



# EQUAL4EUROPE

GENDER EQUALITY PLANS

## Environmental Factors and Consequent Individual Skills Needs Assessment

---

D3.3

Dr Tina Miedtank  
Dr Joana Vassilopoulou  
Prof Hanneke Takkenberg,  
Gaby Dijkstra

**© Copyright 2021 EQUAL4EUROPE Consortium**

All rights, amongst which the copyright, on the materials described in this document rest with the original authors of the text, except where referenced. The information provided in this document has been elaborated in the context of the EQUAL4EUROPE project and it is intended as an instrument to support the adoption of Gender Equality Plans in research institutions. Reproduction of the document is allowed, as long as the source is referenced.

**Legal Disclaimer**

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



**CC BY-NC-ND 4.0 DEED**

**Attribution-NonCommercial-NoDerivs 4.0 International**

<b>PROGRAMME</b>	H2020 SCIENCE WITH AND FOR SOCIETY
<b>GRANT AGREEMENT NUMBER</b>	872499
<b>PROJECT ACRONYM</b>	EQUAL4EUROPE
<b>DOCUMENT</b>	<b>D3.3</b>
<b>TYPE (DISTRIBUTION LEVEL)</b>	<input checked="" type="checkbox"/> Public <input type="checkbox"/> Confidential <input type="checkbox"/> Restricted
<b>DUE DELIVERY DATE</b>	31/03/2022
<b>DATE OF DELIVERY</b>	21/03/2022
<b>STATUS AND VERSION</b>	v.1.
<b>NUMBER OF PAGES</b>	38
<b>Work Package / TASK RELATED</b>	WP3, Task 3.3
<b>Work Package / TASK RESPONSIBLE</b>	RSM
<b>AUTHOR (S)</b>	Dr Tina Miedtank, Dr Joana Vassilopoulou, Prof Hanneke Takkenberg, and Gaby Dijkstra

#### DOCUMENT HISTORY

<b>VERS</b>	<b>ISSUE DATE</b>	<b>CONTENT AND CHANGES</b>
1	21/03/2022	-

#### DOCUMENT APPROVERS

<b>PARTNER</b>	<b>APPROVER</b>
ESADE	Prof. Anna Gines Fabrellas
INSEAD	Daisy Pollenne

## TABLE OF CONTENTS

---

<b>EXECUTIVE SUMMARY .....</b>	<b>8</b>
<b>INTRODUCTION .....</b>	<b>9</b>
<b>1. LITERATURE REVIEW: TRAINING AND DEVELOPMENT INTERVENTIONS.....</b>	<b>10</b>
<b>2. METHODS.....</b>	<b>15</b>
2.1 CASES .....	15
2.2 DESCRIPTION OF SURVEY METHOD AND ANALYSIS .....	15
2.3 DESCRIPTION OF INTERVIEW METHOD AND ANALYSIS.....	16
<b>3. FINDINGS.....</b>	<b>18</b>
3.1 GENERAL OBSERVATIONS ABOUT TRAINING AND DEVELOPMENT INTERVENTIONS .....	18
3.2 SKILL TRAININGS.....	20
3.2.1 LEADERSHIP SKILLS .....	21
3.2.2 COMMUNICATION SKILLS.....	22
3.2.3 NEGOTIATION SKILLS.....	23
3.2.4 NETWORKING SKILLS .....	24
3.2.5 SELF-PROMOTION SKILLS .....	26
3.2.6 OTHER TRAINING NEEDS .....	27
3.3 TRAINING RELATED TO SEXUAL MISCONDUCT.....	28
3.4 MENTORING.....	29
<b>4. CONCLUSION .....</b>	<b>34</b>
<b>5. REFERENCES.....</b>	<b>36</b>

## LIST OF TABLES AND FIGURES

---

FIGURE 1: TRAINING OPTIONS FOR FACULTY AND YOUNG RESEARCHER MEMBERS .....	16	
FIGURE 2: FACULTY: I DO NOT NEED ANY TRAINING .....	18	
FIGURE 3: FACULTY: TRAINING NEEDS BY GENDER.....	20	
FIGURE 4: YOUNG RESEARCHERS: TRAINING NEEDS BY GENDER.....	20	
FIGURE 5: FACULTY: LEADERSHIP TRAINING NEEDS	FIGURE 6: YOUNG RESEARCHERS: LEADERSHIP TRAINING NEEDS .....	21
FIGURE 7: FACULTY: COMMUNICATION TRAINING NEEDS	FIGURE 8 YOUNG RESEARCHERS: COMMUNICATION TRAINING NEEDS ....	22
FIGURE 9: FACULTY: NEGOTIATION TRAINING NEEDS	FIGURE 10: YOUNG RESEARCHERS: NEGOTIATION TRAINING NEEDS .....	24
FIGURE 11: FACULTY: NETWORK TRAINING NEEDS	FIGURE 12: YOUNG RESEARCHERS: NETWORK TRAINING NEEDS .....	25
FIGURE 13: FACULTY: SELF-PROMOTION TRAINING NEEDS	FIGURE 14: YOUNG RESEARCHERS: SELF-PROMOTION TRAINING NEEDS..	26
FIGURE 15 FACULTY: DO YOU YOURSELF HAVE FORMAL AND/OR INFORMAL MENTORS IN YOUR INSTITUTION? .....		30
FIGURE 16 YOUNG RESEARCHERS: DO YOU HAVE ONE OR MORE FORMAL MENTORS IN YOUR INSTITUTION? .....		30
FIGURE 17 FACULTY: MY MENTOR, FORMAL AND INFORMAL, HAS:.....		31
FIGURE 18 YOUNG RESEARCHERS: MY MENTOR, FORMAL AND INFORMAL, HAS:.....		31
FIGURE 19 DO YOU ACT AS A MENTOR? .....		32

## ABBREVIATIONS AND ACRONYMS

---

AHMSSBL	Arts, Humanities, Medicine, social sciences, business, law
EC	European Commission
E4E	EQUAL4EUROPE
GE	Gender Equality
GEI	Gender Equality Index
HE	Higher Education
HRM	Human Resource Management
OC	Organisational Culture
RPI	Research Performing Institutions
WP	Work Package

## **Acknowledgement**

We want to thank all participants who took part in the survey and in the semi-structured interviews. We want to thank the interview participants for being so open and some of them sharing very personal experiences and insights into their work life. We are particularly grateful that we have been able to conduct this study during the on-going COVID-19 pandemic, which for many academics across European universities has resulted in an increased workload, in addition to other challenges faced due to the pandemic. The fact that our interview participants made time for face-to-face interviews despite these challenges needs to be acknowledged. We really appreciate this!

## EXECUTIVE SUMMARY

This report focuses on the training and development needs to support organisational change towards greater gender equality in the six partner universities of the EQUAL4EUROPE (E4E) project. This project is financed by the European Commission which promotes research and innovation on gender equality through the Horizon 2020 programme. The main expected impact of the E4E project is to implement long-term institutional change through gender equality plans. Implementing training and development interventions are one initiative to support these efforts.

To support sustainable bottom-up and top-down organisational changes towards greater gender equality in the participating, the E4E team identified five trainings areas. These training and development areas are 1) leadership, 2) communication, 3) negotiation, 4) networking, and 5) self-promotion skills. Trainings focusing on communication skills were the most popular option followed by self-promotion and negotiation skills. There were no significant differences in how female and male respondents answered these training questions. The analysis of the interviews brought forward that media, stress, and time management skills could be additional trainings offered. The semi-structured interviews highlighted that any offered training or mentoring programme should be of high quality and accessible to all employees. Trainings and development opportunities are not a tool to fix women but they can support organisations in their efforts to become more diverse and inclusive. Such formal trainings to employees could be complemented with informal (leadership) training for current and future leaders as well as to create a more inclusive environment.

If institutions aim to provide trainings and mentoring programmes to support organisational change, we have several suggestions based on our survey and interview findings. First, we suggest that managers could assess what kind of trainings they offer, what kind of gaps they have in the offered training areas, and how they communicate about their trainings. The interview data highlight that access to training opportunities and mentoring programmes should be offered to all employees, trainings and mentoring programmes should be of high quality, and addressing the needs of all faculty members.

We want to highlight that such trainings are only one pillar supporting sustainable organisational change towards a more equal and inclusive working environment.



## INTRODUCTION

This report provides an assessment of the training and development needs in the six partner universities of the EQUAL4EUROPE (E4E) project to foster gender equality. The EQUAL4EUROPE consortium consists of six research performing institutions (RPI) with a focus on Arts, Humanities, Medicine, Social Sciences, Business, and Law (AHMSSBL). This project is financed by the European Commission which promotes research and innovation on gender equality through the Horizon 2020 programme. Gender is a cross-cutting issue and is mainstreamed in each of the different parts of this project's work programme, ensuring a more integrated approach to research and innovation. The main expected impact is to implement long-term institutional change through gender equality plans. Other goals are to increase the participation of women in research, improve their careers, and achieve a gender balance in decision making and to increase the scientific quality and societal relevance of produced knowledge and innovation by integrating an in-depth understanding of both genders' needs, behaviours, and attitudes. Implementing training and development interventions are one way to aid organisational change processes towards more gender equality and an inclusive work environment supporting women. If such training and development initiatives stand alone, this could create the impression of aiming to 'fix' women. We would like to stress that training and development interventions should be part of, aligned to, and support systemic organisational change efforts towards fostering greater diversity and inclusion.

The report is structured as follows: The report starts with a review of the literature on training and development interventions, specifically relating to gender equality in higher education. After this, a brief description of the assessment methodology is provided, describing the collected qualitative as well as quantitative data. Surveys were distributed to all academics, postdoctoral researchers, and PhD students at the six participating universities and semi-structured interviews were conducted with 62 female academics, postdoctoral researchers, PhD students, and female and male leaders and HR managers working at the partner universities. The results section presents the analysis of the trainings and development needs focusing on 1) networking, 2) leadership, 3) self-promotion, 4) communication, and 5) negotiation skills. In addition, time management and organisation skills and media training are identified as training needs. The report closes with a conclusion that access to a variety of high-quality trainings and development opportunities should be guaranteed to both male and female academics to support organisational change processes fostering gender equality and inclusion.

## 1. LITERATURE REVIEW: TRAINING AND DEVELOPMENT INTERVENTIONS

Gender inequality has its causes at various levels including individual, team, organisational, and societal one (Joshi, Neely, Emrich, Griffiths, & George, 2015). We identified in our previous work environment and organisational culture [report](#) five areas hindering processes towards greater gender equality: 1) competitiveness and workload responsibilities, 2) the lack of transparency, 3) the absence or low number of female leadership, 4) the challenge of senior female academics handled as tokens, and 5) the topics of sexual misconduct and assault. Organizational structures and work practices tend to be still designed around men's lives and situations to become leaders and cater less to the reality of women (Acker, 1990; Hewlett, 2007).

There are various policy approaches to foster gender equality within the higher education sector. Systemic change within universities is necessary to create sustainable differences and become a more inclusive employer and organisation. Offering access to training and development opportunities to employees is one way to assist such efforts towards a more inclusive working environment and is the focus of this report. This section briefly reviews what has been said about training and development opportunities with the purpose to reduce gender inequality.

Well-trained employees are a valuable asset contributing to organisational performance and ensuring organisational survival. Showing employees that they are needed and valued can be achieved through well-designed and systematic implementation of training and development programmes. This enables employees to develop and enhance their skills which leads to higher employee motivation and retention (Kadiresan et al., 2015).

Trainings and development programmes aiming to improve women's skills, attributes, and abilities is one of the more traditional and common approaches to decrease gender inequality (Powell, 1987). Such programmes aim to provide knowledge, techniques, and tools in order to develop skills and create changes. This approach is based on the notion that gender is an individual characteristic based on the biological category of being male or female. It assumes that due to socialisation the biological category (female and male) can influence individual's attitudes and behaviours. This approach conceptualises inequality at the workplace as socialized differences between women and men. Based on this notion a suggested solution is to minimise differences between men and women by offering trainings.

Multiple customized training programmes have been developed and implemented in work settings as an intervention promoting equality and address related gender issues in the work context (Ely, Ibarra, & Kolb, 2012; Fapohunda, 2013; Graf et al., 2017). Often these training programs address strategies to become (more) successful and are exclusively developed for women. Examples of such trainings are executive education training, leadership development courses, networking workshops, and assertiveness trainings (Powell, 1987; Liff & Cameron, 1997). These trainings of this perspective include useful skills and tactics, but do not address or are aligned with organizational change efforts supporting diversity, inclusion, and equality issues.

In line with this approach offered trainings and mentoring programmes aim equip women with more masculine competencies and compete with men (Ely & Meyerson, 2000b; Van den Brink & Benschop, 2012). Some studies have shown that women's participation in women-only leadership development programs can increase their self-efficacy, expand their networking, and enhance their careers (Longman & Lafreniere, 2012). As a positive result of this approach more qualified women arrive in application pools of potential candidates and thus in organisational pipelines for leadership positions. If succeeding, these women also become role models for other women. This approach however focuses on women only and sees women as the 'problem' and accordingly trying to 'fix' them. Seeing women as the 'source of the problem' lacking skills and knowledge has been critiqued widely (e.g., Abalkhail, 2017; Cox, 1993; Hannum et al., 2015; Thomas & Ely, 1996).

A weakness of this perspective is that trainings, development and mentoring programmes do not decrease gender inequality or questions the male standards in organisations. These trainings either assume either that gender does not matter or locate the problem in women (Ely et al., 2012). Some trainings deliver the same content to men and women (Martin & Meyerson, 1998) others focus on adopting a "fix-the-women" approach (Ely & Meyerson, 2000). One result is that women may be perceived as less competent, skilled, or suitable compared to men for leadership positions because of their gender. Such interventions do not change existing organizational policies and structures. Some women are instead assimilated to the status quo. In other words, such approach does neither address the complexity of gender inequality nor initiate sustainable change processes at the organisational level. If systemic change does not take place, people from traditionally under-represented groups including women with diverse backgrounds will remain excluded (Cox, 1993; Thomas & Ely, 1996).

A second shortcoming of aiming to improve gender equality only with training and development programmes is the accessibility and options of such trainings. While organisations report to offer trainings to both female and male employees, women seem to have fewer leadership or management training opportunities (Abalkhail, 2017; Hannum et al., 2015). Women report that due to their caring responsibilities attending such events is more restricted if events are scheduled outside of school hours, or only to be reached through (international) travelling (Abalkhail, 2017; Thomas et al., 2019). Casual and seasonal teaching staff have also often no or limited access to professional development opportunities besides “Introduction to Teaching” courses (Crimmins, 2017). Such professional development opportunities are however crucial in advancing a career. Some female academics thus seem to be limited in their options for trainings or experience difficulties in attending these.

A third weak point is that in isolation such training and development interventions are not effective. For example, leadership development programmes for female academics can enhance their individual capabilities and confidence and increase the likelihood to attain their career goals, in particular when continuously supported (Chang et al., 2016; Chuang, 2019; Dutta et al., 2011; Fassiotto, Maldonado, & Hopkins, 2017; Pike et al., 2018). Such leadership programmes are however less effective if they are not accompanied with other organisational changes towards more inclusion and gender equality. If these interventions fostering gender equality are solely based on development programmes for women, these programs may fail advancing gender equity at an organisational level (Butko, 2016; Chuang, 2019). Interventions fostering gender equality hence need a combination of training and development programmes and other additional strategies.

Another approach focusing on fostering gender equality in organisations is to intervene in the complexity of social practices of the work environment by including training and development programmes. As gender inequality is a complex topic impacting individual, interpersonal, and organisational levels, a combination of assessing the organisational context and training needs seems beneficial. Combining organisational and training interventions could offer opportunities to create a more sustainable change and initiate both top-down and bottom-up change processes. Trainings and development programmes are an important pillar to aid and speed up the systemic change processes (Noon, 2010). They can also support and empower women to navigate the current unbalanced system while more systematic change is implemented. To ensure effective training and development outcomes, training professionals should focus on a clear understanding on how and why female academics experience hurdles in their careers. Successful leadership development programmes require sufficient resources, a clear action plans, and

measurable outcomes (Fassiotta, Maldonado, & Hopkins, 2017; Pike et al., 2018; Van den Brink & Stobbe, 2014; Van Oosten, Buse, & Bilimoria, 2017).

Typical skills which can be helpful supporting bottom-up processes fostering social change and greater gender equality are the following: leadership, communication, negotiation, networking, and self-promotion.

**Leadership** training can offer a degree of professionalisation to leadership. By focusing on change and diversity and inclusion topics in such leadership trainings, leaders can learn to better understand their role in general and how they can lead change processes. They can become leaders who facilitate a more inclusive working environment and can also encourage their teams to speak up and take part in bottom-up processes to create a more inclusive working environment (Khalid et al., 2021). Preparing female academics for leadership roles by offering leadership trainings can increase the visibility and success of female leaders and foster greater gender equality in general (Khalid et al., 2021). Leaders have an important role in creating a more inclusive working environment and to develop and promote their best talent into leadership positions (Kelan, 2018; Kelan & Watril, 2018).

**Communication skill** trainings can focus on formal (e.g., speeches, media interaction, communicating a vision) and informal (e.g., daily interaction, guidance, spontaneous media interaction) (Pielstick, 2000). Learning to communicate well in informal and formal context can help academics to enhance their self-confidence and interpersonal relationships (Delamater & Mcnamara, 1986). Such training can be beneficial for careers and to support changes within organisation by training employees how to talk about and effectively raise their needs and wishes. This again can support both the bottom-up and top-down changes processes by teaching employees and managers communication skills.

**Negotiating** is a daily activity in the workplace. Examples are negotiating routines of work, expanding roles and job opportunities, seeking support to move ahead, and securing resources (Ely, Ibarra, & Kolb, 2011). Negotiation skills include assessing options and also defining issues and important actors (Lax & Sebenius, 2006). Some negotiations can question gendered structures, such as asking for flexible working arrangements can challenge existing organisational practices (Correll, Benard, & Paik, 2007); seeking as a woman a leadership role can highlight female colleagues are overlooked for such roles; and claiming value for invisible work can call the attention to biases operating in performance reviews and compensation (Martin, 1994). Negotiation being critical for all employees is particular critical for all (aspiring) female

leaders (Ely et al., 2011) and can assist the organisational effort to become a more inclusive and flexible employer and increase the number of female leaders.

**Networking** skills becomes more critical to individuals advancing their careers as bureaucratic policies are less likely to apply (Kanter, 1977). Women tend to have however less often access to networks and gain fewer benefits from them relative to men having similar networks and network positions (e.g., Mehra, Kilduff, & Brass, 1998). Trainings and mentoring programmes offer opportunities to expand their networks and highlighting the benefits of networking (Day, 2001). Offering networking trainings can support participants in their careers. If employees are better connected within and outside the organisation this can have a positive impact on organisational performance and change efforts (e.g., Hollenbeck & Jamieson, 2015).

**Self-promotion** can be understood as a strategy to seek professional advancement for employees (Vallas & Cummins, 2015; Vallas & Christin, 2018). Self-promotion is defined as, “pointing with pride to one’s accomplishments, speaking directly about one’s strengths and talents, and making internal rather than external attributions for achievements” (Rudman & Phelan, 2008: 629). Engaging in self-promotion can help women to advance their career and eventually move into a leadership position. Offering such trainings and development opportunities could support the organisational effort to increase the number of female leaders, as well as transparency around issues such as workload and promotion criteria.

To sum up gender inequality is rooted in societal and organisational context impacting the individual, inter-personal, and organisational level. To reduce inequality and foster inclusion organizations have to take responsibility by systematically change their structure and these change processes can be supported by training and development programmes to navigate the current organisational system lacking equality and inclusion. Offering training in the areas of leadership, communication, negotiation, networking, and self-promotion can support the career of employees and organisational change efforts fostering diversity and inclusion topics. To be effective, such training and development programmes need sufficient resources and should be aligned with the organisational change processes.

## 2. METHODS

### 2.1 Cases

The EQUAL4EUROPE consortium consists of six research performing institutions (RPI) with a focus on arts, humanities, medicine, social sciences, business, and law (AHMSSBL). The institutions are located in different EU member states which have various levels of gender equality (see Table 1 for more details). Data was collected from all the participating institutions between November 2020 and May 2021. First, surveys were sent to all faculty members, staff, researchers, and students and then semi-structured interviews conducted with female academics ranging from PhD students, researchers with temporary contracts, assistant, associate, and full professors. This section describes briefly the survey and then the interview methods. For more details of the survey methods see EQUAL4EUROPE report (2021) on the culture and working climate for women.

**TABLE 1. GENDER EQUALITY (GE) INDEXES 2005 AND 2021 (SCORES OUT OF 100 POINTS)**

	GE 2005 Index	GE 2021 Index	Domain of highest GE	Domain of lowest GE
<b>France</b>	65.2	75.5	Health (87.4)	Knowledge (67)
<b>The Netherlands</b>	67.8	75.9	Health (90.2)	Power (64)
<b>Spain</b>	62.2	73.7	Health (90.3)	Time (64)
<b>Slovenia</b>	60.8	67.6	Health (87.8)	Power (53)
<b>EU-28</b>	62	67.4	Health (88.1)	Power (51.9)
<b>Germany</b>	60	68.6	Health (90.7)	Knowledge (54.7)
<b>Slovakia</b>	52.5	56	Health (85.5)	Power (30.7)

Source: European Institute of Gender Equality, 2021

### 2.2 DESCRIPTION OF SURVEY METHOD AND ANALYSIS

In collaboration with all E4E project partners, surveys for academic, non-academic, PhD students, and students were developed, drawing on existing academic literature, research, and relevant surveys on belonging and gender equality and aimed at providing findings for the organisational culture and working environment assessment (e.g., Bartels et al., 2019; Glick et al., 2018; Nishii, 2013). The surveys covered the following themes relevant for this report: role and position within the organisation, mentoring and

being mentored, and training needs. Some minor modifications were made in the surveys to adapt to the circumstance of each target population.

The training questions focused on self-promotion, negotiation, networking, communication, and leadership skills needs. The reasons for including these specific training areas are that they support employees in their careers but also, they can be aligned to organisational change efforts as mentioned in the literature review. The survey analysis was based on descriptive, comparative, and the Chi-Square Test analysis. This report will focus on trainings and development questions of the survey which inquired: First, “If offered training in your current position, which of the following skills would you most want to develop?” Participants were able to tick multiple options and also to add additional training wishes. The second set of questions focused on mentoring. Examples of questions are “Do you yourself have formal and/or informal mentors in your institution?” (Yes, formal; Yes, informal; No) or “My mentor, formal and informal, has given advice on my research.”

Figure 1 below shows an overview of the survey options (self-promotion, communication, networking, negotiation, leadership, no need, and other skills) and the number of positive answers by both participating faculty and young research members. Communication skills was the most popular option.

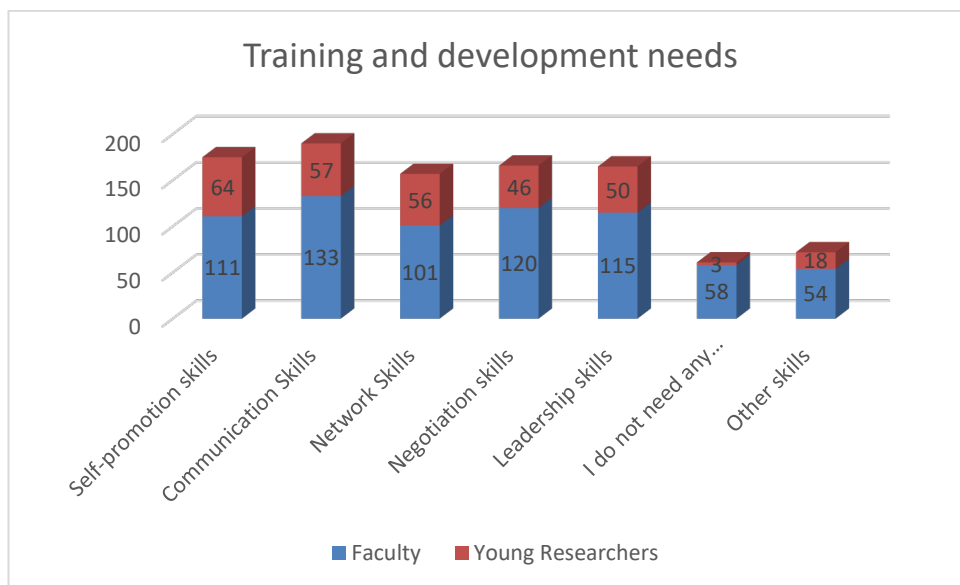


FIGURE 1: TRAINING OPTIONS FOR FACULTY AND YOUNG RESEARCHER MEMBERS

## 2.3 DESCRIPTION OF INTERVIEW METHOD AND ANALYSIS

Preparing for the qualitative semi-structured interviews, E4E team created five different interview guides. The five interview guides included one for faculty, one for young researchers, one for workers’



representatives, one for HR heads, and one for leadership interviews, which included the dean and head of departments. The interview guides follow a similar structure, covering a set of thematic questions, but do vary in order to leave room for the different roles of these five groups. More details can be found in EQUAL4EUROPE [report](#) (2021) on the culture and working climate for women. In total, 42 semi-structured interviews have been conducted with female academics including PhD students, researchers with temporary contracts e.g., postdocs and lecturers, and assistant, associate, and full professors. Additionally, 10 interviews with HR managers, and members of the Works' Council and faculty councils of the partner institutions, and 10 leadership interviews. A thematic analysis was conducted of the semi-structured interviews. This report will focus on questions addressing training and mentoring topics. Based on this analysis the most relevant aspects were selected for this report.

The survey and interview results are limited through various factors. First, the desirability bias of survey and interview participants may influence their answer in how they think the researcher expects them to answer these questions. Second, the interviewers' personality and way of conducting the interview is likely to have influenced some of the interview results. Third, we present the results of our survey and interview participants. Academics who did not participated in the survey or interviews may think differently about these topics.

### 3. FINDINGS

This section reports on the findings of the surveys for academic, non-academic, PhD students, and students at the partner institutions and 62 semi-structured interviews with young researchers, academics, workers’ representatives, HR managers, and leadership. This section starts with four more general observations about training and development interventions. It continues analysing the five training areas, including leadership, communication negotiation, networking, and self-promotion, and other training needs. During the interview, issues with trainings related to policies and procedures about sexual misconduct were highlighted and therefore also mentioned here. The last part focuses on mentoring programmes.

#### 3.1 GENERAL OBSERVATIONS ABOUT TRAINING AND DEVELOPMENT INTERVENTIONS

There are some general observations about training and development interventions.

First, 14.3% of all academic participants (14.6% male and 14.5% female academics) and 23.7% young researchers (2.2% male and 21.5% female) indicated that they do not need any training. There is no significant difference between participating male and female faculty members in their need for training ( $W = 18956$ ,  $p\text{-value} = 0.9789$ ). Correspondingly, some interviewed female academics clearly expressed that they did not wish to attend any trainings for women. During the interviews, the notion that female academics need additional or tailored trainings was sometimes questioned as women are equal to men or trainings with a female target group was seen as one-sided.

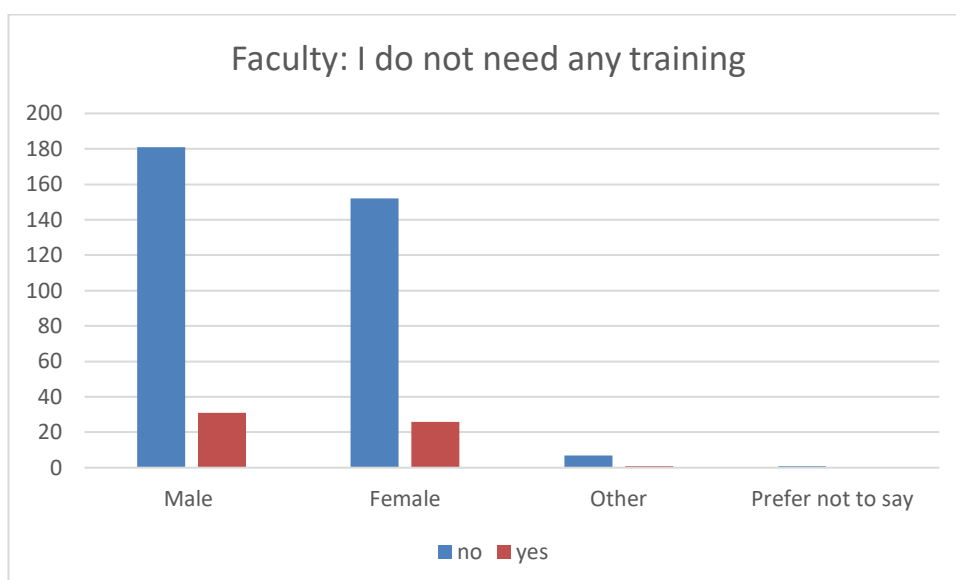


FIGURE 2: FACULTY: I DO NOT NEED ANY TRAINING

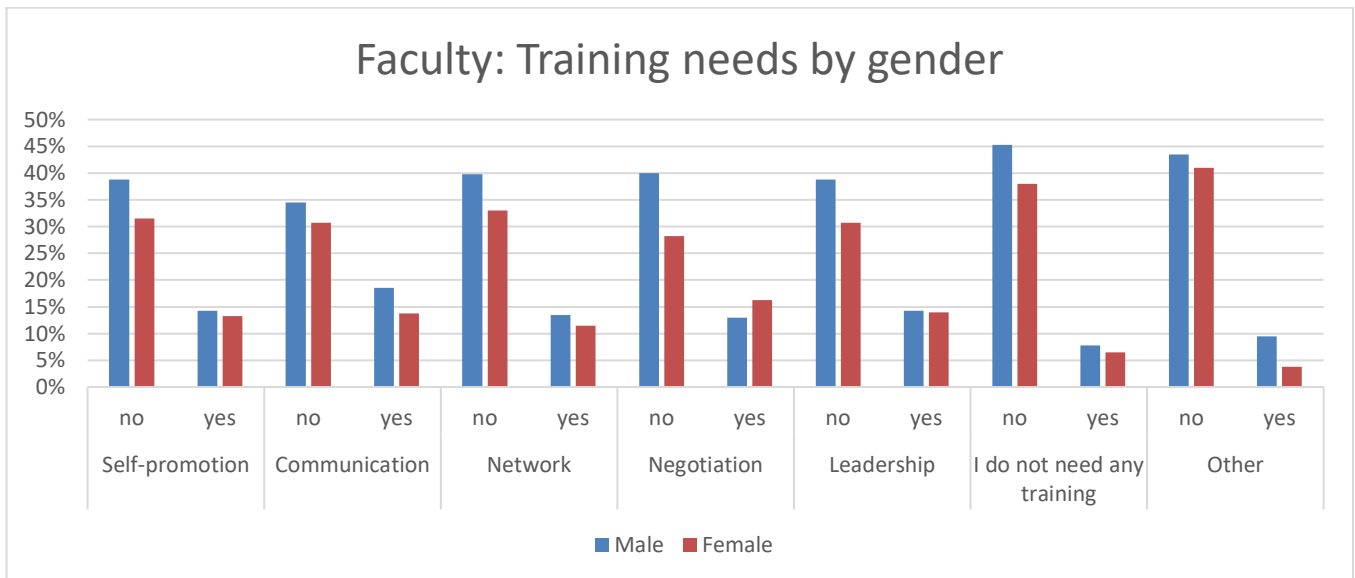
Second, some interviewees have pointed out that trainings aiming to foster gender equality tend to target women, minorities, or PhD students. *“Not only women and minorities but also men should be included”* (Assistant Professor, #2). The interviewees were wondering how their male colleagues are trained to promote equality and inclusion issues and how do they contribute towards a more equal and inclusive workplace and society.

A third observation is that some academics felt that there was a lack of or limited training opportunities at their institutions. When asked about current training opportunities at the workplace one interviewee replied: *“I never heard about that [support and training opportunities]”* (Assistant Professor, #1). Another participant answered when asked about support for female academics: *“I’m not aware of that. There is not this distinction between women PhDs.”* (PhD, #3). One Assistant Professor also pointed out that the training portfolio should be broadened so that all training needs for all faculty members are covered:

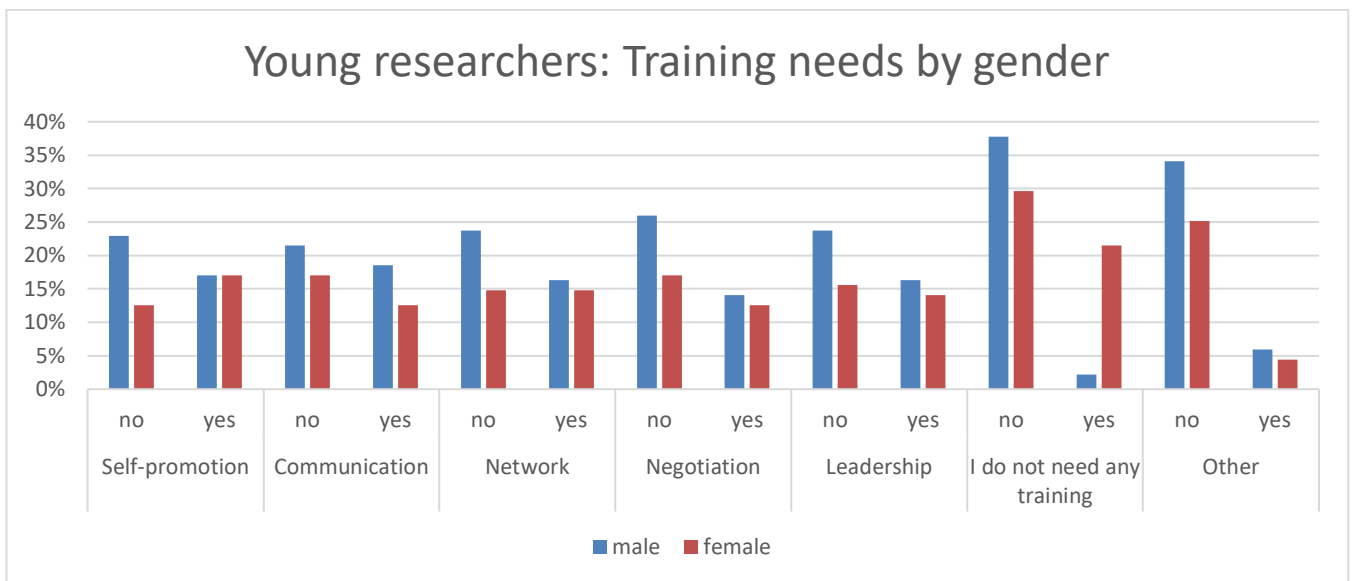
*“It would also help to have a broader portfolio there, I think, frankly, also not just for women or minorities. There are different things that different members of the organization, irrespective of who they are, struggle with.”* (Assistant Professor, #2)

Managers could reflect on the training areas offered and, if and how they communicate about their offered trainings.

Fourth, we did not find any significant difference between female and male respondents in the number of trainings they wished for ( $W = 18204$ ,  $p\text{-value} = 0.4741$ ). Male and female young researchers significantly differ in their response to the number of trainings they wished for ( $W = 752$ ,  $p\text{-value} = 0.04092$ ). See Figure 3 and 4 for an overview of the indicated training needs.



**FIGURE 3: FACULTY: TRAINING NEEDS BY GENDER**



**FIGURE 4: YOUNG RESEARCHERS: TRAINING NEEDS BY GENDER**

To summarise, while not all academics wished to have more trainings the majority of survey respondents did. Participating faculty members did not differ in their need for training but young female and male researchers did differ in their response in the number of trainings. In general, access to training opportunities should be offered to all employees and the range of trainings should be diverse and addressing the needs of all faculty members.

### 3.2 SKILL TRAININGS

To help overcome barriers, facilitate bottom-up and top down change processes and support women to progress into leadership positions we have identified five skill training needs above. This section reports on the findings of these five skills training areas.

### 3.2.1 LEADERSHIP SKILLS

The first area is leadership training which can support increase the number of female academics in leadership positions and support top-down change processes by professionalising the skill set of current leaders. Of the survey participants 28.8% faculty members (26.9% male and 31.3% female) and 37.8% young researchers (40.7% male and 47.5% female) indicated a need for leadership training. There is no significant difference for participating faculty members and young researchers (respectively X-squared = 0.90043, df = 1, p-value = 0.3427; X-squared = 0.61591, df = 1, p-value = 0.4326).

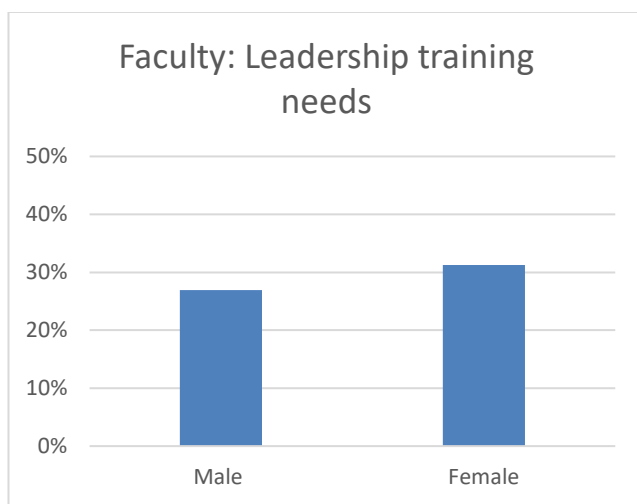


FIGURE 5: FACULTY: LEADERSHIP TRAINING NEEDS



FIGURE 6: YOUNG RESEARCHERS: LEADERSHIP TRAINING NEEDS

Interviewed HR leaders also expressed the urgency to professionalise through leadership trainings current leaders in their organisations to facilitate a more inclusive working environment:

*“Leadership training that is important. How do you go about fostering these elements [inclusive leadership] in a training of for example, hiring managers?” (HR manger, #5)*

One interviewee shared that the offered leadership course at her institution had a reputation of being rather unhelpful:

*“There's the leadership course that our service offers which I heard really bad things about. Some might consider something else from one of the more renowned institutions that we have in training.” (Assistant Professor, #4)*

If trainings have not the best reputation it seems not to support the organisational efforts to professionalise the skillset of current leaders, to prepare future (female) leaders, and overall to support efforts towards a more inclusive work environment.

### 3.2.2 COMMUNICATION SKILLS

The second training area focuses on communication skills which can support female academics in their career and organisational change processes. 32.5% participating faculty members (34.9% male and 30.7% female) and 44.4% participating young researchers (46.3% male and 42.5% female) indicated a need for communication training. There is no significant difference between female and male faculty and young researcher participants (respectively X-squared = 0.55747, df = 1, p-value = 0.4553; X-squared = 0, df = 1, p-value = 1).

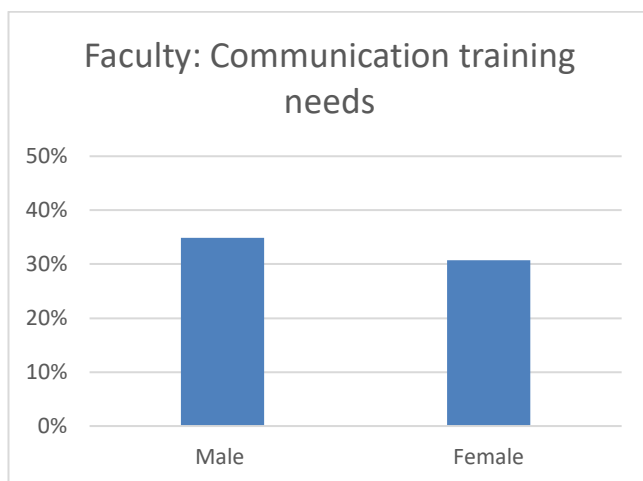


FIGURE 7: FACULTY: COMMUNICATION TRAINING NEEDS



FIGURE 8 YOUNG RESEARCHERS: COMMUNICATION TRAINING NEEDS

The shared needs about communication skills by the interviewed participants mainly focused on that they wish to learn *“how to communicate in a in a more friendly way”* (Assistant Professor, #6) and to be able to offer helpful and *“friendly feedback”* (Assistant Professor, #12).

Interviewed female academics at various level signalled however a strong interested in being trained in communication with leaders or as a leader. Some interviewees would like to attend trainings where they learn about ways of interacting with leaders:

*“I think I’m quite good with thinking about things strategically, but then, how to interact in a leadership team.”* (Assistant Professor, #7)

Additionally, interviewees also wished to be trained how to communicate with leaders:

*“I would like a training in especially how to be in conversation with the [leadership team]. Because then you feel this uncomfortable feeling coming ‘oh I’m talking with a big boss,’ you know and then you’re like ‘no’.” (Lecturer, #3)*

Another issue raised during the interviews was how to communicate as a female leader. Friendliness was mentioned by the interviewees several times as a desirable skill (for more details on communication skills see previous competition and workload section). Another interviewee imagined that as a more senior academic giving feedback will become more important:

*“Then giving feedback, I would have sort of showing different ways in which you can do it, and then practicing different ways, rather than sort of to hear and respect and reflect on what everyone every participant says. So that it becomes more of a deliberative space thing, where you know there’s equal participation, rather than hierarchies and pushing through stuff.” (Assistant Professor, #5)*

Communication and in particular interacting with leaders and giving feedback are seen as essential skills. Refining communication skills with leaders can support bottom-up change processes and developing communication skills in general can also support female academics in their careers and becoming successful leaders which also can support efforts to become a more inclusive organisation.

### 3.2.3 NEGOTIATION SKILLS

---

The third is negotiating skills which can help female academics and support organisational change processes. Successful negotiations can have a positive consequence for the course of female academics’ careers including their salary, workload, and support (e.g., facilities, funding, and employees) (Sarfaty et al., 2007). Of the survey participants 29.5% faculty members (24.5% male and 36.3% female) and 35.6% young researchers (35.2% male and 42.5% female) indicated a need for negotiation training. There is a significant difference between female and male faculty members ( $X^2 = 6.4774$ ,  $df = 1$ ,  $p\text{-value} = 0.01093$ ) but no significant difference for young researcher members ( $X^2 = 0.30999$ ,  $df = 1$ ,  $p\text{-value} = 0.5777$ ). Negotiation is the training area where there is a significant difference in the answer of female and male faculty members. Gender and negotiation have been long studied (Kolb, 2012). Women are often expected to accommodate. Such expectation clashes with the more assertive behaviour while negotiating. This discrepancy is likely to be noticed by many women and might explain the significant difference between women and men in answering this question.

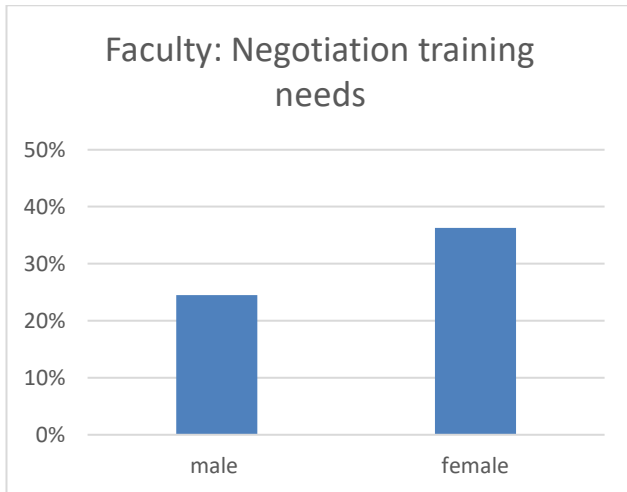


FIGURE 9: FACULTY: NEGOTIATION TRAINING NEEDS

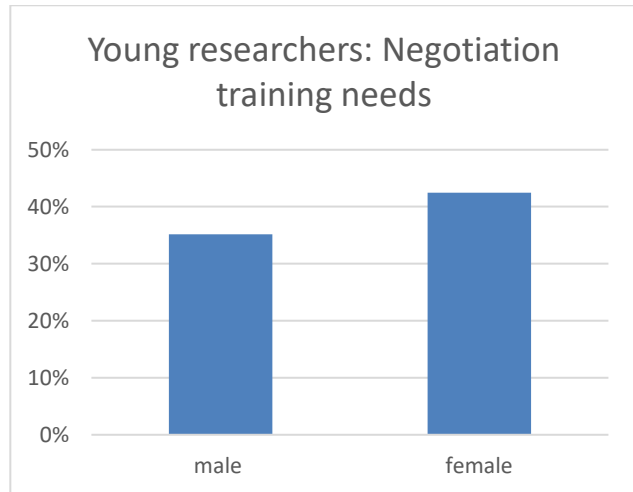


FIGURE 10: YOUNG RESEARCHERS: NEGOTIATION TRAINING NEEDS

One interviewed female academic specified her reasons for wanting to join a negotiation training:

*“I would love to know how to make sure to negotiate a salary, when I get an offer for professorship. Since I've started in my career, I don't know what the norms are I don't know how to assert myself.” (PhD student, #1)*

As with all other trainings, organisers should focus on the quality of the course as one female assistant professor mentioned that she had expected more of the attended negotiation training:

*“I would like to be better at negotiation I didn't feel that [the workshop] was really doing what I expected it to do, because I think I personally would like a more tailor-made sort of approach of how to do that [negotiation], rather than more generic things about how to sort of how you can negotiate. It's more sort of how to suppress your insecurity but also how to know how you can leverage your good traits and sometimes you don't even know that are your good traits, because you normalize. So really realizing that and maybe taking examples from a natural environment.” (Assistant Professor, #3)*

### 3.2.4 NETWORKING SKILLS

Fourth, networking skills can be of use for female academics and support organisational change processes. 25.3% of the participating faculty members (25.5% male and 25.7% female) and 42.9% of the participating young researchers (40.7% male and 50% female) indicated a need for networking training. There is no significant difference between female and male faculty and young researcher participants (respectively X-squared = 6.9896e-31, df = 1, p-value = 1; X-squared = 1.6627, df = 1, p-value = 0.1972).



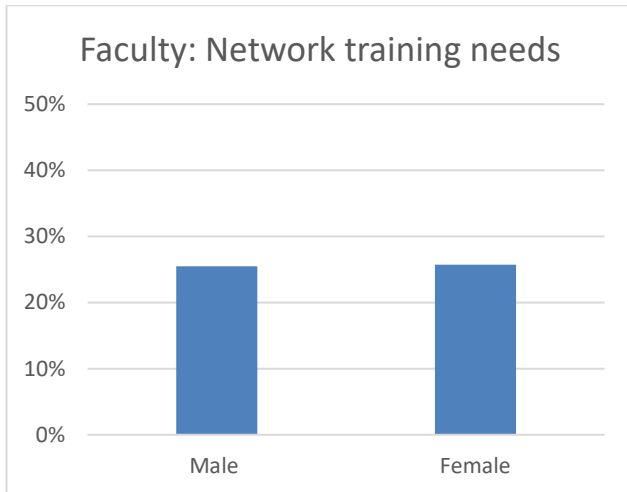


FIGURE 11: FACULTY: NETWORK TRAINING NEEDS

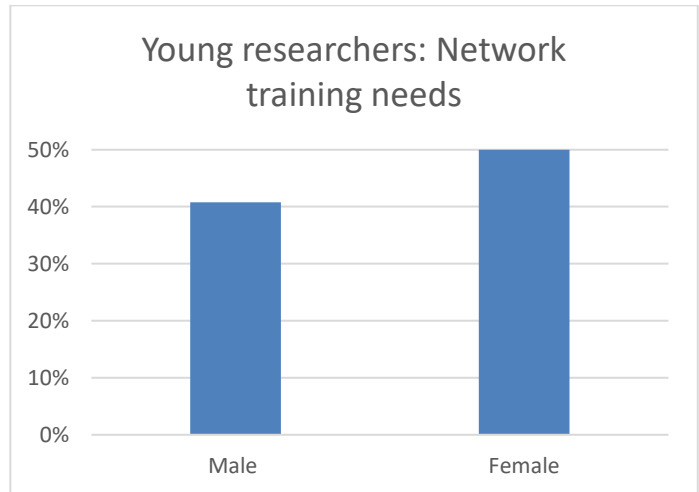


FIGURE 12: YOUNG RESEARCHERS: NETWORK TRAINING NEEDS

In particular, younger interviewed researchers expressed their wish to learn more about networking in general:

*“Networking would be the thing that that I’m not up to par with because I’m kind of introverted. I don’t know how to interact when I hang out with a larger group. I can’t really switch smoothly between people.” (PhD student, #5)*

Other young researchers are interested in how to build their network for their research projects, such as contacting potential co-authors.

*“Networking in a sense of like okay I’m gonna meet again I don’t think it’s something we needed a training on. But in a sense of how to reach out to people who are could be potential co-authors or how to reach out to work with people you want to go into research visit... How do you reach out to these people? I don’t know that, and this is what I would like to.” (PhD student, #6)*

More senior interviewed researcher did not mention networking as a desired skill for more training. Some interviewed female leaders highlighted however how their male colleagues excluded them and other female colleagues from informal meetings. Networking within and outside the organisation can support organisational change processes and also support female academics in their career as it is also a way to gain access to tacit or more hidden knowledge.

### 3.2.5 SELF-PROMOTION SKILLS

The fifth area is self-promotion skills. 28.5% of the participating faculty members (26.9% male and 26.9% female) and 55.6% of the participating young researchers (42.6% male and 57.5% female) indicated a need for self-promotion training. There is no significant difference between female and male faculty and young researcher participants (respectively X-squared = 0.51746, df = 2, p-value = 0.772; X-squared = 2.6265, df = 1, p-value = 0.1051).

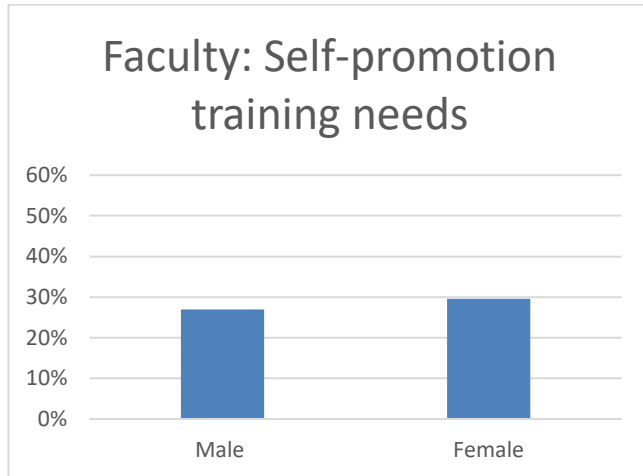


FIGURE 13: FACULTY: SELF-PROMOTION TRAINING NEEDS



FIGURE 14: YOUNG RESEARCHERS: SELF-PROMOTION TRAINING NEEDS

Female academics felt that in the competitive working environment they work in self-promotion skills can be helpful for advancing their careers and is necessary to advance their career. Related to self-promoting skills, one interviewee describes the contradiction of what she thought is expected of her and how she feels about this:

*“I struggle, a little bit with kind of self-market or a self-presentation. I think that's not unheard of in this in this context. I intrinsically do not enjoy this very much.” (Assistant Professor, #9)*

Self-promotion skills are particular helpful to support female academics in their career and to become more visible within and outside their organisation.

These five training areas, leadership, communication, negotiation, networking, and self-promotion, are useful to support organisational top-down and bottom-up change processes and female academics in their careers and navigating the current work environment.

### 3.2.6 OTHER TRAINING NEEDS

---

During the interviews, the interaction with media and social media was an important topic and the wish to attend a media training was mentioned. One interviewee explained why she was hesitant to appear more often in the media outlets:

*“I personally would really like to have some [...] media training, but I worry about how you come across. You hear all these things about getting trolling's and trolls and whatever you call them. I would be very worried about abuse online or about not coming across well or not looking nice. I just feel this gives me a lot of stress and it's one of the reasons why I don't really push or reach out to for anything.”* (Assistant Professor, #5)

If institutions aim their female faculty to be more prominent in media outlets and social media, offering media trainings could be one useful step to strengthen their public appearances. Other academics pointed out that they are aware that social media such as Twitter or LinkedIn can be useful but due to time constrain or lack of a strategy, they have not done this.

A second training topic which was not inquired by the survey was time and stress management skills. Three survey participants indicated such need in the additional training options. Related to time management skills, two interview participant also indicated a wish to attend a training for reflection, stress management, and how to work efficiently and productively. Several interviewed senior female academics contemplated about their skill set and revealed that in particular time management, self-management, and being organised are essential for their success in academia:

*“Time management, would have helped me a lot more than sort of yet another discussion of the double bind or that sort of thing.”* (Assistant Professor, #6)

The interviewees stressed that time management and organisation skills are essential to manage both their working and caring responsibilities. Many of the female faculty interviewees juggled their caring and work responsibilities, and felt that the caring responsibilities impact their career progression.

One assistant professor reflected in this:

*“In a business school doing both teaching and research and managing a family service, you know I feel I'm multitasking pursuit of time for myself.”*

*And like us to have a day off no way that I don't have to do anything, so I think also organization is very important. To be organized in terms of also for research.” (Assistant Professor, #6)*

Related to this stress management skills are also seen as desirable. Mental health problems and burnout were mentioned by a handful of interviewees. Such mental health problems are often related to the interviewees’ working environment.

*“I would like to learn more about how to do deal with stress. I think I also need to improve [to deal with stress] for sure, because at some points it did affect me, my performance and routines.” (PhD student, #4)*

Summing up, time and stress management seems to be valuable to manage an academic career in particular if combining work with care responsibilities. Media training seems to be a desirable by some interviewees.

### 3.3 TRAINING RELATED TO SEXUAL MISCONDUCT

---

During the interviews, the topic of sexual misconduct was mentioned by some interviewees. These interviewees highlighted that there is a lack of high-quality gender trainings and prevention of sexual harassment:

*“I think it would be nice to have gender trainings on gender equality, prevention of harassment, this type of topics. But a proper training. Not where people sit for four hours in a training and then they just sign some papers and leave.” (Postdoc, #2)*

Other academics attended such trainings, but they were mainly addressed to female academics as one PhD student recalls:

*“It [a sexual misconduct incident within the faculty] sparked a general discussion regarding gender-based interactions and roles. And so they organize a meeting for just the women within a department (people who identified as a female). To talk about this and to remind them what steps they can take to report this kind of behaviour.” (PhD student, #1)*

Overall, some interviewees highlighted that their employer should provide opportunities for both female and male employees to attend high quality trainings focusing on the rights and procedures in cases of sexual misconduct and assault.

### 3.4 MENTORING

---

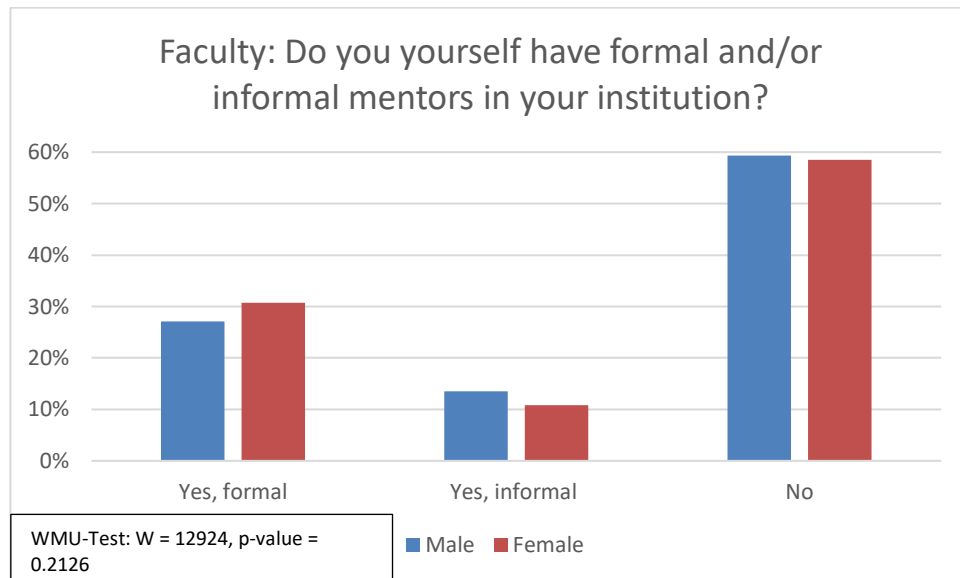
Beside formal leadership and skill training programmes, informal training in the form of mentoring and peer mentoring is another possibility to support female academics in their careers. Especially peer mentoring was mentioned often.

*“I am in touch with a lot of the other PhDs in my department and [...] we have a WhatsApp group and then, if there is any question about anything either professional or not, as professional then everyone is free to kind of like ask that and get that kind of support.”*  
(Postdoc, #1)

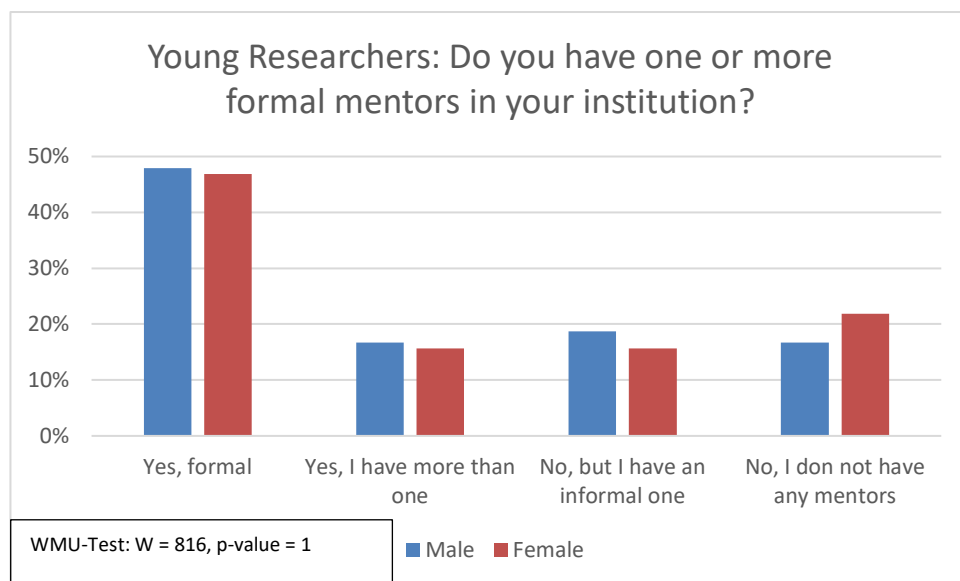
Other interviewees made a distinction between the function of peer mentoring and mentoring by more senior academics.

*“In terms of inspiration and ideas it's also my peers, but they don't coach me it's more, you have the conversation with them, and because of them you realize what's out there, what the opportunities are. But in terms of guidance and coaching I would say that's mostly my supervisory team.”* (PhD student, #8)

40.5% of the participating faculty members (41% male and 40% female) have a mentor of which 28% have a formal (30% male and 27% female) and 12% have an informal mentor (13% male and 11% female) in their institution. 81% of the participating young researchers (83% male and 78% female) have a mentor of which 64% have at one formal mentor (65% male and 63% female) and 17.5% have an informal mentor (19% male and 16% female) in their institution. There is no significant difference between female and male faculty and young researcher participants (respectively  $W = 12924$ ,  $p\text{-value} = 0.2126$ ;  $W = 816$ ,  $p\text{-value} = 1$ ).

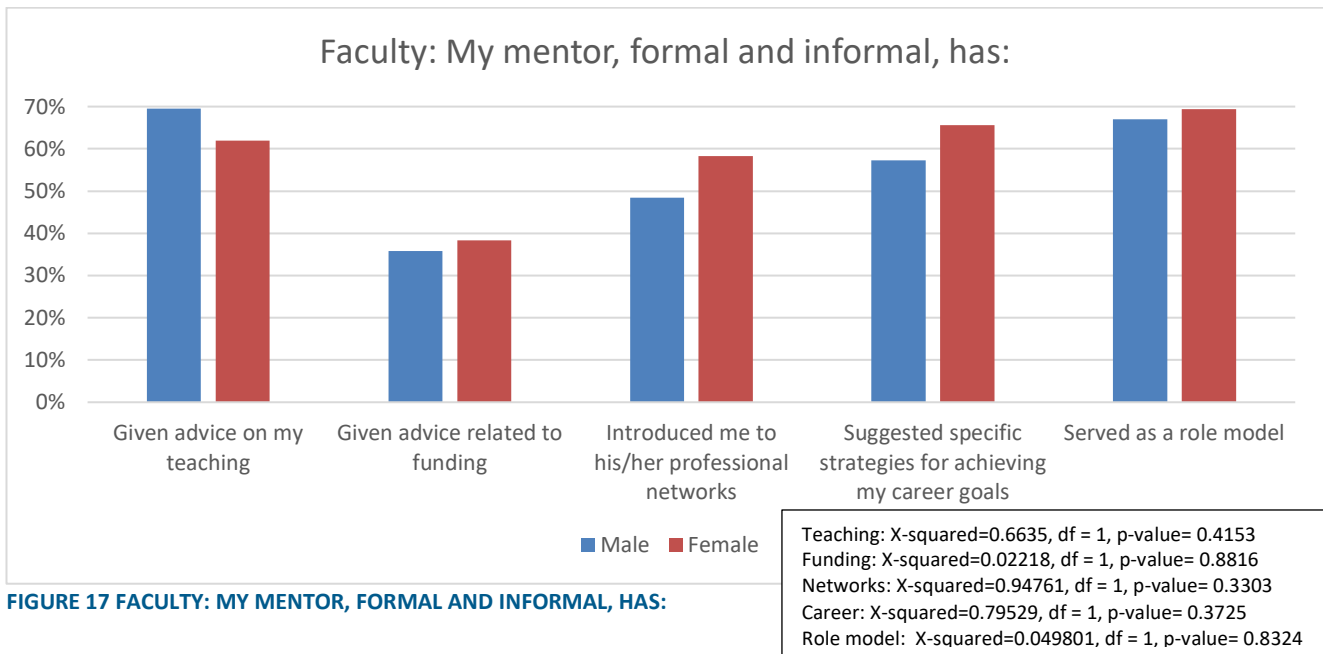


**FIGURE 15 FACULTY: DO YOU YOURSELF HAVE FORMAL AND/OR INFORMAL MENTORS IN YOUR INSTITUTION?**

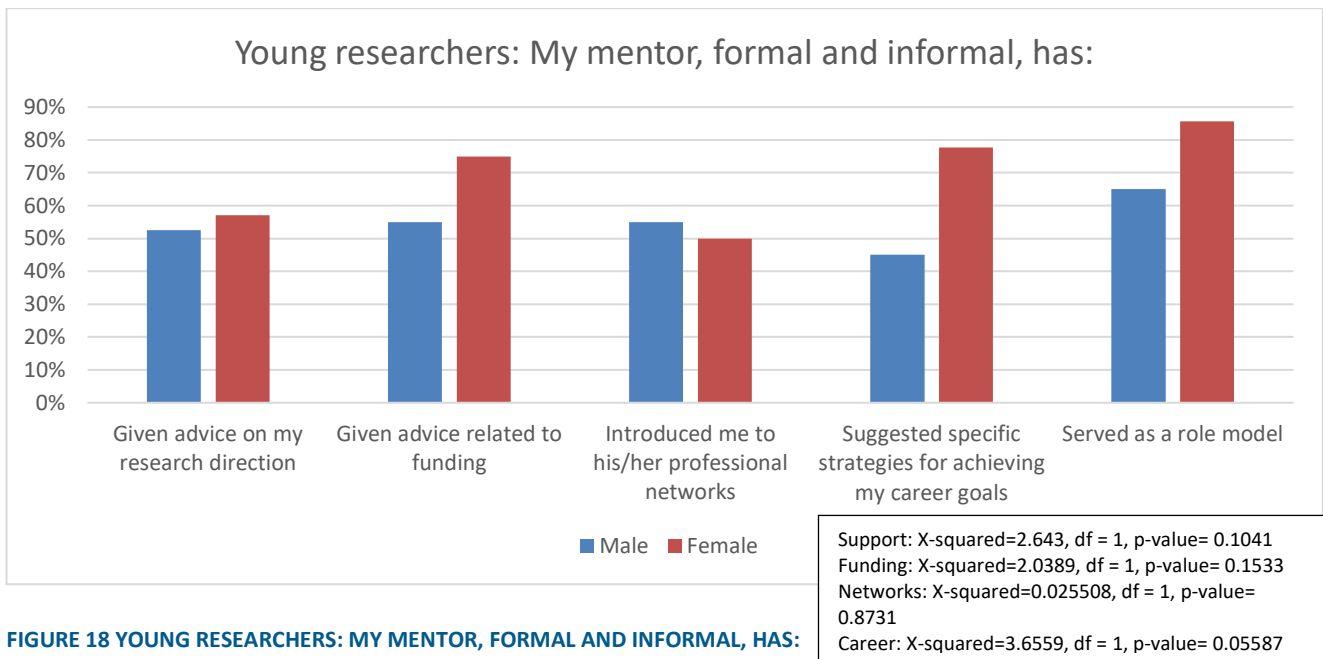


**FIGURE 16 YOUNG RESEARCHERS: DO YOU HAVE ONE OR MORE FORMAL MENTORS IN YOUR INSTITUTION?**

Mentors of participating faculty members offer their advice more often on teaching, career goals, and served as role. Formal and informal mentors of young researchers offer typically advice on funding, careers, and also served as role model, see figure 17 and 18. There is no significant difference in the answers of female and male faculty members and young researchers in how their formal and informal mentors support them.



**FIGURE 17 FACULTY: MY MENTOR, FORMAL AND INFORMAL, HAS:**



**FIGURE 18 YOUNG RESEARCHERS: MY MENTOR, FORMAL AND INFORMAL, HAS:**

Younger female academics stressed during the semi-structured interviews how their more senior colleagues or supervisors were supporting their professional development.

*“My PhD Supervisor was also important, mainly in connecting me with other international scholars and through him, I met, then a couple of more senior people and now still working with.” (Assistant Professor, #1)*

25% of faculty members (29% male and 22% female) answered that they acted as mentors for young researchers, colleagues, or colleagues.

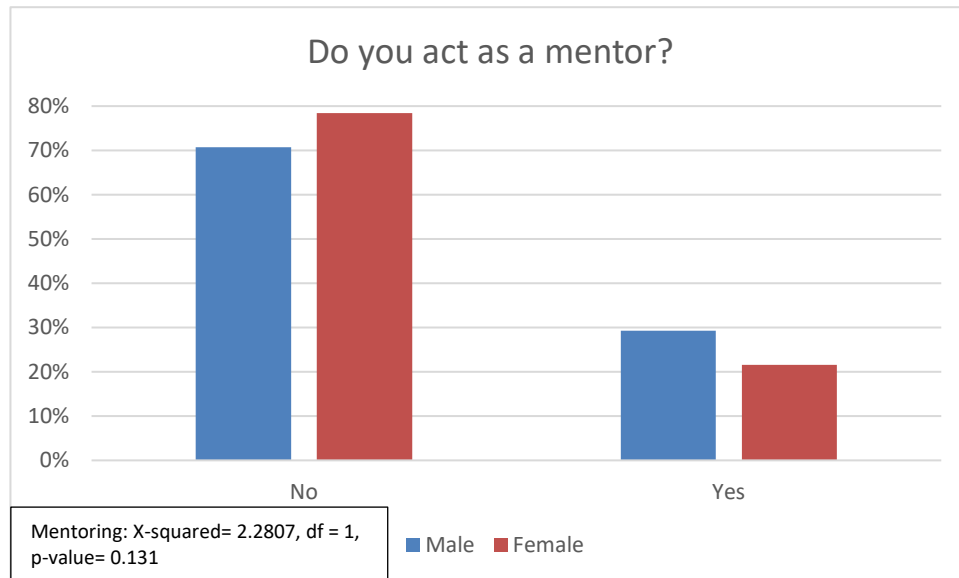


FIGURE 19 DO YOU ACT AS A MENTOR?

The interviewed senior female academics also emphasized the importance to mentor and support their younger female colleagues. Other full professors also see the opportunity to mentor students during their teaching activities.

*“Just indicating to them that I am available in whatever formal capacity that they think I can be supportive or helpful or being sounding board or anything else. [...] Whenever appropriate I mentioned this to some of them, they come back to me, sometimes even have to remind me, you know that we met in that conference and we chatted a bit, and now they have a question.” (Full Professor, #3)*

One interviewee also developed a mentoring programme for other younger academics in her department teaching MBA students:

*I have pushed in our department for this position where I help young assistant professors who teach in the MBA to coach them and to help them and to give them an idea of the kind of students that they're in front and how to tackle the lectures. Because I don't want them to be thrown in at the deep end and then just see if they drown or swim you know I barely made it out. And then the mentoring now comes from me. (Assistant Professor, #4)*

Some interviewees reflect on mentoring programmes. Some would like to have them in their university:



*“None of these carrier counselling or a carrier guide are formal here. You don't really get this and that's another difference because when I compare this to the typical universities in the world, but also typical businesses, here and elsewhere in the world, this is what you typically get. And this is also what I missed probably most because I was really used to that business world, where I received so much of it.” (Assistant Professor, #7)*

Others are more critical of the set-up of those programmes and their effectiveness:

*“I wanted to sign up for the mentoring scheme but we had to find our own mentor and that's part of my issue is that I don't know my mentor. I can't see someone who, I would like to have. I was hoping from that schema was that they could help me with someone who can mentor me.” (Assistant Professor, #9)*

One interviewee who took part in the mentoring programme pointed out that she only met once with her assigned mentor:

*“I officially had a mentor assigned to me, but we just had one meeting and we just had a nice chat chatting. And I still see him once in a while and we say hi to each other, but we never really continue this mentorship relationships.” (Assistant Professor, #5)*

Summarising, about 40% of female and male faculty members and 81% of young researchers have at least one formal or informal mentor. There is no significant difference in the mentorship responses between female and male faculty members and young researchers. 25% of the participating participating faculty members also mentor colleagues, PhD students, or students. Informal mentoring is seen as important by the interviewed senior academics. The younger academics often reflect positively of their PhD supervisors as mentors and also their peers as being helpful to coach and guide them with their career. An informal organisational culture of mentoring and coaching could be cultivated by universities to increase informal mentoring.

## 4. CONCLUSION

This section briefly summarises the findings generated by the organisational belonging surveys and the semi-structured interviews carried out at all partner organisations. The E4E project provided a unique opportunity to take stock of the training needs and wishes by academics and young researchers of the partner universities. From a quantitative and qualitative perspective, there is evidence that the majority of employees wish to have access to (high quality) trainings.

To foster greater gender equality and an inclusive working environment, the E4E identified five trainings areas which can be helpful supporting organisational change and increase the number of female academics in general and in leadership position in particular. These skills areas are leadership, communication, negotiation, networking, and self-promotion skills. If offering such trainings, the quality of these trainings should be high. If offering trainings, we suggest that all employees should be able to access these skills trainings identified as supporting organisational change processes. Such formal training programme can be complemented with informal (leadership) training and mentoring programmes to train current leaders and prepare new ones as well as to create a more inclusive environment.

The interview analysis provided some additional insights into offering trainings and mentoring programmes. First, while not often mentioned as a training need by our interviewees, senior female academics highlighted that time management and organisation skills are key to their success. If organisations would like to support women and other employees who have to balance both work and caring responsibilities, they could offer time and stress management trainings. Second, if institutions aim to have a greater media presence of their diverse workforce, they can offer media trainings to their employees. These trainings can offer skills for how to engage with more traditional media outlets, such as giving interviews to journalists. Increasingly social media becomes important and media trainings could also focus on social media presence, such as a developing a social media strategy, engaging with followers, and how to deal with trolls. Third, if trainings about the rights and procedures in cases of sexual misconduct and assault are offered, they are sometimes only offered to female employees. We suggest that trainings about rights and procedures in relation to observing or experiencing sexual misconduct should be offered to all employees. Fourth, mentoring programmes seem to not always work well reported by our interviewees. A suggestion based on the interviews is that these mentoring programmes are well designed. Alternatively, an informal organisational culture of mentoring and coaching could be

cultivated as informal mentoring is already seen as important by the interviewed senior academics and already initiated by senior academics but also by peers.

These suggested training and mentoring programmes are only one pillar supporting sustainable organisational change towards a more equal and inclusive working environment and should be aligned with organisational change efforts. Trainings and development opportunities are not a tool to fix women but they can support organisations in their efforts to become inclusive.

## 5. REFERENCES

- Abalkhail, J. M. (2017). Women and leadership: Challenges and opportunities in Saudi higher education. *Career Development International*, 22(2), 165-183.
- Acker, J. (1990). Hierarchies, jobs, bodies: A theory of gendered organizations. *Gender & Society*, 4(2), 139-158.
- Bailyn, L. (2016). *Breaking the mold*. Cornell University Press.
- Berdahl, J. L., Cooper, M., Glick, P., Livingston, R. W., & Williams, J. C. (2018). Work as a masculinity contest. *Journal of Social Issues*, 74(3), 422-448.
- Butko, M. A. (2016). Executive MBA Programs: Impact on Female Executive Career Development (Doctoral dissertation, Cleveland State University).
- Chang, S., Morahan, P. S., Magrane, D., Helitzer, D., Lee, H. Y., Newbill, S., ... & Cardinali, G. (2016). Retaining faculty in academic medicine: the impact of career development programs for women. *Journal of women's health*, 25(7), 687-696.
- Chuang, S. (2019). Exploring women-only training program for gender equality and women's continuous professional development in the workplace. Higher Education, Skills and Work-Based Learning.
- Correll, S. J., Benard, S., & Paik, I. 2007. Getting a job: Is there a motherhood penalty? *American Journal of Sociology*, 112, 1297-1338.
- Cox, T. (1994). *Cultural diversity in organizations: Theory, research and practice*. Berrett-Koehler Publishers.
- Day, D. V. (2001). Leadership development: A review in context. *Leadership Quarterly*, 11, 581-613.
- Delamater, R. J., & Mcnamara, J. R. (1986). The social impact of assertiveness: Research findings and clinical implications. *Behavior Modification*, 10(2), 139-158.
- de Vries, J. A. (2015). Champions of gender equality: female and male executives as leaders of gender change. *Equality, Diversity and Inclusion: An International Journal*.
- Dutta, R., Hawkes, S. L., Kuipers, E., Guest, D., Fear, N. T., & Iversen, A. C. (2011). One year outcomes of a mentoring scheme for female academics: a pilot study at the Institute of Psychiatry, King's College London. *BMC Medical Education*, 11(1), 1-9.
- Ely, R. J., Ibarra, H. and Kolb, D. M. (2011). Taking gender into account: theory and design for women's leadership development programs. *Academy of Management Learning and Education*, 10 (3), 474-493.
- Ely, R. J., & Meyerson, D. E. (2000). Theories of gender in organizations: A new approach to organizational analysis and change. *Research in organizational behavior*, 22, 103-151.
- Fapohunda, T. M. (2013). An exploration of gender-based differences in workplace values. *International Journal of Human Resource Studies*, 3(3), 50-61.
- Fassiotta, M., Maldonado, Y., & Hopkins, J. (2017). A long-term follow-up of a physician leadership program. *Journal of health organization and management*, 32(1), 56-68.

- Graf, J., Smolka, R., Simoes, E., Zipfel, S., Junne, F., Holderried, F., & Herrmann-Werner, A. (2017). Communication skills of medical students during the OSCE: gender-specific differences in a longitudinal trend study. *BMC Medical Education*, *17*(1), 1-9.
- Hannum, K.M., Muhly, S.M., Shockley-Zalabak, P.S., & White, J.S. (2015). Women leaders within higher education in the United States: Supports, barriers, and experiences of being a senior leader. *Advancing Women in Leadership*, *35*, 65-75.
- Hewlett, SA. 2007. *Off-ramps and on-ramps: keeping talented women on the road to success*. Boston, MA: Harvard Business School Press.
- Hollenbeck, J. R. & Jamieson, B. B. (2015). Human capital, social capital, and social network analysis: Implications for strategic human resource management. *Academy of Management Perspectives*, *29*(3): 370-385.
- Kadiresan, V., Selamat, M. H., Selladurai, S., Ramendran, C. S., & Mohamed, R. K. M. H. (2015). Performance appraisal and training and development of human resource management practices (HRM) on organizational commitment and turnover intention. *Asian Social Science*, *11*(24), 162-176.
- Kanter, R. M. (1977). Some effects of proportions on group life: Skewed sex ratios and responses to token women. *American Journal of Sociology*, *82*, 965–990.
- Kelan, E. K. (2018). Men doing and undoing gender at work: A review and research agenda. *International Journal of Management Reviews*, *20*, 544–558.
- Kelan, E. K. & Wratil, P. (2018). Post-heroic leadership, tempered radicalism and senior leaders as change agents for gender equality. *European Management Review*, *15*, 5–18.
- Khalid, S., Dan, W., Sohail, A., Raza, W., Khalid, B., & Ur-Rehman, A. (2021). Empowering women at the higher institutional level: analysis of business education and leadership training program. *Business, Management and Economics Engineering*, *19*(1), 150-16.
- Kolb, D. M. (2012). Are we becoming part of the problem? Gender stereotypes in negotiation research. *Negotiation and Conflict Management Research*, *5*(2), 127-135
- Lax, D., & Sebenius, J. (2006). *3D negotiation: Powerful tools to change the game in your most important deals*. Boston, MA: Harvard Business School Press.
- Liff, S., & Cameron, I. (1997). Changing equality cultures to move beyond ‘women’s problems’. *Gender, Work & Organization*, *4*(1), 35-46.
- Longman, K. A., & Lafreniere, S. L. (2012). Moving beyond the stained glass ceiling: Preparing women for leadership in faith-based higher education. *Advances in Developing Human Resources*, *14*(1), 45-61.
- Martin, J. (1994). The organization of exclusion: Institutionalization of sex inequality, gendered faculty jobs and gendered knowledge in organizational theory and research. *Organization*, *1*: 401-431.
- Martin, J., & Meyerson, D. (1998). Conformity, resistance, and disorganized coaction. *Power and influence in organizations*, 311-348.
- Mehra, A., Kilduff, M., & Brass, D. J. (1998). At the margins: A distinctiveness approach to the social identity and social networks of underrepresented groups. *Academy of Management Journal*, *41*(4), 441-452.

- Moodley, A., & Toni, N. M. (2017). Accessing higher education leadership: Towards a framework for women's professional development. *South African Journal of Higher Education*, 31(3), 138–153.
- Noon, M. (2010). The shackled runner: time to rethink positive discrimination?. *Work, Employment and Society*, 24(4), 728-739.
- Pielstick, C. D. (2000). Formal vs. informal leading: A comparative analysis. *Journal of Leadership Studies*, 7(3), 99-114.
- Pike, E., White, A., Matthews, J., Southon, S., & Piggott, L. (2018). Women and sport leadership: A case study of a development programme. In: *The Palgrave handbook of feminism and sport, leisure and physical education* (pp. 809-823). Palgrave Macmillan, London.
- Powell, G. N. (1987). The effects of sex and gender on recruitment. *Academy of Management Review*, 12(4), 731-743.
- Reskin, B. F., & Padavic, I. (1994). *Women and men at work* (pp. 3-97). Thousand Oaks, CA: Pine Forge Press.
- Rudman, L. A., & Phelan, J. E. (2008). Backlash effects for disconfirming gender stereotypes in organizations. *Research in organizational behavior*, 28, 61-79.
- Sarfaty, S., Kolb, D., Barnett, R., Szalacha, L., Caswell, C., Inui, T., & Carr, P. L. (2007). Negotiation in academic medicine: a necessary career skill. *Journal of Women's Health*, 16(2), 235-244.
- Thomas, D. A., & Ely, R. J. (1996). Making differences matter: A new paradigm for managing diversity. *Harvard business review*, 74(5), 79.
- Thomas, J., Thomas, C., & Smith, K. (2019). The challenges for gender equity and women in leadership in a distributed university in regional Australia. *Social Sciences*, 8(6), 165-173.
- Vallas, S. P., & Christin, A. (2018). Work and identity in an era of precarious employment: how workers respond to “personal branding” discourse. *Work and Occupations*, 45(1), 3-37.
- Vallas, S. P., & Cummins, E. R. (2015). Personal branding and identity norms in the popular business press: Enterprise culture in an age of precarity. *Organization Studies*, 36(3), 293-319.
- Van den Brink, M., & Benschop, Y. (2012). Slaying the seven-headed dragon: The quest for gender change in academia. *Gender, Work & Organization*, 19(1), 71-92.
- Van den Brink, M., & Stobbe, L. (2014). The support paradox: Overcoming dilemmas in gender equality programs. *Scandinavian Journal of Management*, 30(2), 163-174.
- Van Oosten, E. B., Buse, K., & Bilimoria, D. (2017). The leadership lab for women: Advancing and retaining women in STEM through professional development. *Frontiers in Psychology*, 8, 2138.