School of Education,
Culture and Communication

Gendered Language in English Job Advertisements and the Perception of Potential Applicants within Electrical and Electronic Engineering in Sweden

English 3: Degree Project - ENA311

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Abstract

This mixed-method study investigates the use of masculine and feminine-coded words (i.e., words associated with gender stereotypes) in English job advertisements in Sweden, focusing on the male-dominated Electronic and Electric engineering field in Sweden (SCB, 2022). As such, job advertisements in this field provide a productive case study for a discussion of gender appeal in the language of the advertisements. The study is divided into two parts: The first part presents a quantitative analysis of 30 job advertisements using a web tool called the "gender decoder" to determine whether the advertisements are mainly feminine-coded or masculine-coded. The second part of the study combines quantitative and qualitative analyses by exploring in depth 22 potential applicants' perceptions of job advertisements in terms of language use and gender. It involves a web-based questionnaire focusing on two job advertisements (one feminine-coded and one masculine-coded) selected from the first part of the analysis. The questionnaire includes both Likert-scale and open-ended questions, and the participants consist of electrical and electronic engineering students from five universities in Sweden. Both parts of the study are furthermore analyzed thematically. The findings illustrate that there were more feminine-coded job advertisements among the selected advertisements, with one-third exhibiting masculine-coding. Additionally, the study shows that the participants were more likely to apply for the feminine-coded job advertisement, consistent with prior research. These results suggest the need for further efforts to create a more equal and non-gender-biased work environment, considering that most participants felt more connected to the feminine-coded job advertisement, whereas, still, a third of the job advertisements were masculine-coded.

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Acknowledgments

1 Introduction

From a sociolinguistic standpoint, language can play a crucial role in creating a sense of be-
longingness, as it serves as a means of organizing speakers in terms of how, when, where, and
with whom language should be used (Coulmas, 2013, p.4). Additionally, these social conven-
tions of how language is used are learned by its speakers (Coulmas, 2013, p.4), which means
that different sociolinguistic values color language and that language is, therefore, never neu-
tral. Consequently, language usage can mirror and reinforce beliefs and attitudes including
those related to gender. Studies show that, especially in the context of language use and gen-
der, this can be reflected in job advertisements, where women might be less inclined to apply
for a masculine-worded job advertisement (Born & Taris, 2010; Frissen et al. 2022; Gaucher
et al., 2011; Taris & Bok, 1998).

How the gendered use of language might pose a limit to potential applicants illustrates an in-
stance of gender inequality caused by linguistic choices. Here gender inequality refers to "the
unfair difference between groups of people in society, when some have more wealth, status,
and opportunities than others" (Oxford Learner's Dictionaries, n.d.-a), based on gender. The
role language plays in gender inequality is reflected in job advertisements, which, in turn, im-
pacts the real-life distribution of the workforce; it is a prevalent issue in societies worldwide
because we have jobs that are highly male-dominated as well as jobs that are highly female-
dominated and the language of the advertisements for different fields reflect at times this gen-
der bias related to different professions at large. Sweden in this matter is no different since
there is a clear division between male- and female-dominated professions within the work
fields. According to statistics from SCB (2022), based on a list of the 30 most common jobs in
2020 in Sweden, there is a clear division between female-dominated and male-dominated pro-
fessions. The most common jobs for women were jobs that included taking care of people,
such as preschool teachers (96%) and assistant nurses (90%), along with assistants of various
kinds, for example, economic assistants (86%). In comparison, the most common jobs for
men included jobs that have to do with building, fixing, developing, or installing, such as
woodworkers and carpenters (99%) and electricians working with installation and service
(98%), as well as engineers working with electrical, electronics and telecommunication
(84%). This gender discrepancy adheres to the historical notion of stereotypical gender roles,
where certain behaviors and duties are expected of men and women. Moreover, it opens the

question of whether there is some way to reduce this gap between male- and female-dominated professions.

Investigating the role of language in this gendered distribution of work force in the Swedish context, this study will focus on the use of gendered language in job advertisements in the male-dominated field of electric and electronic engineering. First, the study will investigate whether job advertisements written in English within the male-dominated field of electrical and electronic engineering at international companies in Sweden are masculine, feminine, or neutral worded. This quantitative part of the study seeks to analyze the language of a selected number of advertisements to address gendered language by using a language analysis tool, in this case, the gender decoder. Second, a quantitative study with qualitative aspects will investigate how some of these job advertisements are perceived from the perspective of potential applicants and what their perceptions are toward these job advertisements. Each of these two studies will be rounded up with a thematic analysis to examine the language in the job advertisements as well as the answers within the questionnaire.

1.1 Aim and research questions

This study focuses on gendered language within English job advertisements in the field of electrical and electronic engineering in Sweden, along with the perceptions of potential applicants toward one masculine-coded job advertisement and one feminine-coded job advertisement. The implications of this study might help others who work with job advertisements to avoid gender bias in job advertisements.

Research questions:

(Q1) To what extent does the language of job advertisements reflect gender bias—use of masculine-coded and feminine-coded words—within the male-dominated profession of electrical and electronic engineering?

(Q2) How do potential applicants perceive these job advertisements, and what are men's and women's views of these advertisements concerning the jobs' appeal to them as potential applicants?

2 Background

2.1 Gender, sociolinguistics, and language use

The study of gender as a part of sociolinguistics has gained significant attention since the 1980s (Coates, 2004, p.3). Researchers are interested in understanding the differences between how men and women communicate and if there are linguistic gender differences in the way we speak (Coates, 2004, p.3). Moreover, sociolinguistic gender studies in this context have played a substantial role in advocating and incorporating non-sexist language in media and public institutions (Coulmas, 2013, p.46).

There are multiple sociolinguistic approaches that have provided a significant understanding of gender differences in language (Coates, 2004, pp.5-7). The approach that this study will focus on is "the dominance approach," which according to Coulmas (2013) centers around ideas of power and inequality, where language behaviors that are unique to a particular gender are interpreted as methods of conveying and sustaining power imbalances (p.45). The reason why researchers use this model is to illustrate how linguistic practices serve as a means for establishing male-dominance (Coates, 2004, p.6).

Furthermore, when discussing gendered language within sociolinguistics, there are especially two aspects that should be noticed. The first aspect is the importance of separating the words *gender* and *sex* since "'sex' refers to a biological distinction, while 'gender' is the term used to describe socially constructed categories based on sex" (Coates, 2004, p.4). The second aspect entails the idea that gender is something that we are being socialized into. Along these lines, as Yule (2020) points out, we internalize gendered cultural norms as we undergo the process of gender formation, whether it is as basic as learning which colors are associated with which gender or as intricate as comprehending the historical exclusion of one gender from representative government. The acquisition of our social gender entails familiarity with the use of gendered language, that is to say; developing a social gender involves becoming accustomed to gender-specific language usage (p.319).

2.2 Gender and job advertisements

If the language in general terms is gendered and is not neutral as discussed so far, then it is not surprising that these gendered uses of language are also reflected in different areas of language use with specific purposes including job advertisements. Studies focused on gendered

language within job advertisements make up a well-established researched field (Askehave & Zethsen, 2014; Bolin & Börjesson, 2017; Born & Taris, 2010; Frissen et al., 2022; Gaucher et al., 2011; Sella et al., 2023; Taris & Bok, 1998), especially in English speaking countries. Different kinds of studies show that gender and people's view of gendered language can be reflected in how likely it is for men versus women to apply for a job depending on the language used in different job advertisements since it creates different levels of belongingness to different people (Born & Taris, 2010; Frissen et al., 2022; Gaucher et al., 2011; Taris and Bok, 1998). For example, Gaucher et al. (2011), note that the way we perceive words as masculine or feminine (i.e., words associated with gender stereotypes) can contribute to how attractive a job application is, where women might be less inclined to apply for a job advertisement that is masculine worded; versus the fact that both men and women are more inclined to apply for a job advertisement that is feminine worded (p.118). While such studies provide valuable insights into the gender dimension of job advertisements, there is limited research on this aspect within the Scandinavian context. Therefore, this study aims to address this gap and provide valuable contributions to the field.

2.2.1 Gender bias and belongingness in job advertisements

The term "bias" is defined by *Oxford Learner's Dictionaries* as "a strong feeling in favour of or against one group of people, or one side in an argument, often not based on fair judgement" (n.d.-b). In the context of gender, bias involves showing unfair favoritism or opposition toward a specific gender. Additionally, Keinert-Kisin (2016) outlines the manifestations of gender bias in a workplace. She notes that even if someone does their best to create gender equality and act in a non-discriminating manner in a workplace, "the individual can still be affected by stereotypes on a pre-conscious level—without awareness of how their bias taints perceptions of individuals they are working with" (p.2).

In job advertisements, the notion of belongingness holds significant importance, particularly in the context of minority groups. Despite not being classified as a minority group, women are often perceived to occupy a lower societal status compared to men, establishing a power dynamic between the genders that, in some respects, bears resemblance to that of a minority group (Coates, 2004, p.197). Research by Walton and Cohen (2007) illustrates that recognizing shared feelings of social belonging uncertainty among people of color within academia boost their engagement, leading to improved academic performance compared to their white peers (p.93). This pattern is consistent with findings among other minority group members,

who often sense their lower social status compared to the majority (Ellemers et al., 2000, p.71). Similarly, gender-related dynamics within job advertisements reflect this trend. For instance, Born and Taris (2010) demonstrated that women exhibited stronger connections to feminine job advertisements, particularly those emphasizing general traits instead of specific qualifications, whereas men remained neutral (p.497). In line with Born and Taris (2010), Taris and Bok (1998) revealed that male participants were indifferent, while women felt less qualified and less attracted to job advertisements expressing male characteristics (pp. 606-607). According to Born and Taris (2010), women may possess a significantly higher level of self-awareness regarding their gender in comparison to men, which leads to a distinct ability to detect and respond to gender-based differences in job requirements (p.497).

Embarking on an investigation into gendered language in job advertisements involves closely examining language characterized as either masculine or feminine-coded. Sociolinguistically, gender is often perceived as a product of socialization into societal roles from an early age, as highlighted in Yule's work (2020, p. 319). Building upon this perspective, Gaucher et al. (2011) compiled a dictionary of masculine and feminine-coded words in connection to gender stereotypes in their article, which was based on their study where they analyzed closer to 500 job advertisements. The dictionary developed by Gaucher et al. (2011) was grounded in gender stereotypes examined in prior research. For instance, in their discussion, Gaucher et al. (2011) reference Rudman and Kilianski (2000) and other scholars, highlighting the perception that "women are perceived as more communal and interpersonally oriented than men, whereas men are more readily attributed with traits associated with leadership and agency" (Gaucher et al., 2011, p.110). Their result illustrated that the way we use masculine and feminine words, which they determined based on gender perception of men and women, in job advertisements has an impact on the way we perceive and want to apply for a job advertisement, especially women (Gaucher et al., 2011). This study will use Gaucher et al.'s (2011) dictionary in addition to the language analysis tool, gender decoder, in order to detect and analyze gendered language in job advertisements, which I will reflect further on in the method section.

3 Method and materials

This method and material section illustrates and describes the methodology, participants, data collection, analytical procedures, ethical considerations, and limitations of the study.

3.1 Methodology

This study employs an explanatory sequential design, a mixed methodology, to demonstrate how gendered language appears in job advertisements. This approach involves both quantitative and qualitative components in a two-step process (Creswell & Creswell, 2018). Furthermore, Creswell and Creswell (2018) explain this design by noting that "the researcher collects quantitative data in the first phase, analyzes the results, and then uses the results to plan (or build on to) the second, qualitative phase" (p.222). In other words, the idea is to start with quantitative data and analysis, and to follow up with a more qualitative and interpretive (qualitative) phase to determine further results. This study does this by initially conducting a quantitative analysis, investigating gendered language in 30 job advertisements. Subsequently, a more detailed qualitative phase is undertaken, where potential applicants express their perceptions of the two job advertisements: one masculine-coded, and one feminine-coded.

The reason behind choosing this method is that not only does it allows us to gain a quantitative overview where the thesis focuses on the frequency of masculine and feminine-coded words in 30 job advertisements, but it also provides a deeper understanding of how gendered language is perceived by potential applicants for the analyzed advertisements with the use of qualitative data from participants within the male-dominated field of electric and electronic engineering in Sweden through the use of a questionnaire based on Likert scale statements. The qualitative approach used with open-ended questions in a questionnaire was applied to gain an in-depth perspective on the potential applicants' perceptions regarding two of the job advertisements. The use of a questionnaire was chosen mainly because of two reasons. The first one is the time aspect, that is to say, time-effectiveness of the questionnaire method, as explained by Gillham (2008, p.5). But more importantly, the questionnaire was chosen due to its versatility: semi-structured questionnaires, which this study uses, share similarities with semi-structured interviews and the questions used for a focus group. They can incorporate both open and closed questions and offer varying levels of structure (Gillham, 2008, pp 3-5). A combination of Likert-scale statements and open-ended questions was employed to give quantitative value to the quantitative data. This allowed participants to provide qualitative insights alongside their quantitative responses, aligning with Leavy's concept of embedding one method within another (Leavy, 2017, p.175).

3.2 The collection of data

For the first part of this study, the quantitative part, 30 Swedish job advertisements in English were assembled on January 20, 2023. To gather relevant job advertisements, a large international job search portal called LinkedIn was used. On LinkedIn, I searched for "electrical/electronic engineer," and selected the first 30 advertisements that mention either "electrical engineer" or "electronic engineer" that matched the search words. Since the job advertisements needed to be in English, I skipped some job posts that had an English headline but information in Swedish. The job advertisements were then downloaded and compiled manually. Lastly, I conducted a thematic analysis of the job advertisements in accordance with the result from the gender decoder in order to investigate if there were common themes among them. The thematic analysis will be reflected upon below.

The subsequent phase of the study is constructed on the foundation of the initial part. It involves incorporating one strongly masculine-coded and one strongly feminine-coded job advertisement, identified in the first part of the study, into a questionnaire that can be found in Appendix 1. This questionnaire was then presented to 22 potential applicants to find out how they perceived the advertisements. The online tool employed for creating the questionnaire was "Google Forms." Considering that the questionnaire was online, it was easy to send out to the participants through a link in an email and then collect and compile the answers manually. Lastly, a thematic analysis of the participants' answers was conducted and will be explained further in the section regarding the analytical procedures.

3.2.1 Gender decoder

The gender decoder was used in the first part of the study. It is an online tool created by a behavioral designer called Kat Matfield and is based on Gaucher et al.'s (2011) dictionary. With this tool, one can check job advertisements to see if they are inclusive or not when it comes to masculine-coded versus feminine-coded words. More specifically, it examines the language used in job advertisements and identifies words that have been categorized as having either a masculine or feminine connotation connected to gender stereotypes.

The tool reduces words to their "stem" form, encompassing various noun, verb, and adjective variations. For example, the word "compet*" covers "competence," "compete," and "competent." Some examples of feminine-coded words from Gaucher et al.'s (2011) dictionary in

their "stem" form are: "affectionate," "commit*," "emotional*," "support*," and "cooperat*," whereas some examples of masculine-coded words in their "stem" form are: "ambitio*," "challenge*," "domina*," "independen*," and "lead*." Depending on the frequency of gender-coded words found in the job advertisements to be either feminine or masculine, the words are divided into five categories by the tool: strongly masculine, masculine, neutral, feminine, or strongly feminine. For an advertisement to be classified as strongly feminine or masculine by the tool, it needs to have at least four gender-coded words of one gender compared to the other. For example, a job advertisement that has one feminine-coded word and five masculine-coded words is strongly masculine. A job posting is considered neutral if it has an equal number of feminine and masculine-coded words.

There are three reasons why the gender decoder was used in this study. The first reason was because it builds upon previous research (Gaucher et al., 2011) in a productive way using language analysis with the help of an online system. The second reason was that it had been used in other studies as a reliable source, to gain statistical information on masculine and feminine-coded words in job advertisements (Sella et al., 2023). The third reason was to optimize efficiency while compiling the result. This tool became helpful while compiling the result of the thematic analysis in the first part of the study, as a step in the process of further understanding the themes found in the analysis. This was done by the gender decoder who organized the words into categories of either masculine or feminine-coding, along with their corresponding degree of how masculine or feminine-coded the job advertisements were. Moreover, this was also a useful tool when choosing the two job advertisements to use in the questionnaire for the second part of the study.

3.2.2 The questionnaire

A questionnaire was included in the second part of the study, and following how an explanatory sequential mixed method is built, it included two job advertisements, one strongly masculine-coded and one strongly feminine-coded from the first part of the study. After each job advertisement that was included in the questionnaire followed various questions and statements which included seven statements, as well as two control questions in the end to determine the participants' consistency in their answers. All these questions were inspired by Gaucher et al. (2011) and Bolin and Börjesson's (2017) previous studies on gendered language.

To create the questionnaire, the first step was to select two job advertisements from the 30 job advertisements collected earlier in part one; one had to be strongly feminine-coded and the other strongly masculine-coded. Several factors were considered in the selection process: the participants' field of study, the length of the advertisements, and the presence of strongly gendered language (masculine or feminine). These criteria were essential to ensure the relevance and effectiveness of the questionnaire for this research project.

The second step entailed structuring the questionnaire into sections. The initial part of the questionnaire gathered background information, including gender and whether participants had ambitions of pursuing a career as an electrical/electronic engineer after completing their studies. The second part of the questionnaire included a masculine-coded job advertisement, accompanied by seven mixed (closed and open) questions and statements. Following this, it presented a feminine-coded job advertisement, maintaining the same set of seven questions and statements. To ensure consistency in the participants' responses, the questionnaire concluded with two control questions, one closed and one open-ended. For the full questionnaire, please see Appendix 1.

3.2.3 Participants

Given that the second part of the study builds upon the first, the selection of participants are then aligned with the job advertisements: university students who would be able to work as electrical or electronic engineers after their graduation. In the next step of selecting the participants for this study, I started by looking up universities around Sweden that offered programs where one could work as an electrical or electronic engineer after graduation. This led me to find a suitable program at my university (Mälardalen University) along with eight other universities around Sweden. Thereafter, I contacted the teachers/directors responsible for each program by email, where they, in turn, sent my questionnaire out to their students through an email that I sent them, with a link to the questionnaire. The original idea was to send the email to last year's students only, but considering a low response, I then had to ask teachers to resend the questionnaire to all of their students, regardless of which year they were in their studies. Even if not all schools were able to send out the questionnaire to their students, I was still able to receive an acceptable amount of 22 participants which consisted of 8 women and 14 men from 5 different universities in Sweden. Hence, as potential candidates for the job advertisements, their perspectives and perceptions hold significance for the study.

3.3 Analytical procedures

A thematic analysis approach was employed in both the initial examination of the 30 job advertisements and the subsequent analysis of the questionnaire responses. This method was chosen to achieve a more profound comprehension of the data and, ideally, to unveil insights that might have remained undiscovered otherwise. According to Braun and Clarke (2006), a thematic analysis is a way to "identifying, analyzing and reporting patterns (themes), within data" (p.79) which can be applied to both quantitative and qualitative forms of data. Furthermore, Braun and Clarke (2006), describe that this analysis is done by following six phases: the first phase is to "familiarizing yourself with your data," the second phase is to "generating initial codes," the third phase is "searching for themes," the fourth phase is "reviewing themes," the fifth phase is "defining and naming themes," and the last phase is "producing the report" (pp.86-93). This study followed the six phases of Braun and Clarke's method (2006).

In the first part of the study, the first step involved collecting all 30 job advertisements, along with entering the job advertisements into the gender decoder. The subsequential step entailed categorizing the words in the job advertisements into potential themes, which was necessary in order to gain an overview and identify similarities and connections. Next, the analysis of the words in the job advertisements was further subdivided into temporary themes in the third step. The fourth step consisted of an extensive review of these themes, based on careful analysis of the textual data and insights from the gender decoder. Subsequently, the fifth step involved defining and labeling the identified themes, ultimately resulting in the identification of two main themes: "competitive style" and "cooperative style." The final step included documenting these defined themes and providing motivation for their selection, following the guidelines outlined by Braun and Clarke (2006, pp.86-93). It should be mentioned that these two themes were borrowed as predefined themes from previous studies, as "cooperative and competitive ways of talking" (Coates, 2004, p.126). Even if they are not newly introduced, they hold relevance to the current study and its context.

In the second part of the study, the thematic analysis adhered to the same six-step methodology as in the previous part. Initially, all questionnaires were gathered and thoroughly reviewed. Subsequently, potential themes were identified from the answers found in the qualitative part of the questionnaire in the open-ended questions, followed by the creation of the temporary themes. Next, a comprehensive review of all themes was conducted. The following step involved the precise definition and categorization of these themes into three categories:

"self-perception and belonging," "Job-appeal," and "perceptions toward women in electrical and electronic engineering." Finally, the identified themes were documented and explained, following the guidelines by Braun and Clarke (2006, pp. 86-93).

3.4 Ethical considerations

When creating the questionnaire, there were ethical considerations that needed to be considered. To do so, I had the Swedish Research Council's (2017) four concepts in mind. These are "professional secrecy," "secrecy," "anonymity," and "confidentiality," where the latter three were especially considered in this study. The first concept of "secrecy" considered when I reached out to the participants. The study's purpose was communicated, ensuring they were well-informed about the nature of the study, with an emphasis on its voluntary nature which meant that they could end the questionnaire at any time (p.40). The second concept of anonymity was considered because the job advertisements used in the questionnaire were anonymized by the fact that the contact information and name of each company were removed. Furthermore, the participants answering the questionnaire were informed that their answers would be anonymous when replying (p. 41). The third concept of confidentiality was considered at the beginning of the questionnaire which informed participants that their answers would be managed and stored for this study, along with their consent (p. 41).

3.5 Limitations

Several limitations noteworthy in this study are categorized into the first and second parts. In the initial phase, two limitations are identified. Firstly, there is a limitation regarding the quantity of material, as only one job advertisement out of the 30 examined fell into the *strongly masculine* category, as well as the material of only 30 job advertisements. The second limitation is that the study relies on a single free, web-based software. In the future, it may be valuable to expand the analysis by including and comparing multiple software tools that exist to assess whether they align or exhibit differences.

In the study's second part, three limitations are noteworthy. Firstly, the chosen methodology, relying on online questionnaires instead of focus groups, lacked consideration of time-related factors and potential strategies for addressing the problem of low participation until a later stage. Secondly, in the participation selection, where the initial plan was to exclusively include last-year students closer to graduation with participants who were ready to apply for a

job. This is because students in lower grades may feel unprepared, impacting their sense of belonging and confidence in job-related skills. Thirdly, a notable gender imbalance exists among the participants, with fewer women than men. This aligns with previous research highlighting the male-dominated nature of the field. However, this gender imbalance could potentially weaken the study's findings. A more balanced representation of both genders is necessary to ensure stronger and more comprehensive results although, because of the nature of the profession being male dominated, this might be difficult to achieve.

4 Result and discussion of the two research questions

4.1 Result and discussion of research question 1

4.1.1 Result of research question 1

As mentioned earlier, the first part of the study will investigate the first research question, which is "To what extent does the language of job advertisements reflect gender bias—use of masculine-coded and feminine-coded words—within the male-dominated profession of electrical and electronic engineering?"

Like Sella et al. (2023), this first part of the study analyzed selected job advertisements within a specific field, namely, electrical and electronic engineering, a male-dominated field, through a web-based tool called the gender-decoder. This was done, to investigate to what extent job advertisements within this male-dominated field are using masculine-coded and feminine-coded words. Once the advertisements were fed into the decoder, the gender-decoder categorized the job advertisements by the frequency of words seen as masculine or feminine-coded as follows:

Figure 1

Gendered coded language from 30 selected electrical and electronic job advertisements in Sweden according to "gender decoder" analysis.
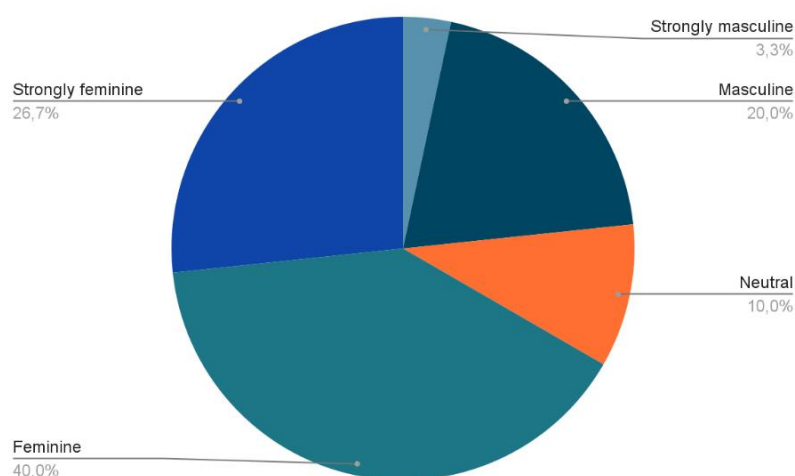
As seen in Figure 1, the result illustrates that most of the 30 job advertisements were feminine-coded with 12 advertisements that were feminine-coded (40 percent), and 8 strongly feminine advertisements coded (26.7 percent). Additionally, 6 job advertisements were masculine coded (20 percent), and as little as 1 job advertisement was strongly masculine coded (3.3 percent). This, in turn, left 3 job advertisements as neutral coded (10 percent).

To explain the decoder's result, it is necessary to provide a more detailed discussion of the specific words and categories that were analyzed by the decoder; the gender decoder found 187 feminine-coded words and 125 masculine-coded words within the 30 job advertisements. These words have then been grouped together into their stem form. The most used feminine-coded words have the stems "support*," "respons*," as well as "collaborat*." In comparison, the most used masculine coded words have the stems "challeng*," "lead*," and "driven." It is worth noting that the decoding process identifies and counts the frequency of all words, and this, in turn, includes the repetition of some words within the same advertisement in some cases. A list of all stems, both feminine-coded and masculine-coded, can be found in Table 1.

Table 1

The most used masculine and feminine-coded stems among the 30 analyzed electrical and electronic job adver-tisements, ordered from the most frequently used to the least frequently used.

Masculine-coded stems	Feminine-coded stems
Challeng* (21)	Support* (40)
Lead* (19)	Respons* (36)
Driven (15)	Collaborat* (21)
Analy* (15)	Connect* (19)
Compet* (10)	Understand*(15)
Independen* (10)	Commit* (12)
Individual* (9)	Together (10)
Ambitio* (8)	Cooperat* (6)
Decision* (5)	Shar* (5)
Determine (3)	Feel* (4)
Active* (3)	Inclusive (3)
Principle* (2)	Depend* (3)
Opinion (2)	Tender (2)
Champion (1)	Interpersonal (2)
Objective (1)	Warm (2)
Autonomous (1)	Trust (2)
	Kindly (1)
	Agreements (1)
	Sensitive (1)
	Child (1)
	Nurturing (1)

Although as seen, the gender decoder is efficient in identifying words, in order to tackle further implications of these results for gendered language in job advertisements, a sociolinguistic thematic analysis was employed. While the decoder categorized words as either feminine or masculine-coded, the thematic analysis identified additional themes related to distinctive styles under these broader feminine/masculine categories. Specifically, it revealed "competitive style" and "cooperative style" as two interconnected themes within the umbrella terms of feminine and masculine-coded words.

The first theme "competitive style" is an idea that can be found in the masculine-coded words. This theme is associated with the use of language and specific word choices commonly found in job advertisements with a masculine tone. The concept of "competitive style" is aligned with the way men often engage in conversations, characterized by disagreement or the emphasis on dominance. In the job advertisements, words such as "leader," "competitive," "challenge," and "driven" are prevalent, reflecting the competitive and leadership-oriented approach. Phrases found in the job advertisements, like "individuals," "ambitious," and "champion" further emphasize this competitive dynamic.

The second theme "cooperative style" is something that can be found within the feminine-coded words. This theme is associated with language and specific wordings commonly found in job advertisements with a feminine tone. The "cooperative style" aligns with the way women often engage in conversations, marked by acknowledgment and building on each other's contributions, fostering solidarity and support. In the job advertisements that were among the 30 analyzed, words such as "support," "collaborate," "cooperation," and "together" are prevalent, reflecting a cooperative and teamwork-oriented approach. Additionally, terms like "responsibility," "sharing," "inclusive," and "feeling" underscore the importance of shared responsibilities, inclusivity, and consideration of other's emotions in a cooperative environment, which also showed up in the words found in the advertisements.

Moreover, Table 2 illustrates the masculine and feminine-coded words, found in one strongly masculine-coded job advertisement and one strongly feminine-coded job advertisement. This selection aims to offer a clearer understanding of the visual representation of specific masculine and feminine-coded words when extracted from their stems, as demonstrated in Table 1. These specific advertisements have been chosen for the questionnaire in the second part of the study and can be found in Appendix 1.

Table 2

The masculine and feminine-coded words found in one strongly masculine-coded job ad (Job ad 1) and in one strongly feminine-coded job ad (Job ad 2), are ordered alphabetically.

Job ad 1: Masculine-coded words	Job ad 1: Feminine-coded words	Job ad 2: Masculine-coded words	Job ad 2: Feminine-coded words
Challenges Decisions Driven Independence Leader (2)	Responsibilities Understanding	Challenges	Collaborating Feel Responsibilities Responsible Sharing Together

4.1.2 Discussion of research question 1

When it comes to the results in connection to the first research question, this study reveals an interesting result since it goes against previous research (Gaucher et al., 2011). In comparison to Gaucher et al. (2011) this study has found more feminine-coded or neutral-coded job advertisements among the selected job advertisements. However, it is consistent with the findings of Sella et al. (2023), given that a majority of the job advertisements in this study were identified as either feminine or neutral coded. Even if this study is small, it points to an overall promising result on language use in English job advertisements within the electronic and electric engineering field in Sweden. However, even though the result illustrates that most of the job advertisements (76.7%) are feminine and neutral-coded, almost a third of the job advertisements (23.3%) are still masculine-coded. This could still be seen as a potential gender bias problem, according to Sella et al. (2023), since it might turn away women, who according to Gaucher et al (2011) might be less interested in masculine-coded job advertisements. This, in turn, could limit the pool of potential female candidates and potentially result in a higher number of male applicants.

The concept of a "competitive style," as supported by research from Coates (2004, p.126) and Yule (2020, p.321), aligns with the way men participate in conversations. These studies indicate that men often challenge or disregard each other's statements, establishing hierarchical relationships. Similarly, the notion of a "cooperative style," backed by research from Coates (2004, p. 126) and Yule (2020, p.321), correspond to the conversational participation of women. According to these studies, women typically engage in cooperative activities, establish reciprocal relationships, and exchange roles. This classification further highlights the link between gendered language and existing norms, which, as demonstrated in prior studies, can

indicate a form of gender bias. As previously mentioned, these themes employed in this study have been drawn from previous research, specifically addressing the communication and behavioral patterns of men and women within same-gender groups (Coates, 2004; Yule, 2020). However, the current study illustrates the applicability and effectiveness of the themes in this particular context.

4.2 Result and discussion of research question 2

4.2.1 Result of research question 2

The second part of the study examines how potential applicants perceive job advertisements, particularly focusing on gender differences in their perceptions of job appeal. This is achieved by comparing one strongly masculine-coded job advertisement with one strongly feminine-coded one to look at differences in the participants' perceptions and preferences. These two job advertisement were in the questionnaire that the participants' answered, which can be found in Appendix 1. The study will be analyzed thematically, resulting in three key categories from the participants' answers to the questionnaire: self-perception, job appeal, and perceptions of women in electrical and electronic engineering. These themes play a crucial role in understanding not only participants' perceptions of the two job advertisements but also the reasons behind their preferences.

4.2.1.1 Self-perception and belonging

In the questionnaire, two Likert-scale statements were asked regarding the participants' self-perception and belonging; these were "I possess the qualities that this ad is asking for," and "I am a suitable candidate for this position." Along with these quantitative statements a qualitative open-ended question regarding "Why/ Why not- do you think that you are a suitable/ not suitable candidate for this position?" was added.
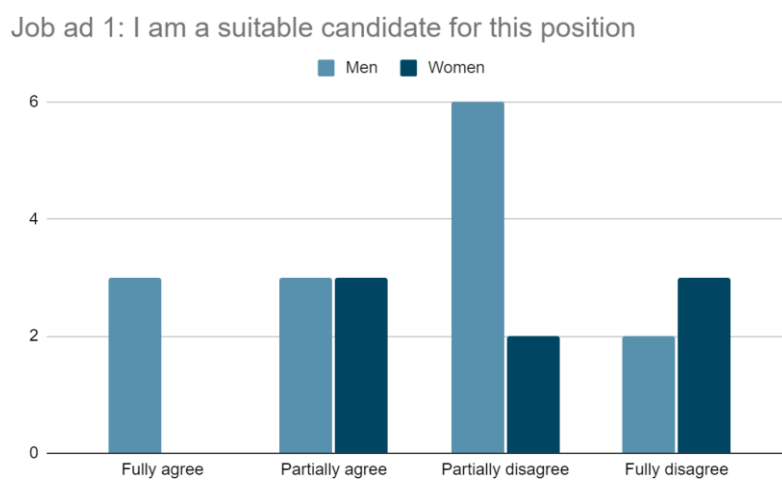
Figure 2

Masculine-coded job ad regarding possession of qualities

Job ad 1: I possess the qualities that this ad is asking for

■ Men ■ Women
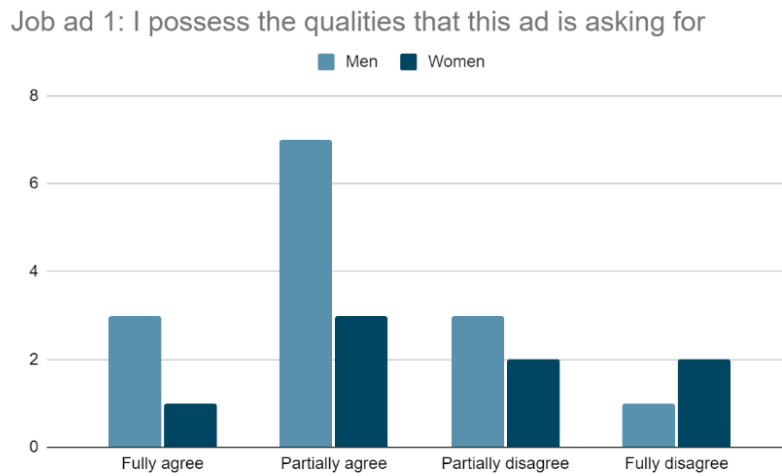
As seen in Figure 2, fourteen participants (64%) answered that they either "fully agree" or "partially agree" that they possessed the required qualities in response to the masculine-coded advertisement, whereas eight participants (36%) answered that they "partially disagree" or "fully disagree." When looking at this from a gender perspective, a majority of 10 male participants (71%) answered that they either "fully agree" or "partially agree." In comparison, the female participants were equally divided between "agree" and "disagree."

Figure 3

Masculine-coded job ad regarding suitability for the ad

Job ad 1: I am a suitable candidate for this position

■ Men ■ Women

As seen in Figure 3, there is a slightly larger group that answered that they disagreed with being a suitable candidate for the masculine-coded position by 13 participants (59%). When investigating the gender perspective, the male participants were more likely to "disagree" with this statement, since 8 male participants (57%) answered "disagree", whereas 6 male participants (43%) answered, "agree". Similarly, the female participants were also more likely to "disagree" with this statement, since 5 female participants (62.5%) answered, "disagree," whereas 3 female participants (37.5%) answered "agree".

In the open-ended question about the masculine-coded job advertisement, it was possible to see similarities between all participants who answered disagree, since almost all of them stated that it had to do with the fact that they lacked experience within that specific field. For example, one female participant answered that they "Don't possess all the requirement they ask for," and another male participant answered that they had "Insufficient experience in the required fields." For the participants who agreed with this statement, it was instead the opposite response, since they stated that they had the desired knowledge. An example of this is from a male participant who answered, "I both have the desired knowledge and I can pitch myself well." Therefore, it is possible to find that the participant's response to the qualitative answers goes in line with the two statements since whether they feel like they are a suitable candidate is intricately connected to the fact that they feel like they possess the required skills for the position.
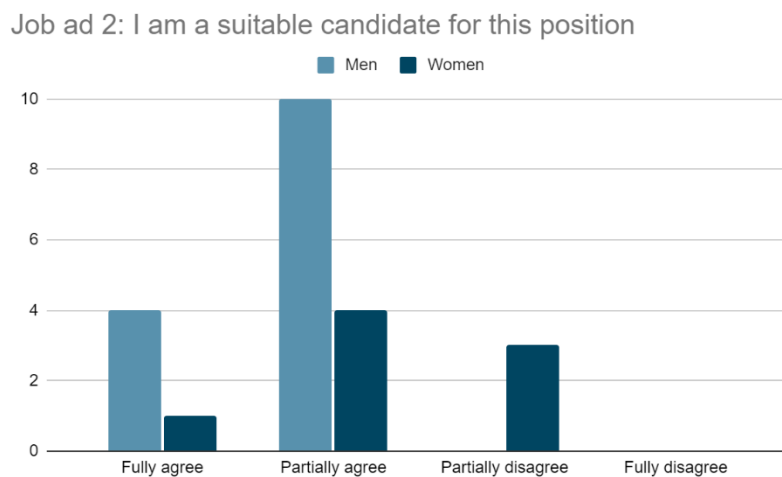
Figure 4

Feminine-coded job ad regarding possession of qualities
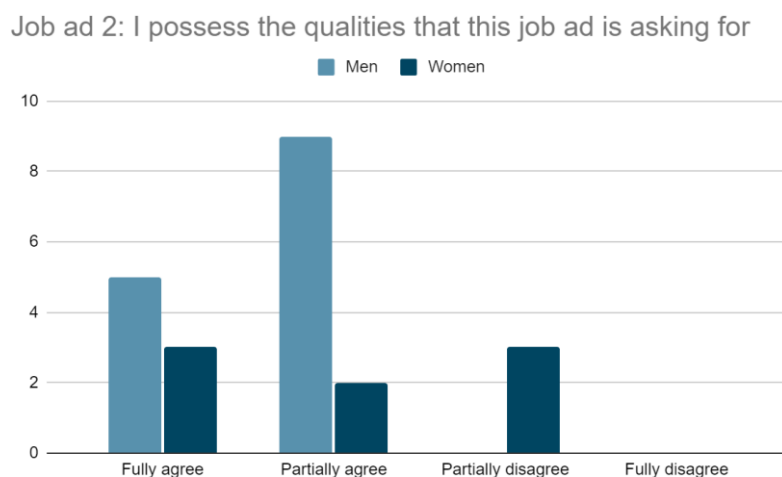
As seen in Figure 4, almost all participants felt they had the qualities that the feminine-coded job advertisement required, except for three participants. It should also be noted that all male participants (100%) thought that they had the qualities that this job advertisement required, while 3 female participants (37.5%) answered that they disagreed with this statement.

Figure 5

Feminine-coded job ad regarding suitability for the ad

Illustrated in Figure 5 is a similar result as in Figure 4, where all participants chose to agree to be suitable candidates for the job, whereas 3 female participants answered that they disagreed. Considering that there only were 3 female participants (37.5%) that disagreed with this statement, it means that all male participants chose to agree with this statement considering the feminine-coded job advertisement.

In the open-ended question regarding the participants' suitability for the second job advertisement, the most common reason for the response "yes" was that they believed to have the required skills and interest: to give an example of this one male participant stated that "It aligns with what iv'e [sic] learned in school and what i [sic] like to do!." Another male participant wrote that they thought that this job advertisement was more varied and inclusive than the first one "since it gives a vision for a sustainable society." For the participants who answered "no", the lack of skills was the main problem. Therefore, it is possible to see the same pattern regarding self-perception in the feminine-coded job advertisement as in the masculine-coded

job advertisement. This is because whether the participants felt that they had the required requirements as well as interest was what drew them to feel as a suitable candidate for the position.

In summary, when comparing the two job advertisements, more participants felt like they possess the qualities for the feminine-coded job advertisement, with all 14 male participants (100%), as well as 5 female participants (62.5%). In comparison, only 10 male participants (71%) and 4 female participants (50%) felt like they possessed the qualities that the masculine-coded job advertisement required. Moreover, both the male participants (100%) and the female participants (62.5%) answered that they felt that they were more suitable for the feminine-coded job advertisement than the masculine-coded job advertisement. This is because only 3 female participants (37.5%), and 6 male participants (43%) felt that they were suitable candidates for the masculine-coded job advertisement. In line with this, the open-ended questions also aligned with the pattern of self-perception: the participants' consideration of whether they believed they had the necessary skills emerged as a primary factor influencing their agreement or disagreement with being deemed a suitable candidate for the job position, particularly in relation to gendered language used.

4.2.1.2 Job appeal

When it comes to the two job advertisements' job appeal, two statements correspond to this theme: "I find this position attractive," and "It is likely that I would apply for this position." Along with these quantitative statements is a qualitative open-ended question regarding "Why/ Why not- do you think that you would apply/ not apply for this position?"
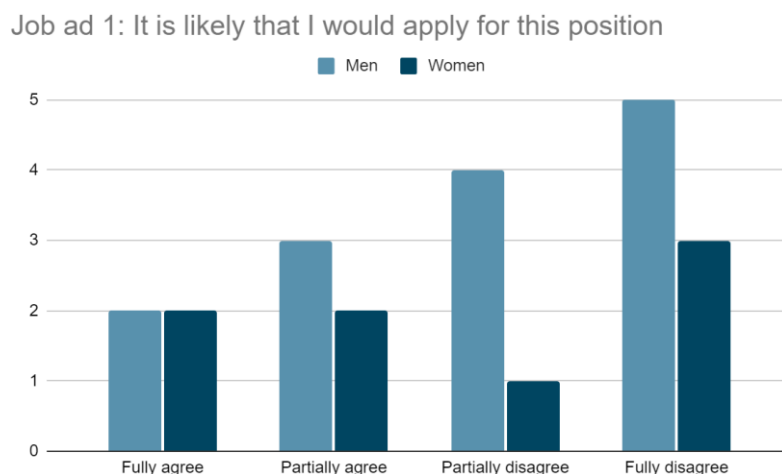
Figure 6

Masculine-coded job ad regarding how attractive the position was

Job ad 1: I find this position attractive
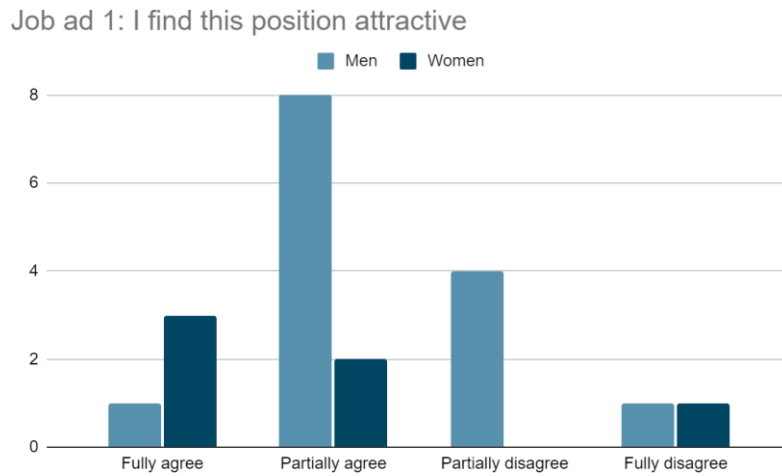
As seen in Figure 6, most participants agreed that the position in the masculine-coded job ad-vertisement was attractive. When it comes to the gendered division of the participants' view on this statement, all female participants (83%), besides one, found this job advertisement attractive, whereas 9 of the male participants (64%) agreed with this statement, and 5 male participants (36%) disagreed. Two of the female participants are not included in this result because they gave two contradictory answers; both partially agree and partially disagree.

Figure 7

Masculine-coded job ad regarding the likelihood of applying to the position

Job ad 1: It is likely that I would apply for this position

As seen in Figure 7, most participants disagree that they would apply for the position. When it comes to the gender perspective, it is equally divided between "agree" and "disagree" when it comes to the female participants. The male participants answered that they were more likely

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not to apply for this position with 9 male participants (64%), whereas 5 male participants (36%) answered that they would apply for the masculine-coded job advertisement.

In the open-ended question that asks why or why not the participants are likely to apply for the first job advertisement, the most common answer for "yes" is that they think it sounds interesting; one example of this from a female participant was "I think it sounds intrestings [sic] and the job is varied," and some participants thought that the job appearance of what field the company was in was a main reason for applying, that can be seen in an example from a female participant " The work this company does seems like good stuff, I would be happy to be a part of creating devices which help people." However, the most common answer for "no" was that they did not meet the requirements and that they did not think it sounded interesting. For example, one male participant stated that "I wouldn't have the proper knowledge or interest for it," and another male participant answered, "It doesn't sound like a field that I would be interested to work in." It can, therefore, be seen that how attractive a position is to the participants is a factor in applying to the first job advertisement. Even if there is an interesting gap between how attractive the position is in comparison to whether the participants would apply for the job, the open-ended answers illustrated that job appeal is a factor when applying to this job advertisement.

Figure 8

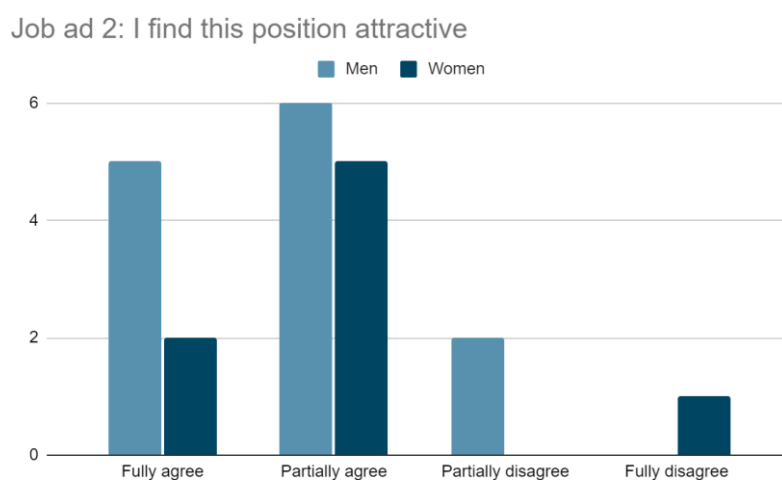*Feminine job ad regarding how attractive the position was*

Figure 8 illustrates how many participants found the feminine job advertisement attractive. Most of the participants answered that they agreed with this statement, this included 18 participants (86%), whereas 3 participants (14%) answered that they did not find this job advertisement attractive. When investigating the gender perspective, the figure shows that the majority of male, as well as female participants, answered that they did find job advertisement 2 attractive. One of the male participants was not included in this result considering that he answered two different options, both fully agree and partially agree.

Figure 9

Feminine job ad regarding the likelihood of applying to the position
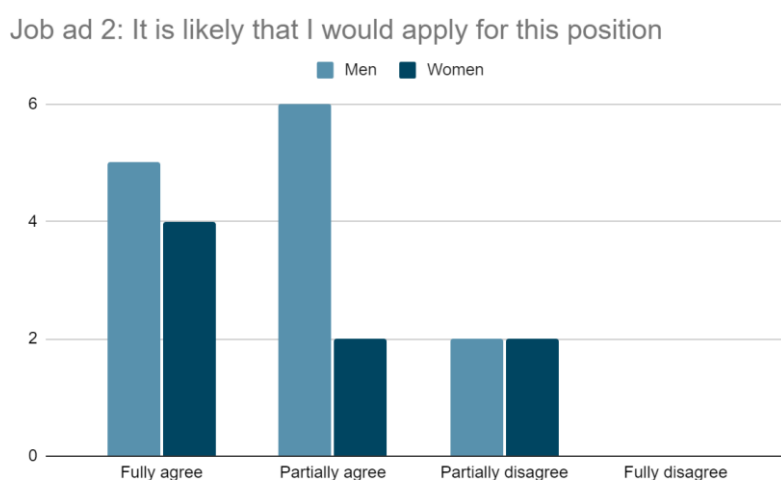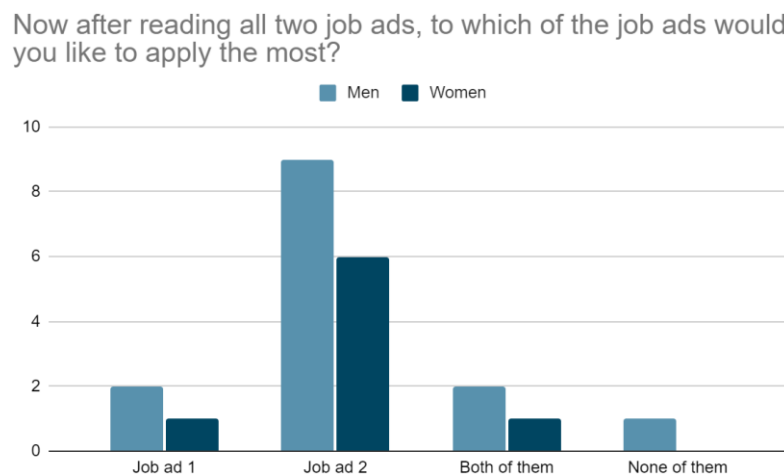

As seen in Figure 9, most participants answered that they would apply for the position in the feminine-coded job advertisement (81%), whereas 4 participants (19%) answered that they would not apply for this position. When investigating the gender perspective, 11 male participants (85%) answered that they were likely to apply to the feminine-coded job advertisements, whereas 2 male participants (15 %) disagreed with the statement. In comparison, 6 female participants (75%) answered that they were likely to apply to the feminine-coded job advertisement, whereas 2 female participants (25%) disagreed with the statement. One of the male participants was not included in this result considering that he answered two different options, both fully agree and partially agree.

In the open-ended question regarding why or why not they were to apply for the second feminine-coded job advertisement, the main argument for agreeing was that the participants thought it sounded interesting and that it matched their requirements. An example of this is from a female participant who wrote "Interesting job and matched knowledge", and another

male participant stated, "It personally interest me very much, designing and working on the energy systems of the future and a position as a consultant is very attractive." The pattern of job appeal was very much present, one example from a male participant being "The smart cities and HVDC expanding and requesing [sic] in the future and will be an important jobb [sic] field." Another example from a female participant was about what the company itself works with "It foucses [sic] on sustainablity [sic]." Interestingly, another female participant mentioned the language within the job advertisement when they stated that they "Would apply for this job because it sounds more interesting, and they say it´s a merit if you have certain requirements and do not desire for it." For the participants who disagreed with this statement, the main argument was that it did not align with their interests and that they did not find the overall job field appealing, as seen in this example from a male participant "I dont [sic] really find that kind of work enviroment [sic] attractive, also what the bussiness [sic] is working with is not really what i [sic] am interested in." In this job advertisement, as well as the first one, the pattern of job appeal in regard to the gendered job advertisement is a factor in deciding whether to apply for this job advertisement or the other.

Figure 10

What job ad would the participants choose- if any- when choosing between the masculine and the feminine-coded job advertisements?

As seen in Figure 10, most of the participants, 15 of them (68%), would apply to the feminine-coded job advertisement, whereas only 2 male participants and 1 female participant would apply to the masculine-coded job advertisement (14%). Additionally, 2 male participants and 1 female participant would apply to both job advertisements (14%). Lastly, 1 male participant (4%) would not apply to either one of the two job advertisements.

There was also an open-ended question in connection to this question regarding why or why not the participants did or did not choose to apply for the job advertisement that they did. The response to this question was mostly answered by the ones who chose the feminine-coded job advertisement. For example, a male participant wrote "it felt like I could do some good here", and a female participant wrote "because job ad 2 sounds more inviting even for a person that doesn't have all the requirements." Another male participant stated that it was "more related to my studies," and a female participant answered that "Job ad 2 gives a clearer vision and is more appealing, because it does not exclude based on program mm." The reason why some participants chose job advertisement one had to do with "to work with medical equipment i [sic] view as an important job which helps people directly, energy solution offcourse [sic] also helps people but medical equipment helps people directly" that came from a male participant, another female participant answered that it was because "It aligns significantly more with the specialization I've chosen for my education and with the interests I have." This aligns with how attractiveness and self-perception of a job influence the participants' choices, and these are gender-based, depending on how the advertisement is linguistically coded.

In summary, when looking at how attractive the job advertisements are, the result shows that the feminine-coded job advertisement was seen as more attractive to the male participants, and to the female participants, it was equally attractive as the masculine-coded job advertisement. Furthermore, when investigating what job advertisement, the participants are more likely to apply to, looking at Figure 7 and Figure 9, the feminine-coded job advertisement is the superior option. This is because 11 valid answers from the male participants (85%), as well as 6 female participants (75%), answered that they agreed that it was more likely for them to apply to the feminine-coded job advertisement in Figure 9. In line with these results, the control question in the end also confirmed that the participants were more likely to apply to the feminine-coded job advertisement, since 9 of the 14 male participants (64%), and 6 of the 8 female participants (75%) would choose the feminine-coded job advertisement over the masculine-coded job advertisement (Figure 10). An interesting aspect to note from the statistics is that even though the female participants answered that 83% of them were attracted to the masculine-coded job advertisements (Figure 6), they were more likely to apply to the feminine-coded job advertisement when choosing between the two after reading both job advertisements.

4.2.1.3 The participants' attitudes and perceptions toward women in electrical and electronic engineering

In gathering a better understanding of the participants' perceptions of how many women they thought worked in each position being advertised a ten-scale question was used, "From a scale 1-10 rate how many women do you think work in the position being advertised?"

Figure 11

Masculine-coded job ad and the perceptions of women working in that position

Job ad 1: From a scale 1-10 rate how many women do you think work in the position being advertised?

■ Men   ■ Women

1. No women work in this position   10. Only women work in this position
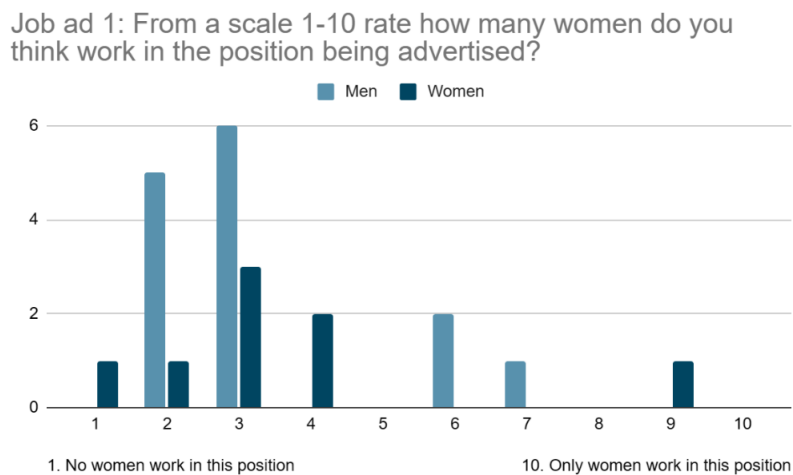
Illustrated in Figure 11, the result is very mixed among the participants, where only 4 participants rated 5 or higher on the scale. One interesting result is that 1 female participant (12.5%) thought that this position had a lot of women working in this position, whereas the rest of the female participants (87.5%) thought that few women were working in this position.

Figure 12

Feminine job ad and the perceptions of women working in that position

Job ad 2: From a scale 1-10 rate how many women do you think work in the position being advertised?
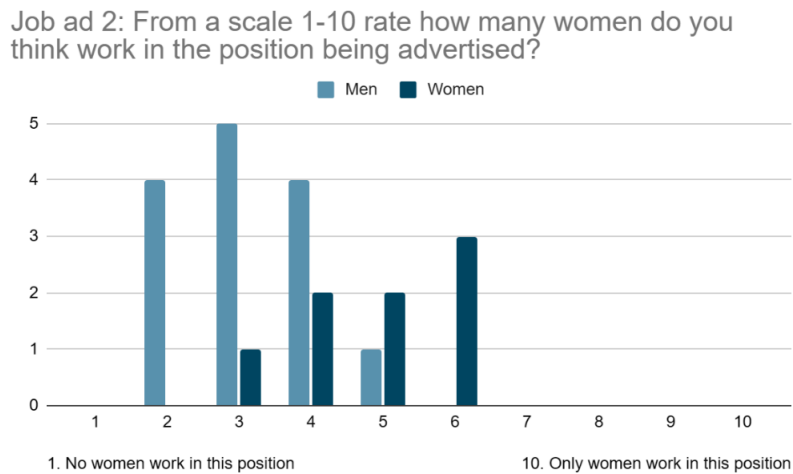
As seen in Figure 12, the overall result is closer together (from 2 to 6) and not as spread out as it was in Figure 11 (from 1 to 9). Furthermore, most of the participants chose either a 3 or a 4 on the scale. When comparing the result in Figure 12 with the ones in Figure 11, it becomes evident that, at the very least, female participants tend to perceive that more women work in the position of the feminine-coded job advertisement, rather than the masculine-coded one. Specifically, 5 female participants (62.5%) rated 5 or higher on the scale for the feminine-coded job advertisement, whereas only 1 female participant (12.5%) believed the same for the masculine-coded job advertisement, as seen in Figure 11.

4.2.2 Discussion of research question 2

When looking at the difference between the participants' self-perception in connection to their intention of applying for each job advertisement there is a slight indication that the feminine-coded job advertisement might have an impact on both the female participants as well as the male participants. This is so since both the female participants and the male participants stated that they possessed and were more suitable for the second job advertisement. In further investigation, it is possible to see that when the participants were to choose either the masculine-coded job advertisement or the feminine-coded job advertisement (Figure 10), they were more likely to apply for the feminine-coded job advertisement. This is because 6 out of 8 female participants (75%), and 9 out of 14 male participants (64%) stated that they were more likely to apply to the second (feminine-coded) job advertisement. This goes in line with previous studies (Born & Taris, 2010; Frissen et al., 2022; Gaucher et al., 2011; Taris & Bok, 1998). However, when looking closer at the gender perspective in this study, the likeliness for the

male participants to apply to the female-coded job advertisement is a lot higher than it has been in other studies. For example, Born and Taris (2010) illustrated that the male participants from their study "were equally inclined to apply for all positions, regardless of the gender-specificity of the profile" (p. 496). Therefore, it was interesting to find out that a majority of 64% of the male participants in this study would rather choose the feminine-coded job advertisement over the masculine-coded job advertisement (Figure 10).

Looking at the gender divisions within the questionnaire, there are significantly more men than women who participated. This can be seen as a reflection of the recent statistics illustrating that this is a male-dominated field with more men than women (SCB, 2022). It also goes in line with Keinert-Kisin (2016) who mentions that "Women's participation in perceivably "masculine" industries is low" (p.9), when she is discussing Western-gendered stereotypes and associations within job fields.

5 Discussion

As seen in the study, the results and answers to the research questions partially go in line with previous research and partially take different directions. The first research question reveals the extent to which job advertisements in electrical and electronic engineering use gendered language and reinforce gender bias in workplace distribution. The result of this study did not go in line with Gaucher et al. (2011) since they found that most job postings were masculine-coded. It does, however, align with Sella et al. (2023), considering that most job advertisements in this study were found to be either feminine or neutral-coded. Similarly, the result illustrated that there were still almost a third of the job advertisements that were masculine-coded, which Sella et al. (2023) mentioned as a potential gender bias problem. The second research question, focusing on potential applicants' perceptions of the job advertisements, aligned with prior research (Frissen et al., 2022; Gaucher et al., 2011; Taris & Bok (1998); Born & Taris, 2010). This is because a significant portion of the participants, both male (64%) and female (75%), expressed interest in the feminine-coded job advertisement (Figure 10) when choosing between the two.

Delving into the reasons why participants were more inclined to apply for the feminine-coded job advertisement, Gaucher et al. (2011) highlighted in their research that the inclusion of masculine-coded words such as "driven," "independently," "leading," and "ambitious" could

lead women to perceive masculine-coded job advertisements as less attractive and create a sense of not belonging. This study supports these findings of women being less inclined to apply for the masculine-coded job advertisement, because even if 83% of the female participants found the masculine-coded job advertisement appealing in Figure 6, only 50% believed they possessed the necessary qualifications for the masculine-coded job advertisement, as indicated in Figure 2. Furthermore, a mere 12.5% expressed a preference for the masculine-coded job advertisement over the feminine-coded one when faced with a choice between the two, as demonstrated in Figure 10. Furthermore, this could be connected to what Ellemers et al. (2000), and Walton and Cohen (2007) write about the fact that there is a trend among those who do not belong to the majority group to be conscious of their lower status. In this context, women may not feel a strong sense of belonging with the masculine-coded words. Similarly, Coates (2004) notes that "The public domain is a male-dominated domain, and the discourse patterns of male speakers have become the established norm in public life" (p.197). This underscores the normative status of male speakers, potentially resulting in lesser visibility for women in this context of male-dominated professions. Moreover, Coates (2004) explains that even if there has been a change with women entering various kinds of work fields "the workplace remains a decidedly unequal arena" (p.197). If this is then taken into consideration along with the fact that language is learned and never neutral since it is always affected by different sociolinguistic values (Coulmas, 2013, p.4). This could be seen as a reason the female participants felt more inclined to apply to the female-coded job advertisement.

Furthermore, it is interesting that the participants brought up and discussed some wordings and written phrases in the open-ended questions to further explain what factors that might have affected their choices, where one participant wrote about the words "merit" and "desire" (Figure 9). This does not go in line with other research, for example, in Gaucher et al. (2011), where they specifically mention that "not one participant mentioned wording" (p.115) when asked which factors had affected their participants' perceptions. This was especially noted in this study, in the questions regarding what job advertisement the participants were more likely to apply to. For example, one female participant wrote that they "Would apply for this job because it sounds more interesting, and they say it´s a merit if you have certain requirements and do not desire for it" when agreeing to apply to the second job advertisement. Another female participant wrote that "because job ad 2 sounds more inviting even for a person that doesn't have all the requirements." This, too, illustrates that the way words are written can make a significant difference when it comes to inclusiveness. In all, this study illustrates that

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the words written in these two job advertisements impacted the participants to some extent, especially the female participants, for example the word "merit" instead of "desire," which is a factor less frequently observed in previous research (Gaucher et al. 2011, p. 115). Moreover, according to *Oxford Learners' Dictionaries* the word "merit" is described as "the quality of being good and of deserving praise or reward" (n.d.-c), whereas "desire" is described as "a strong wish to have or do something" (n.d.-d). In other words, it can be said that the word "merit" has a meaning that is more toward "being good" at something and might not be seen as necessary and be included under the theme "cooperative style," whereas the word "desire" can be seen as something that one should "have or do" and be included under the theme "competitive style."

5.1 Future research

For future research, it would be interesting to compare either two male-dominated work fields or one male-dominated with one female-dominated field to see if there might be some difference. Also, it would be interesting to go a step further and look at the students, at the words written in the introduction and course plans to see if they are written with masculine or feminine-coded words. This is to see if that might also be a factor in why there is such a gap in this male-dominated field of electronic and electric engineering, and even here compare it to a female-dominated field such as preschool teachers or any other kind of caregiving profession.

6 Conclusion

In summary, this study focused on the gendered language employed in English job advertisements within the electrical and electronic engineering field in Sweden. Furthermore, the research explored the perceptions of potential applicants regarding two job advertisements: one masculine-coded and one feminine-coded. The methodology involved an initial analysis of 30 job advertisements, followed by the distribution of a questionnaire featuring the two job advertisements to potential applicants. The results of this study correspond to previous research when it comes to the fact that the feminine-coded job advertisement indicates to be more likely for both men and women to apply to in comparison to the masculine-coded job advertisement. Considering that this study was quite small it is not possible to state that this is so for all job advertisements within this field, but it does, however,

point in the direction of female-coded job advertisements being a successful factor in job advertisements within this field. Therefore, it is promising to see that most job advertisements that were investigated in part one of this study were feminine-coded. Nevertheless, the fact that almost one-third of the job advertisements in this study employ masculine-coded job advertisements indicates the necessity for additional research to cultivate a more equitable work environment, diminish gender bias, and narrow the gap between male and female-dominated professions, as this could be a contributing factor.

References

Askehave, I., & Zethsen, K. K. (2014). Gendered constructions of leadership in Danish job advertisements: Gendered constructions of leadership. *Gender, Work, and Organization*, *21*(6), 531–545. https://onlinelibrary.wiley.com/doi/10.1111/gwao.12053

Bolin, L., & Börjesson, S. (2017). *Självbedömning, intention och platsannonser: En kvantitativ studie av könskodningens påverkan* [Self assessment, intention and job advertisements : A quantitative study of the effects of gendered wording]. [Bachelor's thesis in psychology] Jönköping University. Retrieved from http://urn.kb.se/resolve?urn=urn:nbn:se:hj:diva-35501

Born, M. P., & Taris, T. W. (2010). The Impact of the wording of employment advertisements on students' inclination to apply for a job. *The Journal of Social Psychology*, *150*(5), 485–502. https://tandfonline.com/doi/abs/10.1080/00224540903365422

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://tandfonline.com/doi/abs/10.1191/1478088706qp063oa

Coates, J. (2004). *Women, Men, and Language: a Sociolinguistic Account of Gender Differences in Language*. Routledge.

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed). SAGE.

Coulmas, F. (2013). *Sociolinguistics: The Study of Speaker's Choices* (2nd ed.) Cambridge University Press.

Ellemers, N., van Dyck, C., Hinkle, S., & Jacobs, A. (2000). Intergroup differentiation in social context: identity needs versus audience constraints. *Social Psychology Quarterly*, *63*(1), 60–74. https://www.jstor.org/stable/2695881

Frissen, R., Adebayo, K.J., & Nanda, R. (2022). A learning approach to recognize bias and discrimination in job advertisements. *AI & Soc*, 38, 1025-1038. https://link.springer.com/article/10.1007/s00146-022-01574-0

Gaucher, D., Friesen, J., & Kay, A. C. (2011). Evidence that gendered wording in job advertisements exists and sustains gender inequality. *Journal of Personality and Social Psychology*, *101*(1), 109–128. https://doi.org/10.1037/a0022530

Gillham, B. (2008). *Developing a Questionnaire*. Bloomsbury Publishing.

Keinert-Kisin, C. (2016). *Corporate Social Responsibility and Discrimination Gender Bias in Personnel Selection* (1st ed. 2016.). Springer International Publishing. https://doi.org/10.1007/978-3-319-29158-1

Leavy, P. (2017). *Research Design: Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches*. New York, NY: The Guilford Press.

Matfield, K. (n.d). *Gender decoder*. https://gender-decoder.katmatfield.com/

Oxford Learner's Dictionaries. (n.d.-a). *Inequality.* In *Oxford Learner's Dictionaries.* Retrieved January 10, 2024, from https://www.oxfordlearnersdictionaries.com/definition/english/inequality

Oxford Learner's Dictionaries. (n.d.-b). *Bias.* In *Oxford Learner's Dictionaries.* Retrieved May 02, 2023, from https://oxfordlearnersdictionaries.com/definition/english/bias

Oxford Learner's Dictionaries. (n.d.-c). *Merit.* In *Oxford Learner's Dictionaries.* Retrieved May 20, 2023, from http://www.oxfordlearnersdictionaries.com/definition/english/merit

Oxford Learner's Dictionaries. (n.d.-d). *Desire*. In *Oxford Learner's Dictionaries.* Retrieved May 20, 2023, from https://www.oxfordlearnersdictionaries.com/definition/english/desire

Rudman, L. A., & Kilianski, S. E. (2000). Implicit and explicit attitudes toward female authority. *Personality & Social Psychology Bulletin*, *26*(11), 1315–1328. https://doi.org/10.1177/0146167200263001

SCB (statistics Sweden). (2022, March 10). *The Swedish Occupational Register with statistics 2020.* Retrieved January 20, 2023, from https://www.scb.se/en/finding-statistics/statistics-by-subject-area/labour-market/employment-and-working-hours/the-swedish-occupational-register-with-statistics/pong/statistical-news/the-swedish-occupational-register2/

Sella, E. C., Joshi, A., Balasubramanian, S., Senthilkumar, D., Ma, T., & Agarwal, P. (2023). Is there gender bias in radiology job postings? *Current Problems in Diagnostic Radiology*, *52*(3), 187–191. https://www.sciencedirect.com/science/article/pii/S0363018822001463

Swedish Research Council. (2017). *Good research practice*. https://www.vr.se/english/analysis/reports/our-reports/2017-08-31-good-research-practice.html

Taris, T.W., & Bok, I. A. (1998). On gender specificity of person characteristics in personnel advertisements: a study among future applications. *The Journal of Psychology*, *132*(6), 593–610. https://tandfonline.com/doi/abs/10.1080/00223989809599292

Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. Journal of Personality and Social Psychology, 92(1), 82–96. https://doi.org/10.1037/0022-3514.92.1.82

Yule, G. (2020). *The study of language*. Cambridge University Press.

Appendix 1

The questionnaire: Gendered language in job advertisements

Part 1

This is a survey that investigates how gendered language is expressed in job ads within the electrical/electronic engineering field and how these ads are perceived by potential applicants. It will take around 5-10 min to answer the questionnaire and your answers will be anonymous. You will read two job ads and then answer questions regarding each ad. If you have any questions or comments, please contact Josefin Alm on XXXX@student.mdu.se

To take part in the survey, please click "I approve" to give permission to store, manage, and publish your anonymous data for the purposes of this study. Thank you for your participation! (If you do not wish to participate, you can simply close the browser.)

- ☐ I approve

1. Which alternative best describes your gender identity?
    - Woman
    - Man
    - Other

2. I am interested in working as an electric/ electronic engineer"
    - Fully agree
    - Partially agree
    - Partially disagree
    - Fully disagree

Part 2

You will be presented with two real job advertisements for electrical and electronics engineering positions, along with related questions to answer. The names of the first company have been anonymized and changed into "X" instead of its real name for ethical reasons. Your task

is to choose the most fitting option from the given alternatives for each statement. Additionally, there will be two optional questions where you can elaborate on your reasoning for your choices, as well as one last question where you will be asked to choose your answer on a scale from 1-10. Assume that you are in a position to apply for a new job when you provide your answers.

Job ad 1 - "Electronics Engineer to X"

Would you like to work in an international environment for a growing company that is a leader in advanced rehab technology? Do you thrive in an atmosphere where decisions are never further away than necessary?
X is expanding and is now searching for new colleagues to join the growing global development team within electronics and software in Timrå! Are you a curious and driven Electronics Engineer looking for new challenges? Welcome with your application today!

Responsibilities
Your main task will be to work with existing products to improve these and ensure compliance towards medical standards. You will work with new development in the field of electronic engineering i.e., hardware design and/or embedded software development. Another important task is to work with agile project development teams, from the beginning to the end of the product development lifecycle.

Your profile
You have an engineering degree or similar experience in Electronic Engineering or Mechatronics. We are searching for candidates with previous experience in the field of electronic engineering but do not exclude newly graduated. To enjoy and be successful in this role you can utilize and create hardware schematics, change, and troubleshoot existing embedded software, also you can design and assemble hardware prototypes.
You have a strong and swift hand-on approach and are familiar with advanced lab equipment for troubleshooting ad debugging of electronics systems. Effective communications skills and you can easily adapt to various levels of technical details. You have excellent communications skills in both Swedish and English.

Desired experiences:

– Development for medical devices equipment

– Software development in C/C++

– Previous knowledge in Jira och Gitlab

We are looking forward to your application!

About the organisation

X founder Dr. X believed that helping people achieve the greatest level of independence is a basic human right and, for over 50 years, X has held fast to that belief. X is a global leader in advanced rehabilitation technology, passionate about better understanding our users' needs and improving their quality of life through state-of-the-art healthcare solutions. Today, those solutions include power wheelchairs, seating and positioning products, power assist, and manual wheelchairs.

X is part of X Industries, a subsidiary of X, and is headquartered in Sweden. X has 1600 team members in more than 15 countries around the world. For more information regarding the company's storied history and complete product line, visit X.com

3. I possess the qualities that this ad is asking for

    - Fully agree

    - Partially agree

    - Partially disagree

    - Fully disagree

4. I am a suitable candidate for this position

    - Fully agree

    - Partially agree

    - Partially disagree

    - Fully disagree

5. Why/ Why not- do you think that you are a suitable/ not suitable candidate for this position?

    _____

6. I find this position attractive

   - Fully agree

   - Partially agree

   - Partially disagree

   - Fully disagree

7. It is likely that I would apply for this position

   - Fully agree

   - Partially agree

   - Partially disagree

   - Fully disagree

8. Why/ Why not- do you think that you would apply/ not apply for this position?

   _____

9. From a scale 1-10 rate how many women do you think work in the position being advertised?

   1 (No women work in the position being advertised) —10 (Only women work in the position being advertised)?

Job ad 2- "Electrical Design Engineer"

About the customer: The customer you will work for as a consultant, is a large industrial company in southern Dalarna. They have a long history and operates on a global market with a broad focus on the energy sector. They serve companies in energy, industry and infrastructure as well as emerging areas such as sustainable mobility, smart cities, energy storage and data centers, worldwide. They are pioneers in sustainable energy, and with forecasts showing a doubling of electricity demand by 2050, the company is one of the most important players in the solutions required for a sustainable future.

Your responsibilities: You will be a part of a hardware design team within HVDC and be responsible for hardware design in our clients control and protection system. Designing cubicle layout with access points, earthing bars, cable routing and much more. You will work together with our clients customers, both internally and externally, to ensure the delivery is according to their requirements and standards. Collaborating and networking with engineering colleagues, sharing best practice across different projects and disciplines. You will also have the opportunity to travel abroad and participate in building some of our clients many power stations around the world.

Your background:

- YH, bachelor or master's degree in electrical engineering or similar background.
- Preferably have experience with the CAD-tools for control systems.
- Fluent in English.
- Would be a merit if you:
- Have an interest in hardware system design.
- Experience of Engineering base and Ruplan
- Are a natural problem solver who enjoys meeting new challenges.
- If you have EMC knowledge or experience of AC sub-stations and control systems.

Don't hesitate to apply, feel free to contact me if you have any questions about the position.

10. I possess the qualities that this ad is asking for
- Fully agree
- Partially agree
- Partially disagree
- Fully disagree

11. I am a suitable candidate for this position
- Fully agree
- Partially agree
- Partially disagree
- Fully disagree

12. Why/ Why not do you think that you are a suitable/ not suitable candidate for this position?

_____

13. I find this position attractive
   - Fully agree
   - Partially agree
   - Partially disagree
   - Fully disagree

14. It is likely that I would apply for this position
   - Fully agree
   - Partially agree
   - Partially disagree
   - Fully disagree

15. Why/ Why not- do you think that you would apply/ not apply for this position?

_____

16. From a scale 1-10 rate how many women do you think work in the position being advertised?

   1 (No women work in the position being advertised) —10 (Only women work in the position being advertised)

17. Now after reading these two job ads, which of the job ads would you like to apply to the most?
   - Job ad 1
   - Job ad 2
   - Both of them
   - None of the job ads

18. Please write why you chose as you did in the previous question.

_____