegenüber der Effektivität gleichartiger, rein weiblicher Programme bei der Bekämpfung des Mangels an qualifizierten Führungskräften im Top-Management zu schließen, wurde als Ziel dieser Forschungsstudie festgelegt, Maßnahmen für die Organisation des Mentoring-Programms CrossMentoring OWL zu identifizieren, mit denen das Programm in Hinsicht auf den Mangel an qualifizierten Führungskräften in dieser Region verbessert werden kann.

Auch wenn sich die Art dieser Studie in Abhängigkeit von in Laufe der Studie neugewonnen Informationen naturgemäß ändern kann sind die initial festgelegten Ziele der hier dargelegten Studie:

- einen Einblick zu ermöglichen inwiefern das Leben der Mentees zwei Jahre nach dem Ende des Programms durch dieses beeinflusst wurde,
- Zu analysieren warum Frauen gleichgeschlechtliches Mentoring suchen,
- ein Erklärungsmodell zum Zusammenhang zwischen dem Fachkräftemangel im Management mit der Effektivität des CrossMentoring OWL zu entwickeln,
- zu evaluieren, in wie weit das Programm CrossMentoring OWL aus Sicht der Mentees und der Experten sein Ziel erfüllt.

Das Ziel meiner Studie ist es, folgende Frage zu beantworten: "Wie kann man aus Sicht der Teilnehmerinnen dieser Studie das formale paarweise gleichgeschlechtliche Mentoring von Frauen so anpassen, dass es das perfekte Instrument zur Bekämpfung des Führungskräftemangels im Top-Management wird?"

Warum wurde ich zur Teilnahme eingeladen?

Sie haben diese Einladung erhalten, weil Sie eine ehemalige Mentee des Mentoring-Programms "CrossMentoring OWL" waren. Wir hoffen, 12 Mentees, drei Experten und bis zu 20 Manager für diese Studie gewinnen zu können.

Muss ich mitmachen?

Nein. Es ist Ihre Entscheidung, ob Sie an dieser Studie teilnehmen möchten oder nicht. Bitte nehmen Sie sich Zeit für Ihre Entscheidung; wir werden mindestens 14 Tage warten, bevor wir Sie um Ihre Entscheidung bitten. Sie können jederzeit während des Interviews entscheiden, nicht teilzunehmen oder sich aus der Studie zurückzuziehen. Wenn Sie sich entscheiden, nach dem Vorstellungsgespräch zurückzutreten, beträgt die Frist für den Rücktritt 14 Tage. Wenn Sie wünschen, dass Ihre Daten gelöscht werden, wenden

Teilnehmer-Informationsblatt

Teilnehmer: Ehemalige Mentee
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Sie sich bitte mit Ihrer Teilnehmernummer an den Forscher und Ihre Daten werden nicht verwendet. Wenn Sie sich für eine Teilnahme entscheiden, werden Sie aufgefordert, eine Einverständniserklärung zu unterzeichnen.

Was passiert mit mir, wenn ich mit der Teilnahme einverstanden bin?

- Wenn Sie zustimmen, nehmen Sie an einem halbstrukturierten Interview teil, in dem Sie nach Ihren persönlichen Erfahrungen im Mentoring-Programm "CrossMentoring OWL" gefragt werden.
- Das Gespräch wird in privaten Räumlichkeiten geführt, um Vertraulichkeit zu gewährleisten.
- Das Interview dauert 45 bis 60 Minuten.
- Das Interview wird mittels Audioaufzeichnung aufgezeichnet, wenn Sie damit einverstanden sind.

Gibt es Nachteile, die mit der Teilnahme verbunden sind?

- Vor der Unterzeichnung einer Einwilligungserklärung erhalten Sie dieses Informationsblatt. Sollten Sie weitere Fragen haben, zögern Sie bitte nicht und wenden Sie sich an den Forscher. Die Kontaktdaten finden Sie auf der ersten Seite. Der Forscher steht Ihnen für alle Fragen rund um die Forschung zur Verfügung.
- Wenn Sie nach dem Lesen dieses Informationsblattes zustimmen, an der Untersuchung teilzunehmen, erhalten Sie eine Einverständniserklärung. Aber auch wenn Sie die Einverständniserklärung unterschreiben, können Sie sich jederzeit während des Interviews entscheiden, nicht an der Studie teilzunehmen oder aus der Studie auszutreten.
- Falls Englisch nicht Ihre Muttersprache ist, werden die Interviews in deutscher Sprache geführt, um Missverständnisse zu vermeiden. Da die Dissertation jedoch in englischer Sprache verfasst wird, werden Auszüge aus dem Interview ins Englische übersetzt. Ich arbeite mit einem professionellen Übersetzer zusammen, um das Risiko von Übersetzungsfehlern zu minimieren.
- Persönliche Erlebnisse zu besprechen, ist für Sie als Teilnehmer wahrscheinlich ein emotionales Thema. Durch die Teilnahme an dieser Studie können Sie sich exponiert und verletzlich fühlen und negative Auswirkungen auf Ihre Karriere befürchten. Daher sind Anonymität und Vertraulichkeit von größter Bedeutung. Wenn das Gespräch über Ihre persönliche Erfahrung im Mentoring-Programm ein sensibles Thema für Sie ist, kann es Stress oder Angst auslösen. Wenn Sie mit einer unabhängigen Person sprechen möchten, die nicht Mitglied des Forschungsteams ist, wenden Sie sich bitte an Louise Heath von der University of Worcester. Die Kontaktdaten finden Sie am Ende dieses Informationsblattes.
- Als Forscher versuche ich mein Bestes, um das Risiko von psychischem Stress, Angstzuständen oder negativen Folgen aufgrund dieser Forschung zu mindern. Sie können jederzeit während des

Teilnehmer-Informationsblatt

Teilnehmer: Ehemalige Mentee
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Interviews entscheiden, nicht teilzunehmen oder sich aus der Studie zurückzuziehen. Wenn Sie wünschen, dass Ihre Daten gelöscht werden, wenden Sie sich bitte mit Ihrer Teilnehmernummer an den Forscher und Ihre Daten werden nicht verwendet.

- Da sich die Studie auf Ostwestfalen-Lippe konzentriert, wird die Forschung außerhalb Großbritanniens durchgeführt. Die Forschung wird sich an den Datenschutzbestimmungen orientieren, die für Großbritannien und Deutschland identisch sind. Darüber hinaus wird die Forschung unter Beachtung des Bundesdatenschutzgesetzes (§27 BDSG) durchgeführt (Vollmer, 2017).

Werden die von mir übermittelten Informationen vertraulich behandelt?

Alles, was Sie sagen/berichten, ist vertraulich, es sei denn, Sie teilen uns etwas mit, das darauf hinweist, dass Sie oder jemand anderes gefährdet ist. Wir würden das mit Ihnen besprechen, bevor wir es jemand anderem erzählen. Die von Ihnen gemachten Angaben können für einen Forschungsbericht verwendet werden, es ist jedoch nicht möglich, Sie anhand unseres Forschungsberichts oder anderer Verbreitungsaktivitäten zu identifizieren. Persönliche identifizierbare Informationen (z.B. Name und Kontaktdaten) werden nach Projektende 2019 sicher gespeichert und bis zu 10 Jahre lang aufbewahrt und anschließend sicher entsorgt. Die Forschungsdaten (z.B. Interviewprotokolle) werden sicher gespeichert.

Was geschieht mit den Ergebnissen der Forschungsstudie?

Diese Forschung wird im Rahmen meines professionellen Doktoratsstudiums an der Universität Worcester durchgeführt. Die Ergebnisse dieser Studie werden im Rahmen meiner Dissertation veröffentlicht und können auch in wissenschaftlichen Zeitschriften oder auf Konferenzen veröffentlicht werden. Wenn Sie eine Zusammenfassung der Forschungsergebnisse wünschen, wenden Sie sich bitte an den Forscher.

Wer organisiert die Forschung?

Diese Forschung wurde von der Ethikkommission des University of Worcester Institute of Humanities, Arts and Social Sciences Research Ethics Committee genehmigt.

Was passiert als nächstes?

Bitte bewahren Sie dieses Informationsblatt auf. Wenn Sie sich für eine Teilnahme entscheiden, wenden Sie sich bitte über die untenstehenden Angaben an den Forscher.

Vielen Dank, dass Sie sich die Zeit nehmen, diese Informationen zu lesen!

Teilnehmer-Informationsblatt

Teilnehmer: Ehemalige Mentee
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Wenn Sie sich für eine Teilnahme entscheiden oder Fragen, Bedenken oder Beschwerden zu dieser Studie haben, wenden Sie sich bitte an eines der Forschungsteams, indem Sie die nachstehenden Angaben verwenden.

ANGABEN ZUM PROJEKTTEAM

Projektleiter:

- Martina Hammerschmid
hamm1_16@uni.worc.ac.uk

Betreuer:

- Professor John Sparrow
profjohnsparrow@btinternet.com
- Dr. Catharine Ross
c.ross@worc.ac.uk

ANGABEN ZU UNABHÄNGIGEN ANSPRECHPARTNERN

Wenn Sie mit einer unabhängigen Person sprechen möchten, die nicht Mitglied des Forschungsteams ist, wenden Sie sich bitte an Louise Heath von der University of Worcester unter Verwendung der folgenden Angaben:

Louise Heath

Secretary to Humanities, Arts and Social Sciences Research Ethics Committee (HASSREC)
Sekretärin für Geistes-, Kunst- und Sozialwissenschaften Forschung Ethikkommission (HASSREC)
University of Worcester
Henwick Grove
Worcester WR2 6AJ
ethics@worc.ac.uk

Appendix 3.1.2 Participant Consent Form – Former Mentees

Informed Consent Form - Interview

Project Title: How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

I, the undersigned, confirm that:

1.	I have read and understood the information about the project, as provided in the Information Sheet dated _____.	
2.	I have been given the opportunity to ask questions about the project and my participation.	
3.	I voluntarily agree to participate in the project.	
4.	I understand I can withdraw from the study at any time during the interview and that I will not be penalised for withdrawing nor will I be questioned on why I have withdrawn. If I decide to withdraw after the interview the timeframe for withdrawal is 14 days.	
5.	The procedures regarding confidentiality have been clearly explained (e.g. use of names, pseudonyms, anonymisation of data, etc.) to me.	
6.	Separate terms of consent for interviews, audio, video or other forms of data collection have been explained and provided to me.	
7.	The use of the data in research, publications, sharing and archiving has been explained to me.	
8.	I understand that the researcher is only going to keep anonymized extracts in the thesis of my data to support her arguments and analysis.	
9.	I was informed that the researcher will not make his entire research data available for upcoming researchers, to protect the confidentiality of the data.	
10.	I am aware that the data may be used for subsequent academic publications besides the thesis.	
11.	I was informed that the data might be stored for a maximum of ten years and then destroyed.	
12.	Regarding anonymity, the participation will be anonymous in order to ensure data protection and to avoid any harm to the participants' careers.	
13.	I, along with the Researcher, agree to sign and date this informed consent form.	

Participant:

 Name of Participant Signature Place Date

Researcher:

 Name of Researcher Signature Place Date

Informed Consent Form - Interview

Projekttitle: Wie könnte aus Sicht der Teilnehmerinnen das formale paarweise Cross-Mentoring für Frauen in OWL angepasst werden, um ein besseres Instrument zur Bekämpfung des Fachkräftemangels im Top-Management zu werden?

Projektleitung: Martina Hammerschmid

Kontaktadresse: hamm1_16@uni.worc.ac.uk

Ich, der Unterzeichner / die Unterzeichnerin bestätige:

1.	Ich habe die Informationen über das Projekt gelesen und verstanden, wie sie im Informationsblatt vom _____ aufgeführt sind.	
2.	Ich hatte die Möglichkeit, Fragen zum Projekt und zu meiner Teilnahme zu stellen.	
3.	Ich erkläre mich freiwillig bereit, an dem Projekt teilzunehmen.	
4.	Ich verstehe, dass ich jederzeit ohne Angabe von Gründen zurücktreten kann und dass ich dann weder für den Rückzug bestraft werde, noch dass ich gefragt werde, warum ich zurückgetreten bin. Nach dem Interview beträgt die Rücktrittsfrist 14 Tage.	
5.	Die Verfahren zur Sicherstellung des Datenschutzes (z.B. Verwendung von Namen, Pseudonymen, Anonymisierung von Daten, etc.) wurden mir verständlich und deutlich erklärt.	
6.	Gesonderte Einwilligungsbedingungen für Interviews, Audio, Video oder andere Formen der Datenerhebung wurden mir erläutert und zur Verfügung gestellt.	
7.	Die Verwendung der Daten in der Forschung, in Publikationen, im wissenschaftlichen Austausch und in der Archivierung wurde mir erklärt.	
8.	Mir ist bewusst, dass die Projektleiterin nur anonymisierte Auszüge in der These meiner Daten aufbewahren wird, um ihre Argumente und Analysen untermauern zu können.	
9.	Ich wurde darüber informiert, dass die Projektleiterin ihre gesamten Forschungsdaten nicht für nachfolgende Forschungen oder Projekte zur Verfügung stellen wird, um die Vertraulichkeit der Daten zu gewährleisten.	
10.	Ich bin mir bewusst, dass die Daten für spätere wissenschaftliche Veröffentlichungen neben der Dissertation verwendet werden können.	
11.	Mir wurde mitgeteilt, dass die Daten maximal zehn Jahre lang gespeichert können und dann vernichtet werden.	
12.	Im Hinblick auf die Anonymität erfolgt die Teilnahme anonymisiert, um den Datenschutz zu gewährleisten und eine Beeinträchtigung der Karriere der Teilnehmer und Teilnehmerinnen zu vermeiden.	
13.	Ich, wie auch die Projektleiterin, bin damit einverstanden, diese Einwilligungserklärung zu unterzeichnen und zu datieren.	

Teilnehmer:

 Name des Teilnehmers Unterschrift Ort Datum

Projektleiterin:

 Name der Projektleitung Unterschrift Ort Datum

Appendix 3.1.3 Interview Questions - Former Mentees

Semi-Structured interview schedule

Interviewee: Former Mentee
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Project Title: How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?

Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Welcome

Good evening and welcome to our session.

How are you?

Thanks for taking the time to join me in my research. I would like to talk about mentoring women to combat skill shortages. My name is Martina Hammerschmid.

I am from the University of Worcester. I want to analyse your experiences to see how the mentoring programme could be changed to better meet its objective.

Guidelines

Keep in mind that I am just as interested in negative comments as positive comments, and at times negative comments are the most helpful. I ask you turn off your phones or pagers. If you must respond to a call, please rejoin me as quickly as you can.

You've probably noticed the dictaphone. I would like to audio record the session because I don't want to miss any of your comments. Would that be okay for you? Please let's try only one person speaking at a time. People often say very helpful things in these discussions and I can't write fast enough to get them all down.

We will be on a first name basis tonight, and I won't use any names in our reports. You may be assured of complete confidentiality.

My role as moderator will be to guide the discussion.

This interview will approximately last between 45 to 60 minutes.

Do you have any questions?

Well, let's begin.

Semi-Structured interview schedule

Interviewee: Former Mentee
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Verbal consent
<ul style="list-style-type: none"> • Do you want to participate in this interview? • Are you aware of the fact, that you can withdraw at any time without giving reasons and that you will not be penalized for withdrawing nor will you be questioned on why you have withdrawn?
Questions
1. In what ways did the same gender approach attract you in order to participate in this programme?
2. What did you hope would be addressed and resolved during the mentoring relationship? Was it addressed and resolved? If not, what was it?
3. What support in your leadership development and career progression did you expect through the programme? Did you receive this? If not, why not and how would you have liked that support to be delivered?
4. How would you rate the importance of female role models in combating skills shortages? Please reason your opinion!
5. What kind of influence on your life personally and professionally through the programme did you wish for? Did you experience such an influence? If yes, how would you describe this influence?
6. Which aspects of your professional progression during the last years since the programme ended do you attribute to the programme? Which skills or benefits did you hope to gain through the programme? Were you able to gain everything you hoped for? If not, what was it?
7. What kind of perspectives, possibilities and impressions did you experience because of the same gender approach? Do you think you would have made different experiences in a mixed gender approach? If so, what?
8. What kind of skills and instruments did you hope to learn during the CrossMentoring OWL programme? Were you able to learn these skills and instruments? If not, why?
9. What kind of qualifications and characteristics in a mentor do you need in order to regard her as a role model? Did your mentor have all the attributes? If not, what did you miss and why?
10. What kind of role did sponsorship play for you during and after the programme? Was it available? If not, why not and would you have expected it to be available?
11. What kind of needs did you hope would be met through your participation in the programme? Were all of them met? If not, what would you change in order to meet all of your needs?

Semi-Structured interview schedule

Interviewee: Former Mentee
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

12. The objective of the CrossMentoring OWL programme is to combat skills shortages in management in OWL. What does a programme like this need in order to meet such an objective? Did it provide everything needed? If not, what did it miss?
Is there anything we should have talked about but didn't?

Interview Fragebogen

Teilnehmerin: Ehemalige Mentee
Forscherin: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Projekttitel: Wie könnte das formale Mentoring für Frauen in der gleichen Geschlechterdyade angepasst werden, um ein besseres Instrument zur Bekämpfung von Fachkräftemangel im Top-Management zu sein, ausgehend von der Wahrnehmung der Fallstudienteilnehmer?

Forscherin: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Herzlich Willkommen

Guten Abend und willkommen zu unserem Treffen.

Wie geht es Ihnen?

Danke, dass Sie sich Zeit nehmen und einen Beitrag zu meiner Forschungsarbeit leisten. Ich möchte über Mentoring von Frauen als Mittel zur Bekämpfung des Fachkräftemangels sprechen.

Mein Name ist Martina Hammerschmid, ich bin Studentin der Universität Worcester. Ich möchte Ihre Erfahrungen auswerten, um zu sehen wie das Mentoring-Programm verändert werden könnte um sein Ziel besser zu erreichen.

Anmerkungen zur Durchführung

Denken Sie daran, dass ich an kritischen Kommentaren genauso interessiert bin wie an Positiven, und dass manchmal die negativen Kommentare die Hilfreichsten sind. Ich bitte Sie, Ihr Telefon oder Pager auszuschalten. Wenn Sie einen Anruf beantworten müssen möchte ich Sie bitten, danach wieder so schnell wie möglich zu mir zurückzukommen.

Sie haben wahrscheinlich das Diktiergerät bemerkt. Ich würde gerne eine Tonaufzeichnung dieser Sitzung machen, weil ich keinen Ihrer Kommentare verpassen möchte. Wäre das für Sie okay? Wir sollten versuchen, dass immer nur eine von uns spricht. Die Teilnehmer sagen viele hilfreiche Dinge in diesen Diskussionen, und ich kann sonst nicht schnell genug mitkommen, um alles aufzuschreiben.

Wenn Sie einverstanden sind werden wir uns heute Abend mit Vornamen ansprechen. In meiner Dokumentation werde ich allerdings keine Namen verwenden. Sie können sich auf absolute Vertraulichkeit und Datenschutz verlassen.

Meine Rolle als Moderatorin wird darin bestehen, die Diskussion zu leiten.

Dieses Interview wird etwa 45 bis 60 Minuten dauern.

Haben Sie Fragen?

Nun, fangen wir an.

Interview Fragebogen

Teilnehmerin: Ehemalige Mentee
Forscherin: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Mündliche Einwilligungserklärung
<ul style="list-style-type: none">• Möchten Sie an diesem Interview teilnehmen?
<ul style="list-style-type: none">• Sind Sie sich der Tatsache bewusst, dass Sie jederzeit ohne Angabe von Gründen die Teilnahme an dieser Studie abbrechen können und dass Sie weder Nachteile aufgrund dieses Abbruchs haben, noch dass Sie nach einer Begründung für den Abbruch gefragt werden würden?
Fragen
1. Hat Sie der Ansatz eines rein weiblichen Mentoringprogramms dazu bewogen, an dem Programm teilzunehmen? Wenn ja, warum?
2. Wovon hatten Sie gehofft, dass es während des Mentorings angesprochen und erarbeitet werden würde? Wurde es angesprochen und erarbeitet? Falls nicht, was war es?
3. Welche Unterstützung in der Weiterentwicklung Ihrer Führungsqualitäten und Ihrer Karriere hatten Sie sich von dem Programm erhofft? Haben Sie diese erhalten? Falls nicht, warum – und wie hätten Sie sich gewünscht diese Unterstützung zu erhalten?
4. Wie bewerten Sie den Stellenwert weiblicher Vorbilder bei der Bekämpfung des Fachkräftemangels? Bitte begründen Sie Ihre Antwort!
5. Welchen Einfluss des Programms auf Ihr privates und berufliches Leben hätten Sie sich gewünscht? Haben Sie einen solchen Einfluss bemerkt? Falls ja, wie würden Sie diesen Einfluss beschreiben?
6. Welche Anteile ihres beruflichen Fortschritts in den letzten Jahren nach Ende des Programms schreiben Sie dem Programm zu? Welche Fähigkeiten oder Vorzüge hatten Sie gehofft durch das Programm zu erhalten? Haben Sie alles bekommen, was Sie sich erhofft haben? Falls nicht, was war es?
7. Welche Perspektiven, Möglichkeiten und Eindrücke haben Sie durch den rein weiblichen Ansatz des Programms bekommen? Denken Sie, dass Sie bei einem gemischtgeschlechtlichen Ansatz andere Erfahrungen gemacht hätten? Falls ja, welche?
8. Welche Fähigkeiten und Fertigkeiten hatten Sie gehofft durch das CrossMentoring OWL zu erlernen? Konnten Sie diese erlernen? Falls nicht, warum?

Interview Fragebogen

Teilnehmerin: Ehemalige Mentee
Forscherin: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

- | |
|--|
| 9. Welche Qualifikationen und Eigenschaften benötigt eine Mentorin für Sie, dass Sie sie als Vorbild wahrnehmen? Hatte Ihre Mentorin all diese Charakteristika? Falls nicht, was haben Sie vermisst und warum? |
| 10. Welche Rolle hat Sponsoring für Sie während und nach dem Programm gespielt? War es verfügbar? Falls nicht, warum – und hätten Sie erwartet, dass es verfügbar sein würde? |
| 11. Welche Bedürfnisse hatten Sie durch Ihre Teilnahme am Programm zu erfüllen gehofft? Wurden diese erfüllt? Falls nicht, was würden Sie am Programm ändern um all Ihre Bedürfnisse erfüllt zu bekommen? |
| 12. Das Ziel des CrossMentoring OWL – Programms ist es, dem Fachkräftemangel auf Führungsebene in OWL entgegenzuwirken. Was benötigt ein solches Programm um dieses Ziel erfüllen zu können? Hat das Programm alles Erforderliche geleistet? Falls nicht, was hat gefehlt? |
| 13. Haben wir über irgendetwas noch nicht gesprochen was wir jetzt nachholen sollten? |

Appendix 3.1.4 Participant Information Sheet – Experts

Participant Information Sheet

Participant: Expert
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Project Title: How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?

Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Invitation

I would like to invite you to take part in my research project. Before you decide whether to take part it is important that you understand why the research is being done and what it will involve. Please take time to read this carefully and ask the researcher if you have any questions. Talk to others about the study if you wish. You will have at least 14 days to decide if you want to take part.

What is the purpose of the study?

A trend already visible today will worsen in the next few years: Since the number of skilled specialists is decreasing, the number of potential managers adjusts accordingly in the near future. This shortage of managers is believed to be the greatest bottleneck already existing in potential managers according to 30 percent of HR managers (QZ, 2017; Scholz, 2017). This concern is shared by more than 36 percent of all companies in North Rhine-Westphalia by stating that skill shortage is the greatest risk to economic development (IHK NRW, 2015, p. 3).

In 2017, there are already lacking 20.000 managers in East-Westphalia-Lippe. In 2020, it is estimated to raise up to 31.000 missing managers, and in 2030 the Chamber of Industry and Commerce estimates that 47.000 managers will be missing (NRW, 2017).

A great potential lies within women: Around 6.3 million women of working age are unemployed - many with medium and high qualifications. In Germany, only 55 percent of employed women are employed full-time, with Germany ranked second to last in EU comparison. In many other EU countries there are more women working and by doing so display their potential in the labour market (Bundesministerium für Arbeit und Soziales, 2011, p. 20).

The programme "CrossMentoring OWL" has been set up in order to support women in East-Westphalia-Lippe to progress up the corporate ladder into management level and therefore to support companies in closing their skills shortage gap as requested in the action plan of the federal ministry (Bundesministerium für Arbeit und Soziales, 2011).

Participant Information Sheet

Participant: Expert
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

In order to address the identified gaps within the predominant understanding of same gender dyad mentoring for women in combating skill shortages in top management, it is proposed that the aim for this research study is to explore actions for the management of the mentoring programme CrossMentoring OWL on how to improve the programme to better meet the needs of the region in terms of skill shortage in management.

Even though the nature of this study may naturally change as new data is uncovered, the initial objectives of this proposed study are:

- to provide insight into how the life of the mentees has been influenced, two years after the programme ended.
- to provide understanding on why women seek same gender mentoring.
- to develop an explanatory theory³ that associates skill shortages in management with the effectiveness of the CrossMentoring OWL.
- to describe the extent to which the programme CrossMentoring OWL meets its goal based on the perspective of the mentees and the experts.

The aim of my study is to answer the question of "how could the formal same gender dyad mentoring for women be adjusted to be the perfect tool to combat skill shortages in top management, from the case study participants' perception?"

Why have I been invited to take part?

You have received this invitation because you are regarded as an expert in the area of skill shortages and the advancement of women in the region East-Westphalia-Lippe. We are hoping to recruit 12 former female mentees of the mentoring programme "CrossMentoring OWL", three experts and up to 20 female managers for this study.

Do I have to take part?

No. It is up to you to decide whether or not you want to take part in this study. Please take your time to decide; we will wait for at least 14 days before asking for your decision. You can decide not to take part or to withdraw from the study at any time during the interview. If you decide to withdraw after the interview the timeframe for withdrawal is 14 days. If you wish to have your data withdrawn please contact the researcher with your participant number and your data will then not be used. If you do decide to take part you will be asked to sign a consent form.

³ The word 'theory' was changed to 'framework' with the approval of the college ethics committee chair.

Participant Information Sheet

Participant: Expert
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

What will happen to me if I agree to take part?

- If you agree to take part a semi-structured interview will be conducted with you.
- The interview will be based on my findings from the interviews already held with the former mentees and will lead to proposed actions for the management of the mentoring programme CrossMentoring OWL on how to improve the programme to better meet the needs of the region in terms of skills shortages in management.
- The interview will be carried out in private rooms to ensure confidentiality.
- The interview will last 45 to 60 minutes
- If you agree, the interview will be audio recorded

Are there any disadvantages risks to taking part?

- Before signing a consent form, you will be provided with this information sheet. In case you do have further questions please do not hesitate and contact the researcher. The contact details can be found on the first page. The researcher is eager to answer all your questions regarding the research.
- If you agree to take part in the research after reading this information sheet, a consent form will be given to you. However even if you sign the consent form, you can decide not to take part or to withdraw from the study at any time during the interview.
- In case English is not your mother tongue, the interviews will be conducted in German to avoid misunderstandings. However as the thesis will be written in English, excerpts of the interview will be translated into English. I will work with a professional translator to minimize the risk of translation errors.
- Discussing personal experiences is likely to be an emotional subject for you as a participant. You may feel exposed, vulnerable and might fear negative impact on your career through the participation in this study. Therefore anonymity and confidentiality are of utmost importance. If talking about your personal experience at the mentoring programme is a sensitive topic to you it might trigger stress or anxiety. If you would like to speak to an independent person who is not a member of the research team, please contact Louise Heath at the University of Worcester. You will find the contact details at the end of this information sheet.
- As a researcher I am trying my best to mitigate the risk of psychological stress, anxiety or any negative consequences because of this research. You can decide not to take part or to **withdraw from the study at any time** during the interview. If you wish to have your data withdrawn please contact the researcher with your participant number and your data will then not be used.
- As the study focuses on East-Westphalia-Lippe the research is conducted outside the United Kingdom. The research is going to follow the data protection regulations which are identical for

Participant Information Sheet

Participant: Expert
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

the United Kingdom and Germany. Moreover is the research going to obey the Federal Data Protection Act (§27 BDSG) (Vollmer, 2017).

Will the information I give stay confidential?

Everything you say/report is confidential unless you tell us something that indicates that you or someone else is at risk of harm. We would discuss this with you before telling anyone else. The information you give may be used for a research report, but it will not be possible to identify you from our research report or any other dissemination activities. Personal identifiable information (e.g. name and contact details) will be securely stored and kept for up to 10 after the project ends in 2019 and then securely disposed of. The research data (e.g. interview transcripts) will be securely stored.

What will happen to the results of the research study?

This research is being carried out as part of my professional doctorate programme at the University of Worcester. The findings of this study will be reported as part of my dissertation and may also be published in academic journals or at conferences.

If you wish to receive a summary of the research findings please contact the researcher.

Who is organising the research?

This research has been approved by the University of Worcester Institute of Humanities, Arts and Social Sciences Research Ethics Committee.

What happens next?

Please keep this information sheet. If you do decide to take part, please contact the researcher using the details below.

Thank you for taking the time to read this information!

If you decide to take part or you have any questions, concerns or complaints about this study please contact one of the research team using the details below.

Participant Information Sheet

Participant: Expert
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

RESEARCH TEAM CONTACT DETAILS

Student researcher

- Martina Hammerschmid
hamm1_16@uni.worc.ac.uk

Supervisor

- Professor John Sparrow
profjohnsparrow@btinternet.com
- Dr. Catharine Ross
c.ross@worc.ac.uk

INDEPENDENT CONTACT PERSON DETAILS

If you would like to speak to an independent person who is not a member of the research team, please contact Louise Heath at the University of Worcester, using the following details:

Louise Heath

Secretary to Humanities, Arts and Social Sciences Research Ethics Committee (HASSREC)
University of Worcester
Henwick Grove
Worcester WR2 6AJ
ethics@worc.ac.uk

Teilnehmer-Informationsblatt

Teilnehmer: Experte
Forscher: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Projekttitel: Wie könnte aus Sicht der Teilnehmerinnen das formale paarweise Cross-Mentoring für Frauen in OWL angepasst werden, um ein besseres Instrument zur Bekämpfung des Führungskräfteemangel im Top-Management zu werden?

Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Einladung zur Veranstaltung

Ich möchte Sie einladen an meinem Forschungsprojekt teilzunehmen. Bevor Sie sich für eine Teilnahme entscheiden ist es wichtig, dass Sie verstehen warum dieses Projekt durchgeführt wird und was es beinhaltet. Bitte nehmen Sie sich ausreichend Zeit, diese Informationen sorgfältig durchzulesen und fragen Sie die Projektleiterin, wenn Sie Fragen haben. Sprechen Sie mit anderen über die Studie, wenn Sie möchten. Sie haben mindestens 14 Tage Zeit, um zu entscheiden, ob Sie teilnehmen möchten.

Was ist der Zweck der Studie?

Ein bereits heute sichtbarer Trend wird sich in den nächsten Jahren noch verschärfen: Da die Zahl der Fachkräfte abnimmt, wird sich die Zahl der potenziellen Führungskräfte in naher Zukunft entsprechend negativ entwickeln. Dieser Mangel an Führungskräften gilt nach Ansicht von 30 Prozent der Personalverantwortlichen als der relevanteste Engpass infolge des generellen Fachkräftemangels. (QZ, 2017; Scholz, 2017). Dieses Anliegen teilen mehr als 36 Prozent aller Unternehmen in Nordrhein-Westfalen mit der Feststellung, dass der Fachkräftemangel das größte Risiko für die wirtschaftliche Entwicklung darstellt (IHK NRW, 2015, S. 3).

Im Jahr 2017 fehlten in Ostwestfalen-Lippe bereits 20.000 Führungskräfte. Im Jahr 2020 wird diese Zahl auf bis zu 31.000 steigen, und für das Jahr 2030 liegt die Schätzung der Industrie- und Handelskammer bei ca. 47.000 fehlenden Führungskräften (NRW, 2017).

Ein großes Potenzial liegt bei den Frauen: Rund 6,3 Millionen Frauen im erwerbsfähigen Alter sind arbeitslos - viele davon mit mittlerer und hoher Qualifikation. In Deutschland sind nur 55 Prozent der erwerbstätigen Frauen vollzeitbeschäftigt, womit Deutschland im EU-Vergleich an vorletzter Stelle liegt. In vielen anderen EU-Ländern arbeiten mehr Frauen und zeigen damit ihr Potenzial für den Arbeitsmarkt (Bundesministerium für Arbeit und Soziales, 2011, S. 20).

Das Programm "CrossMentoring OWL" wurde ins Leben gerufen um Frauen in Ostwestfalen-Lippe dabei zu unterstützen, die Karriereleiter in die Führungsebene zu erklimmen und damit Unternehmen dabei zu

Teilnehmer-Informationsblatt

Teilnehmer: Experte
Forscher: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

unterstützen ihre Führungskräfteücken zu schließen, wie es im Aktionsplan des Bundesministeriums für Arbeit und Soziales (2011) gefordert wurde.

Um die Schwachstellen des Mentoringprogramms, auch in Anbetracht möglicher Voreingenommenheit Außenstehender gegenüber der Effektivität gleichartiger, rein weiblicher Programme bei der Bekämpfung des Mangels an qualifizierten Führungskräften im Top-Management zu schließen, wurde als Ziel dieser Forschungsstudie festgelegt, Maßnahmen für die Organisation des Mentoring-Programms CrossMentoring OWL zu identifizieren, mit denen das Programm in Hinsicht auf den Mangel an qualifizierten Führungskräften in dieser Region verbessert werden kann.

Auch wenn sich die Art dieser Studie in Abhängigkeit von in Laufe der Studie neugewonnen Informationen naturgemäß ändern kann sind die initial festgelegten Ziele der hier dargelegten Studie:

- einen Einblick zu ermöglichen inwiefern das Leben der Mentees zwei Jahre nach dem Ende des Programms durch dieses beeinflusst wurde,
- Zu analysieren warum Frauen gleichgeschlechtliches Mentoring suchen,
- ein Erklärungsmodell zum Zusammenhang zwischen dem Fachkräftemangel im Management mit der Effektivität des CrossMentoring OWL zu entwickeln,
- zu evaluieren, in wie weit das Programm CrossMentoring OWL aus Sicht der Mentees und der Experten sein Ziel erfüllt.

Das Ziel meiner Studie ist es, folgende Frage zu beantworten: "Wie kann man aus Sicht der Teilnehmerinnen dieser Studie das formale paarweise gleichgeschlechtliche Mentoring von Frauen so anpassen, dass es das perfekte Instrument zur Bekämpfung des Führungskräftemangels im Top-Management wird?"

Warum wurde ich zur Teilnahme eingeladen?

Sie haben diese Einladung erhalten, weil Sie als Experte / Expertin auf dem Gebiet des Fachkräftemangels und der Frauenförderung in der Region Ostwestfalen-Lippe gelten. Wir hoffen, 12 ehemalige weibliche Mentees des Mentoring-Programms "CrossMentoring OWL", drei Experten und bis zu 20 weibliche Führungskräfte für diese Studie gewinnen zu können.

Muss ich mitmachen?

Nein. Es ist Ihre Entscheidung, ob Sie an dieser Studie teilnehmen möchten oder nicht. Bitte nehmen Sie sich Zeit für Ihre Entscheidung; wir werden mindestens 14 Tage warten, bevor wir Sie um Ihre

Teilnehmer-Informationsblatt

Teilnehmer: Experte
Forscher: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Entscheidung bitten. Sie können jederzeit während des Interviews entscheiden, nicht teilzunehmen oder sich aus der Studie zurückzuziehen. Wenn Sie sich entscheiden, nach dem Vorstellungsgespräch zurückzutreten, beträgt die Frist für den Rücktritt 14 Tage. Wenn Sie wünschen, dass Ihre Daten gelöscht werden, wenden Sie sich bitte mit Ihrer Teilnehmernummer an den Forscher und Ihre Daten werden nicht verwendet. Wenn Sie sich für eine Teilnahme entscheiden, werden Sie aufgefordert, eine Einverständniserklärung zu unterzeichnen.

Was passiert mit mir, wenn ich mit der Teilnahme einverstanden bin?

- Wenn Sie sich zur Teilnahme bereit erklären, wird ein halbstrukturiertes Interview mit Ihnen geführt.
- Das Interview basiert auf Erkenntnissen aus Interviews die ich bereits mit den ehemaligen Mentees geführt habe und wird zu Vorschlägen für Maßnahmen für die Organisatoren des Mentoring-Programms CrossMentoring OWL führen, wie das Programm verbessert werden kann, um den Bedürfnissen der Region im Hinblick auf Führungskräfte mangel besser gerecht zu werden.
- Das Gespräch wird in privaten Räumlichkeiten geführt, um Vertraulichkeit zu gewährleisten.
- Das Interview dauert 45 bis 60 Minuten.
- Das Interview wird mittels Audioaufzeichnung aufgezeichnet, wenn Sie damit einverstanden sind.

Gibt es Nachteile, die mit der Teilnahme verbunden sind?

- Vor der Unterzeichnung einer Einwilligungserklärung erhalten Sie dieses Informationsblatt. Sollten Sie weitere Fragen haben, zögern Sie bitte nicht und wenden Sie sich an den Forscher. Die Kontaktdaten finden Sie auf der ersten Seite. Der Forscher steht Ihnen für alle Fragen rund um die Forschung zur Verfügung.
- Wenn Sie nach dem Lesen dieses Informationsblattes zustimmen, an der Untersuchung teilzunehmen, erhalten Sie eine Einverständniserklärung. Aber auch wenn Sie die Einverständniserklärung unterschreiben, können Sie sich jederzeit während des Interviews entscheiden, nicht an der Studie teilzunehmen oder aus der Studie auszutreten.
- Falls Englisch nicht Ihre Muttersprache ist, werden die Interviews in deutscher Sprache geführt, um Missverständnisse zu vermeiden. Da die Dissertation jedoch in englischer Sprache verfasst wird, werden Auszüge aus dem Interview ins Englische übersetzt. Ich arbeite mit einem professionellen Übersetzer zusammen, um das Risiko von Übersetzungsfehlern zu minimieren.
- Persönliche Erlebnisse zu besprechen, ist für Sie als Teilnehmer wahrscheinlich ein emotionales Thema. Durch die Teilnahme an dieser Studie können Sie sich exponiert und verletztlich fühlen

Teilnehmer-Informationsblatt

Teilnehmer: Experte
Forscher: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

und negative Auswirkungen auf Ihre Karriere befürchten. Daher sind Anonymität und Vertraulichkeit von größter Bedeutung. Wenn das Gespräch über Ihre persönliche Erfahrung im Mentoring-Programm ein sensibles Thema für Sie ist, kann es Stress oder Angst auslösen. Wenn Sie mit einer unabhängigen Person sprechen möchten, die nicht Mitglied des Forschungsteams ist, wenden Sie sich bitte an Louise Heath von der University of Worcester. Die Kontaktdaten finden Sie am Ende dieses Informationsblattes.

- Als Forscher versuche ich mein Bestes, um das Risiko von psychischem Stress, Angstzuständen oder negativen Folgen aufgrund dieser Forschung zu mindern. Sie können jederzeit während des Interviews entscheiden, nicht teilzunehmen oder sich aus der Studie zurückzuziehen. Wenn Sie wünschen, dass Ihre Daten gelöscht werden, wenden Sie sich bitte mit Ihrer Teilnehmernummer an den Forscher und Ihre Daten werden nicht verwendet.
- Da sich die Studie auf Ostwestfalen-Lippe konzentriert, wird die Forschung außerhalb Großbritanniens durchgeführt. Die Forschung wird sich an den Datenschutzbestimmungen orientieren, die für Großbritannien und Deutschland identisch sind. Darüber hinaus wird die Forschung unter Beachtung des Bundesdatenschutzgesetzes (§27 BDSG) durchgeführt (Vollmer, 2017).

Werden die von mir übermittelten Informationen vertraulich behandelt?

Alles, was Sie sagen/berichten, ist vertraulich, es sei denn, Sie teilen uns etwas mit, das darauf hinweist, dass Sie oder jemand anderes gefährdet ist. Wir würden das mit Ihnen besprechen, bevor wir es jemand anderem erzählen. Die von Ihnen gemachten Angaben können für einen Forschungsbericht verwendet werden, es ist jedoch nicht möglich, Sie anhand unseres Forschungsberichts oder anderer Verbreitungsaktivitäten zu identifizieren. Persönliche identifizierbare Informationen (z.B. Name und Kontaktdaten) werden nach Projektende 2019 sicher gespeichert und bis zu 10 Jahre lang aufbewahrt und anschließend sicher entsorgt. Die Forschungsdaten (z.B. Interviewprotokolle) werden sicher gespeichert.

Was geschieht mit den Ergebnissen der Forschungsstudie?

Diese Forschung wird im Rahmen meines professionellen Doktoratsstudiums an der Universität Worcester durchgeführt. Die Ergebnisse dieser Studie werden im Rahmen meiner Dissertation veröffentlicht und können auch in wissenschaftlichen Zeitschriften oder auf Konferenzen veröffentlicht werden.

Wenn Sie eine Zusammenfassung der Forschungsergebnisse wünschen, wenden Sie sich bitte an den Forscher.

Teilnehmer-Informationsblatt

Teilnehmer: Experte
Forscher: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Wer organisiert die Forschung?

Diese Forschung wurde von der Ethikkommission des University of Worcester Institute of Humanities, Arts and Social Sciences Research Ethics Committee genehmigt.

Was passiert als nächstes?

Bitte bewahren Sie dieses Informationsblatt auf. Wenn Sie sich für eine Teilnahme entscheiden, wenden Sie sich bitte über die untenstehenden Angaben an den Forscher.

Vielen Dank, dass Sie sich die Zeit nehmen, diese Informationen zu lesen!

Wenn Sie sich für eine Teilnahme entscheiden oder Fragen, Bedenken oder Beschwerden zu dieser Studie haben, wenden Sie sich bitte an eines der Forschungsteams, indem Sie die nachstehenden Angaben verwenden.

ANGABEN ZUM PROJEKTEAM

Projektleiter:

- Martina Hammerschmid
hamm1_16@uni.worc.ac.uk

Betreuer:

- Professor John Sparrow
profjohnsparrow@btinternet.com
- Dr. Catharine Ross
c.ross@worc.ac.uk

ANGABEN ZU UNABHÄNGIGEN ANSPRECHPARTNERN

Wenn Sie mit einer unabhängigen Person sprechen möchten, die nicht Mitglied des Forschungsteams ist, wenden Sie sich bitte an Louise Heath von der University of Worcester unter Verwendung der folgenden Angaben:

Louise Heath

Secretary to Humanities, Arts and Social Sciences Research Ethics Committee (HASSREC)
Sekretärin für Geistes-, Kunst- und Sozialwissenschaften Forschung Ethikkommission (HASSREC)
University of Worcester
Henwick Grove
Worcester WR2 6AJ
ethics@worc.ac.uk

Appendix 3.1.5 Participant Consent Form – Experts

Informed Consent Form - Interview

Project Title: How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

I, the undersigned, confirm that:

1.	I have read and understood the information about the project, as provided in the Information Sheet dated _____.	
2.	I have been given the opportunity to ask questions about the project and my participation.	
3.	I voluntarily agree to participate in the project.	
4.	I understand I can withdraw from the study at any time during the interview and that I will not be penalised for withdrawing nor will I be questioned on why I have withdrawn. If I decide to withdraw after the interview the timeframe for withdrawal is 14 days.	
5.	The procedures regarding confidentiality have been clearly explained (e.g. use of names, pseudonyms, anonymisation of data, etc.) to me.	
6.	Separate terms of consent for interviews, audio, video or other forms of data collection have been explained and provided to me.	
7.	The use of the data in research, publications, sharing and archiving has been explained to me.	
8.	I understand that the researcher is only going to keep anonymized extracts in the thesis of my data to support her arguments and analysis.	
9.	I was informed that the researcher will not make his entire research data available for upcoming researchers, to protect the confidentiality of the data.	
10.	I am aware that the data may be used for subsequent academic publications besides the thesis.	
11.	I was informed that the data might be stored for a maximum of ten years and then destroyed.	
12.	Regarding anonymity, the participation will be anonymous in order to ensure data protection and to avoid any harm to the participants' careers.	
13.	I, along with the Researcher, agree to sign and date this informed consent form.	

Participant:

 Name of Participant Signature Place Date

Researcher:

 Name of Researcher Signature Place Date

Informed Consent Form - Interview

Projekttitle: Wie könnte aus Sicht der Teilnehmerinnen das formale paarweise Cross-Mentoring für Frauen in OWL angepasst werden, um ein besseres Instrument zur Bekämpfung des Fachkräftemangels im Top-Management zu werden?

Projektleitung: Martina Hammerschmid

Kontaktadresse: hamm1_16@uni.worc.ac.uk

Ich, der Unterzeichner / die Unterzeichnerin bestätige:

1.	Ich habe die Informationen über das Projekt gelesen und verstanden, wie sie im Informationsblatt vom _____ aufgeführt sind.	
2.	Ich hatte die Möglichkeit, Fragen zum Projekt und zu meiner Teilnahme zu stellen.	
3.	Ich erkläre mich freiwillig bereit, an dem Projekt teilzunehmen.	
4.	Ich verstehe, dass ich jederzeit ohne Angabe von Gründen zurücktreten kann und dass ich dann weder für den Rückzug bestraft werde, noch dass ich gefragt werde, warum ich zurückgetreten bin. Nach dem Interview beträgt die Rücktrittsfrist 14 Tage.	
5.	Die Verfahren zur Sicherstellung des Datenschutzes (z.B. Verwendung von Namen, Pseudonymen, Anonymisierung von Daten, etc.) wurden mir verständlich und deutlich erklärt.	
6.	Gesonderte Einwilligungsbedingungen für Interviews, Audio, Video oder andere Formen der Datenerhebung wurden mir erläutert und zur Verfügung gestellt.	
7.	Die Verwendung der Daten in der Forschung, in Publikationen, im wissenschaftlichen Austausch und in der Archivierung wurde mir erklärt.	
8.	Mir ist bewusst, dass die Projektleiterin nur anonymisierte Auszüge in der These meiner Daten aufbewahren wird, um ihre Argumente und Analysen untermauern zu können.	
9.	Ich wurde darüber informiert, dass die Projektleiterin ihre gesamten Forschungsdaten nicht für nachfolgende Forschungen oder Projekte zur Verfügung stellen wird, um die Vertraulichkeit der Daten zu gewährleisten.	
10.	Ich bin mir bewusst, dass die Daten für spätere wissenschaftliche Veröffentlichungen neben der Dissertation verwendet werden können.	
11.	Mir wurde mitgeteilt, dass die Daten maximal zehn Jahre lang gespeichert können und dann vernichtet werden.	
12.	Im Hinblick auf die Anonymität erfolgt die Teilnahme anonymisiert, um den Datenschutz zu gewährleisten und eine Beeinträchtigung der Karriere der Teilnehmer und Teilnehmerinnen zu vermeiden.	
13.	Ich, wie auch die Projektleiterin, bin damit einverstanden, diese Einwilligungserklärung zu unterzeichnen und zu datieren.	

Teilnehmer:

Name des Teilnehmers Unterschrift Ort Datum

Projektleiterin:

Name der Projektleitung Unterschrift Ort Datum

Appendix 3.1.6 Interview Questions - Experts

Semi-Structured interview schedule

Interviewee: Experts
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Project Title: How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?

Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Welcome

Good evening and welcome to our session.

How are you?

Thanks for taking the time to join me in my research. I would like to talk about mentoring women to combat skill shortages. My name is Martina Hammerschmid.

I am from the University of Worcester. I want to analyse your experiences to see how the mentoring programme could be changed to better meet its objective.

Guidelines

Keep in mind that I am just as interested in negative comments as positive comments, and at times negative comments are the most helpful. I ask you turn off your phones or pagers. If you must respond to a call, please rejoin me as quickly as you can.

You've probably noticed the dictaphone. I would like to audio record the session because I don't want to miss any of your comments. Would that be okay for you? Please let's try only one person speaking at a time. People often say very helpful things in these discussions and I can't write fast enough to get them all down.

We will be on a first name basis tonight, and I won't use any names in our reports. You may be assured of complete confidentiality.

My role as moderator will be to guide the discussion.

This interview will approximately last between 45 to 60 minutes.

Do you have any questions?

Well, let's begin.

Semi-Structured interview schedule

Interviewee: Experts
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Verbal consent
<ul style="list-style-type: none">• Do you want to participate in this interview?• Are you aware of the fact that you can withdraw at any time without giving reasons and that you will not be penalized for withdrawing nor will you be questioned on why you have withdrawn?
Questions
1. What are the main obstacles for women getting into top management positions in East-Westphalia-Lippe?
2. How could the potential of women in East-Westphalia-Lippe be unlocked to combat skills shortages in management positions?
3. How could female young professionals be best prepared to help close the gap in management positions in East-Westphalia Lippe?
4. How can same gender dyad cross mentoring for women help combating skills shortages in top management in your opinion?
5. How does the CrossMentoring OWL programme in your point of view address skills shortages in management in the region of OWL?
6. What kind of actions would you suggest to the management of the mentoring programme to better meet the needs of the region in terms of skill shortage in management?
7. Is there anything we should have talked about but didn't?

Interview Fragebogen

Teilnehmer: Experte
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Projekttitel: Wie könnte aus Sicht der Teilnehmerinnen das formale paarweise Cross-Mentoring für Frauen in OWL angepasst werden, um ein besseres Instrument zur Bekämpfung des Führungskräfte­mangel im Top-Management zu werden?

Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Herzlich Willkommen

Guten Abend und willkommen zu unserem Treffen.

Wie geht es Ihnen?

Danke, dass Sie sich Zeit nehmen und einen Beitrag zu meiner Forschungsarbeit leisten. Ich möchte über Mentoring von Frauen als Mittel zur Bekämpfung des Fachkräftemangels sprechen.

Mein Name ist Martina Hammerschmid, ich bin Studentin der Universität Worcester. Ich möchte Ihre Erfahrungen auswerten, um zu sehen wie das Mentoring-Programm verändert werden könnte um sein Ziel besser zu erreichen.

Anmerkungen zur Durchführung

Denken Sie daran, dass ich an kritischen Kommentaren genauso interessiert bin wie an Positiven, und manchmal sind negative Kommentare die Hilfreichsten. Sie müssen nicht mit der Meinung anderer übereinstimmen, aber Sie müssen zuhören, wenn andere ihre Ansichten mitteilen. Ich bitte Sie, Ihr Telefon oder Pager auszuschalten. Wenn Sie einen Anruf beantworten müssen möchte ich Sie bitten, danach wieder so schnell wie möglich zu mir zurückzukommen.

Sie haben wahrscheinlich das Diktiergerät bemerkt. Ich würde gerne eine Tonaufzeichnung dieser Sitzung machen, weil ich keinen Ihrer Kommentare verpassen möchte. Wäre das für Sie okay? Wir sollten daher versuchen, dass immer nur eine von uns spricht. Die Teilnehmer sagen viele hilfreiche Dinge in diesen Diskussionen, und ich kann sonst nicht schnell genug mitkommen, um alles aufzuschreiben.

Wenn Sie einverstanden sind werden wir uns heute Abend mit Vornamen ansprechen. In meiner Dokumentation werde ich allerdings keine Namen verwenden. Sie können sich auf absolute Vertraulichkeit und Datenschutz verlassen.

Meine Rolle als Moderatorin wird darin bestehen, die Diskussion zu leiten.

Dieses Interview wird etwa 45 bis 60 Minuten dauern.

Haben Sie Fragen?

Nun, fangen wir an.

Interview Fragebogen

Teilnehmer: Experte
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Mündliche Einwilligungserklärung

- Möchten Sie an diesem Interview teilnehmen?
- Sind Sie sich der Tatsache bewusst, dass Sie jederzeit ohne Angabe von Gründen die Teilnahme an dieser Studie abbrechen können und dass Sie weder Nachteile aufgrund dieses Abbruchs haben, noch dass Sie nach einer Begründung für den Abbruch gefragt werden würden??

Fragen

1. Was sind die größten Hindernisse für Frauen in Ostwestfalen-Lippe auf dem Weg in Topmanagement-Positionen?
2. Wie könnte das Potential, dass die Frauen in Ostwestfalen darstellen, erschlossen werden, um dem Fachkräftemangel in Führungspositionen entgegenzuwirken?
3. Wie könnten weibliche Nachwuchskräfte am besten darauf vorbereitet werden um bei der Behebung des Führungskräftemangels in Ostwestfalen-Lippe mitzuwirken?
4. Wie könnte Ihrer Meinung nach ein paarweises gleichgeschlechtliches Mentoring von Frauen dabei helfen, Fachkräftemangel im Topmanagement zu bekämpfen?
5. Inwiefern zielt Ihrer Meinung nach das CrossMentoring OWL-Programm auf den Fachkräftemangel auf Managementebene in der Region OWL?
6. Welche Maßnahmen würden Sie der Leitung des Mentoringprogramms vorschlagen, um den Bedürfnissen der Region hinsichtlich des Fachkräftemangels im Management besser gerecht zu werden?
7. Haben wir über irgendetwas noch nicht gesprochen was wir jetzt nachholen sollten?

Appendix 3.1.7 Participant Information Sheet – Focus Groups

Participant Information Sheet

Participant: Manager
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Project Title: How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?

Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Invitation

I would like to invite you to take part in my research project. Before you decide whether to take part it is important that you understand why the research is being done and what it will involve. Please take time to read this carefully and ask the researcher if you have any questions. Talk to others about the study if you wish. You will have at least 14 days to decide if you want to take part.

What is the purpose of the study?

A trend already visible today will worsen in the next few years: Since the number of skilled specialists is decreasing, the number of potential managers adjusts accordingly in the near future. This shortage of managers is believed to be the greatest bottleneck already existing in potential managers according to 30 percent of HR managers (QZ, 2017; Scholz, 2017). This concern is shared by more than 36 percent of all companies in North Rhine-Westphalia by stating that skill shortage is the greatest risk to economic development (IHK NRW, 2015, p. 3).

In 2017, there are already lacking 20.000 managers in East-Westphalia-Lippe. In 2020, it is estimated to raise up to 31.000 missing managers, and in 2030 the Chamber of Industry and Commerce estimates that 47.000 managers will be missing (NRW, 2017).

A great potential lies within women: Around 6.3 million women of working age are unemployed - many with medium and high qualifications. In Germany, only 55 percent of employed women are employed full-time, with Germany ranked second to last in EU comparison. In many other EU countries there are more women working and by doing so display their potential in the labour market (Bundesministerium für Arbeit und Soziales, 2011, p. 20).

The programme "CrossMentoring OWL" has been set up in order to support women in East-Westphalia-Lippe to progress up the corporate ladder into management level and therefore to support companies in closing their skills shortage gap as requested in the action plan of the federal ministry (Bundesministerium für Arbeit und Soziales, 2011).

Participant Information Sheet

Participant: Manager
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

In order to address the identified gaps within the predominant understanding of same gender dyad mentoring for women in combating skill shortages in top management, it is proposed that the aim for this research study is to explore actions for the management of the mentoring programme CrossMentoring OWL on how to improve the programme to better meet the needs of the region in terms of skill shortage in management.

Even though the nature of this study may naturally change as new data is uncovered, the initial objectives of this proposed study are:

- to provide insight into how the life of the mentees has been influenced, two years after the programme ended.
- to provide understanding on why women seek same gender mentoring.
- to develop an explanatory theory² that associates skill shortages in management with the effectiveness of the CrossMentoring OWL.
- to describe the extent to which the programme CrossMentoring OWL meets its goal based on the perspective of the mentees and the experts.

The aim of my study is to answer the question of “how could the formal same gender dyad mentoring for women be adjusted to be the perfect tool to combat skill shortages in top management, from the case study participants’ perception?”

Why have I been invited to take part?

You have received this invitation because you are regarded an experienced female manager yourself and therefore an expert in the area of the advancement of women. We are hoping to recruit 12 former female mentees of the mentoring programme “CrossMentoring OWL”, three experts and up to 20 female managers for this study.

Do I have to take part?

No. It is up to you to decide whether or not you want to take part in this study. Please take your time to decide; we will wait for at least 14 days before asking for your decision. You can decide not to take part or to withdraw from the study at any time during the interview. If you decide to withdraw after the interview the timeframe for withdrawal is 14 days. If you wish to have your data withdrawn please contact the researcher with your participant number and your data will then not be used. If you do decide to take part you will be asked to sign a consent form.

² The word ‘theory’ was changed to ‘framework’ with the approval of the college ethics committee chair.

Participant Information Sheet

Participant: Manager
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

What will happen to me if I agree to take part?

- If you agree to take part a focus group with four to six female managers will be conducted with you.
- The group interview will be based on my findings from the interviews already held with the former mentees and experts. It will lead to proposed actions for the management of the mentoring programme "CrossMentoring OWL" on how to improve the programme to better meet the needs of the region in terms of skills shortages in management.
- The interview will be carried out in private rooms to ensure confidentiality.
- The interview will last up to 90 minutes.
- If you agree, the interview the interview will be videotaped.

Are there any disadvantages risks to taking part?

- Before signing a consent form, you will be provided with this information sheet. In case you do have further questions please do not hesitate and contact the researcher. The contact details can be found on the first page. The researcher is eager to answer all your questions regarding the research.
- If you agree to take part in the research after reading this information sheet, a consent form will be given to you. However even if you sign the consent form, you can decide not to take part or to withdraw from the study at any time during the interview.
- In case English is not your mother tongue, the interviews will be conducted in German to avoid misunderstandings. However as the thesis will be written in English, excerpts of the interview will be translated into English. I will work with a professional translator to minimize the risk of translation errors.
- Discussing personal experiences is likely to be an emotional subject for you as a participant. You may feel exposed, vulnerable and might fear negative impact on your career through the participation in this study. Therefore anonymity and confidentiality are of utmost importance. If talking about your personal experience at the mentoring programme is a sensitive topic to you it might trigger stress or anxiety. If you would like to speak to an independent person who is not a member of the research team, please contact Louise Heath at the University of Worcester. You will find the contact details at the end of this information sheet.
- As a researcher I am trying my best to mitigate the risk of psychological stress, anxiety or any negative consequences because of this research. You can decide not to take part or to **withdraw from the study at any time** during the interview. If you wish to have your data withdrawn please contact the researcher with your participant number and your data will then not be used.

Participant Information Sheet

Participant: Manager
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

- As the study focuses on East-Westphalia-Lippe the research is conducted outside the United Kingdom. The research is going to follow the data protection regulations which are identical for the United Kingdom and Germany. Moreover is the research going to obey the Federal Data Protection Act (§27 BDSG) (Vollmer, 2017).

Will the information I give stay confidential?

Everything you say/report is confidential unless you tell us something that indicates that you or someone else is at risk of harm. We would discuss this with you before telling anyone else. The information you give may be used for a research report, but it will not be possible to identify you from our research report or any other dissemination activities. Personal identifiable information (e.g. name and contact details) will be securely stored and kept for up to 10 after the project ends in 2019 and then securely disposed of. The research data (e.g. interview transcripts) will be securely stored.

What will happen to the results of the research study?

This research is being carried out as part of my professional doctorate programme at the University of Worcester. The findings of this study will be reported as part of my dissertation and may also be published in academic journals or at conferences.

If you wish to receive a summary of the research findings please contact the researcher.

Who is organising the research?

This research has been approved by the University of Worcester Institute of Humanities, Arts and Social Sciences Research Ethics Committee.

What happens next?

Please keep this information sheet. If you do decide to take part, please contact the researcher using the details below.

Thank you for taking the time to read this information!

If you decide to take part or you have any questions, concerns or complaints about this study please contact one of the research team using the details below.

Participant Information Sheet

Participant: Manager
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

RESEARCH TEAM CONTACT DETAILS

Student researcher

- Martina Hammerschmid
hamm1_16@uni.worc.ac.uk

Supervisor

- Professor John Sparrow
profjohnsparrow@btinternet.com
- Dr. Catharine Ross
c.ross@worc.ac.uk

INDEPENDENT CONTACT PERSON DETAILS

If you would like to speak to an independent person who is not a member of the research team, please contact Louise Heath at the University of Worcester, using the following details:

Louise Heath

Secretary to Humanities, Arts and Social Sciences Research Ethics Committee (HASSREC)
University of Worcester
Henwick Grove
Worcester WR2 6AJ
ethics@worc.ac.uk

Teilnehmer-Informationsblatt

Teilnehmer: Manager
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Projekttitel: Wie könnte aus Sicht der Teilnehmerinnen das formale paarweise Cross-Mentoring für Frauen in OWL angepasst werden, um ein besseres Instrument zur Bekämpfung des Führungskräfteemangel im Top-Management zu werden?

Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Einladung zur Veranstaltung

Ich möchte Sie einladen an meinem Forschungsprojekt teilzunehmen. Bevor Sie sich für eine Teilnahme entscheiden ist es wichtig, dass Sie verstehen warum dieses Projekt durchgeführt wird und was es beinhaltet. Bitte nehmen Sie sich ausreichend Zeit, diese Informationen sorgfältig durchzulesen und fragen Sie die Projektleiterin, wenn Sie Fragen haben. Sprechen Sie mit anderen über die Studie, wenn Sie möchten. Sie haben mindestens 14 Tage Zeit, um zu entscheiden, ob Sie teilnehmen möchten.

Was ist der Zweck der Studie?

Ein bereits heute sichtbarer Trend wird sich in den nächsten Jahren noch verschärfen: Da die Zahl der Fachkräfte abnimmt, wird sich die Zahl der potenziellen Führungskräfte in naher Zukunft entsprechend negativ entwickeln. Dieser Mangel an Führungskräften gilt nach Ansicht von 30 Prozent der Personalverantwortlichen als der relevanteste Engpass infolge des generellen Fachkräftemangels. (QZ, 2017; Scholz, 2017). Dieses Anliegen teilen mehr als 36 Prozent aller Unternehmen in Nordrhein-Westfalen mit der Feststellung, dass der Fachkräftemangel das größte Risiko für die wirtschaftliche Entwicklung darstellt (IHK NRW, 2015, S. 3).

Im Jahr 2017 fehlten in Ostwestfalen-Lippe bereits 20.000 Führungskräfte. Im Jahr 2020 wird diese Zahl auf bis zu 31.000 steigen, und für das Jahr 2030 liegt die Schätzung der Industrie- und Handelskammer bei 47.000 fehlenden Führungskräften (NRW, 2017).

Ein großes Potenzial liegt bei den Frauen: Rund 6,3 Millionen Frauen im erwerbsfähigen Alter sind arbeitslos - viele davon mit mittlerer und hoher Qualifikation. In Deutschland sind nur 55 Prozent der erwerbstätigen Frauen vollzeitbeschäftigt, womit Deutschland im EU-Vergleich an vorletzter Stelle liegt. In vielen anderen EU-Ländern arbeiten mehr Frauen und zeigen damit ihr Potenzial für den Arbeitsmarkt (Bundesministerium für Arbeit und Soziales, 2011, S. 20).

Das Programm "CrossMentoring OWL" wurde ins Leben gerufen um Frauen in Ostwestfalen-Lippe dabei zu unterstützen, die Karriereleiter in die Führungsebene zu erklimmen und damit Unternehmen dabei zu

Teilnehmer-Informationsblatt

Teilnehmer: Manager
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

unterstützen ihre Führungskräfte lücken zu schließen, wie es im Aktionsplan des Bundesministeriums für Arbeit und Soziales (2011) gefordert wurde.

Um die Schwachstellen des Mentoringprogramms, auch in Anbetracht möglicher Voreingenommenheit Außenstehender gegenüber der Effektivität gleichartiger, rein weiblicher Programme bei der Bekämpfung des Mangels an qualifizierten Führungskräften im Top-Management zu schließen, wurde als Ziel dieser Forschungsstudie festgelegt, Maßnahmen für die Organisation des Mentoring-Programms CrossMentoring OWL zu identifizieren, mit denen das Programm in Hinsicht auf den Mangel an qualifizierten Führungskräften in dieser Region verbessert werden kann.

Auch wenn sich die Art dieser Studie in Abhängigkeit von in Laufe der Studie neugewonnen Informationen naturgemäß ändern kann sind die initial festgelegten Ziele der hier dargelegten Studie:

- einen Einblick zu ermöglichen inwiefern das Leben der Mentees zwei Jahre nach dem Ende des Programms durch dieses beeinflusst wurde,
- Zu analysieren warum Frauen gleichgeschlechtliches Mentoring suchen,
- ein Erklärungsmodell zum Zusammenhang zwischen dem Fachkräftemangel im Management mit der Effektivität des CrossMentoring OWL zu entwickeln,
- zu evaluieren, in wie weit das Programm CrossMentoring OWL aus Sicht der Mentees und der Experten sein Ziel erfüllt.

Das Ziel meiner Studie ist es, folgende Frage zu beantworten: "Wie kann man aus Sicht der Teilnehmerinnen dieser Studie das formale paarweise gleichgeschlechtliche Mentoring von Frauen so anpassen, dass es das perfekte Instrument zur Bekämpfung des Führungskräftemangels im Top-Management wird?"

Warum wurde ich zur Teilnahme eingeladen?

Sie haben diese Einladung erhalten, weil Sie selbst eine erfahrene Führungskraft sind und damit als Expertin auf dem Gebiet des beruflichen Erfolgs von Frauen angesehen werden. Wir hoffen, 12 ehemalige weibliche Mentees des Mentoring-Programms "CrossMentoring OWL", drei Experten und bis zu 20 weibliche Führungskräfte für diese Studie gewinnen zu können.

Muss ich mitmachen?

Nein, Es ist Ihre Entscheidung, ob Sie an dieser Studie teilnehmen möchten oder nicht. Bitte nehmen Sie sich Zeit für Ihre Entscheidung; ich werde mindestens 14 Tage warten, bevor ich Sie um Ihre

Teilnehmer-Informationsblatt

Teilnehmer: Manager
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Entscheidung bitte. Sie können jederzeit während des Interviews entscheiden, nicht mehr teilzunehmen oder sich aus der Studie zurückzuziehen. Wenn Sie sich entscheiden, nach dem Vorstellungsgespräch zurückzutreten, beträgt die Frist für den Rücktritt 14 Tage. Wenn Sie wünschen, dass Ihre Daten gelöscht werden, wenden Sie sich bitte mit Ihrer Teilnehmernummer an die Projektleiterin und Ihre Daten werden nicht verwendet. Wenn Sie sich für eine Teilnahme entscheiden, werden Sie aufgefordert, eine Einverständniserklärung zu unterzeichnen.

Was passiert mit mir, wenn ich mit der Teilnahme einverstanden bin?

- Wenn Sie zustimmen, werden Sie einer Fokusgruppe mit vier bis sechs weiblichen Führungskräften zugeordnet und in dieser Gruppe interviewt.
- Das Gruppeninterview basiert auf Erkenntnissen aus den bereits durchgeführten Interviews mit ehemaligen Mentees und Experten. Es wird zu Vorschlägen für die Organisatoren des Mentoring-Programms "CrossMentoring OWL" führen, wie das Programm verbessert werden kann, um den Bedürfnissen der Region im Hinblick auf Führungskräfte-mangel besser gerecht zu werden.
- Das Gespräch wird in privaten Räumlichkeiten geführt, um Vertraulichkeit zu gewährleisten.
- Das Gruppeninterview dauert maximal 90 Minuten.
- Das Gruppeninterview wird auf Video aufgezeichnet, wenn Sie damit einverstanden sind.

Gibt es Nachteile, die mit der Teilnahme verbunden sind?

- Vor der Unterzeichnung einer Einwilligungserklärung erhalten Sie dieses Informationsblatt. Sollten Sie noch weitere Fragen haben zögern Sie bitte nicht und wenden Sie sich an die Projektleiterin. Die Kontaktdaten finden Sie auf der ersten Seite. Die Projektleiterin steht Ihnen für alle Fragen rund um das Projekt zur Verfügung.
- Wenn Sie nach dem Lesen dieses Informationsblattes zustimmen an der Untersuchung teilzunehmen, erhalten Sie eine Einverständniserklärung. Auch wenn Sie diese Einverständniserklärung unterschreiben können Sie sich trotzdem jederzeit während des Interviews entscheiden, nicht mehr an der Studie teilzunehmen oder Ihre Teilnahme an der Studie zu widerrufen.
- Falls Englisch nicht Ihre Muttersprache ist, werden die Interviews in deutscher Sprache geführt, um Missverständnisse zu vermeiden. Da die Dissertation jedoch in englischer Sprache verfasst wird, werden Auszüge aus dem Interview ins Englische übersetzt. Ich arbeite mit einem professionellen Übersetzer zusammen, um das Risiko von Übersetzungsfehlern zu minimieren.
- Persönliche Erlebnisse zu besprechen, ist für Sie als Teilnehmer wahrscheinlich eine emotionale Erfahrung. Durch die Teilnahme an dieser Studie können Sie sich möglicherweise exponiert und

Teilnehmer-Informationsblatt

Teilnehmer: Manager
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

verletzlich fühlen und negative Auswirkungen auf Ihre Karriere befürchten. Daher sind Anonymität und Vertraulichkeit von größter Bedeutung. Wenn das Gespräch über Ihre persönliche Erfahrung im Mentoring-Programm ein sensibles Thema für Sie ist, könnte es Stress oder Angst auslösen. Wenn Sie mit einer unabhängigen Person sprechen möchten, die nicht Mitglied des Projektteams ist, wenden Sie sich bitte an Louise Heath von der University of Worcester. Die Kontaktdaten finden Sie am Ende dieses Informationsblattes.

- Als Projektleiterin versuche ich mein Mögliches, um das Risiko von psychischem Stress, Angstzuständen oder negativen Folgen aufgrund dieser Erhebung zu minimieren. Sie können sich jederzeit während des Interviews entscheiden, nicht mehr teilzunehmen oder sich aus der Studie zurückzuziehen. Wenn Sie wünschen, dass Ihre Daten gelöscht werden, wenden Sie sich bitte mit Ihrer Teilnehmernummer an die Projektleiterin und Ihre Daten werden gelöscht und nicht verwendet.
- Da sich die Studie auf Ostwestfalen-Lippe konzentriert, wird die Forschung außerhalb Großbritanniens durchgeführt. Die Forschung wird sich an den Datenschutzbestimmungen orientieren, die für Großbritannien und Deutschland identisch sind. Darüber hinaus wird das Projekt unter Beachtung des Bundesdatenschutzgesetzes (§27 BDSG) durchgeführt (Vollmer, 2017).

Werden die von mir übermittelten Informationen vertraulich behandelt?

Alles, was Sie sagen/ berichten, wird vertraulich behandelt, es sei denn, Sie teilen uns etwas mit, das darauf hinweist, dass Sie oder jemand anderes gefährdet wäre. Wir würden dies dann mit Ihnen besprechen, bevor wir es jemand anderem berichten. Die von Ihnen gemachten Angaben können für einen Forschungsbericht verwendet werden, es wird jedoch nicht möglich sein, Sie anhand unseres Forschungsberichts oder anderer veröffentlichter Daten zu identifizieren. Informationen die eine persönliche Identifizierung ermöglichen (z.B. Name und Kontaktdaten) werden nach Projektende 2019 sicher gespeichert, bis zu 10 Jahre lang sicher verwahrt und anschließend sicher vernichtet. Die Forschungsdaten (z.B. Interviewprotokolle) werden ebenfalls sicher gespeichert.

Was geschieht mit den Ergebnissen der Forschungsstudie?

Diese Forschung wird im Rahmen meines professionellen Promotionsstudiums an der Universität Worcester durchgeführt. Die Ergebnisse dieser Studie werden im Rahmen meiner Dissertation veröffentlicht und können auch in wissenschaftlichen Zeitschriften oder auf Konferenzen veröffentlicht werden.

Wenn Sie eine Zusammenfassung der Forschungsergebnisse wünschen, wenden Sie sich bitte an die Projektleiterin.

Teilnehmer-Informationsblatt

Teilnehmer: Manager
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Wer organisiert die Forschung?

Dieses Projekt wurde von der Ethikkommission des University of Worcester Institute of Humanities, Arts and Social Sciences Research Ethics Committee genehmigt.

Was passiert als nächstes?

Bitte bewahren Sie dieses Informationsblatt auf. Wenn Sie sich für eine Teilnahme entscheiden, wenden Sie sich bitte über die untenstehenden Angaben an die Projektleiterin.

Vielen Dank, dass Sie sich die Zeit nehmen, diese Informationen zu lesen!

Wenn Sie sich für eine Teilnahme entscheiden oder Fragen, Bedenken oder Beschwerden zu dieser Studie haben, wenden Sie sich bitte an eines der Forschungsteams, indem Sie die nachstehenden Angaben verwenden.

ANGABEN ZUM PROJEKTEAM

Projektleiter:

- Martina Hammerschmid
hamm1_16@uni.worc.ac.uk

Betreuer:

- Professor John Sparrow
profjohnsparrow@btinternet.com
- Dr. Catharine Ross
c.ross@worc.ac.uk

ANGABEN ZU UNABHÄNGIGEN ANSPRECHPARTNERN

Wenn Sie mit einer unabhängigen Person sprechen möchten, die nicht Mitglied des Forschungsteams ist, wenden Sie sich bitte an Louise Heath von der University of Worcester unter Verwendung der folgenden Angaben:

Louise Heath

Secretary to Humanities, Arts and Social Sciences Research Ethics Committee (HASSREC)
Sekretärin für Geistes-, Kunst- und Sozialwissenschaften Forschung Ethikkommission (HASSREC)
University of Worcester
Henwick Grove
Worcester WR2 6AJ
ethics@worc.ac.uk

Appendix 3.1.8 Participant Consent Form– Focus Groups

Informed Consent Form - Focus group

Project Title: How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

I, the undersigned, confirm that:

1.	I have read and understood the information about the project, as provided in the Information Sheet dated _____.	
2.	I have been given the opportunity to ask questions about the project and my participation.	
3.	I voluntarily agree to participate in the project.	
4.	I understand I can withdraw from the study at any time during the interview and that I will not be penalised for withdrawing nor will I be questioned on why I have withdrawn. If I decide to withdraw after the interview the timeframe for withdrawal is 14 days. However if I am going to withdraw after the discussion started, my data provided cannot be removed.	
5.	The procedures regarding confidentiality have been clearly explained (e.g. use of names, pseudonyms, anonymisation of data, etc.) to me.	
6.	Separate terms of consent for interviews, audio, video or other forms of data collection have been explained and provided to me.	
7.	The use of the data in research, publications, sharing and archiving has been explained to me.	
8.	I understand that the researcher is only going to keep anonymized extracts in the thesis of my data to support her arguments and analysis.	
9.	I was informed that the researcher will not make his entire research data available for upcoming researchers, to protect the confidentiality of the data.	
10.	I am aware that the data may be used for subsequent academic publications besides the thesis.	
11.	I was informed that the data might be stored for a maximum of ten years and then destroyed.	
12.	Regarding anonymity, the participation will be anonymous in order to ensure data protection and to avoid any harm to the participants' careers.	
13.	I, along with the Researcher, agree to sign and date this informed consent form.	

Participant:

 Name of Participant Signature Place Date

Researcher:

 Name of Researcher Signature Place Date

Einverständniserklärung - Fokusgruppe

Projekttitle: Wie könnte aus Sicht der Teilnehmerinnen das formale paarweise Cross-Mentoring für Frauen in OWL angepasst werden, um ein besseres Instrument zur Bekämpfung des Fachkräftemangels im Top-Management zu werden?

Projektleitung: Martina Hammerschmid

Kontaktadresse: hamm1_16@uni.worc.ac.uk

Ich, der Unterzeichner / die Unterzeichnerin bestätige:

1.	Ich habe die Informationen über das Projekt gelesen und verstanden, wie sie im Informationsblatt vom _____ aufgeführt sind.	
2.	Ich hatte die Möglichkeit, Fragen zum Projekt und zu meiner Teilnahme zu stellen.	
3.	Ich erkläre mich freiwillig bereit, an dem Projekt teilzunehmen.	
4.	Ich verstehe, dass ich jederzeit ohne Angabe von Gründen zurücktreten kann und dass ich dann weder für den Rückzug bestraft werde, noch dass ich gefragt werde, warum ich zurückgetreten bin. Nach dem Interview beträgt die Rücktrittsfrist 14 Tage. Jedoch können die bereitgestellten Daten nach dem die Diskussion gestartet wurde nicht entfernt werden.	
5.	Die Verfahren zur Sicherstellung des Datenschutzes (z.B. Verwendung von Namen, Pseudonymen, Anonymisierung von Daten, etc.) wurden mir verständlich und deutlich erklärt.	
6.	Gesonderte Einwilligungsbedingungen für Interviews, Audio, Video oder andere Formen der Datenerhebung wurden mir erläutert und zur Verfügung gestellt.	
7.	Die Verwendung der Daten in der Forschung, in Publikationen, im wissenschaftlichen Austausch und in der Archivierung wurde mir erklärt.	
8.	Mir ist bewusst, dass die Projektleiterin nur anonymisierte Auszüge in der These meiner Daten aufbewahren wird, um ihre Argumente und Analysen untermauern zu können.	
9.	Ich wurde darüber informiert, dass die Projektleiterin ihre gesamten Forschungsdaten nicht für nachfolgende Forschungen oder Projekte zur Verfügung stellen wird, um die Vertraulichkeit der Daten zu gewährleisten.	
10.	Ich bin mir bewusst, dass die Daten für spätere wissenschaftliche Veröffentlichungen neben der Dissertation verwendet werden können.	
11.	Mir wurde mitgeteilt, dass die Daten maximal zehn Jahre lang gespeichert können und dann vernichtet werden.	
12.	Im Hinblick auf die Anonymität erfolgt die Teilnahme anonymisiert, um den Datenschutz zu gewährleisten und eine Beeinträchtigung der Karriere der Teilnehmer und Teilnehmerinnen zu vermeiden.	
13.	Ich, wie auch die Projektleiterin, bin damit einverstanden, diese Einwilligungserklärung zu unterzeichnen und zu datieren.	

Teilnehmer:

Name des Teilnehmers Unterschrift Ort Datum

Projektleiterin:

Name der Projektleitung Unterschrift Ort Datum

Appendix 3.1.9 Interview Questions - Focus Groups

Interview schedule – Focus group

Interviewees: 4-6 Female Managers
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Project Title: How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?

Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Welcome

Good evening and welcome to our session.

How are you?

Thanks for taking the time to join me in my research. I would like to talk about mentoring women to combat skill shortages. My name is Martina Hammerschmid.

I am from the University of Worcester. I want to analyse your experiences to see how the mentoring programme could be changed to better meet its objective.

Guidelines

Keep in mind that I am just as interested in negative comments as positive comments, and at times negative comments are the most helpful. You don't need to agree with others, but you must listen respectfully as others share their views. I ask you turn off your phones or pagers. If you must respond to a call, please do so as quietly as possible and rejoin us as quickly as you can.

You've probably noticed the camera. I would like to video record the session because I don't want to miss any of your comments. Would that be okay for you? Please let's try only one person speaking at a time.

People often say very helpful things in these discussions and I can't write fast enough to get them all down.

We will be on a first name basis tonight, and I won't use any names in my reports. You may be assured of complete confidentiality.

My role as moderator will be to guide the discussion.

This group interview will approximately last between 60 to 90 minutes.

I want to remind you that if you want to withdraw from the interview after we started you can do so.

Within a focus group discussion physical withdrawal is still possible but the removal of data provided may be less able to be achieved because of the potential for any removal of data might compromise the understanding of other data.

Do you have any questions?

Interview schedule – Focus group

Interviewees: 4-6 Female Managers
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Well, let's begin. I've placed name cards on the table in front of you to help us remember each other's names. Let's find out some more about each other by going around the table.

Tell us your name and your profession.

Verbal consent
<ul style="list-style-type: none"> • Do you want to participate in this interview? • Are you aware of the fact, that you can withdraw at any time without giving reasons and that you will not be penalized for withdrawing nor will you be questioned on why you have withdrawn?
Questions
1. Can you tell me about your experience of career progression as a woman? What is your recipe to successfully progress the corporate ladder?
2. What are obstacles specifically faced by women when progressing the corporate ladder? How could a cross-mentoring programme help women to overcome these?
3. How could a cross-mentoring programme help women to overcome these obstacles?
4. Regarding which aspects can women cross-mentoring women help combating skill shortages in East-Westphalia-Lippe and where could such a programme reach its limitations?
5. What kind of influence can the career level of the mentor have on the success of such a mentorship?
6. Which requirements must a mentor meet in your opinion to support the mentee in the progression of the corporate ladder as much as possible?
7. What if the mentees wish for more professional networking with their mentors like attending networking events together with their mentors?
8. What if the mentees are looking for sponsorship within their mentorship – how could this be realised?
9. What if the mentees wished for more support in leadership development – how could this be achieved?

Interview schedule – Focus group

Interviewees: 4-6 Female Managers
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

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| 10. What if mentees are looking for more support regarding the compatibility of family and career? |
| 11. What if you would set up such a programme to successfully combat skills shortages what would it look like and why? |

Interview Fragebogen– Fokusgruppe

Teilnehmer: Manager
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Projekttitel: Wie könnte aus Sicht der Teilnehmerinnen das formale paarweise Cross-Mentoring für Frauen in OWL angepasst werden, um ein besseres Instrument zur Bekämpfung des Führungskräfte mangels im Top-Management zu werden?

Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Herzlich Willkommen

Guten Abend und willkommen zu unserem Treffen.

Wie geht es Ihnen?

Danke, dass Sie sich Zeit nehmen und einen Beitrag zu meiner Forschungsarbeit leisten. Ich möchte über Mentoring von Frauen als Mittel zur Bekämpfung des Fachkräftemangels sprechen.

Mein Name ist Martina Hammerschmid, ich bin Studentin der Universität Worcester. Ich möchte Ihre Erfahrungen auswerten, um zu sehen wie das Mentoring-Programm verändert werden könnte um sein Ziel besser zu erreichen.

Anmerkungen zur Durchführung

Denken Sie daran, dass ich an kritischen Kommentaren genauso interessiert bin wie an Positiven, und manchmal sind negative Kommentare die Hilfreichsten. Sie müssen nicht mit der Meinung anderer übereinstimmen, aber Sie müssen zuhören, wenn andere ihre Ansichten mitteilen. Ich bitte Sie, Ihre Telefone oder Pager auszuschalten. Wenn Sie einen Anruf beantworten müssen, tun Sie dies bitte so leise wie möglich und kommen Sie so schnell wie möglich zu uns zurück.

Sie haben wahrscheinlich die Kamera bemerkt. Ich würde gerne eine Videoaufzeichnung dieser Sitzung machen, weil ich keinen Ihrer Kommentare verpassen möchte. Wäre das für Sie okay? Wir sollten daher versuchen, dass immer nur eine Person spricht. Die Teilnehmer sagen viele hilfreiche Dinge in diesen Diskussionen, und ich kann sonst nicht schnell genug mitkommen, um alles aufzuschreiben.

Wenn Sie einverstanden sind werden wir uns heute Abend mit Vornamen ansprechen. In meiner Dokumentation werde ich allerdings keine Namen verwenden. Sie können sich auf absolute Vertraulichkeit und Datenschutz verlassen.

Meine Rolle als Moderatorin wird darin bestehen, die Diskussion zu leiten.

Dieses Gruppeninterview wird etwa 60 bis 90 Minuten dauern.

Ich möchte Sie daran erinnern, dass Sie, wenn Sie das Interview nach unserem Start abbrechen wollen, dies tun können. Innerhalb einer Fokusgruppen-Diskussion ist ein physischer Rückzug möglich, jedoch nicht die Entfernung Ihrer bereitgestellten Daten weil dies die Verwertbarkeit der anderen Daten beeinträchtigen kann.

Gibt es noch Fragen?

Interview Fragebogen– Fokusgruppe

Teilnehmer: Manager
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Nun, fangen wir an. Ich habe vor Ihnen Namenskarten auf den Tisch gestellt, damit wir alle Namen präsent haben. Lassen Sie uns etwas besser kennenlernen, indem wir uns reihum kurz vorstellen. Nennen Sie uns bitte Ihren Namen und Ihren Beruf!

Mündliche Einwilligungserklärung
<ul style="list-style-type: none">• Möchten Sie an diesem Interview teilnehmen?
<ul style="list-style-type: none">• Sind Sie sich der Tatsache bewusst, dass Sie jederzeit ohne Angabe von Gründen die Teilnahme an dieser Studie abbrechen können und dass Sie weder Nachteile aufgrund dieses Abbruchs haben, noch dass Sie nach einer Begründung für den Abbruch gefragt werden würden??
Fragen
1. Können Sie mir etwas über Ihre Erfahrungen mit Ihrem beruflichen Werdegang als Frau erzählen? Was ist Ihr Rezept, um die Karriereleiter erfolgreich emporzukommen?
2. Mit welchen Hindernissen auf der Karriereleiter sind im Speziellen Frauen konfrontiert?
3. Wie könnte ein Cross-Mentoring Programm dabei helfen, diese Hindernisse zu überwinden?
4. Im Hinblick auf welche Aspekte könnte ein Frauen-Cross-Mentoring für Frauen dabei helfen, den Fachkräftemangel in Ostwestfalen-Lippe zu bekämpfen und wo könnte ein solches Programm auf seine Grenzen stoßen?
5. Welchen Einfluss könnte das Karrierelevel der Mentorin auf den Erfolg eines solchen Mentorings haben?
6. Welche Eigenschaften muss eine Mentorin Ihrer Meinung nach erfüllen, um die Mentee bestmöglich bei ihrer Karriereentwicklung unterstützen zu können?
7. Was wäre, wenn die Mentees sich mehr professionelles Netzwerken mit ihren Mentorinnen wünschen würden wie zum Beispiel die gemeinsame Teilnahme an Networking-Events mit ihrer Mentorin?
8. Was wäre, wenn die Mentees in ihrem Mentoring auch ein Sponsoring suchen – wie könnte dies umgesetzt werden?

Interview Fragebogen– Fokusgruppe

Teilnehmer: Manager
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

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| 9. Was wäre, wenn die Mentees sich mehr Unterstützung bei der Weiterentwicklung ihrer Führungsfähigkeiten wünschten – wie könnte dies erreicht werden? |
| 10. Was wäre, wenn die Mentees nach mehr Unterstützung bezüglich der Vereinbarkeit von Familie und Karriere suchen? |
| 11. Wenn Sie ein derartiges Programm entwickeln würden, um erfolgreich den Fachkräftemangel bekämpfen zu können, wie sähe das Programm aus und warum? |

Appendix 3.2 Ethical Approval, Phase 2



THE COLLEGE OF BUSINESS, PSYCHOLOGY AND SPORT

RESEARCH ETHICS PANEL (CBPS REP)

PROPORTIONATE REVIEW OUTCOME

18th March 2019

HASSREC CODE: HCA17180043-R (Amendment)

How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participant's perception?

Dear Martina,

Thank you for your amendment submitted for ethical approval to the College of Business, Psychology and Sport Research Ethics Panel (CBPS REP) on the 5th March 2019. The CBPS REP replaced the Humanities, Arts & Social Sciences Research Ethics Committee (HASSREC) from 1st January 2019.

Your application has been reviewed in accordance with the University of Worcester Ethics Policy and in compliance with the Standard Operating Procedures for proportionate ethical review.

The Chair of the Full Review Panel has reviewed your proposed amendments and has agreed that the revisions fall within the definition of *minor deviations* and do not increase the previously outlined and addressed ethical risks of the project. Consequently there is no need for additional ethical approval. The outcome of the review is that the Panel is now happy to grant this project ethical approval to proceed upon the following minor amendments made to the submitted documentation:

- Please change the name of the approval committee on all documentation to College of Business, Psychology and Sport Research Ethics Panel (CBPS REP) and send revised copies to ethics@worc.ac.uk.

As long as this Panel and the lead researcher keep copies of the revised documentation along with the originally approved documents, no further action is necessary.

Please note your research must be undertaken as set out in the approved documents for the approval to be valid. Please ensure you review your answers to the checklist on an ongoing basis and resubmit for approval where you intend to deviate from the approved research. Any major deviation from the approved application will require a new application for approval.

Although ethical approval has been given for this research, please consult the information on Research Ethics Blackboard page relating to the General Data Protection Regulations (GDPR), which came into effect on 25 May 2018 prior to commencing any further work on the project. It is your responsibility to ensure that your research (and all relevant documentation) adheres to these regulations.

As part of the University Ethics Policy, the University Research Committees audit a random sample of approved research. You may be required to complete a questionnaire about your research.

Yours sincerely,



Gyozo Molnar

Chair – Full Review Panel, College of Business, Psychology and Sport Research Ethics Panel

Chair - College of Business, Psychology and Sport Research Ethics Panel

Ethics@worc.ac.uk

Hammerschmid, Martina

Von: Ethics <Ethics@worc.ac.uk>
Gesendet: Donnerstag, 28. März 2019 14:45
An: Martina Hammerschmid
Cc: Catharine Ross; Ethics
Betreff: RE: HCA17180043-R (Amendment)

Dear Martina,

Thank you for sending through these amended documents.

These amendments have been received and accepted. Your amended application is now fully approved.

Please can you let me know that you have received this email.

With best wishes,
Karen

Karen Dobson
Research and Knowledge Exchange Facilitator for College of Business, Psychology and Sport
Secretary to College of Business, Psychology and Sport Research Ethics Panel
Acting Secretary to College of Arts, Humanities and Education Research Ethics Panel

Research Office
University of Worcester
01905 855518



From: Martina Hammerschmid <hamm1_16@uni.worc.ac.uk>
Sent: 28 March 2019 07:35
To: Ethics <Ethics@worc.ac.uk>
Cc: Catharine Ross <c.ross@worc.ac.uk>
Subject: HCA17180043-R (Amendment)

Good morning Karen,

thank you very much for the approval.
I've attached the revised participant information sheet as well as the ethical application form with the updated information of the approval committee.
I've highlighted the changes in bold and yellow.

Best wishes
Martina

Appendix 3.2.1 Participant Information Sheet – Validation Focus Group



PARTICIPANT INFORMATION SHEET AND PRIVACY NOTICE

TITLE OF PROJECT: How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in management, from the case study participants' perception?

Invitation

The University of Worcester engages in a wide range of research which seeks to provide greater understanding of the world around us, to contribute to improved human health and well-being and to provide answers to social, economic and environmental problems.

We would like to invite you to take part in one of our research projects. Before you decide whether to take part, it is important that you understand why the research is being done, what it will involve for you, what information we will ask from you, and what we will do with that information.

We will in the course of this project be collecting personal information. Under General Data Protection Regulation 2016, we are required to provide a justification (what is called a "legal basis") in order to collect such information. The legal basis for this project is "**task carried out in the public interest**".

You can find out more about our approach to dealing with your personal information at <https://www.worcester.ac.uk/informationassurance/visitor-privacy-notice.html>.

Please take time to read this document carefully. Feel free to ask the researcher any questions you may have and to talk to others about it if you wish. You will have at least 14 days to decide if you want to take part.

What is the purpose of the research?

This study aims to answer the question of “how could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in management, from the case study participants' perception?”

A trend already visible today will worsen in the next few years: Since the number of skilled specialists is decreasing, the number of potential managers adjusts accordingly in the near future. A great potential lies within women: Around 6.3 million women of working age are unemployed - many with medium and high qualifications (Bundesministerium für Arbeit und Soziales, 2011, p. 20). The programme “CrossMentoring OWL” has been set up in order to support women in East-Westphalia-Lippe to progress up the corporate ladder into management level and therefore to support companies in closing their skills shortage gap as requested in the action plan of the federal ministry (Bundesministerium für Arbeit und Soziales, 2011).

Who is undertaking the research?

Researcher: Martina Hammerschmid

Contact address: hamm1_16@uni.worc.ac.uk

Who has oversight of the research?

The research has been approved by the Research Ethics Panel for College of Business, Psychology and Sport University of Worcester in line with the University's Research Ethics Policy. The University of Worcester acts as the “Data Controller” for personal data collected through its research projects & is subject to the General Data Protection Regulation 2016. We are registered with the Information Commissioner's Office and our Data Protection Officer is Helen Johnstone (infoassurance@worc.ac.uk). For more on our approach to Information Assurance and Security visit:

<https://www.worcester.ac.uk/informationassurance/index.html>.

Why have I been invited to take part?

You have received this invitation because your field of expertise is regarded to be highly valuable for this research. We are hoping to recruit 4-6 participants for this focus group.

Do I have to take part?

No. It is up to you to decide whether or not you want to take part in this study. Please take your time to decide; we will wait for at least 14 days before asking for your decision. You can

decide not to take part or to withdraw from the study. If you decide to withdraw after the interview the timeframe for withdrawal is 14 days. Within a focus group discussion physical withdrawal is possible but the removal of your data provided may be less able to be achieved because of the potential for any removal of data might compromise the understanding of other data. If you do decide to take part you will be asked to sign a consent form.

If you wish to have your data withdrawn please contact the researcher with your participant number and your data will then not be used. If you do decide to take part you will be asked to sign a consent form.

What will happen if I agree to take part?

If you agree to take part, you will :

- If you agree to take part a focus group with four to six managers will be conducted with you
- The group interview will be based on my findings from the interviews already held with the former mentees, experts and female managers. It will lead to proposed actions for the management of the mentoring programme “CrossMentoring OWL” on how to improve the programme to better meet the needs of the region in terms of skills shortages in management.
- The interview will be carried out in private rooms to ensure confidentiality.
- The interview will last up to 90 minutes.
- If you agree, the interview the interview will be videotaped.

What are the benefits for me in taking part?

This research is being carried out as part of my professional doctorate programme at the University of Worcester. The findings of this study will be reported as part of my dissertation and may also be published in academic journals or at conferences. The aim of this research is to make a contribution to knowledge and to practice. Based on your experience you can help to shape the outcome of this research to ensure its practicability.

Are there any risks for me if I take part?

Before signing a consent form, you will be provided with this information sheet. In case you do have further questions please do not hesitate and contact the researcher. The contact details can be found on the first page. The researcher is eager to answer all your questions regarding the research.

If you agree to take part in the research after reading this information sheet, a consent form will be given to you. However even if you sign the consent form, you can decide not to take part or to withdraw from the study at any time during the interview.

In case English is not your mother tongue, the interviews will be conducted in German to avoid misunderstandings. However as the thesis will be written in English, excerpts of the interview will be translated into English. I will work with a professional translator to minimize the risk of translation errors.

Discussing personal experiences is likely to be an emotional subject for you as a participant. You may feel exposed, vulnerable and might fear negative impact on your career through the participation in this study. Therefore anonymity and confidentiality are of utmost importance. If talking about your personal experience at the mentoring programme is a sensitive topic to you it might trigger stress or anxiety. If you would like to speak to an independent person who is not a member of the research team, please contact Karen Dobson at the University of Worcester. You will find the contact details at the end of this information sheet.

As a researcher I am trying my best to mitigate the risk of psychological stress, anxiety or any negative consequences because of this research.

As the study focuses on East-Westphalia-Lippe the research is conducted outside the United Kingdom. The research is going to follow the data protection regulations which are identical for the United Kingdom and Germany. Moreover is the research going to obey the Federal Data Protection Act (§27 BDSG) (Vollmer, 2017).

What will you do with my information?

Your personal data / information will be treated confidentially at all times; that is, it will not be shared with anyone outside the research team or any third parties specified in the consent form unless it has been fully anonymised. The exception to this is where you tell us something that indicates that you or someone else is at risk of harm. In this instance, we may need to share this information with a relevant authority; however, we would inform you of this before doing so.

During the project, all data / information will be kept securely in line with the University's Policy for the Effective Management of Research Data and its [Information Security Policy](#).

We will process your personal information for a range of purposes associated with the project primary of which are:

- To use your information along with information gathered from other participants in the research project to seek new knowledge and understanding that can be derived from the information we have gathered.
- To summarise this information in written form for the purposes of dissemination (through research reports, a thesis / dissertation, conference papers, journal articles or other publications). Any information disseminated / published will be at a summary level and will be fully anonymised and there will be no way of identifying your individual personal information within the published results.
- To use the summary and conclusions arising from the research project for teaching and further research purposes. Any information used in this way will be at a summary level and will be fully anonymised. There will be no way of identifying your individual personal information from the summary information used in this way.

If you wish to receive a summary of the research findings or to be given access to any of the publications arising from the research, please contact the researcher.

How long will you keep my data for?

Your personal data will be retained until the project (including the dissemination period) has been completed.

At the completion of the project, we will retain your data only in anonymised form, after 10 years we destroy all data relating to the project.

How can I find out what information you hold about me?

You have certain rights in respect of the personal information the University holds about you. For more information about Individual Rights under GDPR and how you exercise them please visit: <https://www.worcester.ac.uk/informationassurance/requests-for-personal-data.html>.

What happens next?

Please keep this information sheet. If you do decide to take part, please either contact the researcher using the details below.

Thank you for taking the time to read this information.

If you decide you want to take part in our project, and we hope you do, or if you have any further questions then please contact: Martina Hammerschmid, hamm1_16@unic.worc.ac.uk

If you have any concerns about the project at this point or at any later date you may contact the researcher (contact as above) or you may contact the Supervisors:

- **Professor John Sparrow**
profjohnsparrow@btinternet.com
- **Dr. Catharine Ross**
c.ross@worc.ac.uk

If you would like to speak to an independent person who is not a member of the research team, please contact Karen Dobson at the University of Worcester, using the following details:

Karen Dobson
Secretary to College of Business, Psychology and Sport Research Ethics Panel
University of Worcester
Henwick Grove
Worcester WR2 6AJ
ethics@worc.ac.uk



TEILNEHMER-INFORMATIONSBLATT UND DATENSCHUTZERKLÄRUNG

PROJEKTTITEL: Wie könnte das formelle gleichgeschlechtliche Dyaden-Mentoring für Frauen angepasst werden, um ein besseres Instrument zur Bekämpfung von Fachkräftemangel im Management zu sein, ausgehend von der Wahrnehmung der Teilnehmer der Fallstudie?

Einladung

Die Universität Worcester betreibt ein breites Spektrum an Forschung, die darauf abzielt, ein besseres Verständnis der Welt um uns herum zu vermitteln, zur Verbesserung der menschlichen Gesundheit und des Wohlbefindens beizutragen und Antworten auf soziale, wirtschaftliche und ökologische Probleme zu geben.

Wir laden Sie ein, an einem unserer Forschungsprojekte teilzunehmen. Bevor Sie sich entscheiden, ob Sie teilnehmen möchten, ist es wichtig, dass Sie verstehen, warum die Forschung durchgeführt wird, was sie für Sie bedeutet, welche Informationen wir von Ihnen erfragen und was wir mit diesen Informationen tun werden.

Im Rahmen dieses Projekts werden wir personenbezogene Daten erheben. Gemäß der Allgemeinen Datenschutzverordnung 2016 sind wir verpflichtet, eine Begründung (eine so genannte "Rechtsgrundlage") für die Erhebung solcher Daten vorzulegen. Rechtsgrundlage für dieses Projekt ist die "Aufgabe im öffentlichen Interesse".

Mehr über unseren Ansatz im Umgang mit Ihren personenbezogenen Daten erfahren Sie unter <https://www.worcester.ac.uk/informationassurance/visitor-privacy-notice.html>.

Bitte nehmen Sie sich die Zeit, dieses Dokument sorgfältig zu lesen. Zögern Sie nicht, dem Forscher alle Fragen zu stellen, die Sie haben, und mit anderen darüber zu sprechen, wenn Sie es wünschen. Sie haben 14 Tage Zeit, um zu entscheiden, ob Sie teilnehmen möchten.

Was ist der Zweck der Forschung?

Diese Studie zielt darauf ab, die Frage zu beantworten: Wie könnte das formelle gleichgeschlechtliche Dyaden-Mentoring für Frauen angepasst werden, um ein besseres Instrument zur Bekämpfung von Fachkräftemangel im Management zu sein, ausgehend von der Wahrnehmung der Teilnehmer der Fallstudie?

Ein bereits heute sichtbarer Trend wird sich in den nächsten Jahren noch verstärken: Da die Zahl der Fachkräfte abnimmt, passt sich die Zahl der potenziellen Führungskräfte in naher Zukunft entsprechend an. Ein großes Potenzial liegt in den Frauen: Rund 6,3 Millionen Frauen im erwerbsfähigen Alter sind arbeitslos - viele davon mit mittlerer und hoher Qualifikation (Bundesministerium für Arbeit und Soziales, 2011, S. 20). Das Programm "CrossMentoring OWL" wurde aufgelegt, um Frauen in Ostwestfalen-Lippe dabei zu unterstützen in die Führungsebene zu kommen und damit Unternehmen dabei zu unterstützen, ihre Fachkräftemangellücke zu schließen, wie im Aktionsplan des Bundesministeriums für Arbeit und Soziales (Bundesministerium für Arbeit und Soziales, 2011) gefordert.

Wer führt die Forschung durch?

Forscher: Martina Hammerschmid

Kontaktadresse: hamm1_16@uni.worc.ac.uk

Wer hat die Aufsicht über die Forschung?

Die Forschung wurde vom Research Ethics Panel für das College of Business, Psychology and Sport University of Worcester im Einklang mit der Research Ethics Policy der Universität genehmigt. Die University of Worcester fungiert als "Datenverantwortlicher" für die im Rahmen ihrer Forschungsprojekte erhobenen personenbezogenen Daten und unterliegt der Allgemeinen Datenschutzverordnung 2016. Wir sind beim Information Commissioner's Office registriert und unsere Datenschutzbeauftragte ist Helen Johnstone (infoassurance@worc.ac.uk). Für weitere Informationen über unseren Ansatz zur Informationssicherung und -sicherheit besuchen Sie bitte:

<https://www.worcester.ac.uk/informationassurance/index.html>.

Warum wurde ich zur Teilnahme eingeladen?

Sie haben diese Einladung erhalten, weil Ihre Expertise und Erfahrung für diese Forschung als sehr wertvoll angesehen wird. Wir hoffen, 4-6 Teilnehmer für diese Fokusgruppe gewinnen zu können.

Muss ich teilnehmen?

Nein. Es ist Ihre Entscheidung, ob Sie an dieser Studie teilnehmen möchten oder nicht. Bitte nehmen Sie sich Zeit für Ihre Entscheidung; ich werde mindestens 14 Tage warten, bevor ich Sie um Ihre Entscheidung bitte. Sie können jederzeit während des Interviews entscheiden, nicht mehr teilzunehmen oder sich aus der Studie zurückzuziehen. Wenn Sie sich entscheiden, nach dem Vorstellungsgespräch zurückzutreten, beträgt die Frist für den Rücktritt 14 Tage. Innerhalb einer Fokusgruppen-Diskussion ist ein physischer Rückzug möglich, jedoch nicht die Entfernung Ihrer bereitgestellten Daten weil dies die Verwertbarkeit der anderen Daten beeinträchtigen kann. Wenn Sie sich für eine Teilnahme entscheiden, werden Sie aufgefordert, eine Einverständniserklärung zu unterzeichnen.

Was passiert, wenn ich der Teilnahme zustimme?

- Wenn Sie der Teilnahme zustimmen, wird mit Ihnen eine Fokusgruppe mit vier bis sechs Managern durchgeführt.
- Das Gruppeninterview basiert auf meinen Erkenntnissen aus den bereits durchgeführten Interviews mit den ehemaligen Mentees, Experten und Managerinnen. Sie wird zu vorgeschlagenen Maßnahmen für die Verwaltung des Mentoringprogramms "CrossMentoring OWL" führen, wie das Programm verbessert werden kann, um den Bedürfnissen der Region in Bezug auf Fachkräftemangel im Management besser gerecht zu werden.
- Das Interview wird in privaten Räumen durchgeführt, um die Vertraulichkeit zu gewährleisten.
- Das Interview dauert bis zu 90 Minuten.
- Das Gruppeninterview wird auf Video aufgezeichnet, wenn Sie damit einverstanden sind.

Was sind die Vorteile für mich bei der Teilnahme?

Diese Forschung wird im Rahmen meiner Promotion an der University of Worcester durchgeführt. Die Ergebnisse dieser Studie werden im Rahmen meiner Dissertation

veröffentlicht und können auch in wissenschaftlichen Zeitschriften oder auf Konferenzen veröffentlicht werden. Ziel dieser Forschung ist es, einen Beitrag zum Wissen und zur Praxis zu leisten. Basierend auf Ihren Erfahrungen können Sie dazu beitragen, das Ergebnis dieser Forschung so zu gestalten, dass es praktikabel ist.

Besteht für mich ein Risiko, wenn ich mitmache?

Bevor Sie ein Einwilligungsformular unterschreiben, erhalten Sie dieses Informationsblatt. Sollten Sie weitere Fragen haben, zögern Sie bitte nicht und kontaktieren Sie den Forscher. Die Kontaktdaten finden Sie auf der ersten Seite. Der Forscher ist bestrebt, alle Ihre Fragen rund um die Forschung zu beantworten.

Wenn Sie nach dem Lesen dieses Merkblattes der Teilnahme an der Recherche zustimmen, erhalten Sie eine Einverständniserklärung. Aber auch wenn Sie die Einwilligungserklärung unterschreiben, können Sie jederzeit während des Interviews entscheiden, nicht an der Studie teilzunehmen oder sich aus der Studie zurückzuziehen. Falls Englisch nicht Ihre Muttersprache ist, werden die Interviews auf Deutsch geführt, um Missverständnisse zu vermeiden. Da die Arbeit jedoch auf Englisch verfasst wird, werden Auszüge aus dem Interview ins Englische übersetzt. Ich werde mit einem professionellen Übersetzer zusammenarbeiten, um das Risiko von Übersetzungsfehlern zu minimieren.

Das Diskutieren von persönlichen Erfahrungen ist wahrscheinlich ein emotionales Thema für Sie als Teilnehmer. Sie fühlen sich möglicherweise exponiert, verletzlich und befürchten negative Auswirkungen auf Ihre Karriere durch die Teilnahme an dieser Studie. Deshalb sind Anonymität und Vertraulichkeit von größter Bedeutung. Wenn das Gespräch über Ihre persönliche Erfahrung im Mentoring-Programm für Sie ein sensibles Thema ist, kann es Stress oder Angst auslösen. Wenn Sie mit einer unabhängigen Person sprechen möchten, die nicht Mitglied des Forschungsteams ist, wenden Sie sich bitte an Karen Dobson an der University of Worcester. Die Kontaktdaten finden Sie am Ende dieses Informationsblattes. Als Forscher versuche ich mein Bestes, um das Risiko von psychischem Stress, Angstzuständen oder negativen Folgen durch diese Forschung zu minimieren. Da sich die Studie auf Ostwestfalen-Lippe konzentriert, wird die Forschung außerhalb Großbritanniens durchgeführt. Die Forschung wird sich an den Datenschutzbestimmungen orientieren, die für Großbritannien und Deutschland identisch sind. Darüber hinaus wird die Forschung dem Bundesdatenschutzgesetz (§27 BDSG) folgen (Vollmer, 2017).

Was werden Sie mit meinen Daten machen?

Ihre personenbezogenen Daten / Informationen werden jederzeit vertraulich behandelt, d.h. sie werden weder an Dritte außerhalb des Forschungsteams noch an Dritte weitergegeben, die in der Einwilligungserklärung angegeben sind, es sei denn, sie wurden vollständig anonymisiert. Die Ausnahme hiervon ist, wenn Sie uns etwas mitteilen, das darauf hinweist, dass Sie oder jemand anderes von Schaden bedroht ist. In diesem Fall müssen wir diese Informationen möglicherweise an eine zuständige Behörde weitergeben; wir würden Sie jedoch vorher darüber informieren.

Während des Projekts werden alle Daten / Informationen sicher aufbewahrt, in Übereinstimmung mit den Richtlinien der Universität für ein effektives Management von Forschungsdaten und der Informationssicherheit ([Information Security Policy](#)).

Wir werden Ihre personenbezogenen Daten für eine Reihe von Zwecken verarbeiten, die mit dem Projekt verbunden sind, dessen Hauptzweck es ist:

- Ihre Informationen zusammen mit Informationen, die von anderen Teilnehmern des Forschungsprojekts gesammelt wurden, zu verwenden, um neue Erkenntnisse und Erkenntnisse zu gewinnen, die sich aus den gesammelten Informationen ableiten lassen.
- Diese Informationen in schriftlicher Form zum Zwecke der Verbreitung zusammenzufassen (durch Forschungsberichte, eine Dissertation, Konferenzbeiträge, Zeitschriftenartikel oder andere Publikationen). Alle Informationen, die verbreitet / veröffentlicht werden, werden auf einer zusammenfassenden Ebene zusammengefasst und vollständig anonymisiert, und es gibt keine Möglichkeit, Ihre individuellen persönlichen Daten innerhalb der veröffentlichten Ergebnisse zu identifizieren.
- Die Zusammenfassung und die Schlussfolgerungen aus dem Forschungsprojekt für die Lehre und weitere Forschungszwecke zu nutzen. Alle auf diese Weise verwendeten Informationen werden auf einer zusammenfassenden Ebene zusammengefasst und vollständig anonymisiert. Es gibt keine Möglichkeit, Ihre persönlichen Daten anhand der auf diese Weise verwendeten zusammenfassenden Informationen zu identifizieren.

Wenn Sie eine Zusammenfassung der Forschungsergebnisse erhalten oder Zugang zu einer der aus der Forschung hervorgegangenen Publikationen erhalten möchten, wenden Sie sich bitte an den Forscher.

Wie lange werden Sie meine Daten aufbewahren?

Ihre personenbezogenen Daten werden bis zum Abschluss des Projekts (einschließlich der Veröffentlichungsfrist) gespeichert.

Nach Abschluss des Projekts speichern wir Ihre Daten nur in anonymisierter Form, nach 10 Jahren vernichten wir alle projektbezogenen Daten.

Wie kann ich herausfinden, welche Informationen Sie über mich haben?

Sie haben bestimmte Rechte in Bezug auf die personenbezogenen Daten, die die Universität über Sie gespeichert hat. Weitere Informationen über die individuellen Rechte unter GDPR und wie Sie diese ausüben, finden Sie unter:

<https://www.worcester.ac.uk/informationassurance/requests-for-personal-data.html>.

Was passiert als nächstes?

Bitte bewahren Sie dieses Merkblatt auf. Wenn Sie sich für eine Teilnahme entscheiden, wenden Sie sich bitte entweder über die folgenden Kontaktdaten an den Forscher.

Vielen Dank, dass Sie sich die Zeit nehmen, diese Informationen zu lesen.

Wenn Sie sich entscheiden, an unserem Projekt teilzunehmen, und wir hoffen, dass Sie dies tun, oder wenn Sie weitere Fragen haben, dann wenden Sie sich bitte:

Martina Hammerschmid, hamm1_16@unic.worc.ac.uk

Wenn Sie zu diesem Zeitpunkt oder zu einem späteren Zeitpunkt Bedenken bezüglich des Projekts haben, können Sie sich an den Forscher wenden (Kontakt wie oben) oder an die Supervisoren:

- **Professor John Sparrow**
profjohnsparrow@btinternet.com
- **Dr. Catharine Ross.**
c.ross@worc.ac.uk

Wenn Sie mit einer unabhängigen Person sprechen möchten, die nicht Mitglied des Forschungsteams ist, wenden Sie sich bitte an Karen Dobson an der University of Worcester unter Verwendung der folgenden Angaben:

Karen Dobson

Secretary to College of Business, Psychology and Sport Research Ethics Panel

University of Worcester

Henwick Grove

Worcester WR2 6AJ

ethics@worc.ac.uk



INFORMED CONSENT FORM (NON-NHS RESEARCH)

Projekttitel Wie könnte aus Sicht der Teilnehmerinnen das formale paarweise Cross-Mentoring für Frauen in OWL angepasst werden, um ein besseres Instrument zur Bekämpfung des Fachkräftemangels im Management zu werden?

Teilnehmer Identifikationsnummer

Name der Forscherin Martina Hammerschmid

Ich, der Unterzeichner, bestätige dies:

1.	Ich habe die Informationen über das Projekt gelesen und verstanden, wie sie im Informationsblatt vom _____ enthalten sind oder sie mir vorgelesen wurden.	
2.	Ich konnte Fragen über das Projekt und meine Teilnahme stellen und meine Fragen wurden zu meiner Zufriedenheit beantwortet.	
3.	Ich verstehe, dass die Teilnahme an dieser Studie eine Fokusgruppen-Diskussion mit 4-6 Teilnehmern beinhaltet. Die Fokusgruppe wird auf Video aufgenommen und mit Tonaufzeichnungen versehen, um die Transkription anschließend zu unterstützen. Die Aufzeichnungen werden anonymisiert und anschließend vernichtet. Die Transkriptionen werden 10 Jahre lang auf einem gesicherten Server aufbewahrt.	
4.	Ich verstehe, dass die Teilnahme an der Studie die Diskussion über persönliche Erfahrungen beinhaltet, die für mich ein sensibles Thema sein könnten und daher als potenzielles Risiko angesehen werden.	
5.	Ich verstehe, dass ich jederzeit und ohne Angabe von Gründen zurücktreten kann und dass ich weder für den Rücktritt bestraft werde noch gefragt werde, warum ich zurückgetreten bin.	
6.	Ich verstehe, dass die von mir zur Verfügung gestellten Informationen für folgende Zwecke verwendet werden: Berichte, Veröffentlichungen und Websites.	
7.	Ich stimme zu, dass meine Informationen in Forschungsergebnissen zitiert werden können.	
8.	Die Verfahren zur Vertraulichkeit wurden mir klar erläutert (z.B. Verwendung von Namen, Pseudonymen, Anonymisierung von Daten, etc.).	
9.	Ich verstehe, dass personenbezogene Daten, die über mich gesammelt wurden und die mich identifizieren können, wie z.B. mein Name oder mein Wohnort, nicht außerhalb des Studienteams weitergegeben werden.	
10.	Ich bin mit der Audio-/Videoaufzeichnung einverstanden.	
11.	Ich verstehe, dass andere Forscher nur dann Zugang zu diesen Daten haben werden, wenn sie der Wahrung der Vertraulichkeit der Daten zustimmen und wenn sie den Bedingungen zustimmen, die ich in diesem Formular festgelegt habe.	

12.	Ich stimme freiwillig der Teilnahme am Projekt zu.	
13.	Ich weiß, an wen ich mich wenden kann, wenn ich Bedenken bezüglich dieser Forschung habe.	

.....
Name des Teilnehmers/der
Teilnehmerin

.....
Unterschrift

.....
Datum

.....
Name der Forscherin

.....
Unterschrift

.....
Datum

Appendix 3.2.3 Interview Questions - Validation Focus Group

Focus group interview schedule

Interviewee: Experts, Manager, Former Mentee (mixed group)
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Project Title: How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in management, from the case study participants' perception?
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Welcome

Good evening and welcome to our session.

How are you?

Thanks for taking the time to join me in my research. I would like to talk about mentoring women to combat skill shortages. My name is Martina Hammerschmid.

I am from the University of Worcester. I want to analyse your experiences to see how the mentoring programme could be changed to better meet its objective.

Guidelines

Keep in mind that I am just as interested in negative comments as positive comments, and at times negative comments are the most helpful. You don't need to agree with others, but you must listen respectfully as others share their views. I ask you turn off your phones or pagers. If you must respond to a call, please do so as quietly as possible and rejoin us as quickly as you can.

You've probably noticed the camera. I would like to video record the session because I don't want to miss any of your comments. Would that be okay for you? Please let's try only one person speaking at a time.

People often say very helpful things in these discussions and I can't write fast enough to get them all down.

We will be on a first name basis tonight, and I won't use any names in my reports. You may be assured of complete confidentiality.

My role as moderator will be to guide the discussion.

This group interview will approximately last between 60 to 90 minutes.

I want to remind you that if you want to withdraw from the interview after we started you can do so.

Within a focus group discussion physical withdrawal is still possible but the removal of data provided may be less able to be achieved because of the potential for any removal of data might compromise the understanding of other data.

Do you have any questions?

Well, let's begin.

Focus group interview schedule

Interviewee: Experts, Manager, Former Mentee (mixed group)
Researcher: Martina Hammerschmid
Contact address: hamm1_16@uni.worc.ac.uk

Verbal consent
<ul style="list-style-type: none"> • Do you want to participate in this interview? • Are you aware of the fact, that you can withdraw at any time without giving reasons and that you will not be penalized for withdrawing nor will you be questioned on why you have withdrawn?
<p>Introduction:</p> <p>In order to increase diversity in management and to promote equal opportunities for women and men more strongly, several recommendations were identified in the interviews with former mentees, successful managers and experts of the region. The aim of the programme is to contribute to combating skill shortages in management and thus to strengthen women's self-confidence.</p> <p>The following recommendations got identified based on the interviews with former mentees, female managers and experts:</p> <ol style="list-style-type: none"> 1. Increase the visibility of the mentoring programme 2. Sensitisation of (male) decision-makers 3. Involve decision-makers of companies more in the programme 4. Expand women's networks 5. Increase visibility of women 6. Role models of successful female managers 7. Exchange of experiences between women and companies
<p>Questions: (Each of the below listed questions will be asked separately for each recommendation.)</p> <ol style="list-style-type: none"> 1. Do you think implementing <i>recommendation number ...*</i> will have an impact on the success of the mentoring programme in terms of meeting its objective to combat skill shortages in management in East-Westphalia Lippe? If so, why? If not, why? 2. What kind of barriers do you see with regards to the implementation of <i>recommendation number ...*</i>? 3. What resources do you need to implement <i>recommendation number ...*</i>? 4. Is there anything we should have talked about but didn't?

Fokusgruppe Fragebogen

Teilnehmer: Experten, Manager, ehemalige Mentee (gemischte Gruppe)
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Projekttitel: Wie könnte aus Sicht der Teilnehmerinnen das formale paarweise Cross-Mentoring für Frauen in OWL angepasst werden, um ein besseres Instrument zur Bekämpfung des Führungskräfte-mangel im Management zu werden?

Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Herzlich Willkommen

Guten Abend und willkommen zu unserem Treffen.

Wie geht es Ihnen?

Danke, dass Sie sich Zeit nehmen und einen Beitrag zu meiner Forschungsarbeit leisten. Ich möchte über Mentoring von Frauen als Mittel zur Bekämpfung des Fachkräftemangels sprechen.

Mein Name ist Martina Hammerschmid, ich bin Studentin der Universität Worcester. Ich möchte Ihre Erfahrungen auswerten, um zu sehen wie das Mentoring-Programm verändert werden könnte um sein Ziel besser zu erreichen.

Anmerkungen zur Durchführung

Denken Sie daran, dass ich an kritischen Kommentaren genauso interessiert bin wie an Positiven, und manchmal sind negative Kommentare die Hilfreichsten. Sie müssen nicht mit der Meinung anderer übereinstimmen, aber Sie müssen zuhören, wenn andere ihre Ansichten mitteilen. Ich bitte Sie, Ihre Telefone oder Pager auszuschalten. Wenn Sie einen Anruf beantworten müssen, tun Sie dies bitte so leise wie möglich und kommen Sie so schnell wie möglich zu uns zurück.

Sie haben wahrscheinlich die Kamera bemerkt. Ich würde gerne eine Videoaufzeichnung dieser Sitzung machen, weil ich keinen Ihrer Kommentare verpassen möchte. Wäre das für Sie okay? Wir sollten daher versuchen, dass immer nur eine Person spricht. Die Teilnehmer sagen viele hilfreiche Dinge in diesen Diskussionen, und ich kann sonst nicht schnell genug mitkommen, um alles aufzuschreiben.

Wenn Sie einverstanden sind werden wir uns heute Abend mit Vornamen ansprechen. In meiner Dokumentation werde ich allerdings keine Namen verwenden. Sie können sich auf absolute Vertraulichkeit und Datenschutz verlassen.

Meine Rolle als Moderatorin wird darin bestehen, die Diskussion zu leiten.

Dieses Gruppeninterview wird etwa 60 bis 90 Minuten dauern.

Ich möchte Sie daran erinnern, dass Sie, wenn Sie das Interview nach unserem Start abbrechen wollen, dies tun können. Innerhalb einer Fokusgruppen-Diskussion ist ein physischer Rückzug möglich, jedoch

Fokusgruppe Fragebogen

Teilnehmer: Experten, Manager, ehemalige Mentee (gemischte Gruppe)
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

nicht die Entfernung Ihrer bereitgestellten Daten weil dies die Verwertbarkeit der anderen Daten beeinträchtigen kann.

Haben Sie Fragen?

Nun, fangen wir an. Ich habe vor Ihnen Namenskarten auf den Tisch gestellt, damit wir alle Namen präsent haben. Lassen Sie uns etwas besser kennenlernen, indem wir uns reihum kurz vorstellen. Nennen Sie uns bitte Ihren Namen und Ihren Beruf!

Mündliche Einwilligungserklärung

- Möchten Sie an diesem Interview teilnehmen?
- Sind Sie sich der Tatsache bewusst, dass Sie jederzeit ohne Angabe von Gründen die Teilnahme an dieser Studie abbrechen können und dass Sie weder Nachteile aufgrund dieses Abbruchs haben, noch dass Sie nach einer Begründung für den Abbruch gefragt werden würden?

Einleitung:

Um die Vielfalt im Management zu erhöhen und sich stärker für die Chancengleichheit von Frauen und Männern einzusetzen, wurden in den Interviews mit ehemaligen Mentees, erfolgreichen Managerinnen und Experten der Region mehrere Empfehlungen identifiziert. Ziel des Cross Mentoring OWL-Programms ist es, zur Bekämpfung des Fachkräftemangels im Management beizutragen und so das Selbstvertrauen der Frauen zu stärken.

Aus den Interviews mit ehemaligen Mentees, weiblichen Führungskräften und Experten wurden die folgenden Empfehlungen* abgeleitet:

1. Erhöhung der Sichtbarkeit des Mentoring-Programms
2. Sensibilisierung von (männlichen) Entscheidungsträgern
3. Entscheidungsträger von Unternehmen stärker in das Programm einbeziehen
4. Ausbau der Frauennetzwerke
5. Erhöhung der Sichtbarkeit von Frauen
6. Vorbilder für erfolgreiche weibliche Führungskräfte
7. Erfahrungsaustausch zwischen Frauen und Unternehmen

Fragen: (Jede der unten aufgeführten Fragen wird für jede Empfehlung separat gestellt)

1. Glauben Sie, dass sich die Umsetzung der Empfehlung Nummer ...* auf den Erfolg des Mentoring-Programms im Hinblick auf die Erreichung des Ziels, den Fachkräftemangel im Management in Ostwestfalen-Lippe zu bekämpfen, auswirken würde?
Falls ja: warum?

Fokusgruppe Fragebogen

Teilnehmer: Experten, Manager, ehemalige Mentee (gemischte Gruppe)
Projektleitung: Martina Hammerschmid
Kontaktadresse: hamm1_16@uni.worc.ac.uk

Falls nein: warum nicht?
2. Welche Schwierigkeiten sehen Sie bei der Umsetzung von Empfehlung Nummer ...*?
3. Welche Ressourcen benötigen Sie für die Umsetzung von Empfehlung Nummer ...*?
4. Haben wir über irgendetwas noch nicht gesprochen was wir jetzt nachholen sollten?

Appendix 3.3 Interview Schedule

Interview date	Participant(s)
25.05.2018	Pilot interview
31.05.2018	Former Mentee
01.06.2018	Former Mentee
02.06.2018	Former Mentee
04.06.2018	Former Mentee
05.06.2018	Former Mentee
12.06.2018	Former Mentee
19.06.2018	Former Mentee
23.06.2018	Former Mentee
23.06.2018	Former Mentee
28.06.2018	Former Mentee
29.06.2018	Former Mentee
29.06.2018	Former Mentee
09.07.2018	Focus Group-Manager (4 participants)
17.07.2018	Former Mentee
18.07.2018	Expert
25.07.2018	Focus Group-Manager (6 participants)
03.08.2018	Expert
08.08.2018	Expert
14.08.2018	Focus Group-Manager (4 participants)
14.08.2018	Expert
15.08.2018	Expert
16.04.2019	Focus Group-mixed (Validation) (4 participants)

Appendix 3.4 Judging the Quality of the Study

According to Glaser and Strauss (1967), the most effective way of testing the quality of grounded theory research is to see how useful it is in practice. Strauss and Corbin (2008) advocate following Charmaz' quality criteria. In their view, her catalogue of criteria offers the most comprehensive evaluation criteria for well-founded theoretical studies, as it addresses both scientific and creative benchmarks. Charmaz organised the quality criteria into four categories: a) credibility, b) originality, c) resonance, and d) usefulness (Charmaz, 2014). In the following section, all four categories are discussed in relation to this research, the quality criteria of Birks and Mills (2015) on the researcher's expertise, methodological congruence, and procedural precision. Nevertheless, the reader ultimately decides the quality of the study (Charmaz, 2006).

Credibility

- **Has your research achieved intimate familiarity with the setting or topic (Charmaz, 2014, p. 337)?**

An extensive literature review was undertaken in addition to multiple in-depth interviews and focus groups as well as constant comparison of data which contributed to the familiarisation of the topic. However, there is always room for further engagement with the topic, which should be the ongoing aim of any researcher. Therefore, I understand the exploration of new perspectives on this topic as an undertaking which will never be complete.

- **Are the data sufficient to merit your claims? Consider the range, number, and depth of observations contained in the data (Charmaz, 2014, p. 337).**

A total of 38 participants took part in the study. The participants consisted of 15 former mentees (including the pilot interview), six experts, and 17 experienced managers. All of the participants had experiences of the topic of interest. The aim of this research was to gain saturation via sample size. According to Strauss and Corbin (2008), data saturation is reached when no new categories emerge. The challenge of achieving saturation during a grounded theory study was acknowledged in 3.4.6.

- **Have you made systematic comparisons between observations and between categories (Charmaz, 2014, p. 337)?**

Constant comparative analysis (as outlined in 3.6.4.3.) and theoretical sampling (as outlined in 3.4.3.2.) were applied to systematically compare the gathered data.

<ul style="list-style-type: none"> • Do the categories cover a wide range of empirical observations (Charmaz, 2014, p. 337)?
<p>Yes. The categories cover a wide range of empirical observations because a total of 38 participants participated in the study. The participants consisted of 15 former mentees (including the pilot interview), six experts, and 17 experienced male and female managers. All of them had different backgrounds and therefore different views on the topic under investigation.</p>
<ul style="list-style-type: none"> • Are there strong logical links between the gathered data and your argument and analysis (Charmaz, 2014, p. 337)?
<p>In order to achieve strong links between data, argument, and analysis, the data were reviewed constantly throughout the research to ensure that the emerging concepts were grounded in the gathered data. Original quotes were used to support the data analysis and arguments.</p>
<ul style="list-style-type: none"> • Has your research provided enough evidence for your claims to allow the reader to form an independent assessment- and agree with your claims (Charmaz, 2014, p. 337)?
<p>In the findings chapter of this research, the participants' contributions are constantly cited. Several relevant quotations were identified and used for each conceptual group. Originally, more extracts were included to illustrate the results. However, due to the word limit of this thesis, their extent was reduced. In certain places, more quotations were used to underline the general agreement of the participants.</p>
<p>Originality</p>
<ul style="list-style-type: none"> • Are your categories fresh? Do they offer new insights (Charmaz, 2014, p. 337)?
<p>The themes offer new insights, although a number of areas covered in this research have already been dealt with in other studies as well. However, the other researches did not identify actions for the cross mentoring programme "CrossMentoring OWL". A number of recommendations for the management of the mentoring programme have been identified to further improve the programme. Therefore the categories are considered to be fresh.</p>
<ul style="list-style-type: none"> • Does your analysis provide a new conceptual rendering of the data (Charmaz, 2014, p. 337)?
<p>This thesis demonstrates transparency throughout the research process, including the provision of examples.</p>

<ul style="list-style-type: none"> • What is the social and theoretical significance of this work (Charmaz, 2014, p. 337)?
<p>The contribution to knowledge and professional practice was discussed in detail in chapter 5.3. Regarding the social significance of this work, it can be said that it helps raise the awareness of professionals, experts, politicians, and society in East Westphalia-Lippe of the possible challenges for working women and that their untapped potential should be strengthened. Regarding the theoretical significance, it can be said that the study helped develop an insight into the question of why women seek same-gender mentoring and how the lives of the mentees had been influenced two years after the programme ended. The study also outlined to what extent the programme “CrossMentoring OWL” meets its goal according to the perspectives of the mentees and experts. This is fundamental when discussing possible ways of enhancing the programme.</p>
<ul style="list-style-type: none"> • How does your grounded theory challenge, extend, or refine current ideas, concepts, and practices (Charmaz, 2014, p. 337)?
<p>This grounded theory challenges the concept of the CrossMentoring OWL programme and developed substantial recommendations for the management of the programme on how to improve it.</p>
<p>Resonance</p>
<ul style="list-style-type: none"> • Do the categories portray the fullness of the studied experience (Charmaz, 2014, p. 337)?
<p>The categories are based on the interviews and focus groups undertaken during this research and therefore portray the fullness of the studied experience. In addition, the application of theoretical sampling enabled a deeper exploration of the participants' experiences.</p>
<ul style="list-style-type: none"> • Have you revealed both liminal and unstable taken-for-granted meanings (Charmaz, 2014, p. 337)?
<p>No.</p>
<ul style="list-style-type: none"> • Have you drawn links between larger collectivities or institutions and individual lives, when the data so indicate (Charmaz, 2014, p. 337)?
<p>The constructivist nature of this research enabled both individual and collective interpretations from participants and the well-informed researcher. In this way, several considerations could be made.</p>

<ul style="list-style-type: none"> • Does your grounded theory make sense to your participants or people who share their circumstances (Charmaz, 2014, p. 337)?
<p>According to their own statements, the study participants were pleased that someone was interested in the topic and that their opinions and experiences were in demand. All participants without exception expressed joy that they could share their experiences and thus contribute to improving the program with the help of the study. The participants even said that their participation in the study had led them to reflect on their own situation and experiences. As required by a grounded theory approach, the findings from previous interviews were discussed with other participants as part of the iterative process of this research.</p>
<p>Usefulness</p>
<ul style="list-style-type: none"> • Does your analysis offer interpretations that people can use in their everyday worlds (Charmaz, 2014, p. 338)?
<p>During the last focus group, the recommendations on how the mentoring programme could be improved were discussed. The participants of this focus group were mixed; it included managers, experts, and former mentees. Based on their feedback, it can be said that the interpretations offered in this thesis are prosaically useful. Further evidence of this theory's usefulness was gained via presentation of the interpretations at conferences and feedback from the attendees.</p>
<ul style="list-style-type: none"> • Do your analytic categories suggest any generic processes (Charmaz, 2014, p. 338)?
<p>Through theoretical sampling, this study ensured that a wide range of participants were included in order to develop a generic fit. In addition, the application of constant comparison enabled scrutinising the emerged categories. The provided model that associates skill shortages in management with the effectiveness of "CrossMentoring OWL" may also have applicability in other regions.</p>
<ul style="list-style-type: none"> • If so, have you examined these generic processes for tacit implications (Charmaz, 2014, p. 338)?
<p>Through the application of theoretical sampling and reflexivity, tacit implications were examined. This helped explore these implications and bring them into awareness.</p>

<ul style="list-style-type: none"> • Can the analysis spark further research in other substantive areas (Charmaz, 2014, p. 338)?
<p>This research was designed to fill the knowledge gap discussed in chapter 1.2. The analysis of this study can spark further research in other areas, as discussed in chapter 5.6. For example, during this research questions regarding network generation among youths evolved. The research participants had different perceptions concerning the networking affinity of the younger generation compared to the older ones.</p>
<ul style="list-style-type: none"> • How does your work contribute to knowledge? How does it contribute to making a better world (Charmaz, 2014, p. 338)?
<p>This research contributes to making a better world, as it offers insights into how the lives of the mentees had changed two years after the programme ended and why women seek same-gender mentoring programmes. In addition, it also provides feedback about how fully the programme “CrossMentoring OWL” meets its goal according to the perspectives of the mentees and experts. These findings help improve the programme to better meet the needs of the region of East Westphalia-Lippe in terms of combating skill shortages in management and enhancing the level of diversity in management positions.</p>

<p>The following section covers the evaluation criteria of Birks and Mills (2015, p. 147) for grounded theory research, which are not covered in the quality catalogue of Charmaz (2014). In addition to the applicability of the methodology and theory, they included researcher expertise, methodological congruence, and procedural precision in the catalogue of criteria.</p>
<p>Researcher Expertise</p>
<p>Does the researcher demonstrate skills in scholarly writing (Birks and Mills, 2015, p. 147)?</p>
<p>The researcher had no prior knowledge in scholarly writing. However, as a DBA student at the University of Worcester, she was trained during the teaching phase and through consultations with supervisors.</p>

<p>Is there evidence that the researcher is familiar with grounded theory methods (Birks and Mills, 2015, p. 147)?</p>
<p>As acknowledged in the thesis, the researcher was new to grounded theory. However, due to an extensive literature review on this subject and contact with other scholars, she felt enabled to apply this methodology. Her supervisors were also helpful.</p>
<p>• Has the researcher accessed and presented citations of relevant methodological resources (Birks and Mills, 2015, p. 147)?</p>
<p>Diverse relevant methodological literature was used in the thesis, as outlined in the list of resources.</p>
<p>• Are the limitations in the study design and research process acknowledged and addressed where possible (Birks and Mills, 2015, p. 147)?</p>
<p>Limitations of the research are discussed in chapter 5.6. The limitations of a grounded theory approach as well as a qualitative research setting are acknowledged alongside the specific limitations of the research setting. In addition, chapter 5.5 provides a detailed reflection on the research process, including methodological choice and personal development.</p>
<p>Methodological Congruence</p>
<p>• Has the researcher articulated their philosophical position (Birks and Mills, 2015, p. 147)?</p>
<p>The philosophical position of the researcher is outlined in chapter 3. Theoretical positioning builds the foundation of methodological choice. An ontological stance of a relativist and an epistemological view of a subjectivist led to the expectation that an inductive, open-ended, and qualitative methodology was the most appropriate.</p>
<p>• Is grounded theory an appropriate research strategy for the stated aims of the study (Birks and Mills, 2015, p. 147)?</p>
<p>The rationale for using a constructivist grounded theory approach was discussed in chapter 3.3.2. Grounded theory is generally considered to be an adequate approach when studying human action and interaction (Baker et al 1992; Parse 2001; Holloway and Todres, 2003). For grounded theory, a focus on social structures, social processes, and social interactions is appropriate (Annells, 1997). It is particularly helpful to apply grounded theory when investigating social problems or situations to which people must adapt (Benoliel, 1996; Schreiber and Stern, 2001). The purpose of constructivist grounded theory is to attempt to</p>

<p>interpret how participants construct their realities and present multiple perspectives (Breckenridge et al., 2012). It was therefore considered a good fit for this research.</p>
<p>• Do the outcomes of the research achieve the stated aims (Birks and Mills, 2015, p. 147)?</p>
<p>The research objectives of this study were discussed in chapter 4. The research objectives include questions like:</p>
<p>o 4.4. Why do women seek same-gender mentoring?</p>
<p>o 4.5. How had the lives of the mentees been influenced two years after the programme ended?</p>
<p>o 4.6. To what extent does the programme “CrossMentoring OWL” meet its goal according to the perspectives of the mentees and experts?</p>
<p>o 4.7. A thematic framework that associates skill shortages in management with the effectiveness of “CrossMentoring OWL”.</p>
<p>All of them were discussed and answered in great detail in chapter 4.</p>
<p>• Is a grounded theory presented as the end product of the research (Birks and Mills, 2015, p. 147)?</p>
<p>Yes.</p>
<p>• Are philosophical and methodological inconsistencies identified and addressed (Birks and Mills, 2015, p. 147)?</p>
<p>There are no philosophical nor methodological inconsistencies within this research. The details of the philosophical stance and methodological choice are discussed in great detail in chapter 3. In Chapter 5.5, an additional reflection on the methodological choice is provided.</p>
<p>Procedural Precision</p>
<p>• Is there evidence that the researcher has employed memoing in support of the study (Birks and Mills, 2015, p. 148)?</p>
<p>As discussed in chapter 3, memo-writing was applied during data analysis. Appendix 3.3 provides an example of it.</p>

<ul style="list-style-type: none"> • Has the researcher indicated the mechanisms by which an audit trail was maintained (Birks and Mills, 2015, p. 148)?
<p>Within this research, the following list was used in order to create an audit trail:</p>
<ol style="list-style-type: none"> 1. Ethics committee approval from the University of Worcester
<ol style="list-style-type: none"> 2. Chapter 2 "Literature Review"
<ol style="list-style-type: none"> 3. Chapter 3 "Methodology" theoretical positioning was identified and outlined
<ol style="list-style-type: none"> 4. Participant selection through and application of purposive sampling
<ol style="list-style-type: none"> 5. Data collection and management through audio and video recordings
<ol style="list-style-type: none"> 6. Transcribing of raw data stored anonymously
<ol style="list-style-type: none"> 7. Transcripts coded
<ol style="list-style-type: none"> 8. Memos integrated
<ol style="list-style-type: none"> 9. Themes developed, sorting higher concepts and lower concepts, relationships identified
<ol style="list-style-type: none"> 10. Quality appraisal such as member checking through theoretical sampling, feedback from research supervisors
<ol style="list-style-type: none"> 11. Quotations of participants were used for transparency
<ol style="list-style-type: none"> 12. Thesis structured and written, including clear headings, examples, references, and appendices
<ul style="list-style-type: none"> • Are procedures described for the management of data and resources (Birks and Mills, 2015, p. 148)?
<p>The procedures for data protection, data storage, and disposal plans are provided in chapter 3.9.8. These procedures follow the guidelines of the University of Worcester.</p>
<ul style="list-style-type: none"> • Is there evidence that the researcher has applied the essential grounded theory methods appropriately in the context of the study described (Birks and Mills, 2015, p. 148)?
<p>Yes. The research process is kept transparent and explained in detail in chapter 3.</p>
<ul style="list-style-type: none"> • Does the researcher make logical connections between the data and abstractions (Birks and Mills, 2015, p. 148)?
<p>The logical connections between the data and abstractions can be seen in chapter 4.8. In this section, the different categories and their relationships are explained.</p>
<ul style="list-style-type: none"> • Is there evidence that the theory is grounded in the data (Birks and Mills, 2015, p. 148)?
<p>In chapter 4, the findings are presented using quotations from the interviews with the research participants. Therefore, the theory developed in this research is grounded in the data.</p>

• **Is the final theory credible (Birks and Mills, 2015, p. 148)?**

The findings of the interviews and focus groups were tested with a mixed focus group to determine whether the recommendations are credible. As discussed in chapter 4.9.2, the proposed strategies were regarded as credible by the mixed focus group.

• **Are potential applications examined and explored (Birks and Mills, 2015, p. 148)?**

Yes. The potential applications were examined and explored with the last mixed focus group to determine whether the recommendations are realisable and useful.

Chapter 4

Appendix 4.1 Theoretical Categories and Their Concepts – Overview

THEORETICAL CATEGORIES	HIGHER CONCEPTS	LOWER CONCEPTS
GENDER SPECIFIC	Barriers and obstacles faced by women	<ul style="list-style-type: none"> • Hire by resemblance • People having issues with dealing with strong women • Missing acceptance of women • Higher expectations of women • Disappearance of young female professionals • Missing female role models • Missing self-confidence • Discrimination of women • Prejudice as potential mothers
	Compatibility of family and career	<ul style="list-style-type: none"> • Parenting a gender-neutral issue • Conflict of interest • Difficulty to get a childcare place • Family care • Missing flexibility of employer
THEORETICAL CATEGORY	HIGHER CONCEPTS	LOWER CONCEPTS
MENTEE	Influence from a professional perspective	<ul style="list-style-type: none"> • Improved self-confidence • Networks with like-minded people • Positioning in the company • Attention from top management • Conflict management • Self-perception • Positively charged
	Influence from a private perspective	<ul style="list-style-type: none"> • Stress management • Better exchange with partner • New perspectives
	Ambition	<ul style="list-style-type: none"> • Personal initiative • Motivation • Making demands
THEORETICAL CATEGORIES	HIGHER CONCEPTS	LOWER CONCEPTS
EXTERNAL FACTORS	Economic	<ul style="list-style-type: none"> • Labour market situation • Skills shortage in management
	Societal	<ul style="list-style-type: none"> • Culture • Networks
	Legal	<ul style="list-style-type: none"> • Women's quota • Legal regulation of child care • Socio-political aspects
THEORETICAL CATEGORIES	HIGHER CONCEPTS	LOWER CONCEPTS
CORPORATE FACTORS	Corporate structure	<ul style="list-style-type: none"> • Company size • Talentmanagement • Sensitisation of male decision makers • Employer flexibility
	Corporate culture	<ul style="list-style-type: none"> • Creating normality • Corporate culture • Manifested attitudes • Change of mentality

Table 38: Theoretical categories and their concepts.

Chapter 5

Appendix 5.1 Conference Presentations and Papers

Appendix 5.1.1 EMCC International Mentoring, Coaching and Supervision Research Conference - 10-11 July 2018 - UK

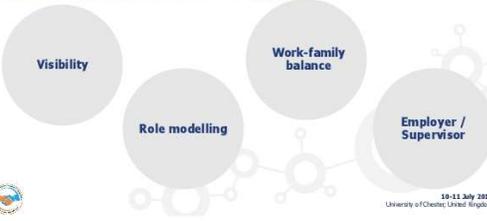
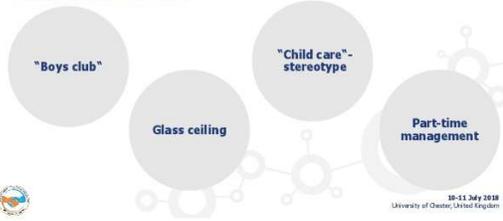
5.1.1.1 Presentation

<p>EMCC European Mentoring & Coaching Council</p> <p>Same gender cross-mentoring for women to combat skills shortages in management. Martina Hammerschmid</p> <p>Research ongoing</p> <p>EMCC INTERNATIONAL CONFERENCE</p>	<p>EMCC European Mentoring & Coaching Council</p> <p>8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • Mentoring • Gaps • Methodology • Objectives/Aim • The region East Westphalia-Lippe • The programme Cross-Mentoring OWL • Literature review • Implications for research & practice • Methods • First Findings <p>10-11 July 2018 University of Chester, United Kingdom</p>
<p>EMCC European Mentoring & Coaching Council</p> <p>8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>Mentoring</p> <p>Women and men have an equal need for it</p> <ul style="list-style-type: none"> • traces its origins in Greek mythology (approx. 4.000 years ago) • transformative relationship • experienced – less experienced • cross-gender less effective (Goudarzi and South, 2000) • same-gender realizes / allows greater benefits <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>EMCC European Mentoring & Coaching Council</p> <p>8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>Lenses of mentoring (Clutebeck et al. 2017)</p> <p>Mentoring application or practice lens</p> <ul style="list-style-type: none"> • Relates to a particular group of people • and a specific region <p>Mentoring-programme lens</p> <ul style="list-style-type: none"> • Aims to explore actions for the management of the programme • How to improve the programme to better meet the needs of the region <p>10-11 July 2018 University of Chester, United Kingdom</p>
<p>EMCC European Mentoring & Coaching Council</p> <p>8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>Gaps</p> <p>Gaps in knowledge</p> <ul style="list-style-type: none"> • This research will respond to calls in literature from Stufflebeam (2007) and Murphy and Leves, (2017), to follow mentees beyond the end of their programmes to assess sustainability of the mentoring programmes. • ... links to what Le Comte and McClelland (2016) recommend: Further research in the field of the ongoing utilisation of skills by participants after the mentoring programme ended. <p>Gaps in practice</p> <ul style="list-style-type: none"> • Shortage of managers is believed to be the greatest bottleneck already existing in potential managers according to 30 percent of HR managers (GZ, 2017; Scholz, 2017). • This concern is shared by more than 36 percent of all companies in North Rhine-Westphalia by stating that skill shortage is the greatest risk to economic development (IHK NRW, 2015, p. 3). <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>EMCC European Mentoring & Coaching Council</p> <p>8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>Methodology</p> <ul style="list-style-type: none"> • Case study as defined by Saunders, Lewis and Thornhill (2009) • Constructivist version of grounded theory – neither data nor theories are discovered, but are constructed as a result of the interaction between the researcher and the participants. • Participants will be: <ul style="list-style-type: none"> • former mentees • female managers • experts • programme manager <p>10-11 July 2018 University of Chester, United Kingdom</p>

<p>EMCC 9th International Coaching & Mentoring Research Conference Research and Practice working in partnership</p> <h3>Classification of management levels</h3> <p>Top Management ...if considered as top management positions in the respective company.</p> <table border="1"> <tr><td>Chairmen, deputy chairmen</td></tr> <tr><td>Presidents</td></tr> <tr><td>Board Members</td></tr> <tr><td>General Directors</td></tr> <tr><td>Directors, deputy directors</td></tr> <tr><td>Plant Managers</td></tr> <tr><td>General Managers, managers of companies and deputy managing</td></tr> <tr><td>Branch managers</td></tr> </table> <p>Middle Management ...if considered as middle management positions in the respective company.</p> <table border="1"> <tr><td>Branch directors</td></tr> <tr><td>Heads of departments</td></tr> <tr><td>Department directors</td></tr> <tr><td>Division managers</td></tr> <tr><td>Authorised representatives</td></tr> <tr><td>Authorised signatories</td></tr> <tr><td>Department heads</td></tr> <tr><td>Branch office managers</td></tr> <tr><td>Branch managers</td></tr> </table> <p>10-11 July 2018 University of Chester, United Kingdom</p>	Chairmen, deputy chairmen	Presidents	Board Members	General Directors	Directors, deputy directors	Plant Managers	General Managers, managers of companies and deputy managing	Branch managers	Branch directors	Heads of departments	Department directors	Division managers	Authorised representatives	Authorised signatories	Department heads	Branch office managers	Branch managers	<p>EMCC 9th International Coaching & Mentoring Research Conference Research and Practice working in partnership</p> <h3>Classification of company size</h3> <table border="1"> <thead> <tr> <th>Company classification</th> <th>Employees</th> <th>Yearly turnover [Euro]</th> </tr> </thead> <tbody> <tr> <td>Small:</td> <td>10 to 49 employees</td> <td>2 Mio < 10 Mio</td> </tr> <tr> <td>Medium-sized:</td> <td>50 to 249 employees</td> <td>10 Mio < 50 Mio</td> </tr> <tr> <td>Big:</td> <td>>250 employees</td> <td>50 Mio and above</td> </tr> </tbody> </table> <p>10-11 July 2018 University of Chester, United Kingdom</p>	Company classification	Employees	Yearly turnover [Euro]	Small:	10 to 49 employees	2 Mio < 10 Mio	Medium-sized:	50 to 249 employees	10 Mio < 50 Mio	Big:	>250 employees	50 Mio and above
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Big:	>250 employees	50 Mio and above																												
<p>EMCC 9th International Coaching & Mentoring Research Conference Research and Practice working in partnership</p> <h3>Objectives/Aim</h3> <ul style="list-style-type: none"> to provide insight into how the life of the mentees has been influenced, two years after the programme ended. to provide understanding on why women seek same gender mentoring. to develop an explanatory theory that associates skill shortages in management with the effectiveness of the CrossMentoring OWL. to describe the extent to which the programme CrossMentoring OWL meets its goal based on the perspective of the mentees and the experts. <p>How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?</p> <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>EMCC 9th International Coaching & Mentoring Research Conference Research and Practice working in partnership</p> <h3>The region East Westphalia-Lippe</h3>  <ul style="list-style-type: none"> 140.000 companies 1 million employees GDP >60 million EUR per year >70% of the employees work in SMEs 45.6% of workforce female (2017) 41.1% of the academically qualified professionals (2017) <p>skill shortage is the greatest risk to economic development</p> <p>10-11 July 2018 University of Chester, United Kingdom</p>																													
<p>EMCC 9th International Coaching & Mentoring Research Conference Research and Practice working in partnership</p> <h3>The programme „CrossMentoring OWL“</h3> <div style="display: flex; align-items: center;"> <div style="border: 2px solid gray; border-radius: 50%; padding: 20px; text-align: center; width: 150px; height: 150px; margin-right: 20px;"> <p style="font-size: 24px; font-weight: bold; color: white;">Women only approach</p> </div> <ul style="list-style-type: none"> Initiated in 2006 by the state Cross-mentoring 2 levels of action 1 year 82 companies 181 tandems </div> <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>EMCC 9th International Coaching & Mentoring Research Conference Research and Practice working in partnership</p> <h3>Gender inequality</h3> <div style="display: flex; align-items: center;"> <div style="border: 2px solid gray; border-radius: 50%; padding: 20px; text-align: center; width: 150px; height: 150px; margin-right: 20px;"> <p style="font-size: 24px; font-weight: bold; color: white;">Blocks economic potential</p> </div> <ul style="list-style-type: none"> Twice as high in leadership Only 36% of leadership positions globally Only 25% of senior executive positions 64% of women are affected 551 million women perceive wage gaps </div> <p>10-11 July 2018 University of Chester, United Kingdom</p>																													

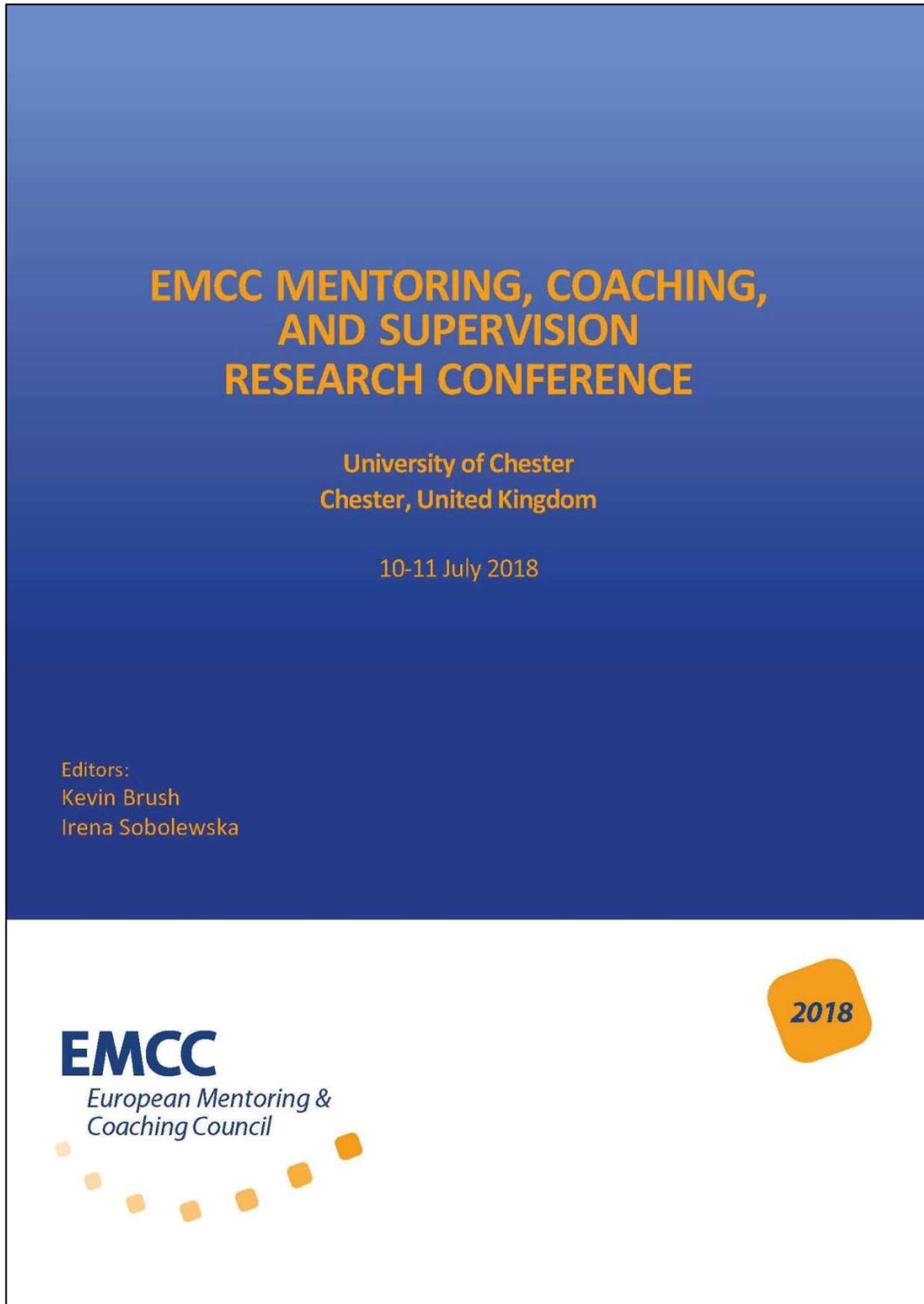
<p>Labour force</p> <p>-6 million</p> <ul style="list-style-type: none"> In Germany From 2010 to 2025 30% of HR managers - bottleneck in managers 27% of European HR managers – "shortage of managers = biggest challenge" In 2020 18 million workers with tertiary degrees missing 18% of labour force gap could be bridged through equal participation <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>Practical implications</p> <p>-20.000</p> <p>Figure 3: Supply and demand of managers in East Westphalia-Lippe (WV, 2018)</p> <p>10-11 July 2018 University of Chester, United Kingdom</p>
<p>Women in topmanagement positions in Germany related to company size</p> <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>Social implications</p> <p>46%</p> <p>Level of employment progression in Germany of women and men in 2005 compared to 2015</p> <p>10-11 July 2018 University of Chester, United Kingdom</p>
<p>Social implications</p> <p>217 years</p> <ul style="list-style-type: none"> well qualified but in part-time lack of female role models gender equality economic development shift in attitudes <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>Economic implications</p> <p>€24 trillion</p> <ul style="list-style-type: none"> €24 trillion globally (26%) (Wotzel et al., 2015; Women, 2017) €4.2 trillion in Western Europe (23%) (Wotzel et al., 2015) €250 billion in Germany (7%) (Schwab et al., 2017) <p>10-11 July 2018 University of Chester, United Kingdom</p>

<p>EMCC 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>Methods</p> <p>12 semi-structured interviews with former mentees</p> <p>4 expert interviews</p> <p>3 focus groups with female managers</p> <p>1 expert interview with PM</p> <p>recommendations for the management of the mentoring programme on how to improve the programme.</p> <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>EMCC 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>Interviewee: Former Mentees</p> <p>12 semi-structured interviews</p> <ul style="list-style-type: none"> • one to one interviews • to study the participants perception and opinions on <ul style="list-style-type: none"> • ... how the life of the mentees has been influenced, two years after the programme ended. • ... why women seek same gender mentoring. • ... to which extent the programme meets its goal based <p>10-11 July 2018 University of Chester, United Kingdom</p>
<p>EMCC 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>Interviewee: Female Managers</p> <p>Focus groups</p> <ul style="list-style-type: none"> • homogeneous group • consisting of 4-6 participants • 60-90 minutes • videotaped • different perspective on the findings of the interviews with the mentees <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>EMCC 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>Interviewee: Experts</p> <p>Semi-structured interviews</p> <ul style="list-style-type: none"> • one to one interviews • 4 experts <ul style="list-style-type: none"> • Mentoring • Women in Management • Economic development of the region • Skill shortage in the region <p>10-11 July 2018 University of Chester, United Kingdom</p>
<p>EMCC 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>Interviewee: Programme manager</p> <p>Semi-structured interview</p> <ul style="list-style-type: none"> • one to one interview • specific recommendations for the improvement of the mentoring programme will be discussed → yield clear management actions for future projects <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>EMCC 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>To provide insight into how the life of the mentees has been influenced, two years after the programme ended.</p> <ul style="list-style-type: none"> • increased self-confidence • gained sharper vision of career goals • stronger in career associated conflicts • tougher in conflicts with colleagues and supervisors • more motivated <p>10-11 July 2018 University of Chester, United Kingdom</p>

<p>EMCC 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>To provide understanding on why women seek same gender mentoring.</p> <ul style="list-style-type: none"> • same „language“ • similar problems / experience • lower sense of shame • lower barrier • higher level of trust • role model • familiarity  <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>EMCC 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>First findings Reasons to participate in a mentoring programme</p>  <p>10-11 July 2018 University of Chester, United Kingdom</p>
<p>EMCC 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>First findings Main obstacles for women</p>  <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>EMCC 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>First findings Structural changes in the programme</p>  <p>10-11 July 2018 University of Chester, United Kingdom</p>
<p>EMCC 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>First findings</p>  <p>Gender inequality at work is mirrored by gender inequality in society</p> <p>10-11 July 2018 University of Chester, United Kingdom</p>	<p>EMCC 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i></p> <p>First findings</p>  <ul style="list-style-type: none"> • HR managers need to get engaged • Directors / decision makers • Supervisors • Men and women • Different company sizes • Politicians • Generation Y <p>10-11 July 2018 University of Chester, United Kingdom</p>

 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i>		 8th International Coaching & Mentoring Research Conference <i>Research and Practice working in partnership</i>	
<h2>Looking forward to your highly appreciated thoughts and feedback!</h2> <p>How could mentoring for women be adjusted to be a better tool to combat skill shortages in top management?</p>   <p>10-11 July 2018 University of Chester, United Kingdom</p>		<h3>About the author</h3> <p>Martina Hammerschmid hammi_16@uni-worc.ac.uk</p> <p>Dr. Catharine Ross University of Worcester</p> <p>Prof. John Sparrow University of Birmingham</p> 	 <p>10-11 July 2018 University of Chester, United Kingdom</p>

5.1.1.2 Publication



**SAME GENDER CROSS-MENTORING FOR WOMEN TO
COMBAT SKILLS SHORTAGES IN MANAGEMENT**

Martina Hammerschmid
UNIVERSITY OF WORCESTER, UK

Dr Catherine Ross
UNIVERSITY OF WORCESTER, UK

Professor John Sparrow
UNIVERSITY OF BIRMINGHAM

Abstract: *In Germany, in the period from 2010 to 2025, it is predicted that the labour force potential will decline by more than 6 million people (BMAS, 2017). The Federal Employment Agency sees the greatest and fastest to be activated potential of skilled specialists in Germany among women. Down to the present day there is limited research that explores how effective same gender dyad cross mentoring for women is in combating skill shortages in top management. Through a qualitative approach, this study seeks to address these gaps in our knowledge and to provide understanding of why women seek same gender mentoring.*

Originality/value of the research: *The study aims to address the identified gaps within our understanding of same gender dyad mentoring for women in combating skill shortages in top management, it is proposed that the aim for this research study is to make recommendations to the management of the programme on how to improve it.*

Keywords: *same gender mentoring, cross mentoring, mentoring women, professional mentoring, skill shortage.*

INTRODUCTION

The gender gap in leadership positions is an extremely important topic for debate and discussion as regards inequality on global scale, particularly because the this gap is almost twice as high as in labour force participation (Woetzel et al., 2015). The McKinsey Global Institute analysed data from international labour organisations and found that only 36 percent of leadership positions globally - such as legislators, senior officials, and managers - are likely to be held by women. In the case of senior executive positions within firms, the gap between men and women is even larger: Only 25 percent of such positions are staffed with women (Woetzel et al., 2015). Over 64 million women are globally affected by gender inequality in leadership positions and this blocks

economic potential and 551 million women perceive wage gaps for similar work (Woetzel et al., 2015).

Germany's companies are increasingly confronted with a new form of skilled labour shortage. In addition to engineers, doctors or researchers, they are increasingly lacking suitable top managers. This trend is described by a study by the Basel-based research institute, which was updated in August, 2017 (Sorge, 2017). 30 percent of HR managers believe that the greatest bottleneck within the skill shortage already exists in potential managers reported by QZ (2017) and Scholz (2017). Only 21 percent believe that this is the case for skilled workers with specific vocational training. 27 percent of European HR managers declare the shortage of managers to be the biggest challenge for their companies as reported by Scholz (2017).

The effects of demographic change on the labour market in the individual regions can already be seen today: In Southern Germany for example, where the situation is very tense for some occupations in comparison to Eastern or Northern Germany. In the longer term, however, the consequences of demographic developments will be affecting companies in all federal states. All across Germany, companies will have to adapt to the fact that the number of people in employment continues to fall. Competition between companies for the best workforce will intensify significantly in the near future as reported by Bundesministerium für Arbeit und Soziales, Bundesministerium für Wirtschaft und Energie and Bundesagentur für Arbeit (2017).

The key question is: Who can do the work of tomorrow? Above all, this research focuses on people who have so far been on the margins of the labour market. Women are one such group.

Besides a shortage of skilled workers, a shortage of managers seems to be evolving. In Germany, in the period from 2010 to 2025, it is predicted that the labour force potential will decline by more than 6 million people (Bundesministerium für Arbeit und Soziales, Bundesministerium für Wirtschaft und Energie and Bundesagentur für Arbeit, 2017). The Federal Employment Agency sees the greatest and fastest to be activated potential of skilled specialists in Germany among women. Therefore, in 2005, the state government of North Rhine-Westphalia initiated a mentoring programme called 'Cross Mentoring OWL' for the advancement of women in the region of East Westphalia-Lippe.

North Rhine-Westphalia (NRW) is a federal state located in the West of the Federal Republic of Germany. The state capital is Düsseldorf, the largest city is Cologne. North-Rhine-Westphalia is home of mid-sized businesses, more specifically home of family businesses. Almost 99.5 percent of the 755,000 companies in North Rhine-Westphalia are family businesses. This makes the region very unique (Ministerium für Wirtschaft, Innovation, 2017). More than 36 percent of the companies in North Rhine-Westphalia in Germany share the concern that skill shortage is the greatest risk to economic development (IHK NRW, 2015, p. 4).

East Westphalia-Lippe is a region of North-Rhine Westphalia is located in the western part of Germany and is strongly influenced by small and medium-sized enterprises. About 70 percent of the employees in OWL work in SMEs (Schwarze, Frey and Tapken, 2014). In 2017 women accounted for 45,6 percent of the total workforce in East Westphalia and for 41,1 percent of the academically qualified professionals¹ (IHK NRW - Die Industrie- und Handelskammern and V., 2018). The Bisnode study on women in management in East Westphalia-Lippe points out that although a considerable potential of qualified women is available, no strategies have yet been found to consistently and continuously increase this potential (Schwarze, Frey and Tapken, 2014). In 2014, 18,2 percent of women were in the top and middle management in East Westphalia-Lippe.

Since 2011, European funds (ERDF) have been made available to the Ministry of Labour, Integration, Health and Social Affairs of North Rhine-Westphalia for the implementation of projects. In all regions of North Rhine-Westphalia, numerous projects with innovative approaches are in the process of implementing the central objectives of the initiative. Particular commitment is devoted to the following aspects: (1) increasing the employment rate of women in enterprises; (2) qualification and further training of employees in the companies; (3) preventing young people from dropping out of their trainings and studies; (4) recovering professional qualifications as formal qualification (Jansen, 2015).

The programme 'CrossMentoring OWL' has been set up in order to support women in East Westphalia-Lippe to progress up the corporate ladder into management level and therefore to support companies in closing their skills shortage gap as requested in the action plan of the federal ministry (Bundesministerium für Arbeit und Soziales, 2011). The programme 'CrossMentoring OWL' is a women only approach and consists of two levels of action: On the one hand, the tandem relationship between mentor and mentee with regular meetings, and on the other hand, the supporting programme. The mentor makes her experience available. The supporting programme offers the participants and representatives of the participating companies a platform for exchange of experience and discussion of topics in events and workshops. The contents refer to the operational and individual areas of management and development. The mentors act like role models for the mentees according to the findings of Allen, Eby and Lentz (2006) and Steele and Fisman (2014) who found out that role modelling is often part of mentoring, it may also occur when the mentor holds a position that the mentee aspires. In accordance with Kram (1985) as well as Allen, Eby and Lentz (2006) modelling identification with a mentor is required in order to facilitate the process of role modelling. If individuals have things in common this process is eased as stated by Ragins (1997) and Allen, Eby and Lentz (2006).

¹ Academically qualified professionals include employees with highly complex activities such as development, research and diagnostic activities, knowledge transfer as well as management and leadership tasks. A university degree of at least four years is required.

Effects on the broader economic impact

If women played an identical role like men in labour market, women could boost the global annual gross domestic through adding US\$28 trillion or 26 percent (Woetzel et al., 2015; UNWomen, 2017). This potential is roughly equivalent to the size of the combined United States and Chinese economies today (Woetzel et al., 2015). Western Europe could increase its annual GDP by 23 percent - worth 5 trillion US\$ through advancing women and bridging the gender gap (Woetzel et al., 2015). Approximately 250 billion Euro could be added to the GDP of Germany through gender parity (Schwab et al., 2017). For the sake of completeness, at least 13 percent or US\$10 trillion would be added to the global GDP if the unpaid care work performed by women would be accounted based on available data on minimum wages (Woetzel et al., 2015). Research of the McKinsey Global Institute shows that advanced economies are likely to face an estimated shortfall of 18 million works with tertiary degrees by 2020, almost 18 percent of this shortfall could be bridged through equal participation of women (Woetzel et al., 2015).

In addition, many economies face predictions of declining workforces along with a slowing GDP growth due to aging population. Enabling women to participate equally as men do can help mitigate this effect (Woetzel et al., 2015). Looking at Germany, this would help to maintain the 2025 work force at about 43 million people, as opposed to the current trajectory that is heading toward 41 million (Woetzel et al., 2015). It is estimated that closing the gender gap could double the contribution of women to global GDP growth (Woetzel et al., 2015). According to Woetzel et al., (2015) the share of women in unpaid work has engaged relative to men, a moderate correlation with their chances of assuming leadership positions. Among others, mentoring and networks for females are considered to be helpful interventions to empower women into leadership positions (Woetzel et al., 2015).

Effect on company performance through women in leadership

There is evidence that improved company performance correlates with increasing the presence of women in leadership positions (Woetzel et al., 2015).

However, the experts are divided over the effects on financial performance through women in management is disputed. For example Isidro and Sobral (2015) found out that women on the board are positively related with financial performance – measured in terms of return on assets and return on sales. Pletzer et al. (2015) have encountered contradictory findings in their meta-analysis which shows that there is no relation between a higher representation of females on corporate boards and the financial performance of the company, neither in a positive nor in a negative way. Therefore their study does not support the business case that companies' performance increase is associated with diversity in the board. However they do promote gender diversity for the promotion of fairness and for ethical reasons (Pletzer et al., 2015).

According to Kirsch (2018), who comprehensively reviewed 310 articles published in 135 journals during the period 1981-2016 on board gender composition, the evidence produced by these studies is inclusive overall, some found positive, others negative or no effects. However Kirsch also highlights a study conducted by Haslam et al. (2010) which highlights the importance of distinguishing between accountancy-based measures of firm performance and stock-based. Post and Byron (2015) conducted a meta-analysis regarding the relationship between women on boards and firm financial performance to examine whether these conflicting results vary by firms' legal/regulatory and social contexts. They concluded that there is a positive relation between female board representation and accounting returns and that in countries with stronger shareholder protections this relationship is even more positive because shareholder protection might motivate boards to use different experience, knowledge and values that each member contributes (Post and Byron, 2015). In short, they showed that board diversity and its influence on the financial effect are context dependent (Kirsch, 2018).

Jeong and Harrison (2017) carried out a comprehensive synthesis of the research on how female representation in top management teams and chief executive officer positions might affect firm performance using 146 primary studies conducted in 33 different countries. They found out that female representation in the top management has a net benefit for firms in the long run through the mechanisms of strategic actions that mitigate risk. The benefit is even larger in environmental and organisational contexts where executives are given more autonomy over their decisions (Jeong and Harrison, 2017).

Regarding the effects on social performance through women in management a meta-analysis of 87 independent samples to find out whether and how women directors influence firms' engagement in socially responsible business practices and social reputation among diverse stakeholders has been conducted by Byron and Post (2016). Their study suggested that it is generally positive and that this relationship is even more positive in national contexts characterised by higher stakeholder protections and gender parity. Isidro and Sobral (2015) carried out a study to investigate the direct and indirect effects of women on the board on firm value and found indirect effects, however no evidence that a higher female representation on the board directly affects firm's value. Women on board are, according to Isidro and Sobral (2015), positively related with social and ethical compliance which in turn are positively related with firm value. Their study suggests that a higher female representation on corporate boards of large European firms can indirectly increase the value.

LITERATURE REVIEW

Knowledge gap

Mentoring traces its origins in Greek mythology, some 4.000 years ago (Clutterbuck et al., 2017, p. 2). The concept dates back to the earliest stages of human civilization, historically, mentoring has been conceived of as a transformative relationship in which an experienced person helps a less experienced person realise their personal and professional goals.

However, only in the past 35 years with the widespread emergence of mentoring programmes has this phenomenon attracted significant attention from researchers, policy-makers, wider professional bodies and employer organisations. Down to the present day there is limited research that explores how effective same gender dyad cross mentoring for women is in combating skill shortages in top management. Through a qualitative approach, this study seeks to address these gaps in our knowledge and to provide understanding of why women seek same gender mentoring.

Mentoring has evolved into multiple forms and has become an essential vehicle for change in every branch of society from business to the military and from the highly privileged and economically powerful to the desperately underprivileged and disempowered. Mentoring is positively affecting the lives of tens of millions of people (Clutterbuck et al., 2017, p. 1).

According to Noe (1988), women and men have an equal need for a mentor. Scandura & Ragins (1993) found out that due to the lack of females in high power positions in organisations, the likelihood of cross-gender mentorship is greatly increased. White et al. (2017) state that access to female role models in power positions of decision making and leadership is particularly important for women.

Godshalk and Sosik (2000) argue that in cross-gender mentoring relationship attributes like identification and interpersonal comfort are expected to be lower and therefore they conclude that cross-gender mentoring is expected to be less effective. Further, Allen, Day and Lentz (2005) found out that participants of same gender relationships perceive a greater degree of interpersonal comfort due to shared experiences. Within the literature regarding mentoring relationships, the subject matter of gender similarity gets emphasized by Ragins (1997), Allen & Eby (2003) and Ragins & Cotton (1993).

According to Koberg, Boss & Goodman (1998), Ragins & McFarlin (1990), Scandura & Williams (2001) and Thomas (1990) same-gender mentoring relationships realise greater benefits compared to cross-gender mentoring dyads. According to Bozer, Joo and Santora (2015) these findings reflect the vast majority of studies relating to this topic.

There are different lenses through which mentoring can be looked at as for example the mentoring philosophy, mentoring context, mentoring application or practice, mentoring dynamics, mentoring conversation or mentoring programme. (Clutterbuck et al., 2017, p. 1).

First of all this research is going to look at mentoring through the 'mentoring application or practice'-lense, as this study relates to a particular group of people (mentees of the 'CrossMentoring OWL' programme located in East Westphalia-Lippe). Secondly it is going to change perspective to the 'mentoring programme'-lense as it is aiming to explore actions for the management of the mentoring programme 'CrossMentoring OWL' on how to improve the programme to better meet the needs of the region in terms of skill shortage in management (Clutterbuck et al., 2017, p. 2).

This research is going to try to evaluate if role modelling is an essential function of a mentor identified by the mentees of this specific mentoring programme. Clutterbuck (2004) and Kram (1980) identify role modelling as one of the main functions of a mentor. Only few studies directly address the dynamic of role modelling in mentoring and those doing so tend to separate role modelling and mentoring. For some reason role modelling is regarded as a passive activity according to Clutterbuck et al. (2017). However, Clutterbuck (1998) sees being a role model and using role models as skills to be learned. Based on the researchers own experiences, having a role model is extremely helpful and motivating and irreplaceable with anything else.

This research will respond to calls in literature from Stufflebeam (2007) and Murphy and Lewes, (2017), to follow mentees beyond the end of their programmes to assess sustainability of the mentoring programmes. This suggestion links to what Le Comte and McClelland (2016) recommend: Further research in the field of the ongoing utilisation of skills by participants after the mentoring programme ended.

Practice gap

A trend already visible today will worsen in the next few years: Since the number of skilled specialists is decreasing, the number of potential managers adjusts accordingly in the near future. A great potential lies within women: Around 6.3 million women of working age are unemployed - many with medium and high qualifications. In Germany, only 55 percent of employed women are employed full-time, with Germany ranked second to last in EU comparison. In many other EU countries there are more women working and by doing so display their potential in the labour market (Bundesministerium für Arbeit und Soziales, 2011, p. 20)

This shortage of managers is believed to be the greatest bottleneck already existing in potential managers according to 30 percent of HR managers (QZ, 2017; Scholz, 2017). This concern is shared by more than 36 percent of all companies in North Rhine-Westphalia by stating that skill shortage is the greatest risk to economic development (IHK NRW, 2015, p. 3).

In order to address the identified gaps within the predominant understanding of same gender dyad mentoring for women in combating skill shortages in top management the objectives of this proposed study are:

- To provide insight into how the life of the mentees has been influenced, two years after the programme ended
- To provide understanding on why women seek same gender mentoring
- To develop an explanatory theory that associates skill shortages in management with the effectiveness of the CrossMentoring OWL
- To describe the extent to which the programme CrossMentoring OWL meets its goal based on the perspective of the mentees and the experts.

The aim of this study is to answer the question of 'how could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?'

METHODOLOGY

Using case study as defined by Saunders, Lewis and Thornhill (2009) methodology, a constructivist version of grounded theory research approach is going to be applied. This means according to Charmaz (2006; 2009), Thornberg and Charmaz (2012) that neither data nor theories are discovered, but are constructed as a result of the interaction between the researcher and the participants.

Classification of management levels

Regarding the classification of the management level, this paper follows the following classification as shown in Table 1 .

Classification	Job description
Top Management ...if considered as top management positions in the respective company.	Chairmen, deputy chairmen
	Presidents
	Board Members
	General Directors
	Directors, deputy directors
	Plant Managers
	General Managers, managers of companies and deputy managing
	Branch managers
	Branch directors
	Middle Management ...if considered as middle management positions in the respective company.
Department directors	
Division managers	
Authorised representatives	
Authorised signatories	
Department heads	
Branch office managers	
Branch managers	

Table 1: Classification of management levels

Classification of company size

Regarding the classification of the company size small, medium-sized and big, this paper follows the recommendations of the European statistics (eurostat, 2016) as outlined in Table 2.

Company classification	Employees	Yearly turnover [Euro]
Small:	10 to 49 employees	2 Mio < 10 Mio
Medium-sized:	50 to 249 employees	10 Mio < 50 Mio
Big:	>250 employees	50 Mio and above

Table 2: Classification of company size

METHODS

Data will be collected from key informants, namely the former mentees, experts like a representative of the chamber of industry and commerce in East Westphalia-Lippe, and a representative of the equal opportunities officer in Bielefeld, female managers of the region East Westphalia-Lippe and the programme manager of the cross-mentoring programme 'CrossMentoring OWL'. To explore potential amendments or extensions of the programme, semi-structured interviews as well as a series of focus groups will be conducted.

The following Figure 1 provides an overview of this proposed methodology. In addition to the 12 interviews with former mentees of the programme, interviews with experts in the field of skill shortages and advancement of women in the region East Westphalia-Lippe are also going to be conducted as well as a series of focus groups with experienced managers and an interview with the programme manager of the cross-mentoring programme 'CrossMentoring OWL'. These focus groups will yield valuable insights based on the findings from the interviews with the mentees and experts and will lead to actions for the management of the mentoring programme.

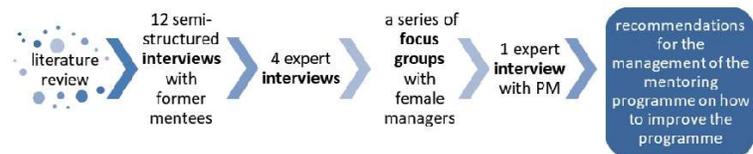


Figure 1: Overview of the proposed methodology

Semi-structured interviews with former mentees

After literature review, semi-structured interviews will be used to collect data as it has proven to be versatile and flexible according to Gale *et al.* (2009) and Kallio *et al.* (2016). Semi-structured interviews are the most frequently utilised interview technique in qualitative research and can occur either with an individual or in groups as stated by DiCicco-Bloom and Crabtree (2006).

The semi-structured interview method seems to be a good choice as it is suitable for studying people’s perceptions and opinions as reported by Given (2008). It enables the participants to express their diverse perception in agreement with Cridland *et al.* (2015) which gives me as a researcher the chance to look at the phenomena from different perspectives.

Expert interviews

These interviews will be based on the findings from the interviews already held with the former mentees and will lead to proposed actions for the management of the mentoring programme.

In order to enhance the trustworthiness of this qualitative study, the five-phase-framework developed by Kallio *et al.* (2016) which observes the principles credibility, confirmability and dependability of Lincoln and Guba (1985) will be followed. Credibility refers to accurate recording of the subject matter under investigation as reported by Shenton (2004). Appropriate and successful selection of data collection methodology in the first phase is an essential basis for the credibility of the study results as stated in Kallio *et al.* (2016). Dependability which refers to the possible repetition of a study under the same conditions as stated in Shenton (2004) will be implemented as the research process will be made as transparent as possible conforming to Jensen (2008) and Kallio *et al.* (2016).

A list of questions will be defined as an interview guide in consonance with Whiting (2008) and Krauss *et al.* (2009), which helps to guide the conversation towards the research topic during the interview in line with Krauss *et al.* (2009) and Cridland *et al.* (2015). The quality of the interview guide is crucial. It affects not only the implementation of the interview but also the analysis of the collected data as stated in Krauss *et al.* (2009), Rabionet (2009) and Cridland *et al.* (2015). The literature review offers an essential basis for mapping previous knowledge before conducting the interviews as reported by Kallio *et al.* (2016).

Focus groups with experienced female managers

In order to being able to get a comprehensive understanding of the topic researched, the semi-structured interviews will be followed by a series of homogeneous focus groups consisting of experienced female managers. These focus groups will be designed to complement the interviews. The aim of these focus groups is to discuss with experienced female managers the findings of the semi-structured interviews with the former mentees and experts. This will provide additional insights regarding the exploration of potential developments in the cross-mentoring programme.

The added value of a focus group is that within a group interaction data and insights are produced that would be less accessible in single interviews according to Flick (2007). Furthermore focus groups can help to get interpretations of the participants regarding results from earlier studies as stated by Morgan (1998). In addition, the combination of the two methods will enhance the trustworthiness of the findings according to Lambert and Loiselle (2007). As stated by Molzahn *et al.* (2005) the focus groups will help to examine the beliefs and opinions about the issues discussed whereas the individual interviews will enable to explore personal experiences. The focus groups will be videotaped and transcribed afterwards.

Expert interview with the programme manager

Based on the focus groups, specific recommendations will be identified which then will be used in a semi-structured interview with the programme manager of the cross-mentoring programme. During this interview proposed recommendations for the improvement of the mentoring programme will be discussed which then can yield clear management actions for future projects.

LIMITATIONS & IMPLICATIONS FOR RESEARCH AND PRACTICE

Practical implications

East Westphalia-Lippe is part of NRW and is one of the strongest economic regions in Germany with around 140,000 companies, one million employees and a gross domestic product of more than 60 million euros per year (OWL OstWestfalenLippe - Gesellschaft zur Förderung der Region mbH, 2017). The following Figure 2 indicates the bottleneck of manager supply in East Westphalia-Lippe. In 2017, there are already lacking 20.000 managers in East Westphalia-Lippe. In 2020, it is estimated to raise up to 31.000 missing managers, in 2030 the Chamber of Industry and Commerce estimates that 47.000 managers will be missing (IHK NRW - Die Industrie- und Handelskammern and V., 2018).



Figure 2: Supply and demand of managers in East Westphalia-Lippe (IHK NRW - Die Industrie- und Handelskammern and V., 2018)

In 2017, there are already lacking 20,000 managers in East Westphalia-Lippe. In 2020, it is estimated to raise up to 31.000 missing managers, in 2030 the Chamber of Industry and Commerce estimates that 47.000 managers will be missing (IHK NRW - Die Industrie- und Handelskammern and V., 2018).

Mentoring increases the chance for companies to motivate women with a realistic self-assessment to take on management tasks and thus form successful management teams with broad management competence (Tiggemann, 2017).

The programme 'CrossMentoring OWL' is a special Cross-Mentoring programme for women in East Westphalia-Lippe and was set up in 2006 to support women to take the next step into management. So far, more than 82 companies in East Westphalia-Lippe have participated in cross mentoring with 181 tandems. The companies recognise the predicted shortage of specialists and managers.

SOCIAL IMPLICATIONS

Women are well qualified, but are in evidence only part-time, in the majority of cases hardly found in top management positions. Especially today, there is great potential for skilled specialists (Kompetenzzentrum Fachkräftesicherung, 2017). Therefore the Federal Employment Agency sees the greatest and fastest to be activated potential of skilled specialists among women in Germany and point to a significantly higher participation rate in labour force in Northern and Western Europe (Bundesministerium für Arbeit und Soziales, 2011, p. 6, 2013, p. 5).

Highly qualified women rarely reach the top management in companies and organisations even though a greater diversity among board members has been linked to improving organisational performance by providing new insights and perspectives according to Rao and Tilt (2016). Ragins and Kram (2007), Vongalis-Macrow (2014) and Moss, Brigitte and Meier (2017) found out that there is a serious lack of female role models and this has the effect of weakening the confidence and aspirations of younger women in line with Vongalis-Macrow (2014). Picariello and Waller (2016) stated that especially for women, a same gender mentor as a role model can be perceived as a woman that has successfully overcome barriers to professional advancement.

Woetzel *et al.* (2015) wrote that three elements are needed to achieve the full potential of women in workforce: 1. Gender equality in society, 2. Economic development and 3. A shift in attitudes. Therefore, gender inequality at work is mirrored by gender inequality in society. There is a wide range of affirmative actions for women which represent important measures like quotas for women's participation in roles and activities at different levels from which they have previously have been excluded or in which they are still underrepresent, like in leadership positions. Women leaders act as role models, mentors and also as sponsors to other women and girls. Hence, if there are more women in boardrooms it would help breaking down stereotypes, encourage girls and young women to pursue careers in business, engineering, science, technology and more. It would even help breaking down the wage gap between men and women. Utilising the unused potential of the women in the job market would on the long run help to combat the predicted skill shortages (Richardson, 2007; Bellmann and Hübler, 2014; Iredale *et al.*, 2014; Bhanugopan *et al.*, 2017; Riley, 2017; Welle, 2017) sustainably. All of this is necessary in order to achieve equality in workforces and societies and therefore boost the economy. Hence, although boardroom diversity is increasing according to Catalyst (2017) there is still a lot to be done until equal employment opportunities are reached.

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ABOUT THE AUTHORS

Martina Hammerschmid is a part-time DBA student. As a speaker she shares her personal experiences as a female manager and former mentee with insights from research on why women seek same gender mentoring and how the life of the mentees has been influenced two years after the programme ended. She is currently conducting a research, which deals with the improvement of a same gender cross-mentoring programme for women to combat skills shortages in management.

Professor John Sparrow is a Chartered Psychologist (and Associate Fellow) of the British Psychological Society and a registered practitioner psychologist of the UK Health Professions Council. He has written extensively on knowledge processes in organisations including organisational cognition, knowledge management and reflective practice as they relate to knowledge creation and use.

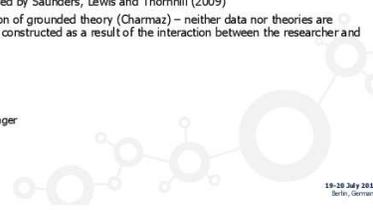
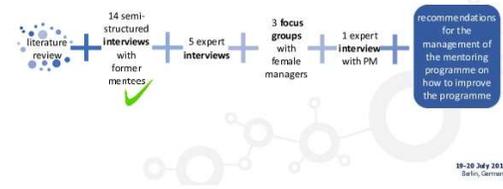
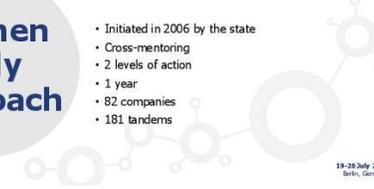
Dr Catharine Ross teaches subjects related to people management and ethics in the Business School. Catharine has a particular interest in teaching and research concerning diversity in the workplace. She is currently involved in research on trade unions; men in female-dominated occupations; and management learning.

Appendix 5.1.2 Doctoral Colloquium - 19-20 July 2018 - Germany, Berlin

5.1.2.1 Presentation

<p>Same gender cross-mentoring for women to combat skills shortages in management. Martina Hammerschmid</p> <p>Research ongoing</p> <p>DC 2018</p>	<p>Annual Doctoral Colloquium (DC) 2018 Akademie Berlin-Schönholzer</p> <p>Agenda</p> <ul style="list-style-type: none"> • Mentoring • Gaps • Methodology • Objectives/Aim • The region East Westphalia-Lippe • The programme CrossMentoring OWL • Literature review • Implications for research & practice • Methods • First Findings <p>19-20 July 2018 Berlin, Germany</p>
<p>Annual Doctoral Colloquium (DC) 2018 Akademie Berlin-Schönholzer</p> <p>The region East Westphalia-Lippe</p> <ul style="list-style-type: none"> • GDP >60 million EUR per year • >70% of the employees work in SMEs • 45.6% of workforce female (2017) • 41.1% of the academically qualified professionals (2017) • skill shortage is the greatest risk to economic development <p>19-20 July 2018 Berlin, Germany</p>	<p>Annual Doctoral Colloquium (DC) 2018 Akademie Berlin-Schönholzer</p> <p>Practical implications Labour force</p> <p>-6 million</p> <ul style="list-style-type: none"> • In Germany • From 2010 to 2025 • 30% of HR managers - bottleneck in managers • 27% of European HR managers - "shortage of managers = biggest challenge" • 18% of labour force gap could be bridged through equal participation <p>19-20 July 2018 Berlin, Germany</p>
<p>Annual Doctoral Colloquium (DC) 2018 Akademie Berlin-Schönholzer</p> <p>Practical implications Labour force</p> <p>-20.000</p> <p>19-20 July 2018 Berlin, Germany</p>	<p>Annual Doctoral Colloquium (DC) 2018 Akademie Berlin-Schönholzer</p> <p>Social implications Fastest to be activated potential</p> <p>46%</p> <p>19-20 July 2018 Berlin, Germany</p>

<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Ataxien & Berlin-Schöneberg</i></p> <p>Economic implications</p> <p>€24 trillion</p> <ul style="list-style-type: none"> • €24 trillion globally (26%) <small>(Weisel et al., 2015; Siffertsen, 2017)</small> • €4.2 trillion in Western Europe (23%) <small>(Weisel et al., 2015)</small> • €250 billion in Germany (7%) <small>(Scheib et al., 2017)</small> <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>	<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Ataxien & Berlin-Schöneberg</i></p> <p>Social implications Fastest to be activated potential</p> <p>217 years</p> <ul style="list-style-type: none"> • well qualified but in part-time • lack of female role models • gender inequality blocks economic development • empowering women <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>
<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Ataxien & Berlin-Schöneberg</i></p> <p>Gender inequality</p> <p>Blocks economic potential</p> <ul style="list-style-type: none"> • Twice as high in leadership • Only 36% of leadership positions globally • Only 25% of senior executive positions • 64% of women are affected • 551 million women perceive wage gaps <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>	<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Ataxien & Berlin-Schöneberg</i></p> <p>Human Resource Development Mentoring</p> <p>Women and men have an equal need for it</p> <ul style="list-style-type: none"> • traces its origins in Greek mythology (approx. 4.000 years ago) • transformative relationship • experienced – less experienced • cross-gender less effective (Goldfalk and Sorak, 2000) • same-gender realizes / allows greater benefits <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>
<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Ataxien & Berlin-Schöneberg</i></p> <p>Gaps</p> <p>Gaps in knowledge</p> <ul style="list-style-type: none"> • This research will respond to calls in literature from Stufflebeam (2007) and Murphy and Leves, (2017), to follow mentees beyond the end of their programmes to assess sustainability of the mentoring programmes. • ... links to what Le Comte and McClelland (2016) recommend: Further research in the field of the ongoing utilisation of skills by participants after the mentoring programme ended. <p>Gaps in practice</p> <ul style="list-style-type: none"> • Shortage of managers is believed to be the greatest bottleneck already existing in potential managers according to 30 percent of HR managers (QZ, 2017; Scholz, 2017). • This concern is shared by more than 36 percent of all companies in North Rhine-Westphalia by stating that skill shortage is the greatest risk to economic development (IHK NRW, 2015, p. 3). <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>	<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Ataxien & Berlin-Schöneberg</i></p> <p>Lenses of mentoring (Cutterback et al. 2017)</p> <p>Mentoring application or practice lense</p> <ul style="list-style-type: none"> • relates to a particular group of people • and a specific region <p>Mentoring-programme lense</p> <ul style="list-style-type: none"> • aims to explore actions for the management of the programme • how to improve the programme to better meet the needs of the region <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>

<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Alumni & Berlin-Subsidiäre</i></p> <p>Methodology</p> <ul style="list-style-type: none"> • Case study as defined by Saunders, Lewis and Thornhill (2009) • Constructivist version of grounded theory (Charmaz) – neither data nor theories are discovered, but are constructed as a result of the interaction between the researcher and the participants. • Participants will be: <ul style="list-style-type: none"> • former mentees • female managers • experts • programme manager  <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>	<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Alumni & Berlin-Subsidiäre</i></p> <p>Objectives/Aim</p> <ul style="list-style-type: none"> • to provide insight into how the life of the mentees has been influenced, two years after the programme ended. • to provide understanding on why women seek same gender mentoring. • to develop an explanatory theory that associates skill shortages in management with the effectiveness of the CrossMentoring OWL • to describe the extent to which the programme CrossMentoring OWL meets its goal based on the perspective of the mentees and the experts. <p>How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?</p>  <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>
<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Alumni & Berlin-Subsidiäre</i></p> <p>Methods</p>  <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>	<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Alumni & Berlin-Subsidiäre</i></p> <p>The programme „CrossMentoring OWL“</p> <div style="border: 1px solid gray; border-radius: 50%; padding: 10px; display: inline-block; text-align: center;"> <p>Women only approach</p> </div> <ul style="list-style-type: none"> • Initiated in 2006 by the state • Cross-mentoring • 2 levels of action • 1 year • 82 companies • 181 tandems  <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>
<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Alumni & Berlin-Subsidiäre</i></p> <p>First findings To provide insight into how the life of the mentees has been influenced, two years after the programme ended.</p> <ul style="list-style-type: none"> • increased self-confidence • gained sharper vision of career goals • stronger in career associated conflicts • tougher in conflicts with colleagues and supervisors • more motivated  <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>	<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Alumni & Berlin-Subsidiäre</i></p> <p>First findings To provide understanding on why women seek same gender mentoring.</p> <ul style="list-style-type: none"> • same „language“ • similar problems / experience • lower sense of shame • lower barrier • higher level of trust • role model • familiarity  <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>

<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Academy in Berlin - Schloss Charlottenburg</i></p> <p>First findings Reasons to participate in a mentoring programme</p> <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>	<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Academy in Berlin - Schloss Charlottenburg</i></p> <p>First findings Main obstacles for women</p> <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>
<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Academy in Berlin - Schloss Charlottenburg</i></p> <p>First findings Structural changes in the programme</p> <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>	<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Academy in Berlin - Schloss Charlottenburg</i></p> <p>NOT a women only topic!</p> <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>
<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Academy in Berlin - Schloss Charlottenburg</i></p> <p>Looking forward to your highly appreciated thoughts and feedback!</p> <p>How could mentoring for women be adjusted to be a better tool to combat skill shortages in top management?</p> <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>	<p style="text-align: right;">Annual Doctoral Colloquium (DC) 2018 <i>Academy in Berlin - Schloss Charlottenburg</i></p> <p>About the author</p> <p>Martina Hammerschmid hamml_16@uni.worc.ac.uk</p> <p>Dr. Catharine Ross University of Worcester</p> <p>Prof. John Sparrow University of Birmingham</p> <p style="text-align: right;">19-20 July 2018 Berlin, Germany</p>

5.1.2.2 Working paper

How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?

Abstract

Besides a shortage of skilled workers, a shortage of managers seems to be evolving. In Germany, in the period from 2010 to 2025, it is predicted that the labour force potential will decline by more than 6 million people (Bundesministerium für Arbeit und Soziales, Bundesministerium für Wirtschaft und Energie and Bundesagentur für Arbeit, 2017). The Federal Employment Agency sees the greatest and fastest to be activated potential of skilled specialists in Germany among women. Therefore, in 2005, the state government of North Rhine-Westphalia initiated a mentoring programme called "Cross Mentoring OWL" for the advancement of women in the region of East-Westphalia-Lippe.

Down to the present day there is limited research that explores how effective same gender dyad cross mentoring for women is in combating skill shortages in top management. Through a qualitative approach, this study seeks to address these gaps in our knowledge and to provide understanding of why women seek same gender mentoring. The aim for this research study is to make recommendations of actions to the management of the mentoring programme "CrossMentoring OWL" on how to improve the programme to better meet the needs of the region in terms of skill shortage in management.

Purpose of the paper

Germany's companies are increasingly confronted with a new form of skilled labour shortage. In addition to engineers, doctors or researchers, they are increasingly lacking suitable top managers. This is the result of a study by the Basel-based research institute, which was updated in August, 2017 (Sorge, 2017). 30 percent of HR managers believe that the greatest bottleneck within the skill shortage already exists in potential managers reported by QZ (2017) and Scholz (2017). Only 21 percent believe that this is the case for skilled workers with specific vocational training. 27 percent of European HR managers declare the shortage of managers to be the biggest challenge for their companies as reported by Scholz (2017).

A trend already visible today will worsen in the next few years: Since the number of skilled specialists is decreasing, the number of potential managers adjusts accordingly in the near future. A great potential lies within women: Around 6.3 million women of working age are unemployed - many with medium and high qualifications. In Germany, only 55 percent of employed women are employed full-time, with Germany ranked second to last in EU comparison. In many other EU countries there are more women working and by doing so display their potential in the labour market (Bundesministerium für Arbeit und Soziales, 2011, p. 20).

The programme "CrossMentoring OWL" has been set up in order to support women in East-Westphalia-Lippe to progress up the corporate ladder into management level and therefore to support companies in closing their skills shortage gap as requested in the action plan of the federal ministry (Bundesministerium für Arbeit und Soziales, 2011).

In order to address the identified gaps within the predominant understanding of same gender dyad mentoring for women in combating skill shortages in top management, it is proposed that the aim for this research study is to make recommendations of actions for the management of the mentoring programme CrossMentoring OWL on how to improve the programme to better meet the needs of the region in terms of skill shortage in management. Even though the nature of this study may naturally change as new data is uncovered, the initial objectives of this proposed study are:

- to provide insight into how the life of the mentees has been influenced, two years after the programme ended.
- to provide understanding on why women seek same gender mentoring.
- to develop an explanatory theory that associates skill shortages in management with the effectiveness of the CrossMentoring OWL.
- to describe the extent to which the programme CrossMentoring OWL meets its goal based on the perspective of the mentees and the experts.

The aim of my study is to answer the question of "how could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in top management, from the case study participants' perception?"

Design/methodology/approach

Using case study as defined by Saunders, Lewis and Thornhill (2009) methodology, I am going to adopt a social constructivist approach displaying multiple constructed realities (Crotty, 1998; Ritchie and Lewis, 2003). The social constructivist approach will help to stress the importance of individual perceptions as stated by Prior (2008).

Methods

Data will be collected from key informants, namely the former mentees, experts like a representative of the chamber of industry and commerce in East-Westphalia-Lippe, and a representative of the equal opportunities officer in Bielefeld, female managers of the region

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East-Westphalia-Lippe and the programme manager of the cross-mentoring programme “CrossMentoring OWL”. To explore potential amendments or extensions of the programme, semi-structured interviews as well as a series of focus groups will be conducted. I am going to use the strength of qualitative research to explore the depth and complexity of the above mentioned phenomena in agreement with Carlsen and Glenton (2011).

The following 1 provides an overview of this proposed methodology. In addition to the 12 interviews with former mentees of the programme, I am also going to conduct two interviews with experts in the field of skill shortages and advancement of women in the region East-Westphalia-Lippe, a series of focus groups with experienced managers and an interview with the programme manager of the cross-mentoring programme “CrossMentoring OWL”. These focus groups will yield valuable insights based on my findings from the interviews with the mentees and experts and will lead to actions for the management of the mentoring programme “CrossMentoring OWL” on how to improve the programme to better meet the needs of the region in terms of skills shortages in management.



Figure 1: Overview of the proposed methodology

Findings

This is a working paper which is why I am not able to present findings as of now. However at the conference I am going to be able to present the first outcomes of my literature review which will address part of my research aim and the outcomes of my first interviews.

Practical implications

East-Westphalia-Lippe is part of NRW and is one of the strongest economic regions in Germany with around 140,000 companies, one million employees and a gross domestic product of more than 60 million euros per year (OWL OstWestfalenLippe - Gesellschaft zur Förderung der Region mbH, 2017). The following **Fehler! Verweisquelle konnte nicht gefunden werden.** indicates the bottleneck of manager supply in East-Westphalia-Lippe.



Figure 1: Supply and demand of managers in East-Westphalia-Lippe (IHK NRW - Die Industrie- und Handelskammern and V., 2018)

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In 2017, there are already lacking 20.000 managers in East-Westphalia-Lippe. In 2020, it is estimated to raise up to 31.000 missing managers, in 2030 the Chamber of Industry and Commerce estimates that 47.000 managers will be missing (IHK NRW - Die Industrie- und Handelskammern and V., 2018).

Mentoring increases the chance for companies to motivate women with a realistic self-assessment to take on management tasks and thus form successful management teams with broad management competence (Tigges-Mettenmeier, 2017).

The programme "CrossMentoring OWL" and its mission: In 2006, a special Cross-Mentoring programme was set up in East-Westphalia-Lippe to support women to take the next step into management. So far, more than 82 companies in East Westphalia-Lippe have participated in cross mentoring with 181 tandems. The companies recognize the predicted shortage of specialists and managers.

Social Implications

A great potential lies within women: Around 6.3 million women of working age are unemployed - many with medium and high qualifications. In Germany, only 55 percent of employed women are employed full-time, with Germany ranked second to last in EU comparison. In many other EU countries there are more women working and by doing so display their potential in the labour market (Bundesministerium für Arbeit und Soziales, 2011, p. 20). Women are well qualified, but are in evidence only part-time, in the majority of cases hardly found in top management positions. Especially these days, there is great potential for skilled specialists (Kompetenzzentrum Fachkräftesicherung, 2017). Therefore the Federal Employment Agency sees the greatest and fastest to be activated potential of skilled specialists among women in Germany and point to a significantly higher participation rate in labour force in Northern and Western Europe (Bundesministerium für Arbeit und Soziales, 2011, p. 6, 2013, p. 5).

Highly qualified women rarely reach the top management in companies and organisations even though a greater diversity among board members has been linked to improving organisational performance by providing new insights and perspectives according to Rao and Tilt (2016). Ragins and Kram (2007), Vongalis-Macrow (2014) and Moss, Brigitte and Meier (2017) found out that there is a serious lack of female role models and this has the effect of weakening the confidence and aspirations of younger women in line with Vongalis-Macrow (2014). Picariello and Waller (2016) stated that especially for women, a same gender mentor as a role model can be perceived as a woman that has successfully overcome barriers to professional advancement.

The aim for this research study is to make recommendations of actions to the management of the mentoring programme CrossMentoring OWL on how to improve the programme to better meet the needs of the region in terms of skill shortage in management.

What is original/value of paper?

The proposed study aims to address the identified gaps within our understanding of same gender dyad mentoring for women in combating skill shortages in top management, it is proposed that the aim for this research study is to make recommendations to the management of the mentoring programme "CrossMentoring OWL" on how to improve the programme to better meet the needs of the region in terms of skill shortage in management.

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Appendix

North Rhine-Westphalia (NRW) is a federal state located in the West of the Federal Republic of Germany. The state capital is Düsseldorf, the largest city is Cologne. More than 36 percent of the companies in North Rhine-Westphalia in Germany share the concern that skill shortage is the greatest risk to economic development (IHK NRW, 2015, p. 4). North-Rhine-Westphalia is home of mid-sized businesses, more specifically home of family businesses. Almost 99.5 percent of the 755,000 companies in North Rhine-Westphalia are family businesses. This makes the region very unique (Ministerium für Wirtschaft, Innovation, 2017).

East-Westphalia-Lippe is a region of North-Rhine Westphalia is located in the western part of Germany and is strongly influenced by small and medium-sized enterprises. About 70 percent of the employees in OWL work in SMEs (Schwarze, Frey and Tapken, 2014). In 2017 women accounted for 45,6 percent of the total workforce in East-Westphalia and for 41,1 percent of the academically qualified professionals¹ (IHK NRW - Die Industrie- und Handelskammern and V., 2018). The study on women in management in East-Westphalia-Lippe points out that although a considerable potential of qualified women is available, but no strategies have yet been found, to consistently and continuously increase this potential (Schwarze, Frey and Tapken, 2014).

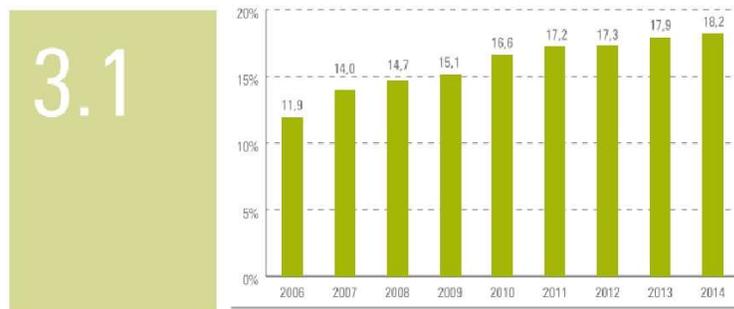


Figure 2: Women in the Top- and Middlemanagement in East-Westphalia-Lippe (02/2015)

In 2014 18,2 percent of women were in the top and middle management in East-Westphalia-Lippe. The development can be seen in the following Figure. The proportion of women in the management in East-Westphalia Lippe is rising continuously since 2006 although at a very slow pace. From 11,9 percent in 2006 the share rose to 18,2 percent in 2014 which reflects an increase by 6,3 percent in 8 years. Compared to the federal state North-Rhine-Westphalia where women make up 19 percent of the top and middle managers, East-Westphalia-Lippe lags behind with 0,8 percent points. Fortunately during the economic crisis from 2008 until

¹ Academically qualified professionals include employees with highly complex activities such as development, research and diagnostic activities, knowledge transfer as well as management and leadership tasks. A university degree of at least four years is required.

2010 there was neither a drop in absolute figures nor in percentages to be determined, the same applied for men. The proportion of female top and middle managers varies considerably within East-

The programme "CrossMentoring OWL" consists of two levels of action: On the one hand, the tandem relationship between mentor and mentee with regular meetings, and on the other hand, the supporting programme. The mentor makes her experience available. The supporting programme offers the participants and representatives of the participating companies a platform for exchange of experience and discussion of topics in events and workshops. The contents refer to the operational and individual areas of management and development.

In accordance with Kram (1985) as well as Allen, Eby and Lentz (2006) modelling identification with a mentor is required in order to facilitate the process of role modelling. If individuals have things in common this process is eased as stated by Ragins (1997) and Allen, Eby and Lentz (2006). Allen, Eby and Lentz (2006) and Steele and Fisman (2014) found out that role modelling is often part of mentoring, it may also occur when the mentor holds a position that the mentee aspires.

The Institute of Labour Market and Employment Research has found that only 26 percent of senior executives in the private sector are women according to Kohaut and Möller (2017). At the highest management level, only one out of four managers is a woman. A number of companies have now voluntarily committed themselves to increasing the number of women in management positions to a fixed percentage. In the coalition agreement of the Federal Government, it is agreed to present a gradual plan to increase the proportion of women at management level. The first stage of the phased plan is to focus on binding reporting obligations and transparent voluntary commitments (Bundesministerium für Arbeit und Soziales, 2011, p. 25).

Effects on the broader economic impact

If women played an identical role like men in labour market, women could boost the global annual gross domestic through adding US\$28 trillion or 26 percent (Woetzel et al., 2015; UNWomen, 2017). This potential is roughly equivalent to the size of the combined United States and Chinese economies today (Woetzel et al., 2015). Western Europe could increase its annual GDP by 23 percent - worth 5 trillion US\$ through advancing women and bridging the gender gap (Woetzel et al., 2015). Approximately 250 billion Euro could be added to the GDP of Germany through gender parity (Schwab et al., 2017). For the sake of completeness, at least 13 percent or US\$10 trillion would be added to the global GDP if the unpaid care work performed by women would be accounted based on available data on minimum wages (Woetzel et al., 2015). Research of the McKinsey Global Institute shows that advanced economies are likely to face an estimated shortfall of 18 million works with tertiary degrees by 2020, almost 18 percent of this shortfall could be bridged through equal participation of women (Woetzel et al., 2015).

In addition, many economies face predictions of declining workforces along with a slowing GDP growth due to aging population. Enabling women to participate equally as men do can

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help mitigate this effect (Woetzel et al., 2015). Looking at Germany, this would help to maintain the 2025 work force at about 43 million people, as opposed to the current trajectory that is heading toward 41 million (Woetzel et al., 2015). It is estimated that closing the gender gap could double the contribution of women to global GDP growth (Woetzel et al., 2015). According to Woetzel et al., (2015) the share of women in unpaid work has engaged relative to men, a moderate correlation with their chances of assuming leadership positions. Among others, mentoring and networks for females are considered to be helpful interventions to empower women into leadership positions (Woetzel et al., 2015).

Effect on company performance through women in leadership

There is evidence that improved company performance correlates with increasing the presence of women in leadership positions (Woetzel et al., 2015).

However, the scholars are divided over the effects on financial performance through women in management. For example Isidro and Sobral (2015) found out that women on the board are positively related with financial performance – measured in terms of return on assets and return on sales. Pletzer et al. (2015) have encountered contradictory findings in their meta-analysis which shows that there is no relation between a higher representation of females on corporate boards and the financial performance of the company, neither in a positive nor in a negative way. Therefore their study does not support the business case that companies' performance increase is associated with diversity in the board. However they do promote gender diversity for the promotion of fairness and for ethical reasons (Pletzer et al., 2015).

According to Kirsch (2018), who comprehensively reviewed 310 articles published in 135 journals during the period 1981-2016 on board gender composition, the evidence produced by these studies is inclusive overall, some found positive, others negative or no effects. However Kirsch also highlights a study conducted by Haslam et al. (2010) which highlights the importance of distinguishing between accountancy-based measures of firm performance and stock-based. Post and Byron (2015) conducted a meta-analysis regarding the relationship between women on boards and firm financial performance to examine whether these conflicting results vary by firms' legal/regulatory and social contexts. They concluded that there is a positive relation between female board representation and accounting returns and that in countries with stronger shareholder protections this relationship is even more positive because shareholder protection might motivate boards to use different experience, knowledge and values that each member contributes (Post and Byron, 2015). In short, they showed that board diversity and its influence on the financial effect are context dependent (Kirsch, 2018).

Jeong and Harrison (2017) carried out a comprehensive synthesis of the research on how female representation in top management teams and chief executive officer positions might affect firm performance using 146 primary studies conducted in 33 different countries. They found out that female representation in the top management has a net benefit for firms in the long run through the mechanisms of strategic actions that mitigate risk. The benefit is even larger in environmental and organizational contexts where executives are given more autonomy over their decisions (Jeong and Harrison, 2017).

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Regarding the effects on social performance through women in management a meta-analysis of 87 independent samples to find out whether and how women directors influence firms' engagement in socially responsible business practices and social reputation among diverse stakeholders has been conducted by Byron and Post (2016). Their study suggested that it is generally positive and that this relationship is even more positive in national contexts characterized by higher stakeholder protections and gender parity. Isidro and Sobral (2015) carried out a study to investigate the direct and indirect effects of women on the board on firm value and found indirect effects, however no evidence that a higher female representation on the board directly affects firm's value. Women on board are, according to Isidro and Sobral (2015), positively related with social and ethical compliance which in turn are positively related with firm value. Their study suggests that a higher female representation on corporate boards of large European firms can indirectly increase the value.

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Appendix 5.1.3 UFHRD2019 Conference - 24-26 June 2019- UK, Nottingham

5.1.3.1 Working paper

University Forum for Human Resource Development

20th International Conference on Human Resource Development Research and Practice across Europe

'From Robin Hood to the digital era: HRD as a driver for future creativity, innovation and change'.



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How could the formal same gender dyad mentoring for women be adjusted to be a better tool to combat skill shortages in management, from the case study participants' perception?

Martina Hammerschmid ^a, Catharine Ross ^a and John Sparrow ^b

a. University of Worcester, UK.
b. University of Birmingham, UK

Abstract

A shortage of managers seems to be evolving alongside a shortage of skilled workers. Germany's potential labour force is predicted to decline by more than 6 million people between 2010 and 2025 (BMAS, 2017). The Federal Employment Agency sees women as having the greatest and most easily utilised potential to become skilled specialists. Therefore, in 2005, the state government of North Rhine-Westphalia initiated a mentoring programme called "Cross Mentoring OWL" for the advancement of women in the region of East Westphalia-Lippe (OWL). Presently there is only limited research exploring the effectiveness of female same-gender dyad cross mentoring in counteracting skill shortages in top management. Through a qualitative approach, this study is meant to address this gap and provide an understanding of why women seek same-gender mentoring. This research study's purpose is to present recommendations to the management of the mentoring programme "CrossMentoring OWL" on how to improve the programme so that it better meets the needs of the region in terms of skill shortages in management.

Keywords: Same-gender mentoring, cross mentoring, mentoring women, formal mentoring, professional mentoring, skill shortage

1. Paper Importance

There is an already noticeable negative trend which will worsen in the next few years: the number of skilled specialists is decreasing, which means the number of potential managers will decline accordingly. Luckily, women have great potential to counteract this developing dearth. Around 6.3 million women of working age are unemployed - many with medium and high qualifications. In Germany, only 55 percent of employed women are employed full-time, meaning Germany ranks second-to-last in the EU. In other words, many other EU countries have more working women and thus display women's potential in the labour market (Bundesministerium für Arbeit und Soziales, 2011, p.20). According to 30 percent of HR managers, this shortage is the greatest bottleneck in acquiring potential managers (QZ, 2017; Scholz, 2017). This concern is shared by more than 36 percent of all companies in the German federal state of North Rhine-Westphalia, as is reflected by the statement that skill shortage is the greatest risk to economic development (IHK NRW, 2015, p.3).

Mentoring traces its origins to Greek mythology some 4,000 years ago (Clutterbuck et al., 2017, p.2). The concept originated in the earliest stages of human civilization and has historically been conceived as a transformative relationship in which an experienced person helps a less-experienced person realise his personal and professional goals. However, only in the past 35 years has this phenomenon attracted significant attention from researchers, policy-makers, wider professional bodies, and employer organisations due to the widespread emergence of mentoring programmes. Presently there is only limited research exploring the effectiveness of female same-gender dyad cross mentoring in counteracting skill shortages in top management. Through a qualitative approach, this study is meant to address this gap and provide an understanding of why women seek same-gender mentoring. Mentoring has evolved into multiple forms and become an essential vehicle for change in every branch of society, be it business, the military, highly privileged and economically powerful individuals,

or desperately underprivileged and disempowered individuals. Mentoring is positively affecting the lives of tens of millions of people (Clutterbuck et al., 2017, p.1).

According to Noe (1988), women and men equally require mentors. Scandura and Ragins (1993) determined that, due to the lack of females in high-power positions in organisations, the likelihood of cross-gender mentorship is greatly increased. White et al. (2017) state that access to female role models in power positions of decision making and leadership is particularly important for women. Godshalk and Sosik (2000) argued that, in a cross-gender mentoring relationship, attributes like identification and interpersonal comfort are expected to be lower. They thus concluded that cross-gender mentoring is expected to be less effective. Furthermore, Allen, Day, and Lentz (2005) determined that participants of same-gender relationships perceive greater degrees of interpersonal comfort due experiences being shared by the partners. Within the literature regarding mentoring relationships, the subject matter of gender similarity was emphasised by Ragins (1997), Allen and Eby (2003), and Ragins and Cotton (1993).

According to Koberg, Boss and Goodman (1998), Ragins and MCFarlin (1990), Scandura and Williams (2001), and Thomas (1990), same-gender mentoring relationships beget greater benefits than cross-gender mentoring dyads. According to Bozer, Joo, and Santora (2015) these findings reflect the majority of studies relating to this topic. There are different lenses through which mentoring can be viewed: mentoring philosophy, mentoring context, mentoring application or practice, mentoring dynamics, mentoring conversation, or mentoring programme (Clutterbuck et al., 2017, p.1).

This research first examines mentoring through the lens of "mentoring application or practice", as this study relates to a particular group of people (mentees of the "CrossMentoring OWL" programme located in East Westphalia-Lippe). Second, it changes its perspective to the lens of "mentoring programme", as it is meant to explore actions available to the management of the mentoring programme "CrossMentoring OWL". These actions may improve the programme so that it better meets the needs of the region in terms of skill shortage in management (Clutterbuck et al., 2017, p. 2). This research attempts to evaluate whether this programme's mentees identify role modelling as an essential function of a mentor. Clutterbuck (2004) and Kram (1980) identified role modelling as one of the main functions of a mentor. Only a few studies directly address the dynamic of role modelling in mentoring, and those tend to separate role modelling and mentoring. For some reason, role modelling is regarded as a passive activity, at least according to Clutterbuck et al. (2017). However, Clutterbuck (1998) wrote that being a role model and using role models are skills which must be learned. The researchers believed, based on their own experiences, that having a role model is extremely helpful and motivating, and nothing else can provide those benefits in the same manner. This research is a response to requests from Stufflebeam (2007) and Murphy and Lewes (2017) to follow mentees beyond the ends of their programmes in order to assess the sustainability of mentoring programmes. This suggestion links to what Le Comte and McClelland (2016) recommend: further field research on ongoing utilisation of skills by participants after their mentoring programmes end.

2. Theoretical Base

The gender gap in leadership positions is an extremely important topic for debate in the discussion of inequality on a global scale. Particularly because there are gaps in both labour force participation and leadership, but the leadership gap is twice as large (Woetzel et al., 2015). The McKinsey Global Institute analysed data from international labour organisations and found that only 36 percent of leadership positions globally - such as legislators, senior officials, and managers - are likely to be held by women. In the case of senior executive positions within firms, the gap between men and women is even larger: only 25 percent of such positions are staffed with women (Woetzel et al., 2015). Over 64 million women are globally affected by gender inequality in leadership positions, and this blocks economic potential. 551 million women perceive wage gaps despite believing they do similar work (Woetzel et al., 2015).

Germany's companies are increasingly confronted with a new form of skilled labour shortage. In addition to engineers, doctors, or researchers, they are increasingly lacking suitable top managers. This trend is described in a study by a Basel-based research institute which was updated in August 2017 (Sorge, 2017). 30 percent of HR managers believe that the greatest bottleneck in the skill shortage can be found among potential managers, as reported by QZ (2017) and Scholz (2017). Only 21 percent believe that this is the case for skilled workers with specific vocational training. 27 percent of European HR managers declare the shortage of managers to be the biggest challenge for their companies, at least according to Scholz (2017).

The effects of demographic change on the labour market can already be seen today. In southern Germany, for example, the situation is very tense for some occupations, and this contrasts with eastern and northern Germany. From a long-term perspective, however, the consequences of demographic developments will affect companies in all federal states. Across Germany, companies will have to adapt to the fact that the number of employed people will continue to decline. Competition between companies for the best workforce will intensify significantly in the near future, as reported by the Bundesministerium für Arbeit und Soziales, the Bundesministerium für Wirtschaft und Energie, and the Bundesagentur für Arbeit (2017).

The key question is: who can do the work of tomorrow? This research primarily focuses on people who have been on the margins of the labour market. Women are one such group. Besides a shortage of skilled workers, a shortage of managers seems to be developing. Germany's potential labour force is predicted to decrease by more than 6 million people between 2010 and 2025 (Bundesministerium für Arbeit und Soziales, Bundesministerium für Wirtschaft und Energie, and Bundesagentur für Arbeit, 2017). The Federal Employment Agency sees women as having the greatest and most easily utilised potential to become skilled specialists. Therefore, in 2005, the state government of North Rhine-Westphalia initiated a mentoring programme called "Cross Mentoring OWL" for the advancement of women in the region of East Westphalia-Lippe (OWL is the German abbreviation for East Westphalia-Lippe). The mentoring programme is designed to be both a support system that aids women in navigating structural societal issues and a method of raising awareness of the structural issues that affect women and thus influence change.

North Rhine-Westphalia (NRW) is a federal state located in the western half of the Federal Republic of Germany. The state capital is Düsseldorf, while its largest city is Cologne. North Rhine-Westphalia is home to moderately sized and family businesses. Almost 99.5 percent of the 755,000 companies in North Rhine-Westphalia are family businesses. This makes the region very unique (Ministerium für Wirtschaft, Innovation, 2017).

East Westphalia-Lippe (OWL) is a region of North Rhine-Westphalia that is strongly influenced by small- and medium-sized enterprises (SMEs). About 70 percent of the employees in OWL work in SMEs (Schwarze, Frey, and Tapken, 2014). In 2017, women accounted for 45.6 percent of the total workforce in East Westphalia and for 41.1 percent of academically qualified professionals' (IHK NRW - Die Industrie- und Handelskammern and V., 2018). The Bisnode study on women in management in East Westphalia-Lippe identified that, although considerable potential for qualified women is available, no strategies have yet been found to consistently and continuously increase it (Schwarze, Frey and Tapken, 2014). In 2014, 18.2 percent of women were in the top and middle management in East Westphalia-Lippe.

Since 2011, European funds (ERDF) have been made available for implementing projects of the Ministry of Labour, Integration, Health, and Social Affairs of North Rhine-Westphalia. In all of its regions, numerous projects with innovative approaches are in the process of implementing the central objectives of the initiative. Particular commitment is devoted to the following aspects: (1) increasing the employment rate of women in enterprises; (2) qualification and further training of employees in companies; (3) preventing young people from quitting their training and studies; (4) recovering professional qualifications as formal qualifications (Jansen, 2015).

The programme "CrossMentoring OWL" was established in order to support women in East Westphalia-Lippe so they can ascend the corporate ladder into management and

therefore support companies in closing their skills shortage gaps, as requested in the action plan of the federal ministry (Bundesministerium für Arbeit und Soziales, 2011). The programme "CrossMentoring OWL" is a women-only approach and consists of two levels: the regular meetings of the tandem relationship between mentor and mentee, and the supporting programme. The supporting programme offers the participants and representatives of the participating companies a platform for exchanging experiences and discussing topics in events and workshops. The content of these interactions is related to the operational and individual areas of management and development.

The mentors act as role models for the mentees, according to the findings of Allen, Eby, and Lentz (2006), and Steele and Fisman (2014). These researchers determined that role modelling is often part of mentoring and that it may also occur when the mentor holds a position to which the mentee aspires. In accordance with Kram (1985) and Allen, Eby, and Lentz (2006), identifying a mentor as a model must occur to facilitate the process of role modelling. This process is eased by individuals having similarities, as was stated by Ragins (1997) and Allen, Eby, and Lentz (2006). This research is a response to requests from Stufflebeam (2007) and Murphy and Lewes (2017) to follow mentees beyond the ends of their programmes in order to assess the sustainability of mentoring programmes. This suggestion links to what Le Comte and McClelland (2016) recommend: further field research on ongoing utilisation of skills by participants after their mentoring programmes end.

3. Research Purpose

In order to address the identified gaps in the predominant understanding of female same-gender dyad mentoring in counteracting skill shortages in top management, the objectives of this proposed study are:

- Providing insight into how the lives of the mentees had been influenced two years after the programme ended.
- Developing comprehension of why women seek same-gender mentoring.
- Exploring an explanatory theory that associates skill shortages in management with the effectiveness of CrossMentoring OWL.
- Describing the extent to which CrossMentoring OWL meets its goal according to the perspectives of the mentees and the experts.

4. Research Question/s

From the perspectives of the case study's participants, how could formal same-gender dyad mentoring for women be adjusted to be a better tool for counteracting skill shortages in management?"

5. Data Collection

In applying the principles of constructivist ground theory, research data was gathered via focus groups and semi-structured interviews to explore potential amendments or extensions of the programme. Data was collected from key informants (namely the former mentees), experts (e.g. a representative of the chamber of industry and commerce in East-Westphalia-Lippe), a representative of the equal opportunities officer in Bielefeld, female managers of the region East-Westphalia-Lippe, human resource managers, and decision makers. The following Figure 3 provides an overview of the applied methodology.

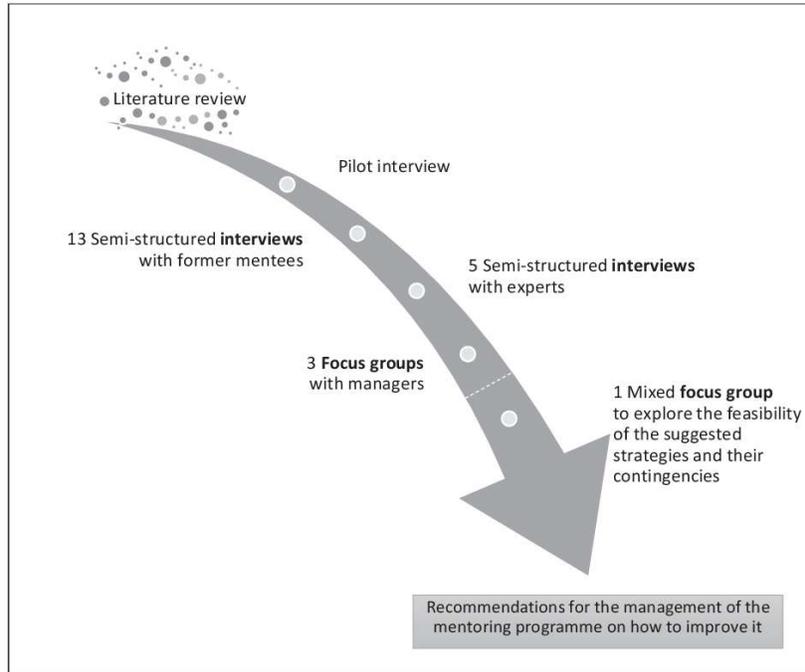


Figure 3: Overview of the Applied Methodology

A pilot interview with a former mentee was conducted after an initial literature review. After this, the researcher held 13 interviews with former mentees of the programme, 5 interviews with experts in the field of skill shortages and the advancement of women in the region East Westphalia-Lippe, and 3 focus groups with experienced managers. The data were then analysed according to the principles of the grounded theory approach. This was followed by a mixed-focus group to explore the feasibility of the strategies found and determine whether their consequences would be contingent upon these strategies. The last focus group consisted of four participants of differing sex, age, and background. Among them were a former mentee, a young male manager of the region, and human resource managers who were familiar with the programme.

6. Data Analysis

In grounded theory, the researcher attempts to ascertain occurrences in the setting, in people's lives, and in the recorded data. Codes emerge as the data are scrutinised and meanings in it are defined. Through this active coding, the researcher repeatedly interacts with the data, as this might lead to unforeseen concepts and new research questions (Charmaz, 2006). According to Charmaz (2006), coding generates the "bones" of grounded

theory analysis, while theoretical integration assembles these "bones" into a working "skeleton".

7. Data Interpretation

For this research, the method of constructivist grounded theory was applied and the coding procedure of Strauss was followed, meaning there was a three-step coding process which included the use of a coding paradigm. Therefore, after initial and focused coding, the researcher sought to further scrutinise the data via additional coding. Through this technique, developing and sorting concepts according to relevance was possible. The coding paradigm helped the researcher think systematically about the gathered data and pose questions about how categories or data relate to each other.

Instead of an explanation of the studied social process, constructivist grounded theory research typically concludes with the researcher's interpretive comprehension of how the participant creates his or her understanding of reality. In this manner, the analysis relating to time, culture, and context reflects both ways of thinking, i.e. that of the participant and that of the researcher (Hallberg, 2006). This approach helped develop actions for the management of the mentoring programme "CrossMentoring OWL" on how to improve the programme so that it better meets the needs of the region in terms of skills shortages in management.

8. Implications for HRD Practice

8.1 Practical Implications

East Westphalia-Lippe is part of NRW and is one of the strongest economic regions in Germany, with around 140,000 companies, one million employees, and a gross domestic product of more than 60 million euros per year (OWL OstWestfalenLippe - Gesellschaft zur Förderung der Region mbH, 2017). The supply and demand of managers in East Westphalia-Lippe (IHK NRW - Die Industrie- und Handelskammern and V., 2018) indicate the bottleneck in manager supply there. In 2017, there was already a lack of 3,800 managers in the region. This number is estimated to increase to 4,200 managers by 2020. The Chamber of Industry and Commerce estimates that there will be a lack of 5,500 managers in 2030 (IHK NRW - Die Industrie- und Handelskammern and V., 2018). The programme "CrossMentoring OWL" is a special cross mentoring programme for women in East Westphalia-Lippe and was established in 2006 to support women who wished to enter management positions. So far, more than 82 companies in East Westphalia-Lippe have participated in cross mentoring (which involved 181 tandem meetings), as many companies recognise the predicted shortage of specialists and managers. Mentoring increases the chance that companies will motivate women who have realistic self-assessments to accept management tasks and thus form successful management teams with broad competence (Tigges-Mettenmeier, 2017).

8.2 Social Implications

The Federal Employment Agency sees women as having the greatest and most easily utilised potential to become skilled specialists and identified significantly higher labour participation rates in northern and western Europe (Bundesministerium für Arbeit und Soziales, 2011, p. 6, 2013, p.5). According to Rao and Tilt (2016), highly qualified women rarely reach the top management of companies and organisations despite greater diversity among board members having been linked to improved organisational performance via new insights and perspectives. Ragins and Kram (2007), Vongalis-Macrow (2014), and Moss, Brigitte, and Meier (2017) determined that there is a serious lack of female role models, and this has the effect of weakening the confidence and aspirations of younger women, as ascertained by Vongalis-Macrow (2014). Picariello and Waller (2016) stated that a mentor of the same sex can serve as a role model and be perceived as a woman who successfully overcame barriers to professional advancement.

Woetzel et al. (2015) wrote that three elements are needed to achieve the full potential of women in workforce: 1. gender equality in society, 2. economic development, and 3. a shift in attitudes. Therefore, gender inequality at work is mirrored by gender inequality in society. There is a broad spectrum of affirmative action for women, and this includes important measures like quotas for women's participation in roles at different levels from which they were previously excluded or in which they are still underrepresented, like leadership positions. Female leaders act as role models, mentors, and sponsors to other women and girls. Hence, more women in management positions would help dissolve stereotypes and encourage girls and young women to pursue careers in business, engineering, science, technology, etc. Utilising the unused potential of women in the job market would be a long-term method of sustainably counteracting the predicted skill shortages (Richardson, 2007; Bellmann and Hübler, 2014; Iredale et al., 2014; Bhanugopan et al., 2017; Riley, 2017; Welle, 2017). All of this is necessary to achieve equality in workforces and societies and therefore boost the economy.

9. Conclusion

If women played the role that men do in labour market, women could boost the global annual gross domestic product by adding 28 trillion USD (an increase of 26 percent) (Woetzel et al., 2015; UNWomen, 2017). This potential is roughly equivalent to the size of the combined United States and Chinese economies (Woetzel et al., 2015). Approximately 250 billion euros could be added to the GDP of Germany through gender parity (Schwab et al., 2017). This study is meant to address the identified gaps in the understanding of female same-gender dyad mentoring in counteracting skill shortages in management. This research is also meant to make recommendations to the management of the programme on how to improve it.

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