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Self-Confidence: The Invisible Force Behind the Gender Gap

Empowering Students Through Self-Development

By

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Abstract

The global underrepresentation of women in the workplace is an ongoing issue. As a connection between self-confidence and career development has emerged, the topic of self-confidence has received growing attention over previous years. A gap between male and female self-confidence has been discovered and is consequently a likely cause and impact for the global gender gap, especially in high positioned jobs. This thesis analyzes the existence of a gender gap in a group of prospective managers: the Master in Management (MiM) class of 2020. To investigate the research questions, data was collected through both questionnaires and interviews. This research discovered a gender gap in self-confidence in the class. Additionally, the results confirm the hypothesis that including self-developing elements in an academic program has the ability to empower students. This study emphasizes the need for self-development in academia in order to boost the students -especially the women's- self-confidence.

Keywords: Self-confidence, gender, gender gap, empowerment, self-development

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1.1. Background

Over the last decades, the key success factor for employees has shifted from solely competence; nowadays, self-confidence is considered as important as competence (Kay & Shipman, 2014). Self-confidence is defined as "the belief that you can do things well and that other people respect you" ("Self-confidence", n.d.). Recent research has indicated a difference in self-confidence between men and women in terms of capabilities, appeal to (future) employers, and self-promotion (Exley & Kessler, 2019). Men show higher levels of self-confidence in all of these areas (Cahn, 2020). Additionally, studies in self-confidence reveal that women display lower levels of self-confidence than men in regard to achievements (Fitzsimmons, Yates, and Callan, 2018). This implies that men have a higher tendency to strive for success than women (Pang, 2010). Moreover, the connection between one's abilities and one's self-confidence differs in men and women: while women base their self-confidence on their abilities, men have a tendency to be overconfident, regardless of experience or skills (Cho, 2017).

Self-confidence is commonly seen as a characteristic of a good leader (Fitzsimmons, Yates, and Callan, 2018), and an increasing correlation between self-confidence and success has emerged. Due to this, research indicates that self-confidence can be one reason for the underrepresentation of women in high positions (Kay & Shipman, 2014), acting as an invisible force.

While there are imbalances and disparities in various sectors and work levels, this thesis concerns the gender gap within the higher positions: this includes leadership positions from middle management, director, and executives to Senior positions (Spacey, 2018). It is noteworthy that the proportion of women holding senior management roles is increasing globally and has never been as high as it is today: In 2019, females held 29% of senior management positions globally, which alone is a 5% rise from the previous year (Thornton, 2019). When looking at different areas of the world, the numbers differ. In Eastern Europe, 32% of top positions are women, making it the highest percentage. Latin America, on the other hand, has the lowest percentage with only 25% of females in senior positions (Thornton, 2019).

Countries are aware of the underrepresentation of females in senior or management positions and are making it their aim to increase the ratio. The global interest and effort can for example be seen in The World Economic Forum agenda for 2020, where they are committed to analyze and evaluate the global gender gap, and even zooming in on country profiles (Global Gender Gap Report, 2020). While this progress is encouraging, it has been slow coming and there is still a considerable gap to close (Global Gender Gap Report, 2020). Examining the European Union, the statistics from 2019 show that only 36% of managers are women, specifically 3.4 million out of all 9.4 million managers (Eurostat, 2019). The numbers become even less in regard to senior management positions: only 27% of EU board members and 17% of EU executives are women (Eurostat, 2019). While women make up approximately 50% of all employees in the EU, these numbers demonstrate that there is still a significant underrepresentation in higher positions (Eurostat, 2019).

The progress made in equal gender representation is optimistic but must be viewed carefully; it should not animate rest but rather activate further measures to close the gap. In order to do so, it is crucial to find the reason behind the uneven distribution of higher positions. As introduced earlier, one possible explanation for the substantial gap stems from the self-confidence gap between the genders.

1.2. Research Aim

The aim of this thesis is to dive deeper into the topic of self-confidence and gender, and how it correlates with behavior, public perception and professional success.

We aspire to evaluate the existence of a self-confidence gender gap in a specific demographic of prospective managers. Furthermore, one aim is to evaluate the impact of academic programs on individual's self-confidence. Mruk (2006) described several tools which have a positive effect on self-esteem, and consequently self-confidence. Several examples are positive feedback, reflection, and mentoring Our aim is to evaluate the components' effects on students' self-confidence and the outcome of our research will then be used to capture empowering elements which increase self-confidence. Closing the self-confidence gap could have a great impact on the global gender gap in the work environment.

1.3. Research Purpose

In order to reach the aim formulated in the previous paragraph, two research questions and one hypothesis will be investigated.

The objective of this thesis is to add novel insights to the self-confidence gap between the genders. Inspired by existing research introduced in preceding sections of this thesis and thoroughly discussed in succeeding chapters, this research will generate new insights by focusing on the future generation of managers. One population of young professionals who are aiming to apply for such positions in due time is the Master in Management (MiM) class of 2020. What follows is the first research question of this thesis:

Can a gender gap in self-confidence be identified in the MiM class of 2020?

Inspired by the argument that self-development has a positive impact on self-confidence (Mruk, 2006), the following hypothesis is formulated.

The structure of an academic program consisting of elements such as reflection, feedback and mentoring, has the ability to boost a student's self-confidence.

In order to evaluate whether this hypothesis holds, we are investigating the following research question:

Have the students' self-confidence levels changed throughout the course of the MiM program?

1.3.1. Contribution of the thesis.

Even though the thesis topic is derived from the global gender gap in self-confidence, it is not the purpose of this paper to contribute and integrate our findings to the global gender gap. We do not claim to find an answer on how to fix the global issue, however we believe that our findings can help on a smaller scale. Focusing on the MiM students at Lund University, this research will investigate the impact of the program's structure on the individual's self-confidence. A potential contribution could therefore be a deeper understanding of both the students, and the program's ability to impact the individuals. Bringing awareness to a possible gender gap in the MiM class could motivate efforts to close this gap for future years. Furthermore, if the formed hypothesis holds, it could be a signal for other academic programs to include more self-development elements in their curricula.

1.4. Outline

While chapter 2 comprises a broad review to the topic through literature review, the purpose of the chapters which follow is to apply this knowledge to a narrower area: specifically, the MiM class of 2020. Chapter 3 describes the research methodology chosen for this study, and the succeeding chapters (4, 5, 6) will present the results and discussions following the research results.

The final part of this thesis, chapter 7, will conclude the thesis by summarizing the gained insights, its contribution, as well as a future research outlook.

2. Theoretical Review

The first step of our research process was to collect existing literature and knowledge about the issue. This chapter will present the literature review regarding our thesis topic. In the first section, important concepts will be defined. This will then be followed by a thorough review of relevant and contemporary research.

2.1. Defining Self-Confidence and Related Concepts

As has been defined in Chapter 1, **self-confidence** entails believing in your own abilities, and in the acknowledgement of your skills ("Self-confidence", n.d.; Kay & Shipman, 2014).

Another term that often goes hand in hand with self-confidence is **self-esteem**; it is regarded as an umbrella term for feeling competent and worthy; someone with high self-esteem has high self-confidence (Mruk, 2006). While these two terms are often used interchangeably, for the purpose of consistency we will henceforth only use the term self-confidence.

A strong relation can be found between a person's self-confidence and personal success. **Success**, as defined by the Cambridge Dictionary, is "the achieving of the results wanted or hoped for" ("Success", n.d.). Career success is defined as the accomplishment of desirable work-related results at any point in a person's career over time (Arthur, Khapova & Wilderom, 2005).

Another term often connected to self-confidence is **empowerment**. This construct is defined as "a process by which people gain mastery over issues of concern to them" (Rappaport, 1987). It integrates perceptions of personal control, a proactive approach to life, and a critical understanding of the sociopolitical environment (Zimmerman, 1995). It also involves standing up for yourself and saying 'no' to negative treatment from others.

The final concept that relates to self-confidence is **self-reflection**. This describes "the activity of thinking about one's own feelings and behaviour, and the reasons that may lie behind them" ("Self-reflection", n.d.). Travers, Morisano and Locke (2015) include setting 'growth goals'- goals that are created to impact an individual's personal growth in life - as an important part of self-reflection.

2.2. How Self-Confidence Emerges

Self-confidence emerges due to many factors. Some genetic influence was indicated; about 30-40 percent of variance among self-confidence levels is accounted for by genetic influences, whereas

non-shared environmental factors accounted for the largest portion of variance (Mruk, 2006). Another important factor influencing self-confidence is parental involvement and acceptance. Both are seen as a positive force in developing self-confidence, while parental absence is seen as a negative force (Mruk, 2006). Teacher expectations are also an influence on student performance and self-confidence (Sadker & Sadker, 2010). Teachers tend to give more attention to boys than to girls - however, they give girls more positive feedback, and are more likely to criticize boys (Sadker & Sadker, 2010).

Mruk (2006) writes about multiple factors that could increase self-confidence. The first, positive (affirming) feedback, mainly discusses that people need confirmation of their strengths, and positive feedback might help affirm a person's worth. This could be done by other people, or by giving self-feedback. Another important tool that could help increase self-confidence, according to Mruk (2006), is empowerment. As defined before, it is described as "a process by which people gain mastery over issues of concern to them" (Rappaport, 1987). Having this capacity to stand up for oneself and one's values, connects positively to self-confidence and success (Mruk, 2006). Self-confidence and self-efficacy are important predictors of action (Diener & Biswas-Diener, 2005). However, empowerment alone might not always lead to action. A person's passivity or external factors can play a role in the probability of an individual's behavior (Diener & Biswas-Diener, 2005). But when it does lead to action, it can result in personal success and achievements.

Self-reflection is also positively related to self-confidence (Mruk, 2006; Travers, Morisano & Locke, 2015; Nesbit, 2012). Evaluating one's performance on a regular basis, asking for feedback, and setting personal growth goals leads to a heightened self-awareness and increased performance.

Considering the above-mentioned factors that could have a positive effect on self-confidence, and reflecting on the Master in Management program, one could argue that this past academic year could have had a positive impact on the students' self-confidence. Following Mruk (2006), reasons for this increase could be the high degree of self-development -e.g. self-reflection, feedback and teamwork- which the program consisted of. This program is uniquely structured, as it focuses heavily on personal development. Besides the academic focus on different perspectives on management, many aspects of the program are tailored to evoke self-reflection, for example mandatory mentoring and psychology sessions. As stated on the program's website, "during the studies, you are continuously encouraged to reflect, apply and relate new knowledge to future career ambitions" (Management - Master's programme, 2019). We therefore hypothesize that this

program has an impact on people's self-confidence and are aiming to find out whether this hypothesis holds, and which factors have had the biggest contribution.

2.3. Why Self-Confidence is Important

People with high levels of self-confidence experience a lot of positive effects. It is associated with better social contacts, prevention of mental illnesses, increased mental wellbeing, and overall better health (Mann, Hosman, Schallma & de Vries, 2004). Conversely, low self-confidence can lead to social problems and depression.

Self-confidence is also positively related to happiness. Furnham and Cheng (2000) conducted a large-scale study investigating the causes of happiness and self-confidence turned out to be a big contributor. Furthermore, the development of self-confidence has an impact on the development of important life-outcomes, such as relationship and job satisfaction (Orth, Robins & Widaman, 2012).

Salmela-Aro and Nurmi (2007) investigated the link between self-confidence and career outcomes. Findings showed that, after correcting for academic performance, a higher overall self-confidence predicted a high salary, as well as a high level of work engagement and job satisfaction. Their 15-year longitudinal study also researched the development of self-confidence during university studies. It turned out that self-confidence of students increased during the years they were attending university (Salmela-Aro & Nurmi, 2007). Other positive effects of self-confidence are that people are more likely to speak up in groups and take more initiative. It should also be noted, however, that, people with too high levels of self-confidence might tend to overestimate their performance and exaggerate their successes (Baumeister, Campbell, Krueger & Vohs, 2003), turning it into a negative trait. Those might miss opportunities to develop, and instead practice arrogant behavior (Chamorro-Premuzic, 2013).

Nonetheless, these results are strong evidence that self-confidence has a significant positive impact on a person's wellbeing, and that increasing someone's self-confidence could aid with achieving personal and professional successes.

2.4. Potential Explanations to Differences in Self-Confidence

2.4.1. Biological reasoning. As introduced in the beginning of this paper, research has discovered a difference in the self-confidence of men and women in regard to their capabilities, skills and appeal in the workplace (Kay & Shipman, 2014). Muzzatti and Agnoli (2007) suggest a difference in self-confidence in gender emerges with age, around middle school. For decades,

people believed that this confidence gap was attributable to biological facts, and that the reason stems from differences of the male and female brain (Rutherford, 2011). However, we now know that the brains of both genders are greatly alike. As Dr. Lise Eliot, Professor of Neuroscience at the Chicago Medical School at Rosalind Franklin University of Medicine and Science, explains; there is no tangible difference between the male and female brain (The Aspen Institute, 2018). Arguments using our nature and biology as the root of this issue are now considered as "biological determinism" (Rutherford, 2011, p. 90): Relating existing gender differences back to hormones and the brain is dangerous, as the effort to change something about this seems aimless. Rutherford argues that if we followed biological determinism, we would sign the fate of every woman to be less self-confident than their male opponents. Rather we should "resist temptation to fall back on either cultural or biological determinist explanations of gender differences" (Rutherford, 2011, p. 93).

2.4.2. Gender roles and stereotypes. An additional explanation for the difference in self-confidence could be the different gender roles and stereotypes that are attributed to women and men. Gender stereotypes are defined as our beliefs about the typical biological or psychological features associated with the female or male gender (Helgeson, 2016). There are two different types of stereotypes; *descriptive*, designating what women and men are like, and *prescriptive*, designating what women and men should be like (Heilman, 2012). Some examples of these stereotypes are that men are perceived to be aggressive, forceful, and decisive, while women are perceived to be kind, helpful, and sympathetic (Heilman, 2001). These stereotypes are also perceived in the workplace and can have a negative effect on gender equality. Heilman (2012) found that gender stereotypes cause biased judgments and discriminatory treatment towards women in the workplace. This treatment could have negative effects on women's well-being, and one could even argue this could cause a decrease in self-confidence in women in the workplace.

An additional finding regarding gender stereotypes is that women have a less positive attitude towards their gender role than men (Helgeson, 2016). The perception of the female gender is sometimes described as soft, or even weak, as described by Helgeson. Masculinity, or the male gender role, on the other hand, is often positively related to self-esteem. These differences in perception could influence one's self-perception, based on which gender one identifies with. A well-known phenomenon considering gender roles and stereotypes is *stereotype threat*: the idea that activating stereotypes, for example 'men are better at math than women' will negatively interfere with the performance on that task, and therefore confirm the stereotype (Walton &

Spencer, 2009). This can interfere with performance, for example by decreasing confidence and increasing anxiety. Sandberg (2015) also described this phenomenon. She states that stereotypes introduced in childhood are often reinforced throughout our lives and become self-fulfilling prophecies. Using the example of math once again; when girls are reminded of their gender before performing on a math task, their performance goes down (Sandberg, 2015). Contrary to negative stereotype examples, a similar study was done using a feminine-typed task, and it showed the opposite result. When asked about their self-confidence regarding different cheerleading tasks - which is generally viewed to be a feminine typed task, women indicated to be more confident than men, showing a stereotype threat towards men (Clifton & Gill, 1994). When observing this phenomenon in a professional setting, both men and women could experience the negative effects on stereotype threat. Men could feel discouraged to apply for jobs that are stereotyped to be executed by women, for example Human Resource management, and women could feel the same way about jobs that are stereotyped to be executed by men, such as engineering.

2.5. Evidence of Gender Disparities

2.5.1. Over- and underestimation.

Another research outcome regarding the issue of gender differences in confidence is something that relates to a discovery known as the Dunning-Kruger effect. This describes the findings of Cornell University psychologists David Dunning and Justin Kruger, who found that some people heavily overestimate their own abilities. Even more so, it was found that the less competent someone is, the more they tend to overestimate their abilities (Dunning, Johnson, Ehrlinger & Kruger, 2003). Taking up on this discovery, research found men to overestimate both their ability and performance, while women did the opposite. Meanwhile the quality of the performance between the genders did not differ (Estes & Felker, 2012). One of these studies, as presented by Sandberg (2015), was performed by Hewlett-Packard (HP), in an attempt to increase the proportion of women in higher positions of the company. Research discovered that women only applied to higher positions if they felt they meet all (100%) of the described requirements. Men, on the other hand, applied when they believed to meet only 60% of the requirements (Sandberg, 2015). This demonstrates the over-and underestimation of abilities between the genders. This overconfidence in men is further described by Columbia Business School Professor Ernesto Reuben as “honest overconfidence” (Reuben in Kay & Shipman, 2014), as it happens unconsciously.

Furthermore, women show less self-confidence about their performance on masculine tasks, despite equal performance (Helgeson, 2016). When asked about their estimated performance on a math task, high school boys overestimated their performance, while high school girls underestimated their performance (Dahlbom, Jakobsson, Jakobsson & Kotsadam 2011). This could mean that women, even when they have the same ability, might choose easier tasks or tasks in other domains. Consequently, this could have a negative impact on professional success and achievements, (Kay & Shipman, 2014).

The difference in self-estimation is also apparent when looking at competitive behavior. When given the option between an uncompetitive task and a competitive tournament, men choose for competition twice as often as women (Niederle & Vesterlund, 2007). This finding links to overestimation; men believe they have a high chance of winning, and thus choose competition, while women might not feel as certain. Additionally, when investigating multiple sectors, results show that in the business sector, men exhibit the largest preference for competition (Kamas & Preston, 2012). This competitive behavior could explain why men occupy higher managerial positions than women. Furthermore, the competitive nature of men could help them in applying for competitive jobs, and the lower degree of competitiveness could be a hindering force for women in their application process. This thesis aims to find out whether the phenomenon of overestimation and underestimation is observable in the Master of Management program. Our participants, being the class of 2020 should not have much difficulty answering questions regarding their application behavior, since many of them are currently in the process of applying.

2.5.2. Different success attributions.

Building on this disparity, men and women differ in their attributions for their own performance. Men tend to correlate success to internal attributes (particularly ability) while women correlate success to internal but unstable attributes (effort) or external causes (luck) (Mezulis, Abrahamson, Hyde & Hankin, 2004). A study about differing success attributions between men and women in academia has also discovered the internal and external attribution as the main difference between the genders (Fox & Ferri, 1992). According to this research, women are more likely to attribute other people's success to external factors, such as scholarships or connections. Men, on the other hand, explain success with internal factors of the individuals, such as cognitive skills or determination (Fox & Ferri, 1992). Explaining accomplishments with external or internal factors consequents in differing perceptions of personal success: as mentioned above, women are likely to attribute their own success to luck, while men attribute it to personal skills (Murashev, 2011). On the contrary, women attribute failure to a lack

of personal skill, whilst men attribute it to misfortune (Murashev, 2011). A similar finding was discovered regarding a difference in gender when responding to feedback. Biernat, Tocci & Williams (2012) found that men are less responsive to evaluative feedback than women. This can also be explained by success attributions - men may discount feedback to protect their self-confidence and believe solely in their own evaluation of themselves (internal attributes). Women might be more responsive to feedback because they regard the content of the feedback as more accurate, as they tend to underestimate their own abilities (Biernat, Tocci & Williams, 2012). The fact that men attribute their success to their own abilities more than women could consequently show a disparity in their self-confidence levels, since this phenomenon is defined as believing in your own abilities, and in the acknowledgement of your skills ("Self-confidence", n.d.; Kay & Shipman, 2014). It could be considered an interesting finding if this difference in gender is also found in the Master of Management class of 2020.

2.5.3. Self-promotion.

Another difference in gender was found in self-perception and self-promotion. Women are less likely to defend or promote their own abilities (Collis, 1991), while men are more comfortable to self-promote (Cahn, 2020). Men are more likely to describe themselves in terms of their independence from others, whereas women oftentimes view themselves as interdependent, namely in terms of connections to others (Cross, Hardin & Gercek-Swing, 2011). When linking these findings to self-confidence, it was found that men's self-confidence is often based on power, differentiating themselves from others, and independent action, while women's self-confidence is based on relationships and connections (Miller, 1991).

Besides differing in the content of their self-promotion, women also tend to downgrade themselves: when talking to potential employers, women provide less favorable comments about their past accomplishments and future potential than equally performing men (Exley & Kessler, 2019). Cahn (2020) gained similar insights through an experiment using an intelligence test. He discovered that the weak self-promotion by women did not change, even after learning that their performance was equal to their male opponents'.

Research in the field of science has discovered that there is a notable self-promotion and self-presentation gap in scientific publications of men and women: namely, men make use of "promotional-sounding words" (Khazan, 2019) such as 'novel' or 'remarkable' to a greater extent than women do. Consequently, this difference in self-presentation has great effects on the careers of the scientists. The articles with more positive presentation were cited more than their neutral opponents', most likely because the positive language impresses the reader unconsciously

(Lerchenmueller in Khazan, 2019). Furthermore, men in science also self-promote notably more than women do: over the past twenty years, men have cited their own material 70% more than their female colleagues (Khazan, 2019). This research about a self-promotion gap could explain the underrepresentation of women in science across the "scientific ladder" (Khazan, 2019), and furthermore, why this ratio declines with every step of the ladder.

Naomi Schoenbaum -professor at GW Law- argued that women detect and censor self-promoting behavior for the reason that such "assertive behavior tends to backfire" (Schoenbaum in Cahn, 2020). Another possible reason for not self-promoting is that women thereby hope to avoid criticism (Cahn, 2020). This difference in self-promotion could have an impact on their behavior during job interviews. Men, being more comfortable with self-promotion, could come across as more self-confident, thus leaving a more positive impression (Sandberg, 2015).

2.6. The Correlation of Self-Confidence and Success

Self-confidence is viewed as an important personal trait and is often correlated with success. Considering the fact that self-confidence describes the belief in personal abilities, one can detect from this that a self-confident person is more likely to transform their self-judgment into action. The positive impact that self-confidence has on a person's performance consequently stimulates action (Helgeson, 2016). This is essentially the reason for it being a success factor, since only those who try are able to succeed (Estes & Felker, 2012). Conversely, this means that low self-confidence brings about inaction (Estes & Felker, 2012). When people experience a lack of self-confidence, they are more likely to give up, choose an easier task, or pursue activities in another domain (Helgeson, 2016). Another reason for why self-confidence correlates with success and matters just as much as competence is the change in behavior it brings about in someone, as described by Cameron Anderson, a psychologist at Berkeley (University of California): He explains that someone who thinks they are good at something -despite whether that actually is the case- displays certain "confident nonverbal and verbal behavior" (Kay & Shipman, 2014). This behavior, which could for example be a relaxed tone or speaking up frequently, portrays a certain assurance that makes competence of rather secondary importance (Anderson, Brion, Moore & Kennedy, 2012; Kay & Shipman, 2014). As mentioned previously, self-confidence stimulates action, and thus one could suggest that people with a lower level of self-confidence are less likely to take action, for example apply for a competitive job.

2.7. Chapter Summary

Chapter 2 provided an overview of the most significant insights and findings regarding self-confidence and gender in research. When considering remedies for the global gender gap issue in the workplace, the self-confidence gap between men and women should be an essential focus point. The literature review made evident that self-confidence is positively correlated to personal success and career development, while also increasing mental and physical well-being. Even though past research incorrectly argued that the self-confidence gap could be explained with biological reasoning, contemporary research has found other explanations to be more accurate. Some factors which cause a difference in self-confidence include the gender disparities regarding over- and underestimation, success attribution, self-promotion, as well as gender roles and stereotypes. All of these components, which indicate a gender difference, will be investigated in this thesis. The questions phrased for both the questionnaire and the interview derive from the aspects presented in this chapter.

3. Method

This chapter will provide a detailed description of the methodology chosen for this research. The research approach will be described, followed by a description of our data collection. Subsequently, the data analysis will be explained. The chapter finishes with limitations of our research as well as an ethical statement.

3.1. Literature Review

The first part of our research process was to find and review existing literature on the topic of self-confidence in relation to gender. Recent and relevant literature was collected in two ways: the preliminary research was gathered in the Social Science library of Lund University. With these insights as our base, we then collected further data online in the form of published articles. The outcome of this theoretical analysis was laid out in chapter 2. Next to theoretical knowledge, we also used literature as a guide to compare various data collection methods.

3.2. Research Approach

In order to reach the aim of this thesis and answer the research questions presented in the Research Purpose (1.3), insights were gained through data collection. This research study used a mixed methods approach, with both qualitative and quantitative methods (Schoonenboom & Johnson, 2017). The quantitative research was carried out through a questionnaire, while the qualitative research was realized through interviews. It was decided to use both types of data collection to expand and strengthen the study's conclusions. It was predicted that the questionnaire would provide useful insights on self-confidence and gender. However, we believed that interviews would amplify these results, giving it more depth. As for the dependency of the research components (Schoonenboom & Johnson, 2017), we aimed to gather data through the questionnaire first and subsequently conduct the interviews to prevent any overlap and ensure data validity. Our objective was to interconnect the two types of data, as the questionnaire results assisted in the creation of the interview layout. While the questionnaire helped to detect trends and gave us quantitative data, such as the difference in self-confidence (expressed in numbers), the interviews provided us with an explanation behind these numbers. We believed the combination of both our quantitative and qualitative data would provide us with a strong data set.

Mixed methods also allow the researcher to use both inductive and deductive reasoning (DeCarlo, 2018). Even though these two approaches are different, they can also be complementary

(DeCarlo, 2018). An inductive approach refers to the use of "detailed readings of raw data to derive concepts, themes, or a model through interpretations made from the raw data by an evaluator or researcher" (Thomas, 2003). A deductive approach can be defined as a method "that sets out to test whether data are consistent with prior assumptions, theories, or hypotheses identified or constructed by an investigator" (Thomas, 2003). Qualitative research follows inductive logic, moving from data to empirical generalizations or theory. The quantitative component uses deductive logic, using the theory derived from qualitative data to create and test a hypothesis (DeCarlo, 2018).

3.3. Data Collection

3.3.1. Participants. The 2020 MiM class consisted of 68 students: 41 women accounted for 60% of the participants and 27 men accounted for 40% of the participants. Students were aged between 21 and 31, and the class consisted of 19 different nationalities (Lund School of Economics and Management, 2019). The number of participants that participated in the quantitative study was 63 students: 37 women and 26 men. Out of those students, 8 participated in the qualitative study: 4 men and 4 women.

There were several reasons we decided to focus on this specific program. The first reason being the novelty of this approach and narrow focus: the effect of the difference in self-confidence has been found in many different studies (Biernat, Tocci & Williams, 2012; Fitzsimmons, Yates & Callan, 2018; Exley & Kessler, 2019; Muzatti & Agnoli, 2007; Sadker & Sadker, 2010). While self-confidence has become a popular research topic, this thesis aims to investigate the mindsets of prospective leaders. One group of young professionals that are striving for future leadership positions are the students of the Master in Management class of 2020.

Another reason concerned the promising qualifications of our participants. The Management Master at Lund university is prestigious: 1049 people applied for the class of 2019/20. All enrolled students have already completed a bachelor's program. One could therefore argue that this group of students is ambitious, smart, and well-educated. Another attribute of our participants is that they are at a crucial time in their lives, as they are about to graduate and start applying for jobs. Therefore, their behavior and self-confidence are important during this critical period: it could have a positive or negative impact.

Lastly, we believed the great diversity within the Master of Management class has benefited our research, as the students' personal backgrounds, upbringing and cultures differed vastly. The

students came from 19 different countries and therefore 19 different cultures, and their academic backgrounds could not have been more diverse: the MiM class of 2020 held bachelor's degrees from the fields of Arts, Economics, Engineering, Social Sciences, Law and various more. Because of this, there was a chance that the students would enter the program with different stories about the development of their self-confidence. Nonetheless, they all had academic backgrounds and participated in this one-year program, indicating that there could be common elements for new emerging or changing self-confidence. While their personal history distinguished them from another, their academic history is what connected them. This presented a unique opportunity to find out more about what influences and affects self-confidence.

3.3.2. Questionnaire. When creating a questionnaire, it is important to evaluate the need of every question used in an instrument as well as the wording of the questions (Frary, 1996). The questionnaire created for this thesis consisted of different scales; participants were asked to give numerical answers for some questions, and written answers for others. Additionally, a large part of the questionnaire contained rating statements in accordance to how much they apply to the individual. Since the students completed various reflection and self-assessment assignments during the master's program, they were already acquainted with this particular task. With this mixed style of questions, we aimed to obtain different information relevant for our research: while the numerical questions aimed to detect potential tendencies and similarities between groups, the written answers allowed the participants to answer openly without any restrictions. Lastly, it was predicted that the rating statements would reveal differing self-confidence levels as they allowed for comparison. The entire questionnaire can be found in Appendix A and B, and the following paragraphs will explain the reasons for the questions chosen.

To start with, the questionnaire asked to indicate the gender that best describes the participant.

The first construct we intended to measure is self-confidence. Using multiple existing scales (Rosenberg, Schooler, Schoenbach & Rosenberg, 1995; Rosenberg, 1965; Jones, 2001; Shrauger & Schohn, 1995), we selected fourteen questions measuring the level of self-confidence. The answer alternatives are based on a Likert scale ranging from "strongly disagree" to "strongly agree" (Nemoto & Beglar, 2014).

The second construct we intended to measure was people's evaluation of their own abilities and attractiveness towards future employers. As mentioned before, Kay and Shipman found that women are less likely to apply for jobs than men if they do not meet all job requirements (2014).

Furthermore, research by McKinsey in partnership with Lean In.Org (Huang, Krivkovich, Starikova, Yee & Zanoschi, 2019) shows that a big obstacle for women's progress at work occurs quite early on the corporate ladder - the initial promotion to management. We therefore constructed questions with the intention to discover whether this trend would be observable within the Management program.

The third construct we intended to measure was the effect of the master's program on our participants. Therefore, we introduced the question whether the MiM program had contributed to the students' level of self-confidence, and if so, what factors contributed to this change. Most answer alternatives were based on findings by Mruk (2006), Biernat, Tocci & Williams (2012), Exley & Kessler (2019), Kay & Chipman, (2014), Zimmerman (1995) and Fox & Ferri (1992).

3.3.3. Interview. It was our intention to utilize the data from the quantitative research (questionnaire) to design an additional qualitative data collection (interviews). Reason for this was that the questionnaire already provided us with a plethora of data to analyze, and we anticipated that we would be able to draw multiple comprehensive conclusions from this data. Therefore, we decided to focus the interview questions on the MiM program itself and aimed to find out what specific factors contributed to people's self-confidence, or what they would like to experience more of. We believed the answers of our classmates could give a more thorough overview of the different aspects of the program, and how these aspects influenced self-confidence. Some questions linked back to the interviewees' responses in the questionnaire, and a combination of open and closed questions were used. The full interview can be found in Appendix C.

3.3.4. Procedure. The questionnaire filled out by the MiM Class of 2020 was created with Google Forms and sent to the students individually.

In order to find voluntary participants for the interview, the last question in the questionnaire allowed for the students to leave their email address should they be interested to take part in the interviews. We decided to conduct 8 interviews in total (4 women and 4 men). In order to stay objective, we randomized the names of the people that indicated to be interested in the interview. These interviews were estimated to take about 15 minutes and followed a strict question guide. Next to deeper insights, we hoped to obtain useful quotations for our research.

3.4. Data Analyses

After collecting data, the next steps were analysis and evaluation. Here it was crucial to differentiate between the questionnaire, which was sent out to all participants, and the interview, which was only conducted with a selected number of volunteers.

Starting with the quantitative research -the questionnaire-, the gathered data was prepared before analysis. The obtained data was checked for missing or vague responses and the prepared data was then analyzed using Excel Software. In order to eliminate the risk of misinterpretation in case of uneven gender ratio, the results were analyzed in a percentage distribution, rather than a numeric distribution. This risk will also be addressed in the limitation chapter.

Data analyses consisted of comparing the results and detecting trends, such as a resemblance between female student's answers or a negative correlation between the sexes.

Next to the questionnaire, the qualitative research was analyzed. The interviews were recorded, and it was the aim of these interviews to find out which factors have had an impact on the self-confidence of the students. A 'first order' and 'second order' data analysis was used, similar as in Salvato & Corbetta (2013). This method categorizes data into themes to ease the process of analysis. First order data consists of facts, while second order concepts are the theory that are used to analyze and explain these facts (Van Maanen, 1979). Second order dimensions- based on theory and research about empowerment and self-confidence- were defined. These defined insights were then utilized for the last part of our research process, which was to display empowering elements which improve self-confidence. Additionally, we were able to obtain personal quotes for our thesis. Needless to say, all responses, from both the questionnaire and interviews, were anonymous.

3.5. Limitations

This study came with several limitations. Before starting with the data collection, we considered and formulated possible hazards which will be presented in the following section.

One was rather evident: both writers are female. Our gender could have influenced multiple factors of our thesis. One could be that we would be biased, and consequently searching for information that favors our own gender. Another possible risk was that we might unconsciously have influenced the participants of our interviews, simply by being female and asking questions about gender and self-confidence. They might have felt like they could offend us or feel obliged to give politically correct answers. We aimed to remedy this limitation by being very conscious of

our personal opinions, trying to stay objective, and encouraging each other to try and look beyond our personal biases.

In regard to the interviews, a possible risk came with recording the responses. It could have made people self-conscious to know that their answers were being recorded and played back at a later point. As a natural consequence, it could have been that they chose their words more carefully, which then could have unintentionally falsified their responses. Should they have feared that their response was not good enough, or that they would appear in a different light, there is a chance they adjusted their first thoughts to fit a better picture. These customizations, however, would have affected and altered our research. Admittedly, there is not much we could have done to mitigate the risk of dishonesty but to address the topic beforehand and stress the importance of honesty and anonymity. One factor which mitigated the risk of self-consciousness and discomfort with being recorded is that the interviews were on a voluntary basis, and thus one could assume that people who volunteered would have no issues with it.

Another possible limitation came with our participants. The fact that we personally know, and are friends with, our classmates could have influenced our objectivity. We aimed to remedy this risk by ensuring that the questionnaire is anonymous, and not choosing our participants for the interviews. Rather, the students had the option to volunteer, and a random draw made the decision. During the interviews, strict rules regarding the agenda and questions fostered objectivity.

Another limitation considered the uniqueness of our participants. As mentioned before, the class of 2020 is exceptionally diverse in terms of cultural and academic background. One could argue this study could have been difficult to generalize due to the diversity of participants. Furthermore, the structure of this academic program is unconventional and therefore difficult to compare to more traditional academic programs. The number of participants is also limited, since it was decided to only focus on the Master in Management - the total of students is 68. We therefore acknowledge the fact that results might be hard to generalize. While it was true that the nationalities and backgrounds of our participants varied greatly, section 3.3.1. described this divergence to be a gain, rather than a limitation. It was not the aim of this thesis to make a claim about the global gender situation, even though our topic inferred from this broad perspective. The research aim, however, was to acquire insights about men and women who study Management at Lund University and to recognize whether the program itself contributes to the students' self-confidence. It was this uniqueness and narrow focus of the study which made it distinctive and interesting.

Furthermore, there was the risk of finding results that contradict our hypotheses and predictions. We predicted to find a difference in self-confidence and aspired to collect factors that help empower individuals and raise their self-confidence levels. While there was a chance that there would not be a gap, this outcome would not have caused our data to be invaluable. What we would have observed then is that in a group where ambition and intelligence is high (e.g. our class), the self-confidence in men and women is more equal than in other populations. Such insight would still have added to the research regarding self-confidence and the gender gap.

One final risk came with the evaluation of our data. The participants of our study are a total of 68 students, and the quota of men and women is uneven: 27 men (40%) and 41 women (60%). It was reasonable to assume that not all students would participate in our study due to it being optional, which alone is a risk in itself. However, after talking with some of our classmates we believed that enough students would be interested in participating, so that we could receive a significant amount of responses. Still, an uneven gender ratio of our respondents could have caused misinterpretations of our findings, since one cannot simply compare the numbers of female and male responses if there are more female responses altogether. To avoid this error, rather than a numerical comparison of responses, the results were analyzed in percentage distribution within the genders. We have considered adjusting the numbers for analysis to even the ratio, but after consultation with our supervisor the decision was made to work with the original data.

3.6. Ethical Statement

All participants were informed about the overall purpose of our thesis and ensured anonymity, both during the questionnaire and the interview. As a consequence, interview participants' names were erased and numbers were used instead (Corden & Sainsbury, 2006). During the interviews, we asked for permission to record and use the interviewees' answers for the purpose of our study. We intend to erase the recordings after receiving a grade for the thesis.

3.7. Chapter Summary

The goal of this chapter was to describe the methodology of our research. We chose a mixed method for our data collection because we believed it would provide us with concise and deep insights significant for our research. The level of complexity in our results would not have been reached had we only used either a quantitative or qualitative research method. Next to the research approach, the data collection including the participants, tools and analysis were presented. Possible limitations of this study were considered. Lastly, an ethical statement was formulated.

4. Quantitative Results

As described in chapter 2, the mixed research design led to comprehensive responses and insights for the current thesis. In the following chapters, the collected data is presented, analyzed, and discussed in a systematic manner. The quantitative results will be analyzed in this chapter, followed by the qualitative results in chapter 5. Presenting and describing the data first aids to detect trends and relations to the research, as it presents it in a clear and interpretable way. In chapter 6, these results will be elaborated on, discussed, and compared to the literal framework of chapter 2.

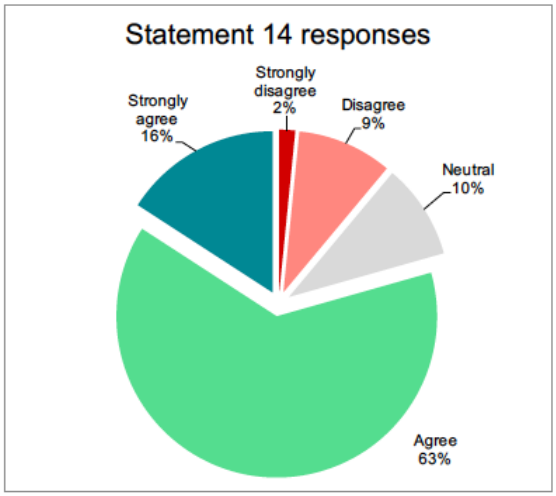
After sending out multiple requests to fill out the questionnaire, we obtained 63 responses (93% response rate). Of those, 37 responses were from women (59%) and 26 from men (41%).

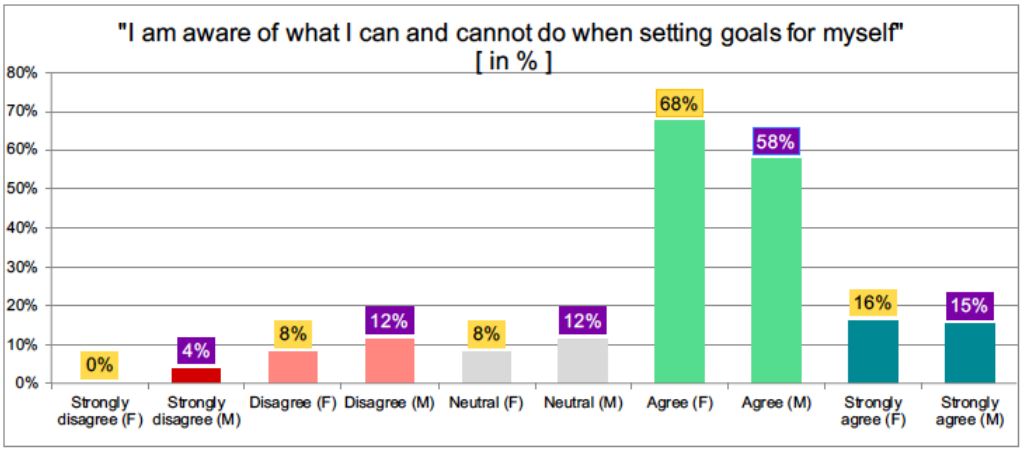
4.1. Individual Statements

The results of our questionnaire were evaluated in a consistent pattern. For every statement, a pie chart displaying the total responses was created, as well as two table charts which divided the responses by gender. In general, male responses are highlighted purple, while female responses are yellow. One of the table charts is a numeric distribution, while the other one presents the percentage distribution. This setup allowed for a clear presentation of the responses so that conclusions could be drawn, and trends could be detected. Figure 1 is an exemplary layout of a statement response. However, for the proceeding parts of this paper we will only include the figures displaying the percentage distribution and relevant for our arguments. The evaluated data can be found in Appendix D in full.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	0	3	3	25	6	37	59%
Male	1	3	3	15	4	26	41%
Total	**1**	**6**	**6**	**40**	**10**	**63**	**100%**

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
0	1	3	3	3	3	25	15	6	4
0%	4%	8%	12%	8%	12%	68%	58%	16%	15%





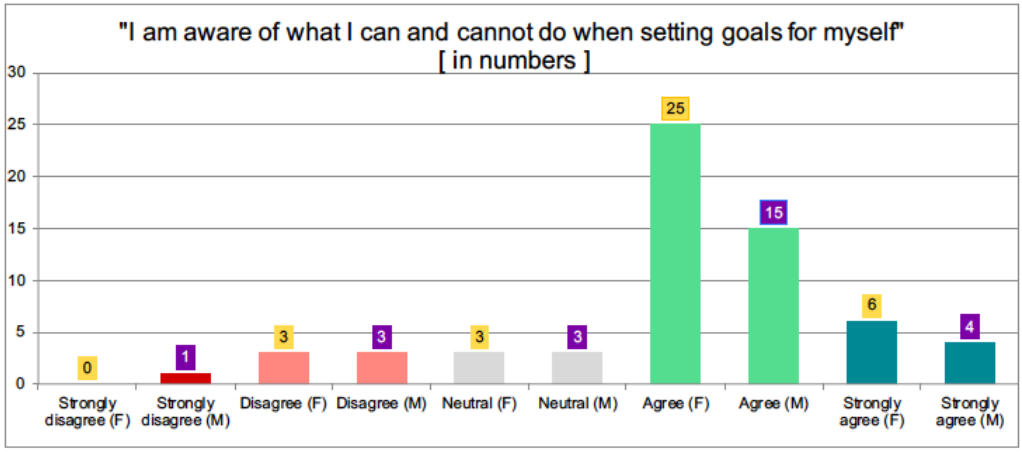


Figure 1 Full statement analysis example.

4.1.1. Overall self-confidence. To begin with, it was evaluated whether an overall gender gap in self-confidence was observable. In order to test this, statements regarding self-confidence were separated by gender, accumulated and the results were then compared. Out of all the statements, eight were indicators of self-confidence and were therefore added together, while the remaining six aimed to measure other behavioral patterns. It is noteworthy that no significant gender gap was evident through this perspective: the accumulated results indicate that men are more self-confident than women, but the difference is rather small (<10%). Nonetheless, in this research study a detectable gender gap in self-confidence was found. This was observable through an individual analysis of the statements. The most significant findings will be presented next.

4.1.2. "I am not an extremely confident person".

The first statement asked the students to assess their self-confidence. The responses for this statement can be seen in Figure 2.

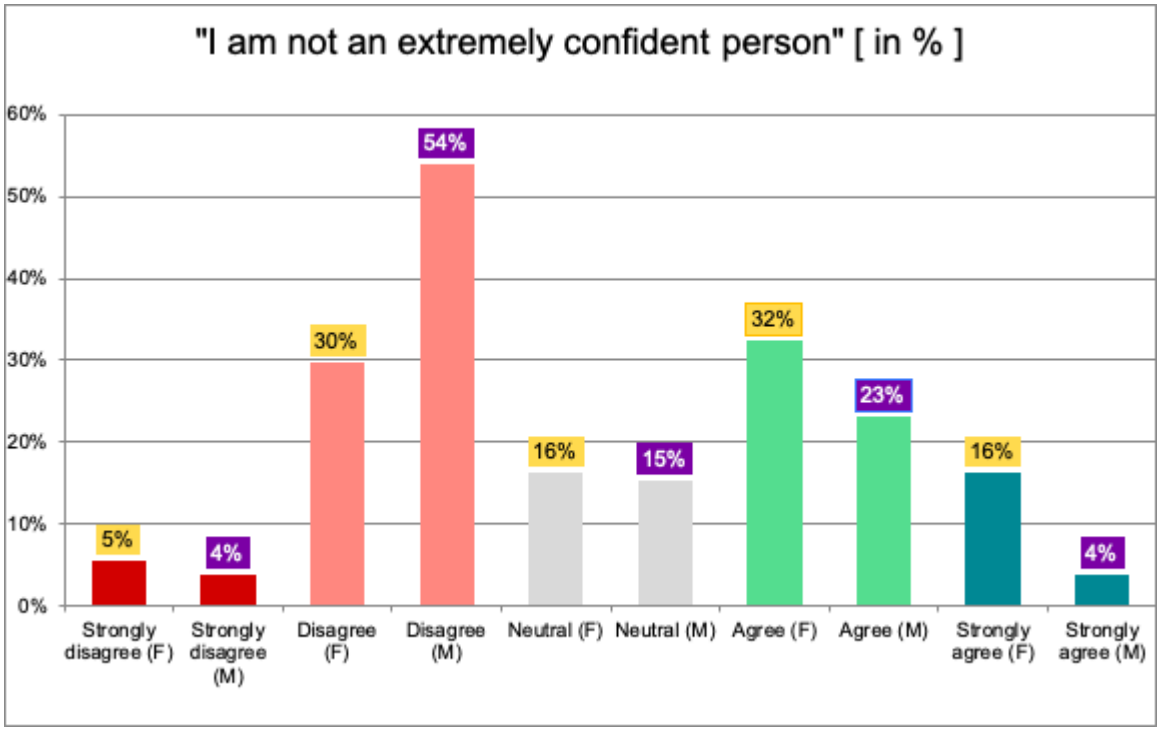


Figure 2 Statement regarding self-confidence.

The results show a deviation between the genders: While the number of male respondents (strongly) disagreeing with this statement outweighs the female responses (58% versus 35%), more females (strongly) agree not to be an extremely confident person (48% versus 27%).

4.1.3. "It doesn't bother me to be wrong". Next, the students were asked whether they mind be incorrect, as it is another indicator of self-confidence.

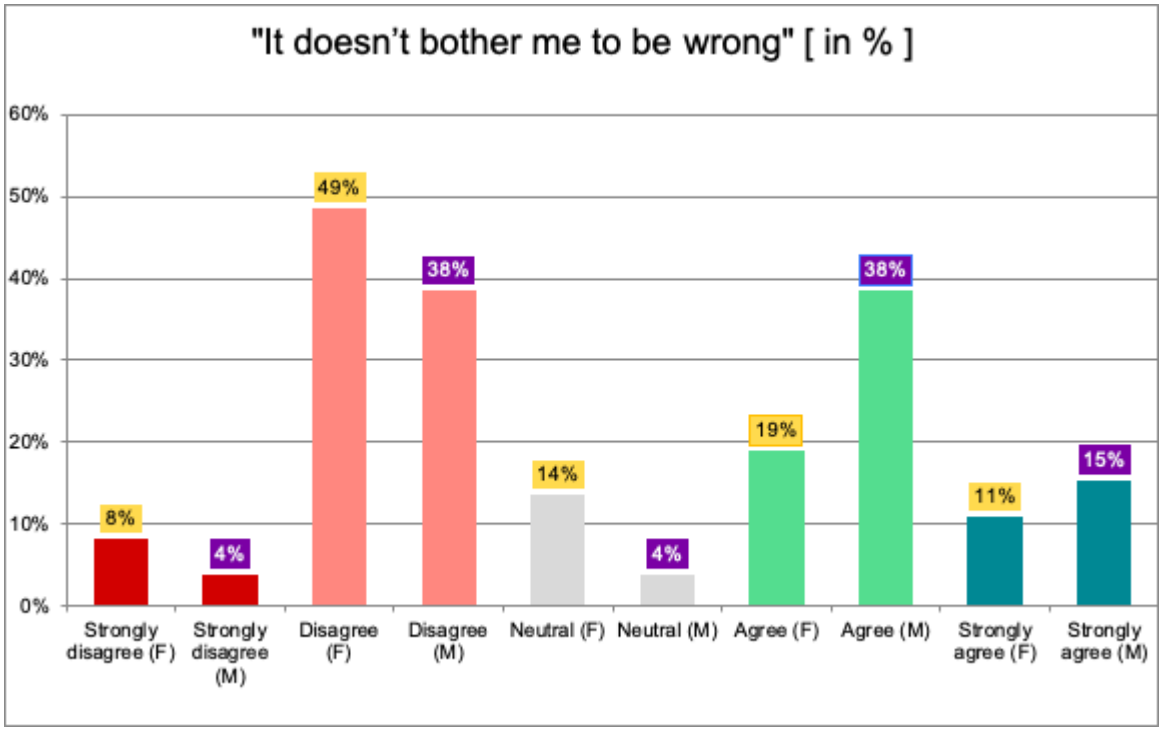


Figure 3. Statement regarding being wrong.

These results clearly show that the female MiM students have a bigger problem with being wrong than male students (57% versus 42%). In comparison, male students feel less bothered than their female classmates with being incorrect (53% versus 30%).

4.1.4. "Talking in front of a group makes me uncomfortable". A further statement connecting to the self-confidence levels of the students surveyed whether they mind talking in front of groups.

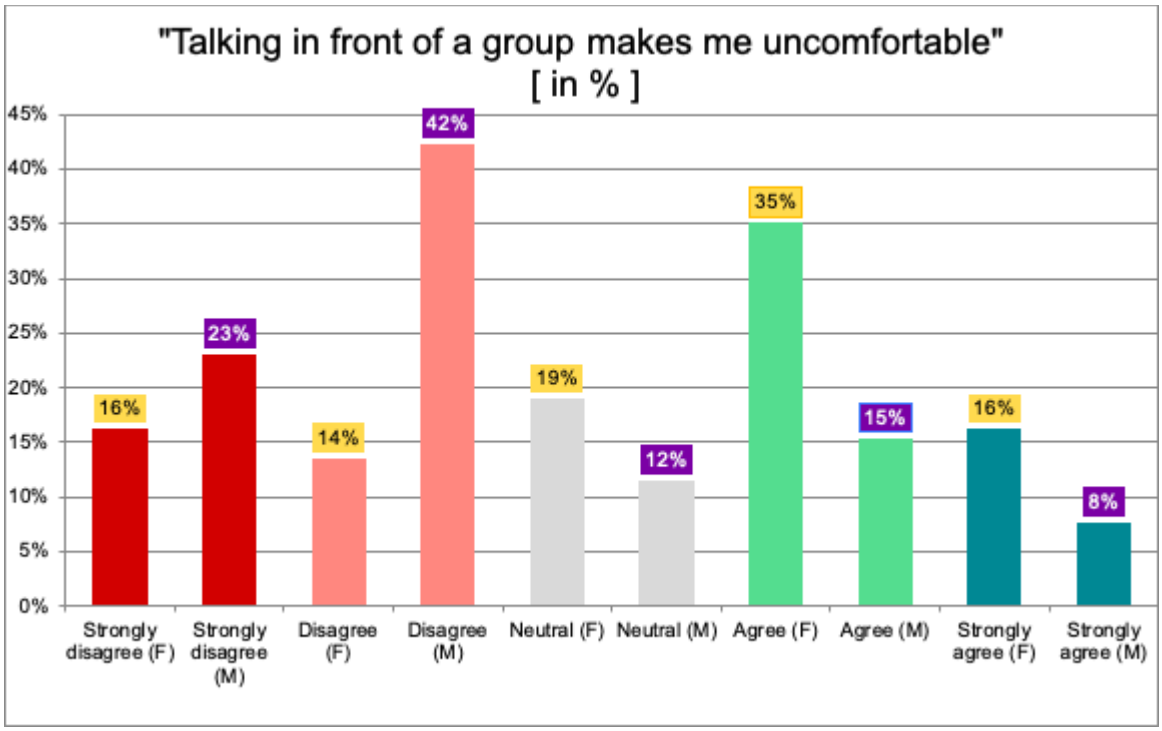


Figure 4. Statement regarding talking in front of a group.

Figure 4 indicates that the majority of male participants opposes and therefore do not mind to talk in front of a group (65%), while the majority of women tend to mind (51%).

4.1.5. "I often question decisions that I made". To continue, Figure 5 presents the results for a statement regarding self-doubt and rumination.

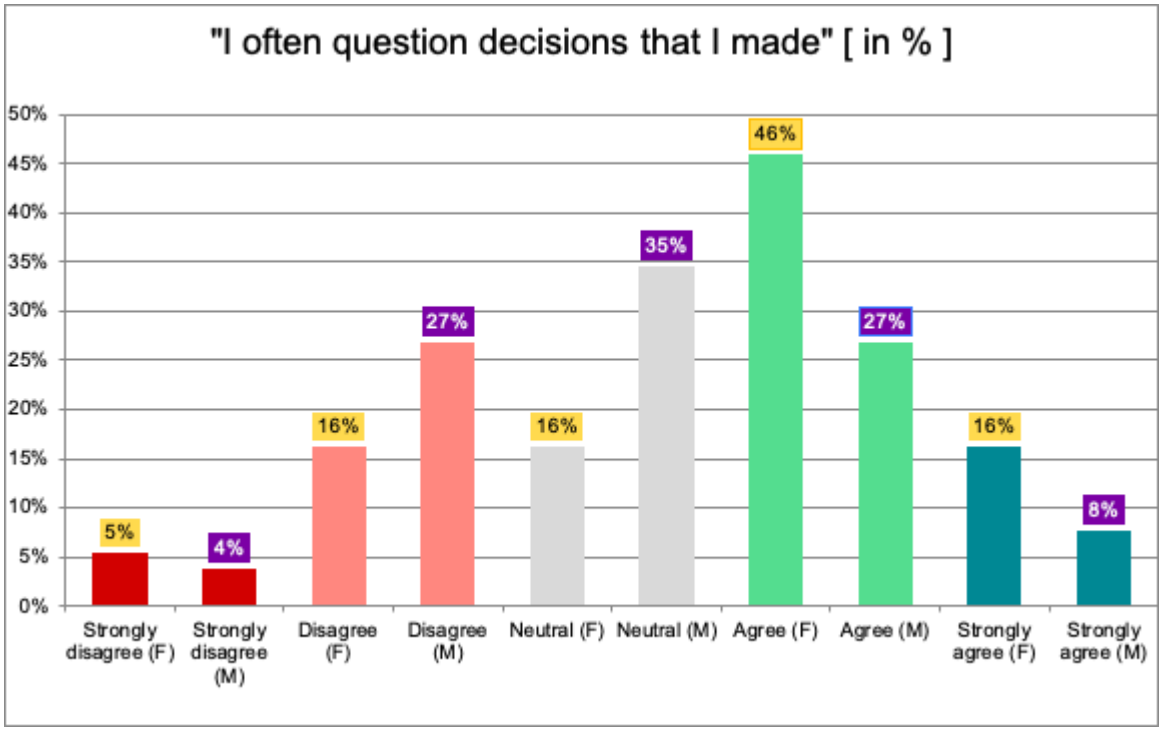


Figure 5. Statement regarding rumination and self-doubt

Results demonstrate that, in total, 62% of female students do question their decisions frequently, in contrast to merely 35% of male students. Meanwhile, a total of 31% of men oppose this statement, in contrast to only 21% of female students.

4.1.6. "I can be anything I want to be". The students were asked whether they believed they can become whoever they want to be.

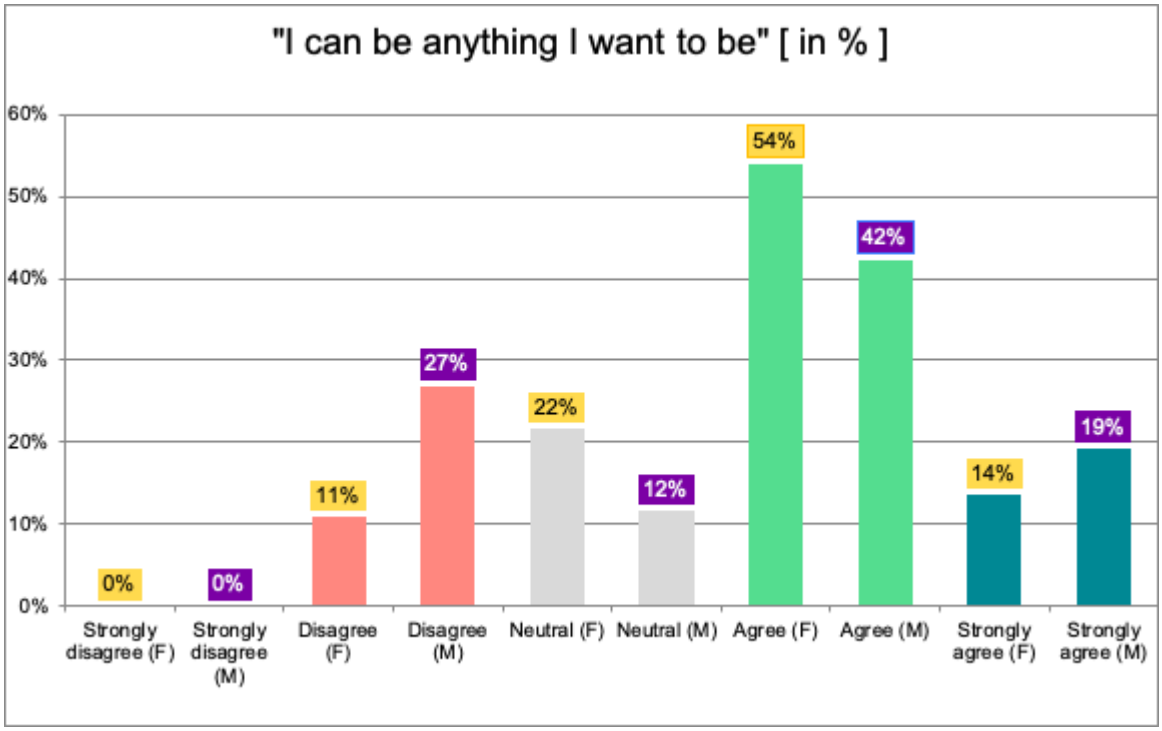


Figure 6. Statement regarding self-actualization.

The data indicates that, in the class, more women than men believe that they can become whoever they want to be: While men who strongly feel about this outweigh women by a small percentage (19% versus 14%), it is more women who agree with the statement (54% versus 42%) and also more men who disagree with this self-estimation (27% versus 11%).

4.1.7. "I enjoy challenging myself". Another statement questioned whether the students enjoy challenges, such as an unfamiliar project.

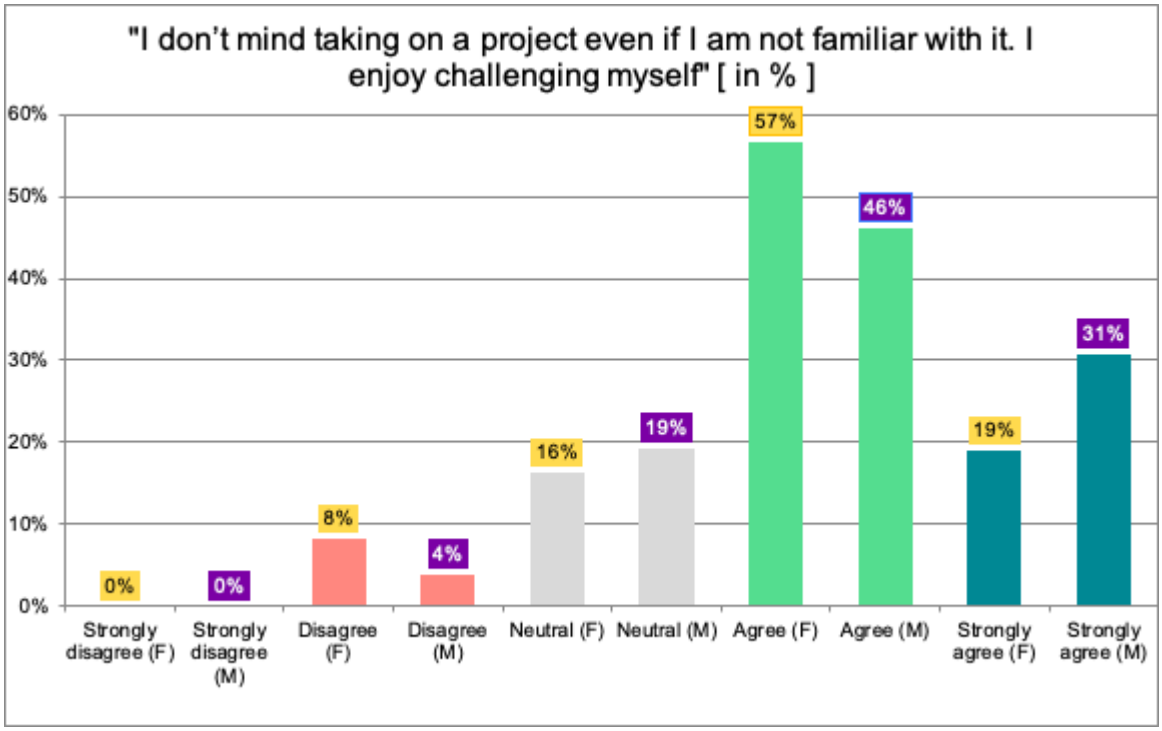


Figure 7. Statement regarding challenges.

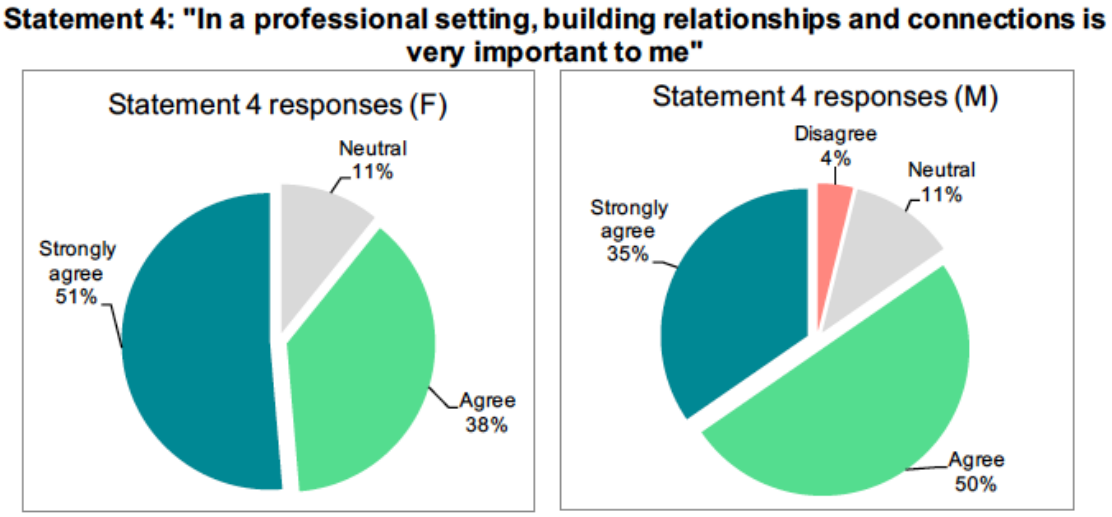
In total, 76% of women, and 77% of men gave an affirmative response. In contrast, only 8% of women and 4% of men stated to mind challenging themselves.

4.2. Comparing Statements

The next findings of the quantitative research are best presented through comparing different statements, as comparison visualizes certain character differences between men and women.

4.2.1. Professional behavior.

The first comparing statements concern the professional behavior of the individuals. The aim was to see whether there was a difference in what men and women focus on when starting in a new position: Statement 4 involved relationships and networking, and statement 12 involved proving one's personal abilities.



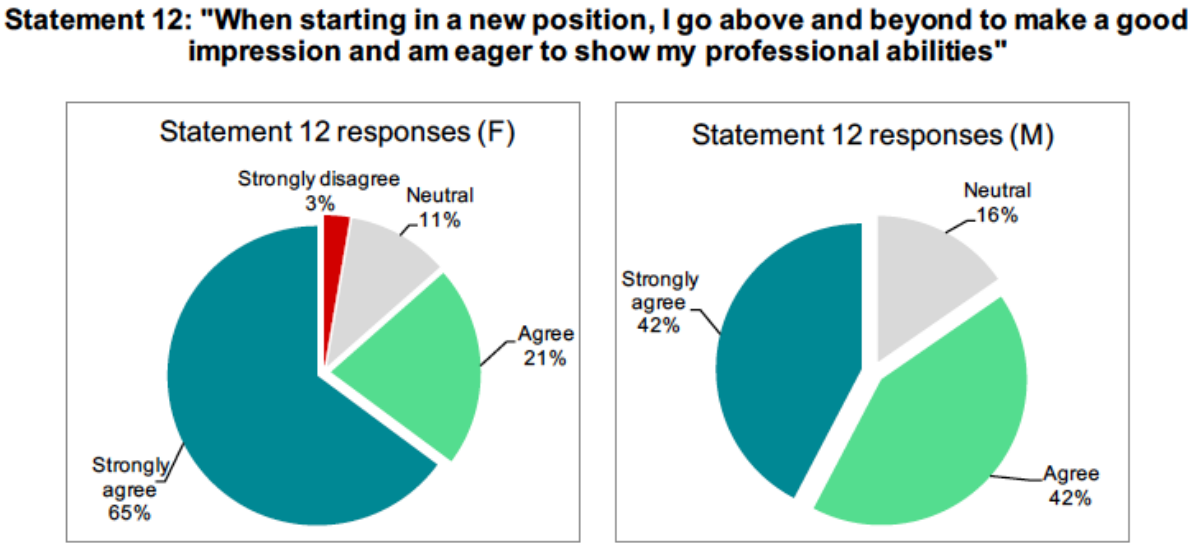


Figure 8. Comparing statements 4 and 12.

Analyzing results for statement 4 -concerning connections- the vast majority (89%) of female respondents consent, as do 85% of male respondents. These results also show a gender difference between those who strongly agree about this: here, the female response rate was 51%, while the male response rate was 35%.

The majority of students also consent with statement 12: 86% of females and 84% of males gave affirmative replies. Similar to statement 4, a gender difference is perceivable from a more detailed perspective. Considering the responses for ‘strongly agree’, the results indicate that it is the women who care more strongly about proving themselves at work (65% versus 42%).

4.2.2. Success and failure attribution. The next comparison concerns the different success and failure attribution of the students.

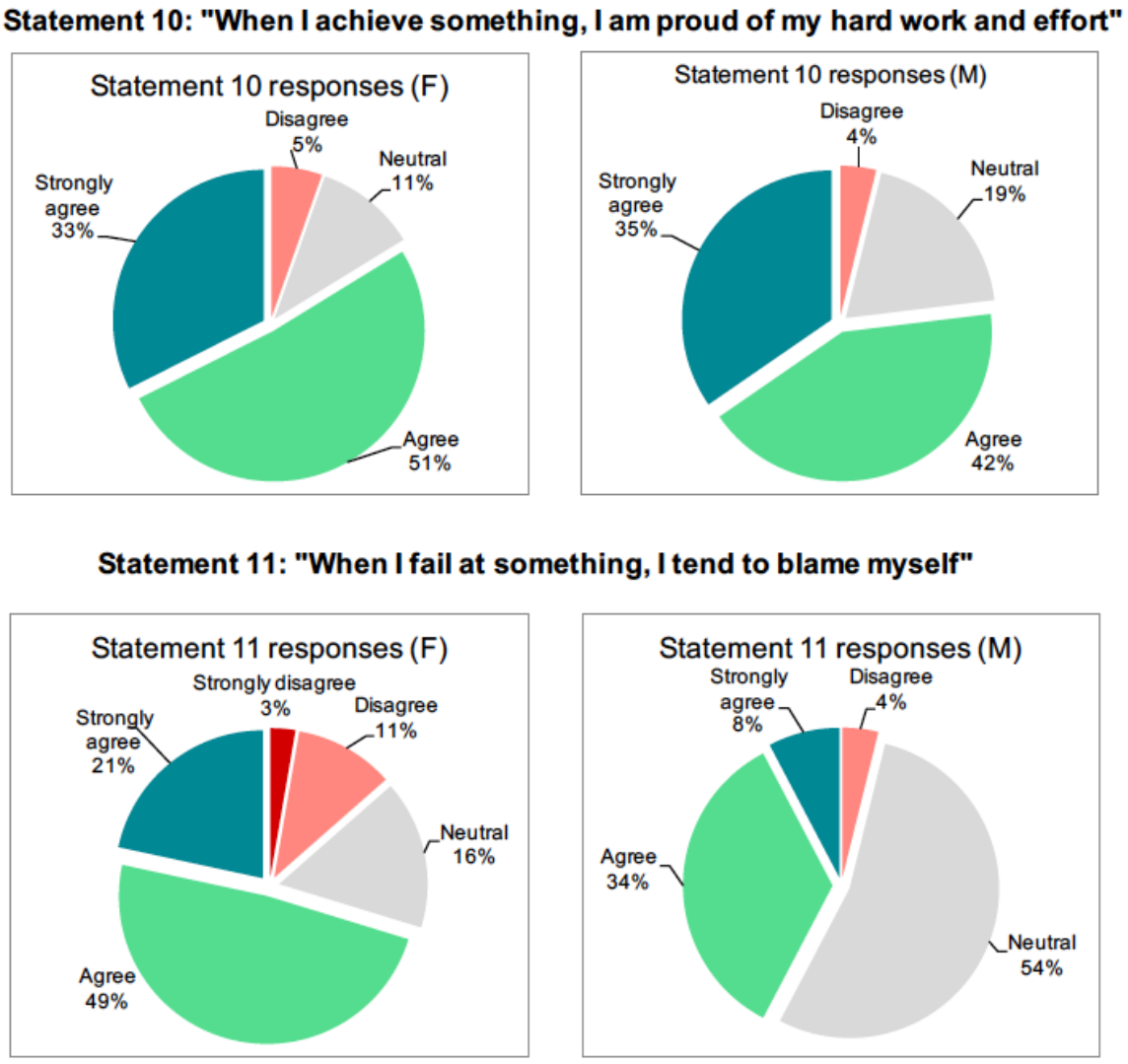


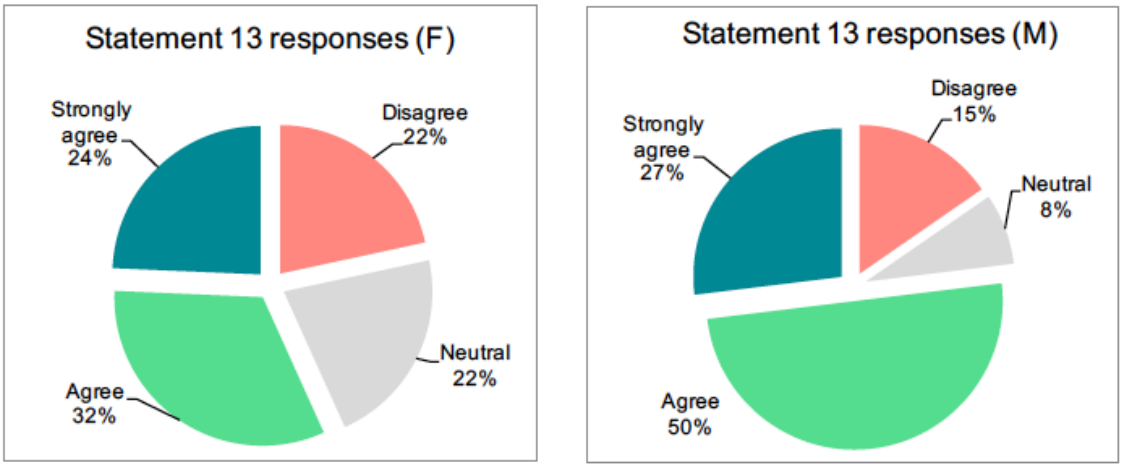
Figure 9. Comparing statements 10 and 11.

The data presented in Figure 9 demonstrates that there is no gender gap in success attributions. Both the majority of men and women attribute their personal successes to internal elements (84% of female responses and 77% of male responses). The female concordance with this statement outweighs the male concordance only slightly.

The responses for statement 11 show that 70% of the female respondents tend to blame themselves for failure, while only 42% of men conform with this. An interesting finding is the large percentage of neutral responses among male participants and the significantly smaller neutral responses among female participants (54% versus 16%).

4.2.3. Ambition and self-estimation. The final two statements that were compared for this analysis regarded the topic of ambition and self-estimation. In order to gain knowledge about the mindsets of the students in the MiM class, the two statements were compared.

Statement 13: "I have a tendency to aim high and my goals might be considered unrealistic or overambitious"



Statement 14: "I am aware of what I can and cannot do when setting goals for myself"

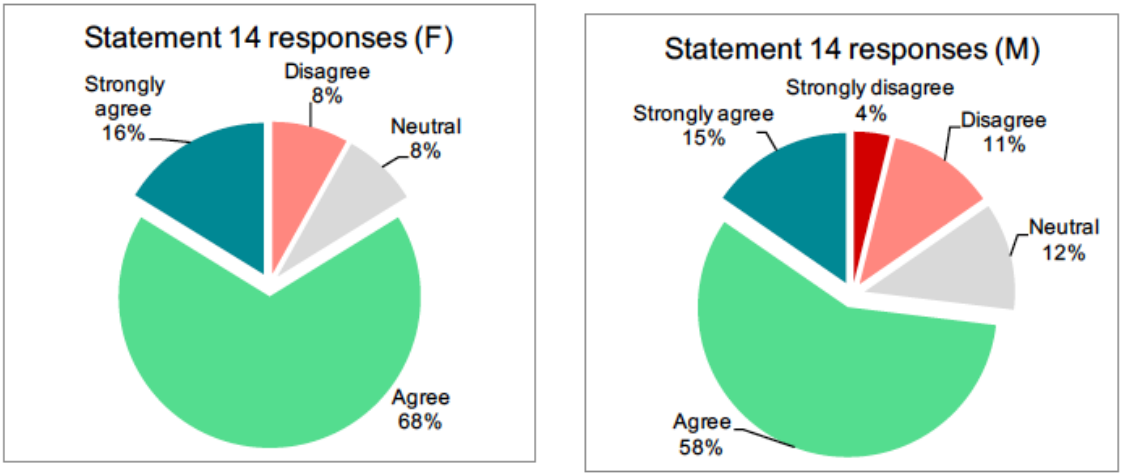


Figure 10. Comparing statements 13 and 14.

Statement 13, presented in Figure 10, shows that men have a much higher positive response rate (77% versus 56%); conforming to the statement that their goals are high and even overambitious.

The results of statement 14, regarding self-awareness in relation to goal setting, indicate that the women of the MiM class are more realistic and self-aware than their male classmates (84% versus 73%).

4.3. Likelihood of Applying to Your Dream Job

Next to statements, the questionnaire also included a question inspired by the HP study which was described in an earlier chapter. The study investigated that women are only likely to apply for a job once they believe they fulfill 100% of the requirements. Men -on the other hand- are much more likely to apply for a position if they believe they fit 60% of the requirements (Sandberg, 2015).

The MiM students were asked how likely they were to apply to their dream job even though they only fit 60% of the job requirements.

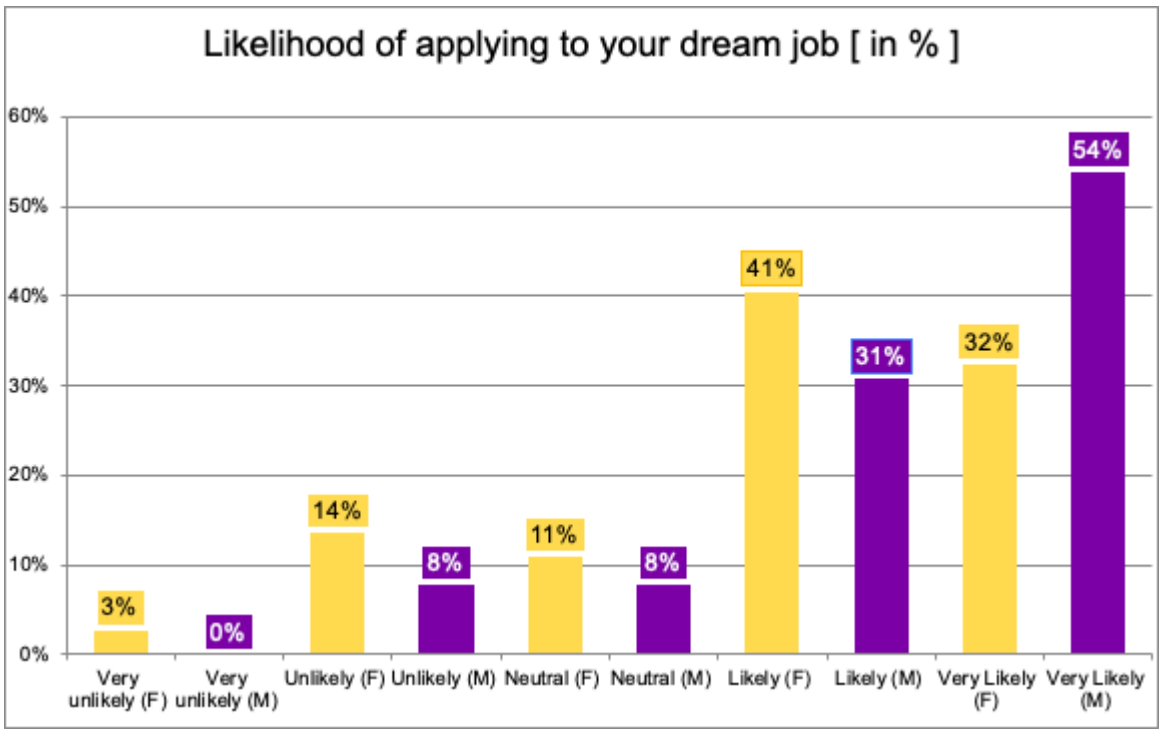


Figure 11. Dream job scenario.

The data demonstrates that, while women were more likely to apply (73%) than not to apply (17%), men still feel more confident in applying for this position (85%) and only a minority (8%) stated to be unlikely to apply. The gap between the genders is noteworthy Another notable aspect from this is the male response rate for 'very likely to apply', which is 54% (in contrast to 32% of female responses).

4.4. Self-Positioning

The next factor we wanted to investigate was the students' self-assessment of their self-confidence. Therefore, they were asked to position themselves in the class on a scale of 1 (most confident person) to 70 (least confident person).

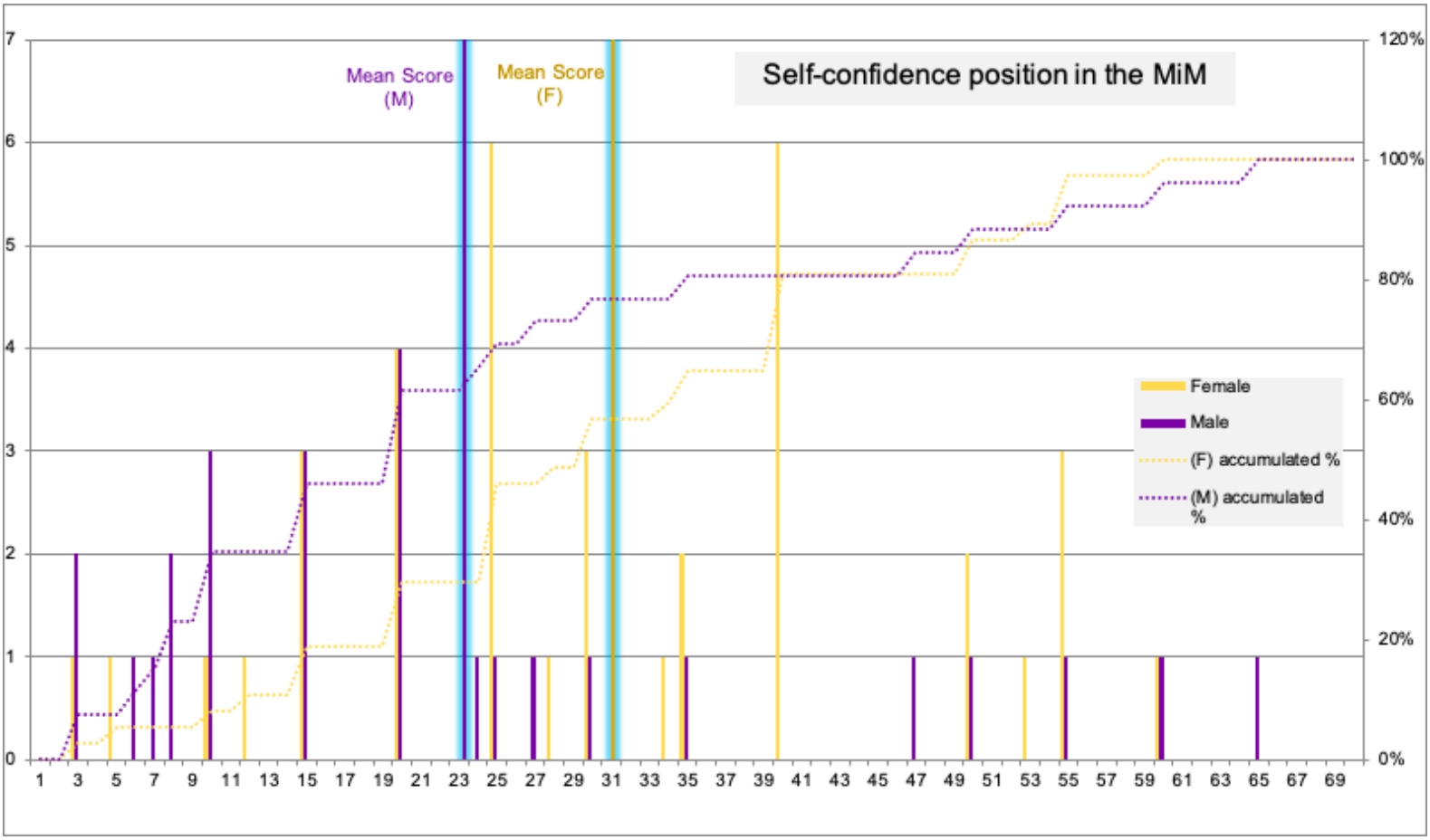


Figure 12. Position on the self-confidence scale.

Figure 12 is a graph with the possible positions from 1-70 on the X Axis and the accumulated respondents per position on the Y Axis. The graph shows both the numeric responses in bars as well as an accumulated percentage distribution in dotted lines. The mean score of the responses, highlighted in blue, demonstrates that the male students position themselves in a higher position than their female classmates. Men show a mean score of 23 out of 70, while women show a mean score of 31 out of 70. Even more so, more men position themselves in the top 10 positions, while women tend to position themselves more towards the middle. This is observable in the accumulated dotted line which shows the distribution of total responses in percentage per gender.

4.5. Impact of MiM Program on Self-Confidence

In order to investigate whether the MiM program has made an impact on the students' self-confidence levels, the participants were asked whether they feel like their self-confidence has increased and why that was the case.

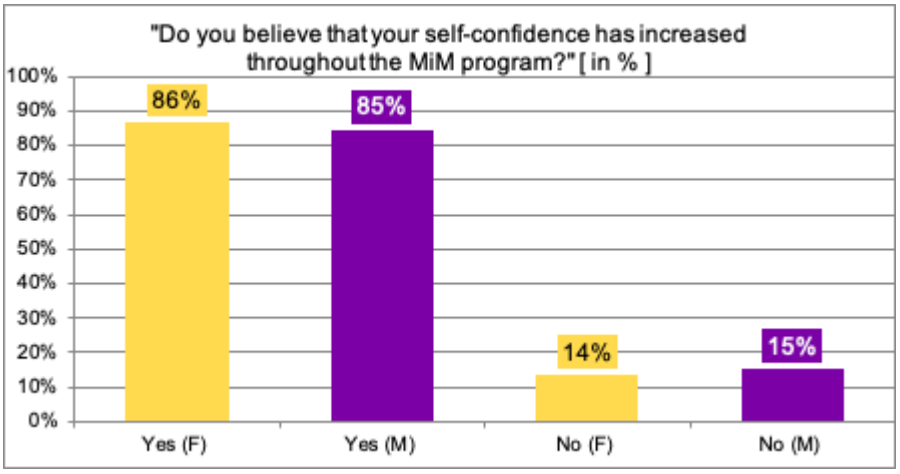


Figure 13. Self-confidence improvement poll.

The response rates show a clear trend: an overwhelming majority of an overwhelming majority of both genders believe that the MiM program has made a positive impact on their self-confidence (86% of female respondents, 85% of male respondents). Those students who do not believe that their self-confidence increased gave various reasons for their estimations, one example being that they were already content with their self-confidence levels prior to the program. The totality of the reasonings behind the negation of this statement can be found in Appendix E.

Those students who have experienced a self-confidence boost through the MiM program were then asked which part of the program has been most impactful.

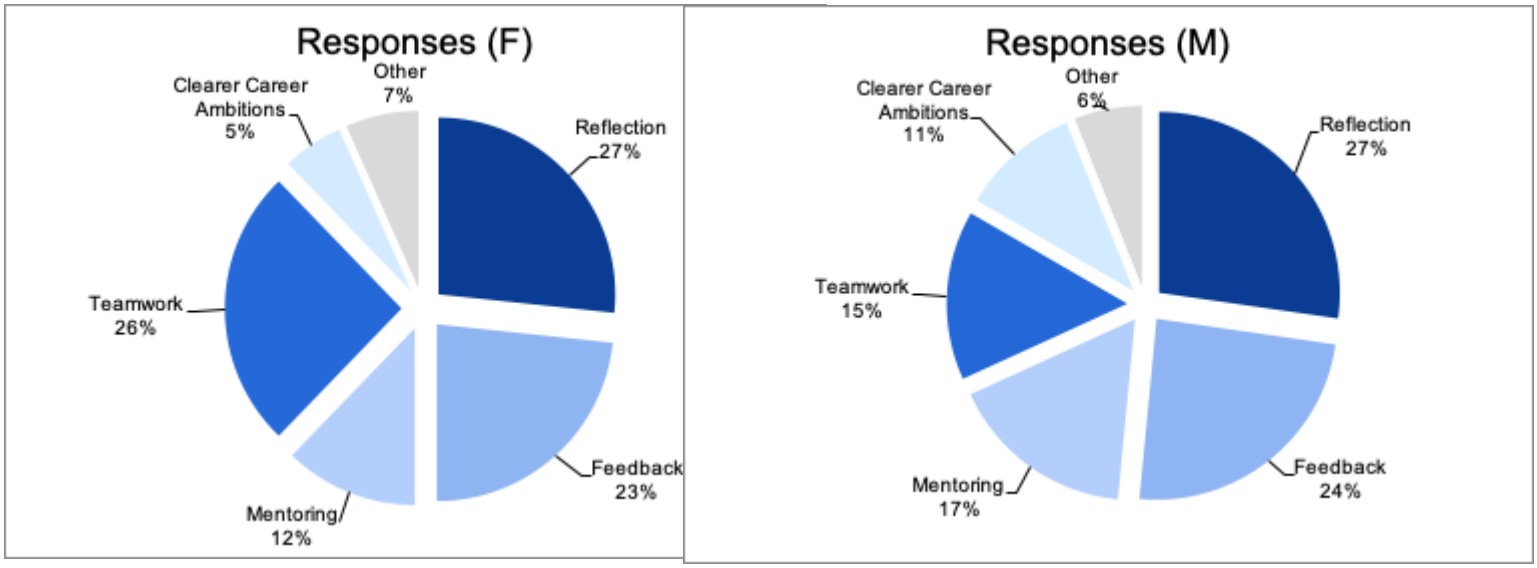


Figure 14. Main impact factors (F). *& Figure 15.* Main impact factors (M)

Analyzing Figure 14 and 15, no obvious difference between the genders is perceivable when asked which part of the program was most impactful. For both men and women, ‘reflection’ was the greatest impact (both 27% of men and 27% of women indicate to find this most useful), followed by ‘feedback’ (23% of women and 24% of men). One notable aspect is that more women chose ‘teamwork’ as an impact (26% of women versus 15% of men).

4.6. Elements which Improve Self-Confidence

Lastly, our thesis aimed to provide knowledge about what future MiM students might need to boost their self-confidence. To do so, the students were asked to choose elements they think would help improve their self-confidence.

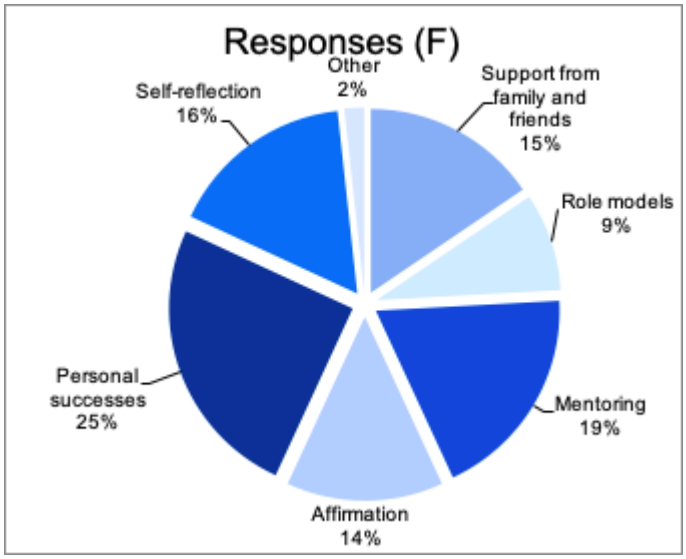


Figure 16. Empowering elements (F).

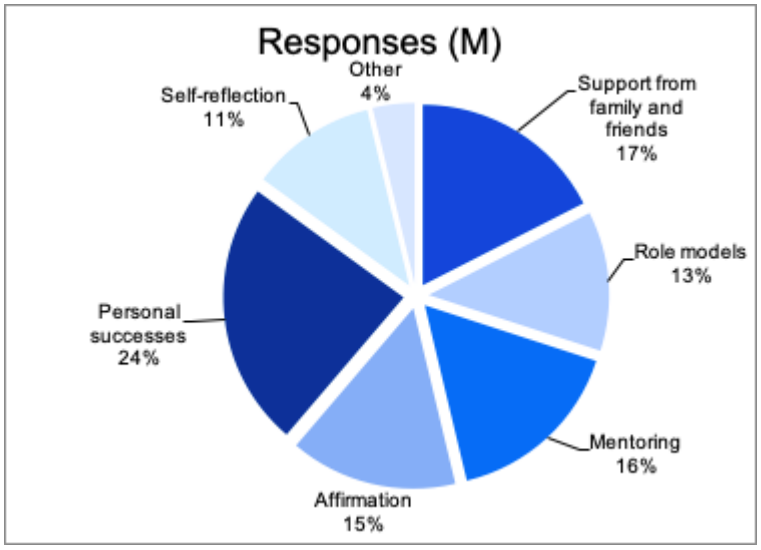


Figure 17. Empowering elements (M).

The results presented in Figures 16 and 17 indicate that there was a relatively equal distribution of answers and that, overall, the male and female students have a similar perspective on what could improve their self-confidence. The largest contributor, according to respondents, is personal successes (25% of women and 24% of men). A more detailed explanation for these perspectives was gained through interviews, which will be presented in chapter 5.

4.7. Chapter Summary

Chapter 4 presented an analysis of the quantitative research and laid out the most significant findings. The most relevant knowledge gained through this research was the answer to our first research question: there exists a self-confidence gap between the male and female students of the MiM class of 2020. This gap was perceivable through the students' conformity or disagreement with various statements regarding self-confidence, as well as their self-estimation on several rating questions. Furthermore, the analysis also answered the second research question, which asked whether the self-confidence levels of the students changed through participation in the MiM program. Realizing that the majority of the students have experienced an increase in self-

confidence, this result also confirmed the hypothesis formulated in the Research Purpose (1.3) which was that the structure of an academic program consisting of elements in the area of self-development can boost a student's self-confidence. The insights gained through the quantitative research were then utilized to create the layout of the interview, the results of which will be presented next.

5. Qualitative Results

Inspired by the quantitative research which provided us with students' views on which elements increased their self-confidence throughout the year, the next step of our research process was to gain deeper insights on this topic. Of all participants that indicated to be interested in the interview, eight people (4 men and 4 women) were picked using a random generator. All but one of these interviews were conducted face to face, and all of them took approximately ten to fifteen minutes. As mentioned previously (in chapter 3.3.3), the interview focused on why and how the self-confidence level of the MiM students increased. Additionally, , the interviewees were asked whether they perceived a gender gap themselves.

5.1. Empowering Elements

As elaborated on previously, the interviews were analyzed using a first order, second order method (Salvato & Corbetta, 2013; Van Maanen, 1979). Figure 18 presents the analysis of the qualitative data.

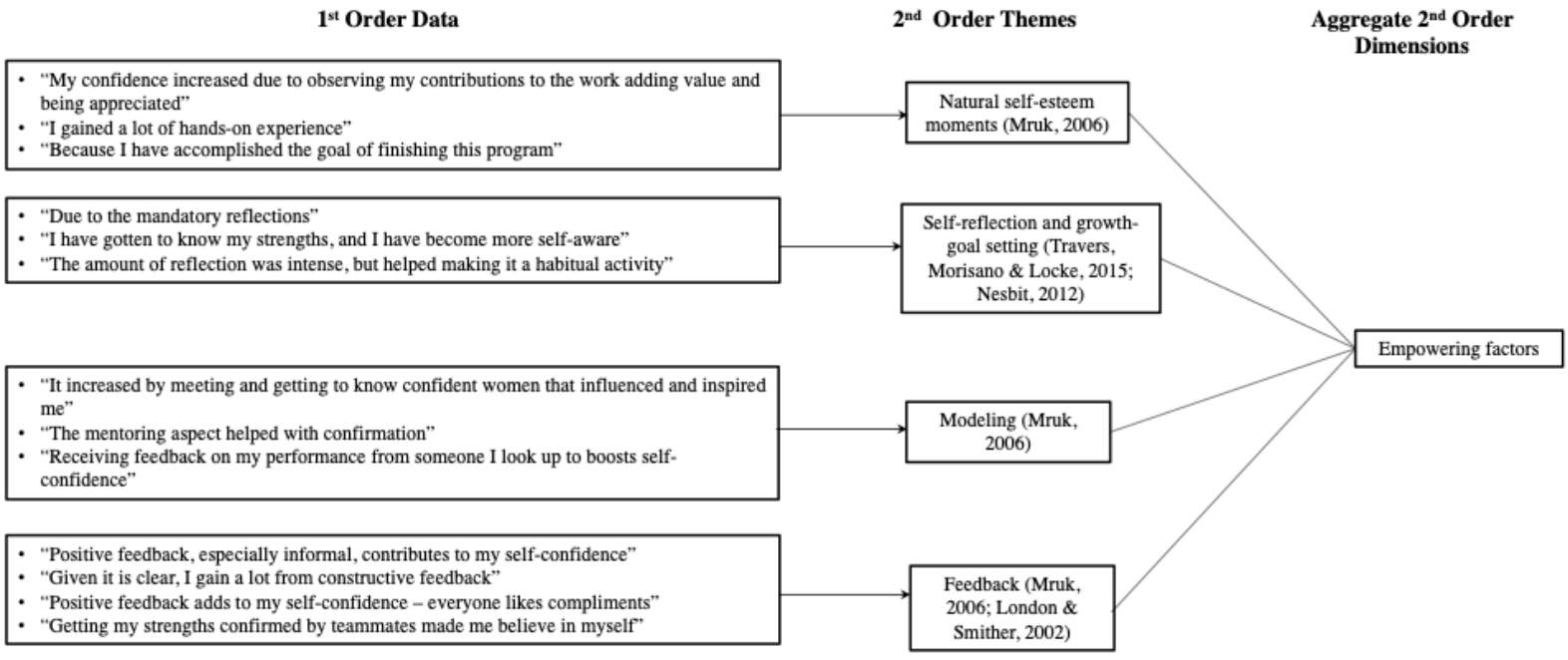


Figure 18. 1st and 2nd order data analysis.

The most relevant quotes are presented in this analysis and the gender of the respondent is indicated (F=female, M=male). Additional quotes of the interviews can be found in Appendixes F and G, and recordings of the interviews are available upon request

Three respondents indicated to have been influenced by experiences from the MiM program. These experiences included contributing to group work (P1(M): *"... observing my contributions to the work adding value and being appreciated"*), the practical aspects of the program (P4(F): "... I gained a lot of hands-on experience"), and the degree that was obtained at the end of the program (P6(M): *"My confidence increased because I have accomplished the goal of finishing this master's program"*).

Three respondents described the amount of self-reflection to have made a positive impact on their self-confidence (P2(M): *"...it increased due to the mandatory reflections"*). They indicated to have gotten to know their strengths and weaknesses, and became more self-aware because of it. Some were of the opinion that the degree of self-reflection was high, but this helped make them more accustomed to it (P7(F): *"The amount of reflection was pretty intense, but this helped me making it into a habitual activity"*).

Almost all interviewees (6 out of 8) talked about how feedback influenced their self-confidence. Feedback could be personal (P8(F): *"Getting my strengths confirmed by my teammates made me believe in myself"*) or academic (P3(F): *"Given it is clear, I gain a lot from constructive feedback on assignments"*). There was a difference in preference between positive and negative feedback - 4 out of 6 interviewees preferred positive feedback (P7(F): *"positive feedback adds to my self-confidence - everyone likes compliments"*), while the remaining 2 interviewees indicated to prefer constructive feedback.

The students were also influenced by people around them. Two interviewees (2 male respondents) indicated to have been inspired by a teacher in the program (P2(M): *"receiving feedback from someone I look up to boosts self-confidence"*). One (female) respondent indicated to have been inspired by meeting confident women, consequently noticing an increase in her own self-confidence (P3(F) *"... by meeting and getting to know confident women that influenced and inspired me"*).

Multiple second order themes were detected when analyzing the qualitative data and looking for empowering factors. The first concerns an increase in self-confidence through natural self-esteem moments (Mruk, 2006). The second dimension relates to the high degree of self-reflection which the program consisted of (Travers, Morisano & Locke, 2015). Modeling (Mruk, 2006), e.g.

being inspired or motivated by other people, is the next defined dimension. The fourth second order dimension concerns the impact that feedback had on people's self-confidence (Mruk, 2006; London & Smither, 2002). These dimensions will be discussed in Chapter 6.

5.2. Gender Disparity in the MiM Class of 2020

The interview responses show that a slight majority (5 of 8 respondents, 3 male, 2 female) observed a gender difference in self-confidence in the MiM class.

> **P3(F):** *"I'm 100% sure there is a confidence gap in society and 99% sure it exists in our program."*

Three respondents (2 female, 1 male) answered to not perceive a self-confidence gap in the class.

> ***P4(F):*** *"Confident men and confident women behave differently. They might have the same confidence level but just portray it in a different way, making it seem men are more confident. Men are more like: 'yeah I got this', mansplaining their way through life. Women are less verbal"*

5.3. Gender Disparity in Society

When asked whether the respondents perceive a self-confidence gap in society, 6 out of 8 respondents agreed (3 female, 3 male).

> **P8(F):** *"Men take up more vocal space, for example in social settings. Men have more authority and are also given more authority than women"*
>
> **P2(M):** *"I experience women my age believing less in themselves and having lower goals than male peers"*

5.4. Improvement Potential

The interviewees were also asked if -for the scenario that they would enroll again- there was anything they would change about the program. Five respondents (3 male, 2 female) indicated a need for more individual guidance. Suggestions that were given considered more personal guidance regarding career building, one-on-one sessions with the program's psychologist, having a personal mentor, and practice interviews to help prepare for future job interviews.

> ***P1(M):*** *"What could help increase my self-confidence more is personal guidance throughout the program tailored towards helping people figuring out what to do after the program"*
>
> ***P4(F)****: "Maybe a personal mentor could help, it doesn't have to be a teacher, an alumnus for example could be a good mentor"*

5.5. Chapter Summary

This chapter presented the analysis of the qualitative research. Inspired by the answer to the second research question, which confirmed the hypothesis of a self-confidence increase in MiM students, the interview results concerned the program itself, specifically how and why people's self-confidence increased. With the help of first and second order data, multiple empowering factors that contributed to the respondents' levels of self-confidence were established. Experience, feedback, self-reflection, and modeling all contributed to the increase of students' self-confidence. Additionally, the respondents' perceptions of a gender gap in the program as well as society were presented and analyzed. A majority indicated to recognize a gap, both in society and in the class of 2020. The findings from this analysis will be discussed in the following chapter.

6. Discussion

Having presented and analyzed the research results, this chapter discusses the findings in relation to the extensive literature review, as well as the research questions. Beginning with the discussion regarding the questionnaire results, which provided us with answers to our research questions, the interview outcomes indicated which elements help increase the students' self-confidence. After elaborating on these empowering elements, the last section of this chapter will cover additional interview findings; specifically the perception of a gender gap.

6.1. Gender Gap in Self-Confidence

The first knowledge gain of the quantitative research was a confirmation of the overarching thesis argument: namely that men are more self-confident than women. These findings concur with the research presented in chapter 2 (Cahn, 2020; Cho, 2017; Fitzsimmons, Yates, and Callan, 2018; Heilman, 2001; Helgeson, 2016; Kamas & Preston, 2012; Kay & Shipman, 2014; Muzatti & Agnoli, 2007; Rutherford, 2011; Sandberg, 2015). Furthermore, this result gives a response to our first research question by showing that the gender gap exists within the MiM class of 2020. As mentioned in chapter 4, this gap in self-confidence was perceivable through analyzing different statements which indicate either low or high self-confidence levels. One may be surprised by this result, as we characterized the MiM class to be a unique demographic: while they could not be more diverse from a cultural background perspective, all students are well educated and ambitious (enough) to participate in this program. Furthermore, the location of the program -Sweden- is one of the most progressive countries regarding gender equality; it is number 4 of 155 on the Gender Equality Index, a "framework for capturing the magnitude of gender-based disparities" (Global Gender Gap Report, 2020). The male and female students are therefore part of an environment where one could assume that gender disparity is not tolerated and rather uncommon. Still, there is a notable gap in self-confidence and one reason for that could be the gender roles and stereotypes, which affect an individual's behavior (Helgeson, 2016). There is a possibility that the students were biased by prescriptive and descriptive stereotypes regarding their genders (Heilman, 2012) when answering the questionnaire and therefore answered in accordance with what they believed would be the right answer.

6.2. Speaking in Front of Groups

An argument presented in the literature review was that self-confident people are more comfortable and therefore more likely to speak in front of groups (Kay & Shipman, 2014; Baumeister,

Campbell, Krueger & Vohs, 2003). Evaluating this for the MiM class, we were able to observe this trend as well: the results implied that the male students feel more comfortable to speak in front of groups.

One possible explanation for this difference connects back to the gender roles and stereotypes. Following Heilman (2001), the men of the class might feel like it is their role to be loud and authoritative, while the women might believe that they should be thoughtful and kind. Consequently, one could identify the male attributes to be perceived as more competent than the female ones.

Regardless of the reasoning behind this gap, this finding is noteworthy because one's vocal behavior and attitude towards speaking up are not only an indicator for self-confidence, but also portray competence. As was introduced previously, people who express their opinions and are not afraid to be vocal are often perceived as competent and therefore are more likely to be successful in their job (Sandberg, 2015). Due to this, the male students of the MiM class could be perceived as more competent than their female classmates, solely due to their vocal behavior. Following this argument, they would consequently have a better chance at success.

Additionally, considering that many of the study participants aim to take on a managerial role, where vocal behavior and presenting in front of groups is part of the daily routine, it is crucial for them to become more comfortable with this task.

6.3. Self-Blame

The collected data shows that the female students of the MiM program have bigger issues with being wrong while their male classmates do not feel as bothered with being incorrect. Existing research can be used to explain this outcome: Biernat, Tocci & Williams (2012) indicated that women are more self-critical and blame failures on themselves and their abilities, while men blame it on misfortune. Connecting this to our data, the female students blame themselves to a higher degree while the male students blame their mistakes on external factors.

Furthermore, the information of being wrong is often communicated through negative or constructive feedback. In general, people accept positive feedback more willingly, and tend to reject feedback that is not in line with their self-concept (Hoyt, Aguilar, Kaiser, Blascovich & lee, 2007). In line with these findings, Williams (2012) found that this effect is more strongly present in men than in women, and thus males are less affected by negative or constructive feedback. This conforms with our findings of more male students being unbothered with being wrong. Regardless of gender, accepting constructive feedback and realizing one's own mistakes is a skill that a good

manager should master. These capabilities can be summarized as self-reflection, which is found to be a crucial managerial skill (Nesbit, 2012).

Instead of seeing self-blame as a purely negative aspect, one could also argue that low self-confidence evokes improvement, while overconfidence risks turning into a negative trait. Chamorro-Premuzic (2013) argues for this by describing low self-confidence as a trigger for improvement, where one works hard to become who they want to be. In contrast, too much self-confidence could hinder genuine improvement and cause arrogant behavior (Chamorro-Premuzic, 2013).

6.4. Overthinking

The next relevant insight from our data is in relation to decision-making and certainty. It is a well-known gender stereotype that women tend to overthink and ruminate (Nolen-Hoeksema, 2003), while men are more certain in their decisions. We evaluated whether that holds true for our study participants and the results indicate an accordance with this theory. Acting in certainty is a behavior that portrays self-confidence (Anderson, Brion, Moore & Kennedy, 2012) and consequently, those who are undecisive or tend to overthink actions come across as less self-assured. This applies to almost twice the number of our female respondents (62% versus 35%) and one could therefore argue that the female students could be perceived as less self-confident, solely from their behavior. This connects to the earlier results regarding vocal behavior: Being perceived as more self-confident leads to being perceived as more competent (Anderson, Brion, Moore & Kennedy, 2012).

One ground for this result could be that it derived from a stereotype threat (Walton & Spencer, 2009). As described in the beginning of this subchapter, the tendency to overthink is a well-known gender stereotype for women (Nolen-Hoeksema, 2003). Sandberg (2015) described how stereotypes introduced early could become self-fulfilling prophecies, and thus the possibility exists that women were negatively shaped by this prejudice and modified their behavior unknowingly.

6.5. Self-Actualization

Next to findings that were consistent with literature, our study also found results that contrasted literature. One of these statements aimed to investigate whether the following discovery holds true for the MiM class: literal findings suggest that women are more cautious and self-critical when setting goals, and that men have a tendency to overestimate their abilities and carry less self-doubt,

therefore setting higher or even unrealistic goals for themselves (McClelland, Atkinson, Clark & Lowell, 1976; Kay & Shipman, 2014).

Contrasting this discovery, our data found that the number of self-critical or doubtful male students exceed the number of females. One reason for this difference between our participants and a broader population could be the determined and ambitious nature of the students enrolled in this program, which is distinctive from a more general public. Another indicator for these unique character traits of the MiM students is their attitude towards challenges.

6.6. Challenges

Connecting to findings which contradict existing research, another insight from our data analysis is that both genders of the MiM program do not mind new challenges and taking on unfamiliar projects. This conclusion conflicts with literature, which stated that women tend to choose the projects and assignments they are familiar with and that their male colleagues favor challenges more than them (Niederle & Vesterlund, 2007; Kamas & Preston, 2012).

Our findings regarding self-actualization and challenges therefore suggest that the students enrolled in the Management program are uniquely ambitious and daring. Reason for that could be the academic degree they already hold, and which might have given them a self-confidence boost. Another reason could be being enrolled in such a prestige program and finding pride in that, but also raising their self-estimation levels of what they are capable of doing.

6.7. Professional Behavior

It was our aim to see whether there is a difference in what male and female students focus on when starting in a new position: does their focus lie on relationships and networking or do they find it more important to prove their abilities? This question was inspired by Miller (1991), who found that men's self-confidence is based on power, while women's self-confidence is based on connections and relationships. Additionally, men feel more comfortable to self-promote (Cahn, 2020) and view themselves as independent, while women tend to describe themselves as part of a network (Cross, Hardin & Gercek-Swing, 2011).

Our research found no detectable gender difference in professional behavior: both men and women find building relationships as well as proving personal abilities to be important. Even more so, the female students of the MiM class feel more strongly about proving their capabilities at work, as the data suggested. A possible explanation for this outcome derives from the disparities regarding self-doubt (Pang, 2010; McClelland, Atkinson, Clark & Lowell, 1976). Research found

that men tend to be more self-certain while women tend to be more doubtful of their capabilities and hence their fit for a job position. This could consequently result in women working harder to prove themselves to their colleagues and bosses. While this would be a plausible explanation for this find, one could argue that this contradicts with our earlier findings, describing that the female students are less doubtful than their male classmates. This knowledge derived from the overweighting affirmative responses to the statement regarding self-actualization. This contradiction could be an interesting subject of future research.

Another possible explanation for this surprising outcome regarding professional behavior connects to the difference in over- and underestimation of one's abilities (Kay & Shipman, 2014). Men -who are prone to overestimate their skills- are consequently more certain that they will master the tasks given to them, while women put in conscious effort to meet challenges. Consequently, they will work harder to prove themselves in a professional setting.

6.8. Success and Failure Attribution

The next insight that contradicts with existing literature concerns success and failure attribution. Research by Fox & Ferri (1992) has found that men attribute success to internal factors, such as skill or determination, while women attribute it to external factors, such as luck or good connections. Our data goes against parts of this research by showing that the women of the class attribute their personal successes more to internal elements than men, if only slightly.

However, our data also indicates a concordance with existing research about failure attributions; describing that women attribute failure to internal aspects- like lack of skill (Murashev, 2011). Men, on the other hand, are more likely to attribute failure to external events, such as bad luck (Murashev, 2011). While our data connects to the former claim, our statement does not give insights about the external failure attributions of men. The responses for this statement show that 70% of the female participants tend to blame themselves for failure, while 42% of men conform with this. An interesting finding is the large percentage of neutral male responses and the significantly smaller neutral responses from female participants (54% versus 16%). This could be a confirmation of the above stated insight describing men to not have the automatic reaction to questions regarding self-blame. However, it is difficult to draw conclusions from this result alone and more research would need to be conducted to find the reason behind this.

6.9. Setting Goals

Research indicates that men tend to set higher goals for themselves, as a consequence of overestimating their abilities and skill (Pang, 2010). Women, on the other hand, are more aware and critical with their skills and tend to underestimate their abilities; therefore, they are more hesitant when applying for promotions, and also aim for lower goals than men (Sandberg, 2015).

Investigating this in the MiM class, our data concurs with the existing research: the results suggest that the male students set higher aims and goals for themselves, while the female students are more realistic with their capabilities. This gender difference in attitude towards one's own capabilities has a great impact on the individual's career, as those with more self-doubt and critical views of their abilities are less likely to apply for ambitious or competitive jobs (Kay & Shipman, 2014). In contrast, those with high self-estimation feel more comfortable to set higher goals and try to achieve them. Realistically, only those who try can succeed. Contrary to this, people with a more doubtful attitude towards their abilities are more likely to pick goals which they believe fit their skills. Consequently, those will stay in lower positions or will be much slower in climbing the career ladder, as they will only apply for positions once they feel like they have all the necessary requirements for it (Sandberg, 2015).

Realizing this connection between self-estimation and success rates, this insight could be another indicator for a higher success rate of the male MiM students in their future professional career.

Nonetheless, there is a possibility that this difference in responses does not stem from a self-confidence gap but is merely coincidental. Since this statement left it to the participants to form their goal, there is a chance that some people just have goals that could be considered 'more ambitious' or 'higher'. People differ in their professional ambitions, and the reasons behind these goals are not necessarily correlated to self-confidence as their personal aspirations also play a role. It is therefore difficult to derive self-confidence from individual goals and to make assumptions from this about a potential gap. Investigating the motives for the goals that were set is a research topic in itself and would have exceeded the range of this thesis.

6.10. Impact of the MiM Program

Mruk found that focusing on self-development proves to have a positive effect on self-confidence (2006). Since the curriculum of the Master in Management included various self-developing aspects and tools, the hypothesis was formed that students from this program would notice an

increase of self-confidence throughout the year. Our data proved this hypothesis to be true; 85,7% replied affirmatively when asked whether their self-confidence increased throughout the course of the MiM program. The following sections will elaborate on which elements were most impactful for this experience.

6.11. Empowering Elements

6.11.1. Increasing self-confidence through natural self-esteem moments.

Self-confidence is a product of experience and real-life events (Mruk, 2006). Multiple respondents indicated to have gained more self-confidence over the year due to hands-on experiences. As Mruk (2006) describes, self-confidence can change during important life events or during moments of transition. One could argue that the Management program can be described as such. The Master in Management focuses on both practice and theory and provides its students with numerous opportunities to put acquired knowledge to the test. The majority of assignments is done in teams, where intense cooperation is essential and frequent. These hands-on experiences are opportunities for self-development, and can help make people feel more certain and secure with their competences and skills as a future manager.

6.11.3. Increasing self-confidence through self-reflection.

Multiple respondents (2 male, 1 female) confirmed that self-reflection helped them increase their self-confidence. The benefits of self-reflection, according to our classmates, was that they became more self-aware and that it helped them define their strengths and weaknesses.

As discussed previously, self-reflection has proved to increase self-confidence (Travers, Morisano & Locke, 2015). Additionally, self-reflection is shown to be an important trait in a successful manager (Nesbit, 2012). The high intensity of self-reflective moments in the Management program therefore not only help increase people's self-confidence, it also equips them with attributes of a successful manager.

6.11.4. Increasing self-confidence through modeling.

People unconsciously model the behavior of their peers, parents, and teachers (Mruk, 2006). Our research results conform with this statement, as three interviewees (2 male respondents and 1 female respondent) indicated to have been inspired by teachers and classmates, and having experienced an increase of self-confidence due to it. Having a role model helped them to believe in themselves, similar to what King, Vidourek, Davis & McClellan (2002) found in their research about the relation between self-esteem and a multidimensional mentoring program. When asked about what could help increase

their confidence even more, multiple interviewees indicated a need for more individual guidance. One suggestion was a personal mentor that could guide students throughout the year. Mentoring has many short- and long-term benefits (Davidson & Burke 2000; Eby, Durley, Evans & Ragins, 2006). Having a mentor could increase the empowering effects of modeling even more.

6.11.5. Providing consistent feedback. Multiple interviewees mentioned the value of feedback they received throughout the program when asked about positive impacts on their self-confidence. All of the female respondents indicated feedback having a positive impact on their self-confidence, in contrast to half of the male respondents. This links to previously discussed findings from Williams (2012), who found that men are less affected by negative (constructive) feedback. Additionally, Biernat, Tocci & Williams (2012) found that women are more responsive to feedback in general.

A surprising discovery was the divide in opinions regarding the content of the feedback. Some respondents indicated to favor positive feedback over negative (constructive) feedback (2 male respondents, 2 female respondents). One reason given was that it serves as a confirmation of doing something right. Another respondent indicated to appreciate informal positive feedback even more, since it is often spontaneous. Focusing on positive behavior enhances one's feeling of worth and perception as a unique human being (Mruk, 2006).

Two respondents (both female), however, stated to gain more self-confidence from negative (constructive) feedback. One respondent explained that they felt constructive feedback to be more useful, since it implicates that there is room for improvement.

Another explanation for the difference in feedback type preferences, which does not take gender into account, comes from London & Smither (2002). They argue that the preference for types of feedback links to a person's level of self-confidence. People with a high level of self-confidence prefer negative (constructive) feedback, since they look for ways to conquer failures. People with low self-confidence are likely to be more surprised by positive feedback, because they expect negative (constructive) feedback (London & Smither, 2002). Thus, the effect of positive feedback on self-confidence could be more pronounced, since it is not what people with low self-confidence expected. Even though this finding contradicts with previous theories regarding gender disparities and feedback, it should still be considered as an alternative explanation.

Some respondents indicated to have found giving or receiving feedback scary in the beginning of the program, since they did not have much experience with it. The frequency of feedback has a positive effect on an individual's willingness to accept it, and it goes for both

positive and negative (constructive) feedback (London & Smither, 2002). The Management program provided its students with an abundance of opportunities for feedback. These feedback moments concerned both academic work and personal development. The effect of feedback seemed to be the strongest contributor to people's increase in self-confidence, as it was named by almost all interviewees. As mentioned previously, giving and receiving feedback is considered a vital managerial task (Atwater & Brett, 2006; Nesbit, 2012).

6.12. Additional Findings

As became evident by the previous quantitative data analysis, the questionnaire filled out by the MiM class indicated a clear disparity in gender regarding self-confidence. An interesting investigation was whether our classmates observed this disparity themselves, both in the MiM program as well as in society. As described in 5.2, a majority indicated to have observed a difference in self-confidence. An interesting comment was made by two female respondents about how men tend to portray themselves as more self-confident, even though their self-confidence levels were equal to that of women. The following quote clearly reflects this opinion:

> **P4(F):** *"In our program, the confident girls definitely behave differently than the confident guys. They are more humble and laidback."*

Another interesting observation was that all the male respondents which agreed with this statement only talked about women being less self-confident, but never about men being more self-confident than women. What follows is one response which demonstrates this:

> **P2(M):** *"I experience women my age believing less in themselves and having lower goals than male peers."*

The male interviewees described female peers as having less self-confidence and women hindering themselves, however they do not make the assumption that men might have a certain overconfidence, however they do not make the assumption that men might have a certain overconfidence. This is an indicator for a previously discussed trend; namely 'honest overconfidence', which describes men to have an unconscious overestimation of their abilities (Reuben in Kay & Shipman, 2014). The female respondents, on the other hand, talked about a difference in self-confidence regarding both genders. A recurring topic was how men tend to adopt a more dominant attitude and take up more space in conversations, connecting to the discussed literature (Baumeister, Campbell, Krueger & Vohs, 2003). The responses for the questionnaire also indicated this assertive behavior in the male student body.

P8(F): *"Men take up more vocal space, for example in social settings. Women are less likely to speak up. Men have more authority and are also given more authority than women"*

Furthermore, the female respondents seemed more aware of the behavioral disparities that result from a self-confidence gap. A reason for this could be that they experience the downside of this disparity. Because they seem to be struggling more with their self-confidence levels, they consequently value it more as something that requires effort, rather than taking it for granted. The responses to this question revealed multiple interesting insights and are similar to previously discussed findings in the quantitative data analysis. While for some, dominant or assertive behavior could portray more self-confidence, others might correlate different attributes to it.

6.13. Chapter Summary

Conforming with the literature presented in chapter 2, there was a detectable gender distribution in which the male students agreed more with the statements indicating higher self-confidence, whereas the female students identified themselves more with statements indicating weaker levels of self-confidence. Even though the overall findings conform with literature, there were some conflicting results, indicating the uniqueness of our demographic.

Many of the differences found in behavior of women and men could be due to stereotypes and a stereotype threat. The participants could have been biased by prejudices and expectations of how they are supposed to act as male or female. Consequently, the male students are perceived as more self-confident and competent solely from the way they behave, which could lead to them being more successful.

Next to significant insights and interpretations emerging from the quantitative research, multiple empowering factors and their implications which derived from the qualitative research were discussed in this chapter. Self-development is a vital instrument for managerial success and is brought about through the empowerment provided in the MiM program.

Additional findings indicated that the topic of a gender gap seems to be a more pressing issue for women, as they are more prone to experiencing the negative consequences of this gap.

7. Concluding Remarks

This thesis set out to investigate the effects of self-confidence on behavior, public perception and professional success. Previous research has discovered a gender gap in self-confidence, and it was also found to be correlated to career development. Therefore, this self-confidence gap influences the uneven gender ratio in high positioned jobs especially. Inspired by these discoveries, our research aimed to investigate this self-confidence gap in the next generation of managers.

Based on quantitative and qualitative research, this thesis discovered a notable self-confidence gap between the male and female students of the MiM class of 2020. Overall, the female students recognized themselves more in statements that indicated weaker levels of self-confidence, while those statements suggesting higher levels of self-confidence were recognized more by male students. The results contribute to academia by collecting novel insights about the mindsets of prospective managers: it confirmed that much of the existing literature regarding gender differences in behavior still applies to young professionals today and that this self-confidence gap presumably adds to the global gender gap in the long run. Therefore, self-confidence acts as an invisible force on this disparity. It is not enough to ensure gender equality in the workplace and the results for the second research question provide a way to solve this issue.

The thesis proves that the structure of an academic program consisting of elements such as reflection, feedback, and mentoring, has the ability to empower the students and increase their self-confidence. Empowered people believe they have the resources, energy and competence to achieve important goals (Diener & Biswas-Diener, 2005). We acknowledge the unique structure of the MiM program, and the influence of self-development in more ‘conventional’ academic programs could be an interesting subject for future research. One practical implication of our research is that if more academic programs were to focus on and implement self-development as part of their curriculum, the resulting self-confidence increase for the students, especially women, could aid in closing the existing gender gap. The empowered graduates would enter the job market with a different attitude, which could cause a ripple effect for the global issue of female underrepresentation in high positions. With equal self-confidence, male and female young professionals would both aim for competitive jobs, dare to apply for promotions, and climb the career ladder at an equal pace; all of this would consequently minimize the existing gender gap.

The clear difference in self-confidence between genders which was indicated by our research could be challenged. Many behavioral factors seem to contribute to a gender gap, and

ultimately indicate higher self-confidence levels in men. A thought-provoking argument could be made about a possible misinterpretation. As one of our interviewees pointed out, self-confidence can be expressed in different ways. Portraying more dominant behavior, which is a common male stereotype, is usually perceived as self-confident. This does not necessarily mean that people *not* expressing this behavior are less self-confident. Future research could focus on the effect of gender stereotypes on self-confidence. Following this counterargument, it could thus be possible that the difference in self-confidence is actually smaller than initially estimated. In actuality, the small number of participants and limited research done in this thesis is not enough to give clear answers to a topic this complex and subjective.

Even though there exists the possibility of misinterpretation of our results, the essence of this thesis' insights remains impactful. This thesis started out by explaining the connection between self-confidence and competence. And since competence is a key success factor, self-confident behavior is consequently correlated with professional success (Kay & Shipman, 2014). However, self-confidence and competence are measured and recognized through behavior towards others. Essentially, it could be that it is irrelevant whether someone *actually* is self-confident, since portraying certain behaviors is enough to be perceived as self-confident by others. In other words, it only matters whether one portrays self-confidence through for example vocal behavior. He or she is then perceived as competent, hence has increased chances at professional success. Therefore, the gender gap in *actual* self-confidence is of secondary importance; what impacts the gap in professional success is the gender difference in behavior.

Whether or not this thesis has correctly interpreted the self-confidence gap, a strong argument can be made for the benefits of self-development in academic programs and the relevance of self-confidence for professional success. Self-development is a great tool to increase self-confidence and is especially beneficial for those aiming to become managers. However, empowerment alone will not close the gap between the genders. Organizations fighting gender equality in the workplace, such as The Female Quotient, Girl Gaze, Take the Lead, and The Global Fund for Women, agree on one important point: in order for change to happen, women have to take action.

Women have to support each other and lean in (Sandberg, 2015), meaning grabbing opportunities as they arise, fighting stereotype threats, and aiming just as high as their male colleagues. The saying '*Fake it 'till you make it'* seems to hold a lot of truth in a society where certain behavior is interpreted as self-confident. Small behavioral changes could therefore have a

great impact on professional success. It gives us hope that this rather simple solution could contribute to an environment where women and men are equally represented in managerial positions.

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Appendix A

Rating Questions Measuring Self-Confidence

Table 1.

Rating Questions Measuring Self-Confidence

Question number	**Description**
Question 1	Overall, I am satisfied with myself as a person.
Question 2	I can be anything I want to be.
Question 3	I am not an extremely confident person.
Question 4	In a professional setting, building relationships and connections is very important to me.
Question 5	It doesn't bother me to be wrong.
Question 6	Talking in front of a group makes me uncomfortable.
Question 7	Compared to my peers, my management capabilities are equal to theirs.
Question 8	I don't mind taking on a project even if I am not familiar with it. I enjoy challenging myself.
Question 9	I often question decisions that I made.
Question 10	When I achieve something, I am proud of my hard work and effort.
Question 11	When I fail at something, I tend to blame myself.
Question 12	When starting in a new position, I go above and beyond to make a good impression and am eager to show my professional abilities.
Question 13	I have a tendency to aim high and my goals might be considered unrealistic or overambitious.
Question 14	I am aware of what I can and cannot do when setting goals for myself.

Appendix B

Additional Questions from Questionnaire

Table 2.

Additional Questions from Questionnaire

Question	**Answer alternatives**
Do you believe your self-confidence has increased throughout the MiM program?	● Yes ● No
If yes, what is this due to? Please tick the answer(s) most applicable to you	● Reflection (Mruk, 2006) ● Feedback (Mruk, 2006) ● Mentoring (Zimmerman, 1995) ● Teamwork ● Clearer career ambitions ● Other …
If no, please explain why	Open question, text box
Compare your own self-confidence to your classmates': Position yourself between place 1-70 (1 being the most self-confident person in the class, 70 being the least self-confident person in the class)	Number between 1 and 70 (Kay & Chipman, 2014) *
In general, do you believe that any of the following elements would help improve your self-confidence? Please pick the option(s) most applicable to you, or add your own	● Support from family and friends (Zimmerman, 1995) ● Role models (Mruk, 2006) ● Mentoring (Zimmerman, 1995) ● Affirmation (Zimmerman, 1995) ● Personal successes (Fox & Ferri, 1992)

	● Self-reflection (Mruk, 2006) ● Other …

* Even though we had 68 participants instead of 70, we decided to keep the scale as simple as possible to make it easier for people to come up with a number

Question	**Answer alternatives**
What is your career goal? Please state field and position	Open question, text box
How many years do you estimate will it take to reach this position?	● 0-2 years ● 3-5 years ● 6-10 years ● 10 years or more
Consider the following scenario: You find an ad for a position that will bring you closer to your dream job but you only meet 60% of the job requirements. How likely are you to apply to that position?	Likert scale - very unlikely to very likely

Appendix C

Interview Questions

The interview will start with a general introduction:

> *Thank you for agreeing to do this interview. We want to stress, again, that your response will be anonymous. We want to ask you a few questions regarding your self-confidence in relation to the MiM program. We can imagine that the current Corona pandemic might have influenced your mental well-being or even your confidence. We understand that this might be difficult, but we ask you to try and answer from a standpoint unaffected by the pandemic.*

Questions:

- Are you okay with us recording this interview and using it for the purpose of our thesis?
- Did your self-confidence change during the program? Why and how?
    - We asked you to indicate which parts of the MiM program had contributed to your self-confidence. Can you explain your choice?
        - Reflection
        - Feedback
        - Mentoring
        - Teamwork
        - Clearer career ambitions
        - Other …
    - If you were to enroll in this program again, what would you like to see differently? Is there a need for support or other factors that could increase your self-confidence?
- Would it surprise you if our research found a confidence gap? Do you experience a gender gap yourself within the MiM program? Or in your personal life?

Appendix D

Quantitative Data Analysis (Questionnaire)

Gender	Female (37)	Male (26)	**Total**
Numbers	37	26	**63**
Numbers %	59%	41%	**100%**

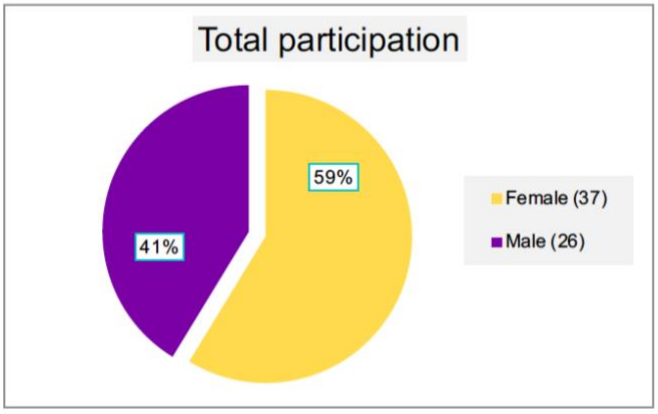
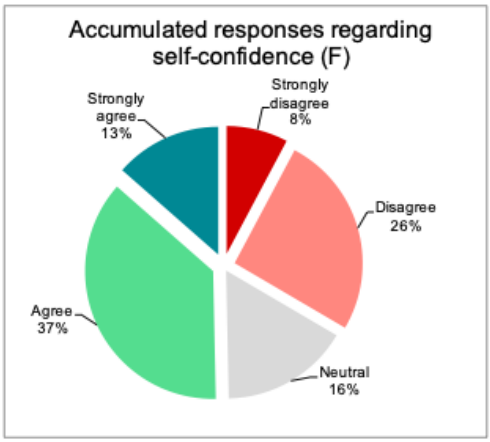


Figure 19. Total participation.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	**Subtotal**	**Subtotal [%]**
Female	23	76	48	109	40	296	59%
Male	7	45	33	93	30	208	41%
Total	**30**	**121**	**81**	**202**	**70**	**504**	**160%**



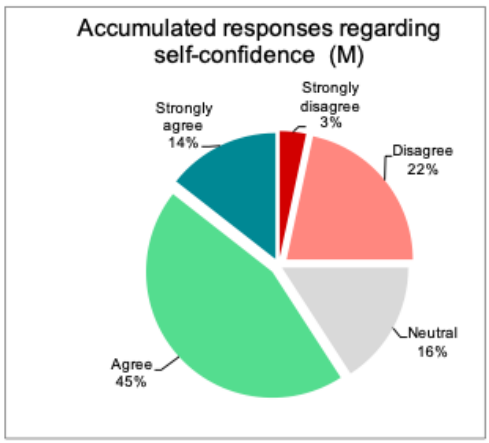
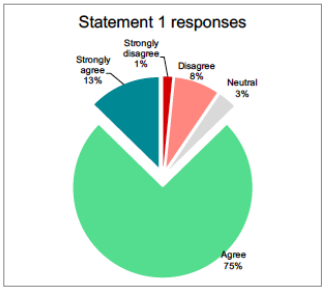
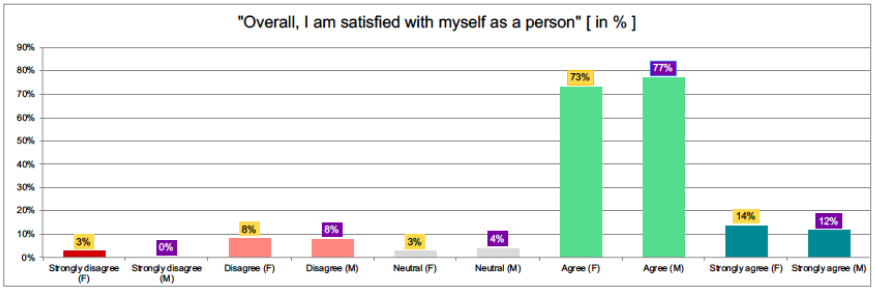


Figure 20. Accumulated responses regarding self-confidence.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	1	3	1	27	5	37	59%
Male	0	2	1	20	3	26	41%
Total	1	5	2	47	8	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
1	0	3	2	1	1	27	20	5	3
3%	0%	8%	8%	3%	4%	73%	77%	14%	12%





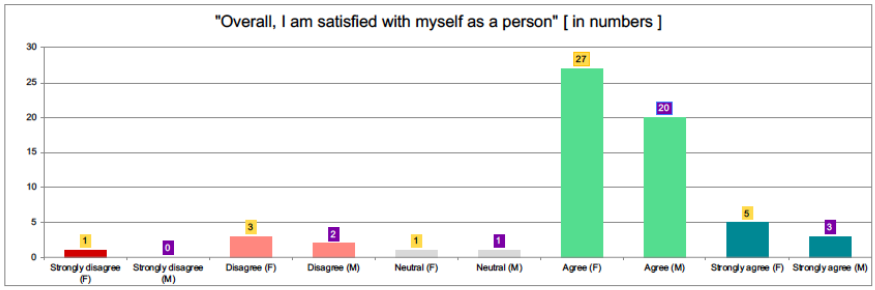
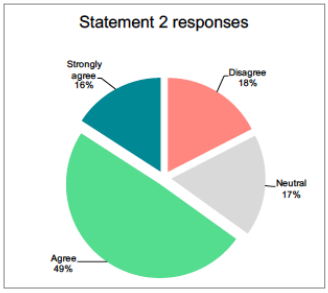
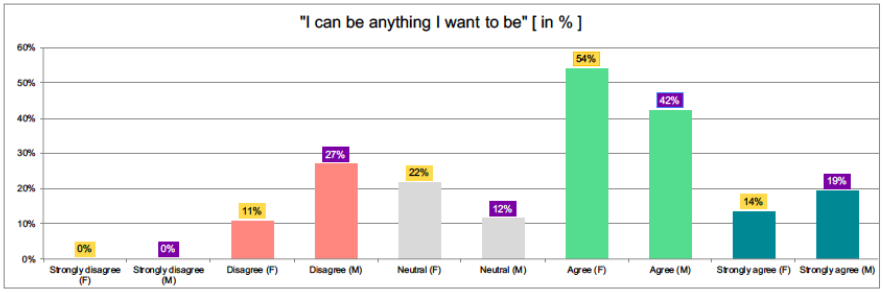


Figure 21. Statement 1 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	0	4	8	20	5	37	59%
Male	0	7	3	11	5	26	41%
Total	0	11	11	31	10	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
0	0	4	7	8	3	20	11	5	5
0%	0%	11%	27%	22%	12%	54%	42%	14%	19%





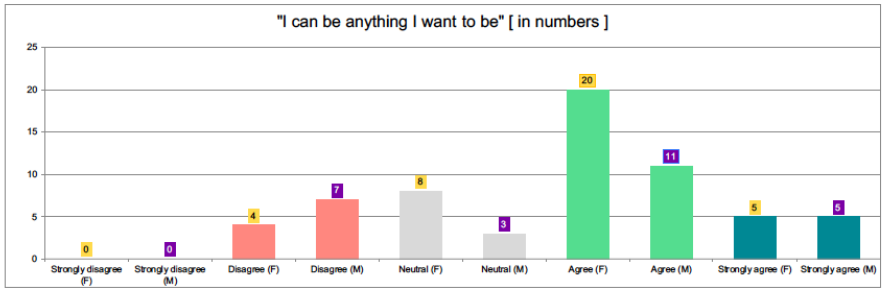
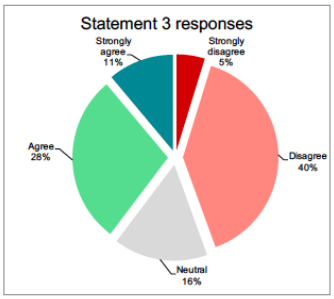
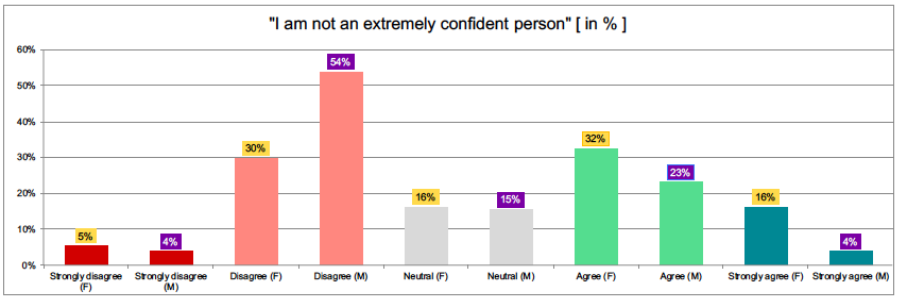


Figure 22. Statement 2 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	2	11	6	12	6	37	59%
Male	1	14	4	6	1	26	41%
Total	3	25	10	18	7	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
2	1	11	14	6	4	12	6	6	1
5%	4%	30%	54%	16%	15%	32%	23%	16%	4%





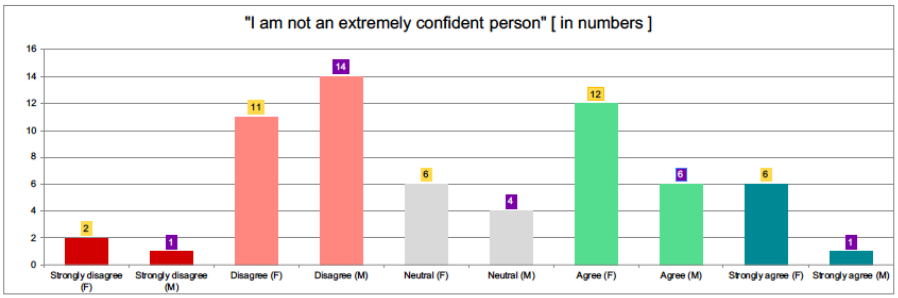
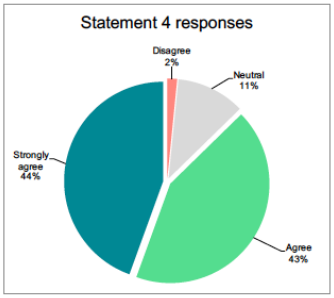
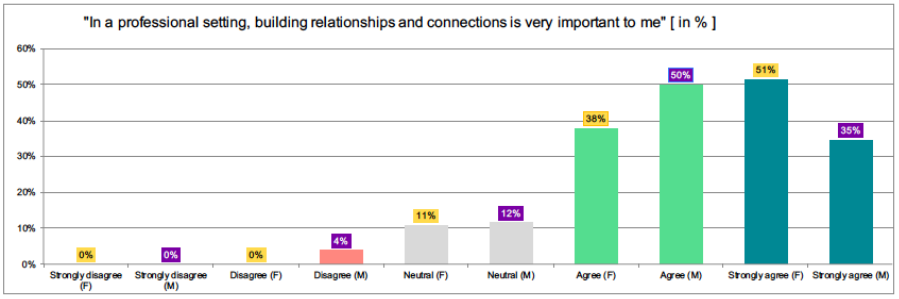


Figure 23. Statement 3 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	0	0	4	14	19	37	59%
Male	0	1	3	13	9	26	41%
Total	0	1	7	27	28	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
0	0	0	1	4	3	14	13	19	9
0%	0%	0%	4%	11%	12%	38%	50%	51%	35%





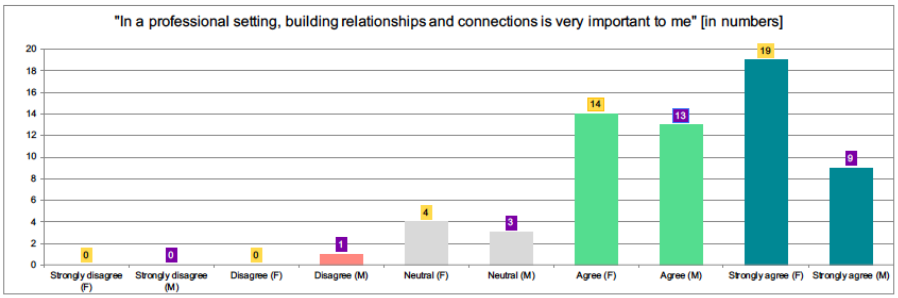
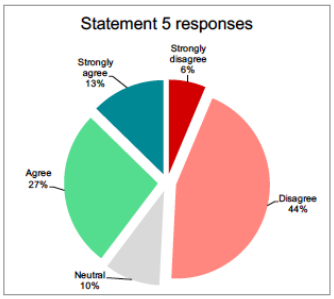
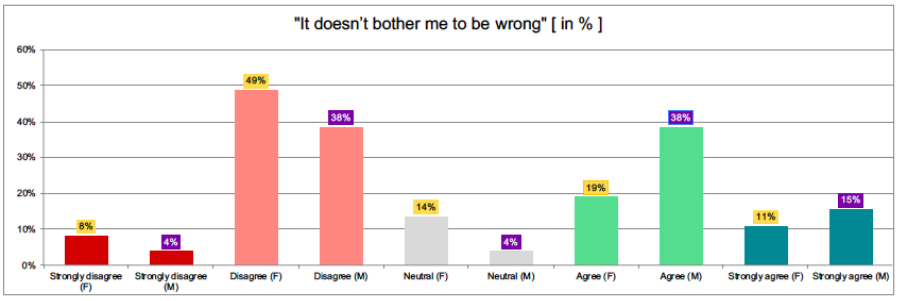


Figure 24. Statement 4 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	3	18	5	7	4	37	59%
Male	1	10	1	10	4	26	41%
Total	4	28	6	17	8	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
3	1	18	10	5	1	7	10	4	4
8%	4%	49%	38%	14%	4%	19%	38%	11%	15%





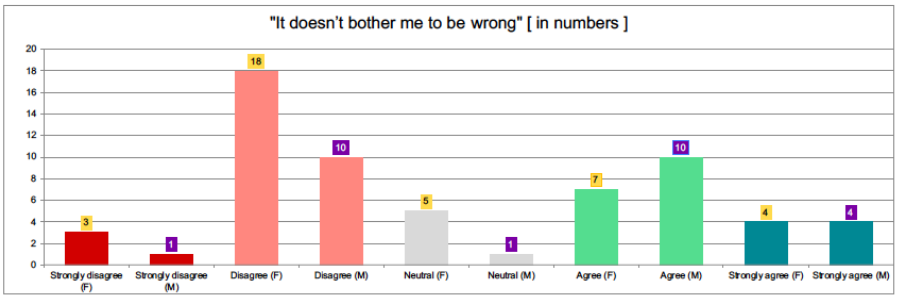
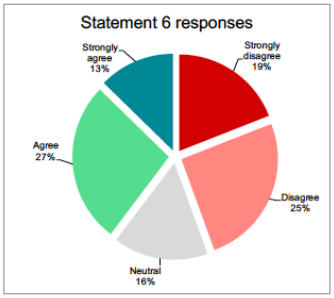
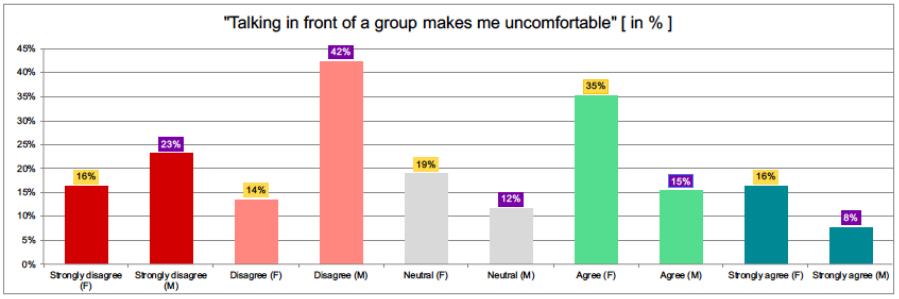


Figure 25. Statement 5 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	6	5	7	13	6	37	59%
Male	6	11	3	4	2	26	41%
Total	12	16	10	17	8	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
6	6	5	11	7	3	13	4	6	2
16%	23%	14%	42%	19%	12%	35%	15%	16%	8%





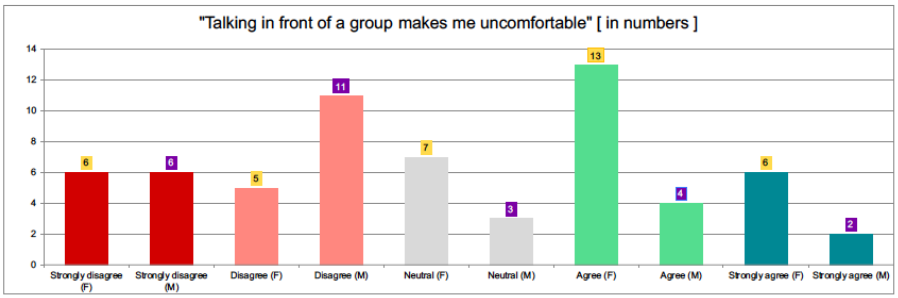
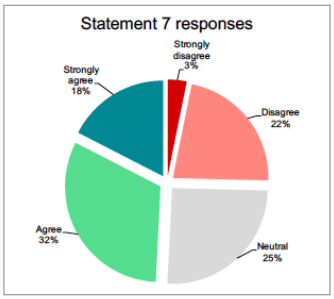
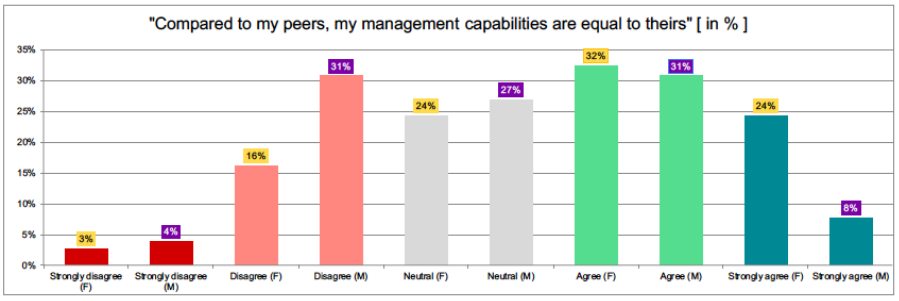


Figure 26. Statement 6 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	1	6	9	12	9	37	59%
Male	1	8	7	8	2	26	41%
Total	2	14	16	20	11	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
1	1	6	8	9	7	12	8	9	2
3%	4%	16%	31%	24%	27%	32%	31%	24%	8%





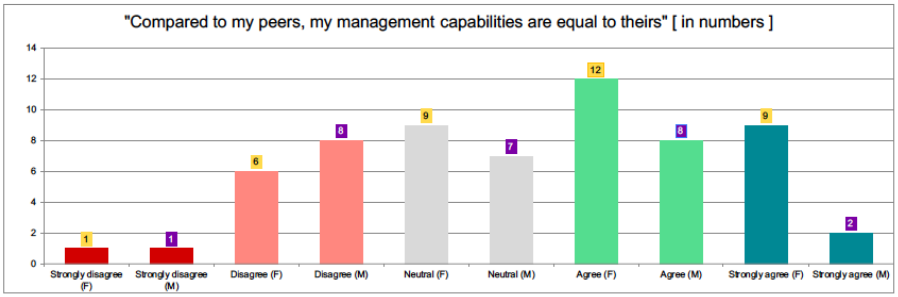
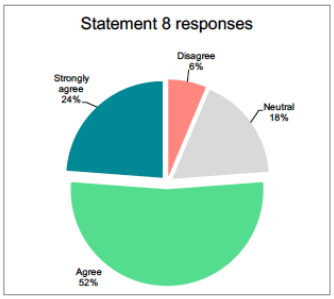
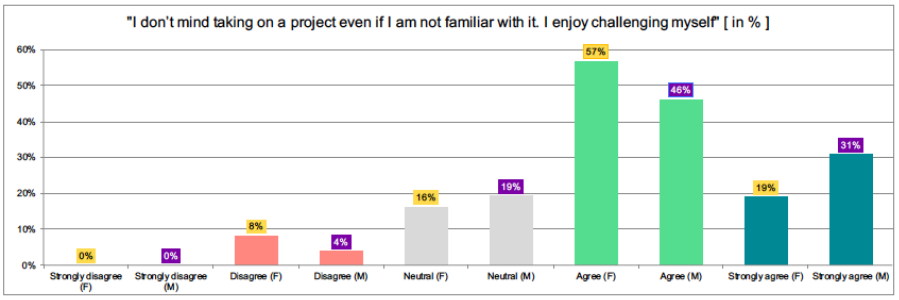


Figure 27. Statement 7 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	0	3	6	21	7	37	59%
Male	0	1	5	12	8	26	41%
Total	0	4	11	33	15	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
0	0	3	1	6	5	21	12	7	8
0%	0%	8%	4%	16%	19%	57%	46%	19%	31%





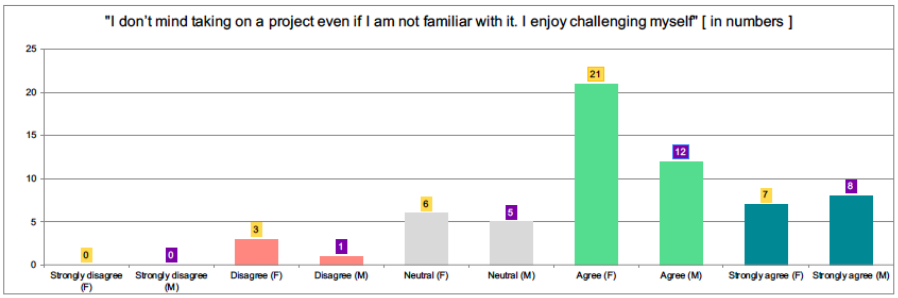
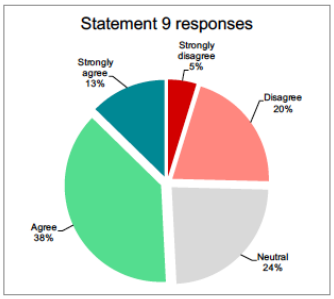
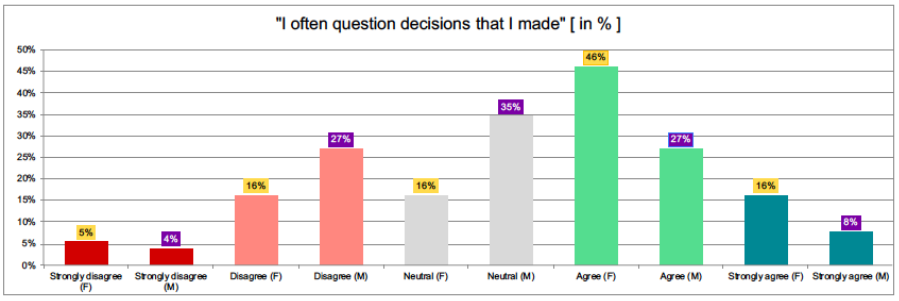


Figure 28. Statement 8 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	2	6	6	17	6	37	59%
Male	1	7	9	7	2	26	41%
Total	3	13	15	24	8	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
2	1	6	7	6	9	17	7	6	2
5%	4%	16%	27%	16%	35%	46%	27%	16%	8%





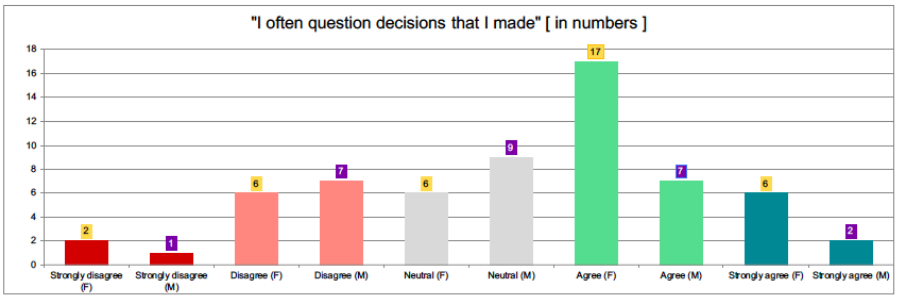
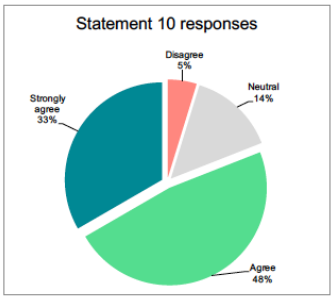
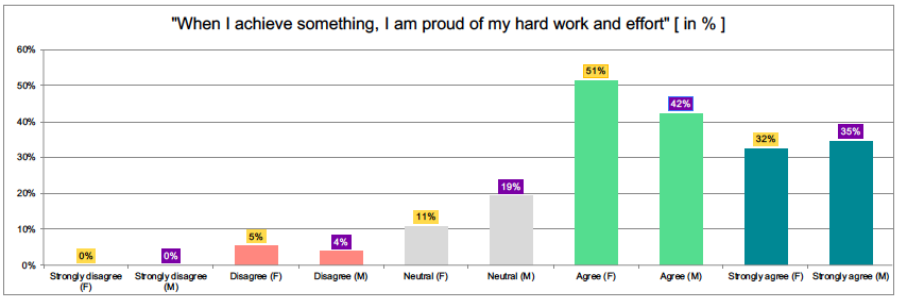


Figure 29. Statement 9 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	0	2	4	19	12	37	59%
Male	0	1	5	11	9	26	41%
Total	0	3	9	30	21	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
0	0	2	1	4	5	19	11	12	9
0%	0%	5%	4%	11%	19%	51%	42%	32%	35%





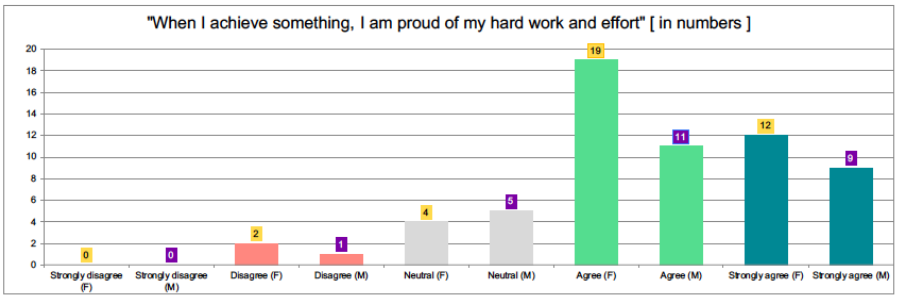
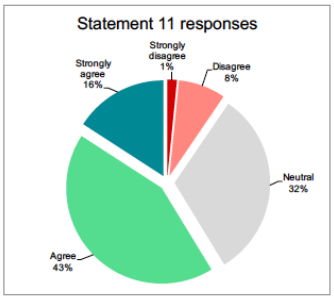
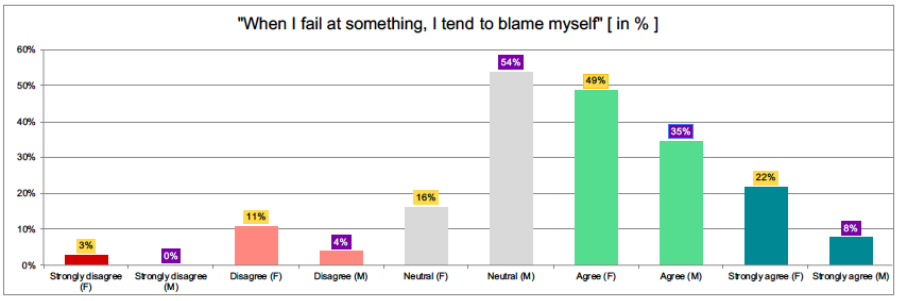


Figure 30. Statement 10 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	1	4	6	18	8	37	59%
Male	0	1	14	9	2	26	41%
Total	1	5	20	27	10	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
1	0	4	1	6	14	18	9	8	2
3%	0%	11%	4%	16%	54%	49%	35%	22%	8%





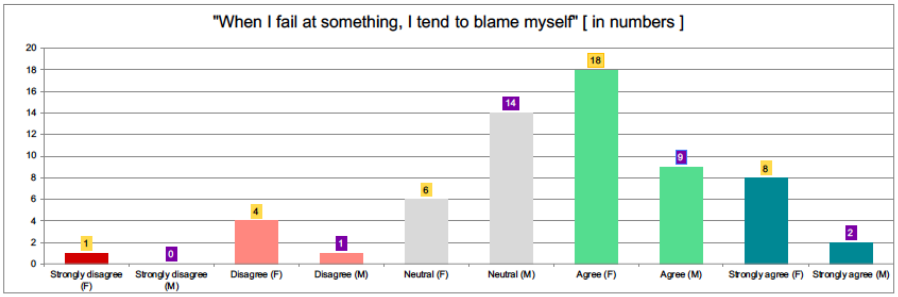
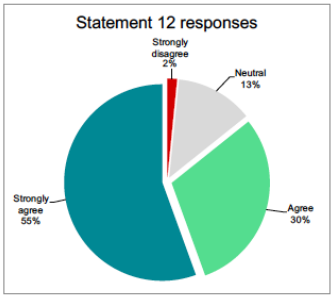
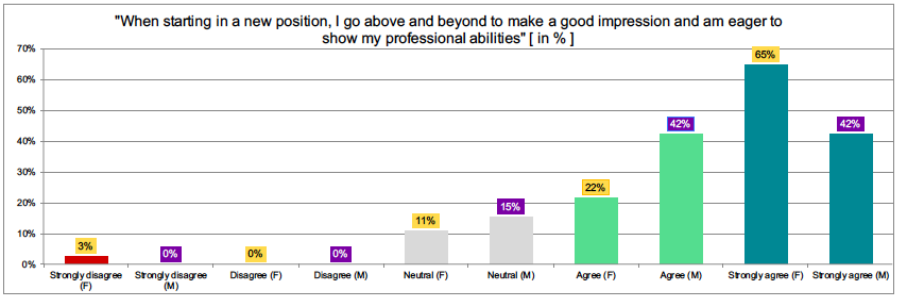


Figure 31. Statement 11 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	1	0	4	8	24	37	59%
Male	0	0	4	11	11	26	41%
Total	1	0	8	19	35	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
1	0	0	0	4	4	8	11	24	11
3%	0%	0%	0%	11%	15%	22%	42%	65%	42%





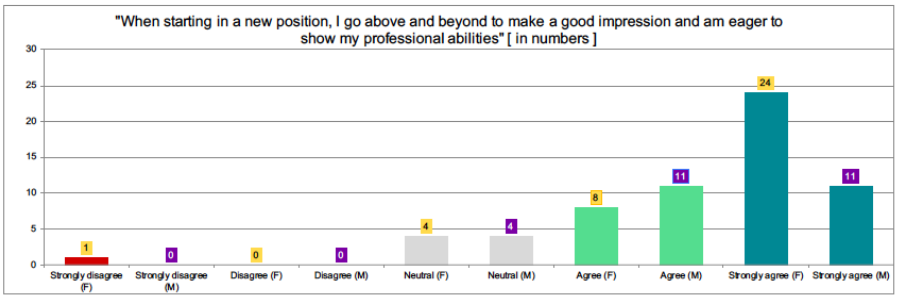
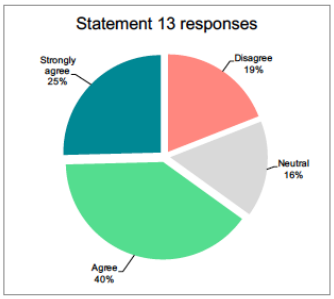
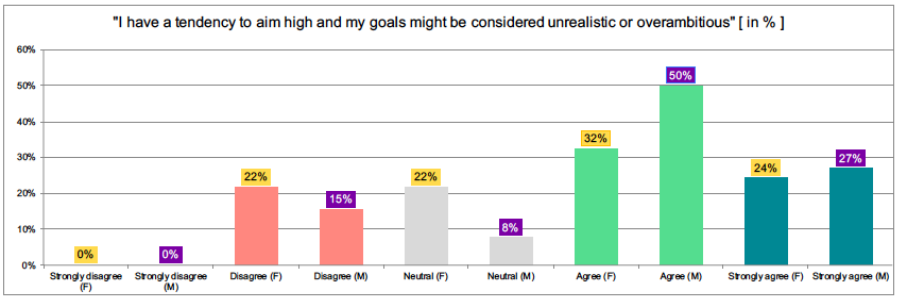


Figure 32. Statement 12 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	0	8	8	12	9	37	59%
Male	0	4	2	13	7	26	41%
Total	0	12	10	25	16	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
0	0	8	4	8	2	12	13	9	7
0%	0%	22%	15%	22%	8%	32%	50%	24%	27%





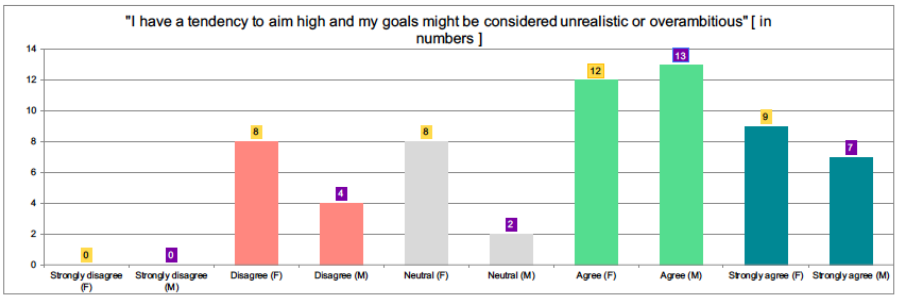
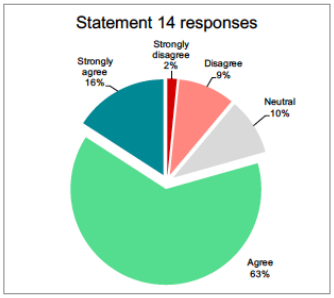
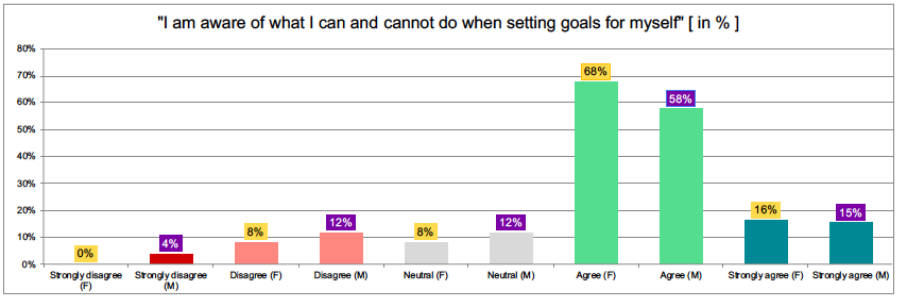


Figure 33. Statement 13 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	0	3	3	25	6	37	59%
Male	1	3	3	15	4	26	41%
Total	1	6	6	40	10	63	100%

Strongly disagree (F)	Strongly disagree (M)	Disagree (F)	Disagree (M)	Neutral (F)	Neutral (M)	Agree (F)	Agree (M)	Strongly agree (F)	Strongly agree (M)
0	1	3	3	3	3	25	15	6	4
0%	4%	8%	12%	8%	12%	68%	58%	16%	15%





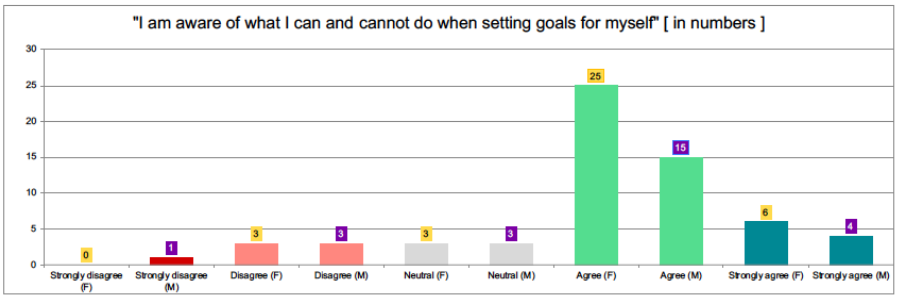


Figure 34. Statement 14 responses.

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Subtotal	Subtotal [%]
Female	23	76	48	109	40	296	59%
Male	7	45	33	93	30	208	41%
Total	30	121	81	202	70	504	160%

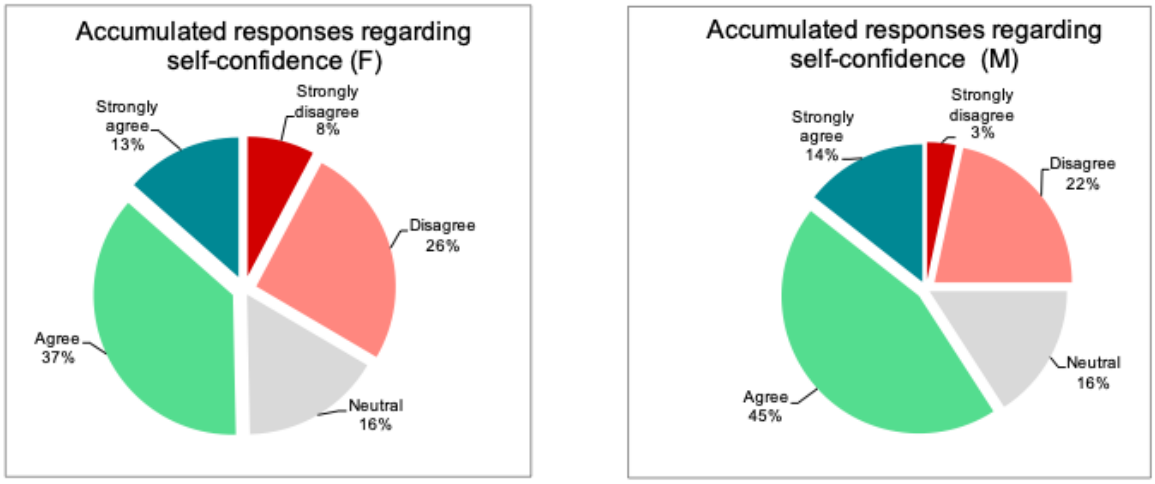


Figure 35. Accumulated responses regarding self-confidence.

Gender	0-2 years	3-5 years	6-10 years	10 years or more		Subtotal	Subtotal [%]
Female	5	13	13	6		37	59%
Male	6	4	8	8		26	41%
Total	11	17	21	14		63	100%

0-2 years (F)	0-2 years (M)	3-5 years (F)	3-5 years (M)	6-10 years (F)	6-10 years (M)	10 years or more (F)	10 years or more (M)
5	6	13	4	13	8	6	8
14%	23%	35%	15%	35%	31%	16%	31%

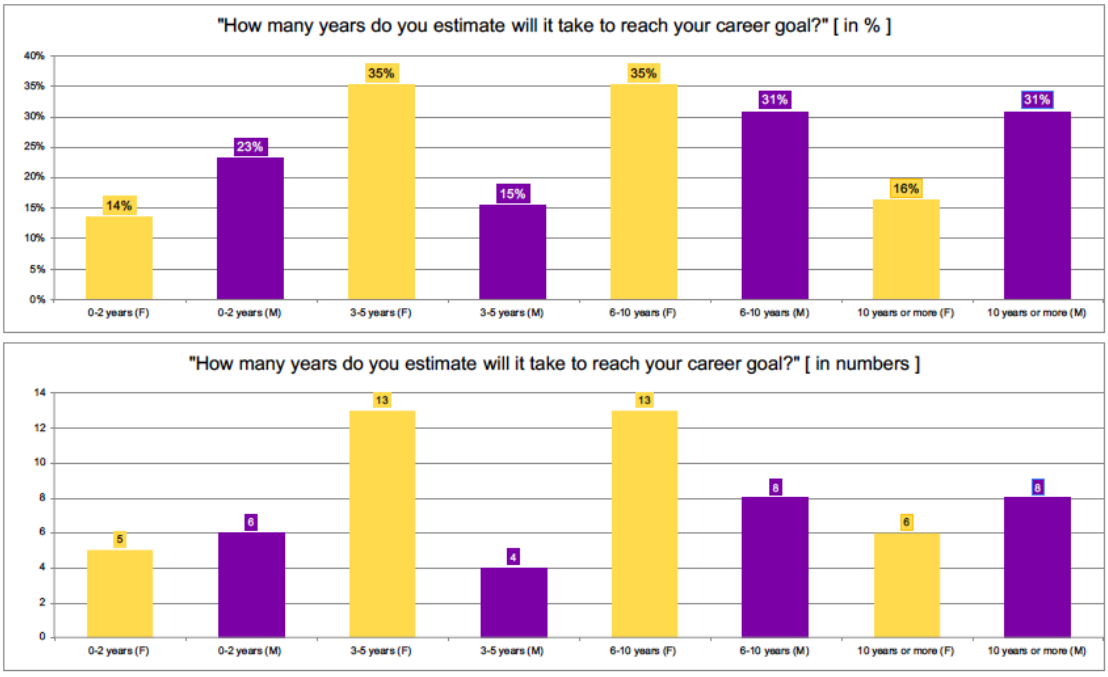
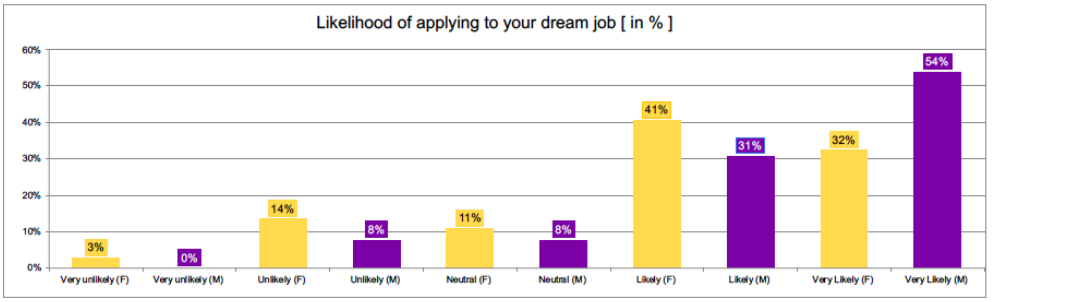


Figure 36. Estimated years to reach career goal.

Gender	Very unlikely	Unlikely	Neutral	Likely	Very likely	Subtotal	Subtotal [%]
Female	1	5	4	15	12	37	59%
Male	0	2	2	8	14	26	41%
Total	1	7	6	23	26	63	100%

Very unlikely (F)	Very unlikely (M)	Unlikely (F)	Unlikely (M)	Neutral (F)	Neutral (M)	Likely (F)	Likely (M)	Very Likely (F)	Very Likely (M)	Subtotal (F)	Subtotal (M)
1	0	5	2	4	2	15	8	12	14	37	26
3%	0%	14%	8%	11%	8%	41%	31%	32%	54%	100%	100%



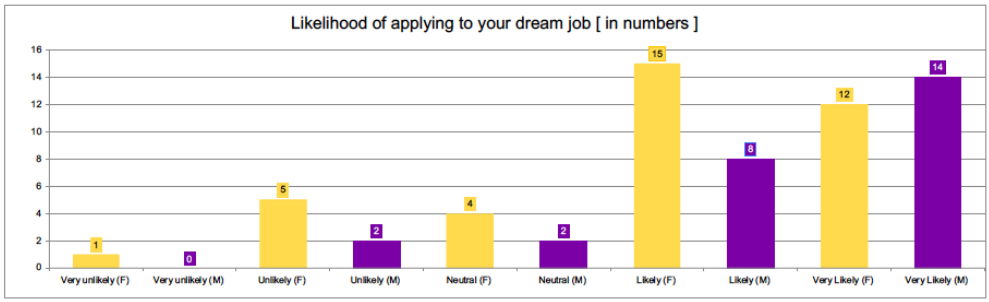
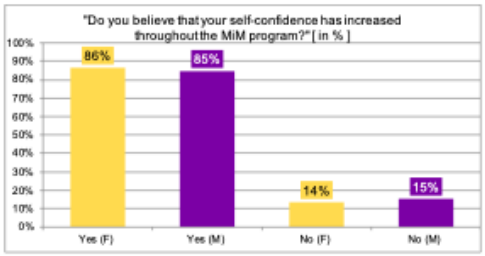
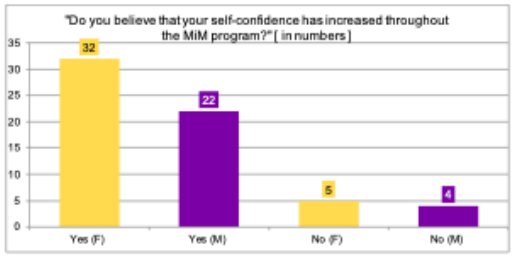


Figure 37. Likelihood of applying to your dream job.

Gender	Yes	No	Subtotal	Subtotal [%]
Female	32	5	37	59%
Male	22	4	26	41%
Total	54	9	63	100%

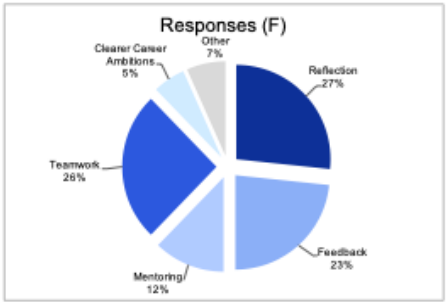
Yes (F)	Yes (M)	No (F)	No (M)	Subtotal (F)	Subtotal (M)
32	22	5	4	37	26
86%	85%	14%	15%	100%	100%





	Reflection	Feedback	Mentoring	Teamwork	Clearer Career Ambitions	Other
Female	24	21	11	23	5	6
Male	18	16	11	10	7	4
Total	42	37	22	33	12	10

"...If Yes, what is this due to? Please tick the answer(s) most applicable to you"



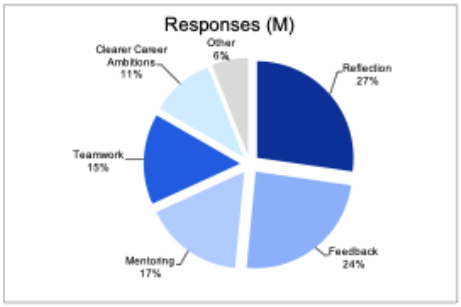


Figure 38. MiM impact on self-confidence

	Support from family and friends	Role models	Mentoring	Affirmation	Personal successes	Self-reflection	Other
Female	18	10	22	16	29	19	2
Male	14	10	13	12	19	9	3
Total	**32**	**20**	**35**	**28**	**48**	**28**	**5**

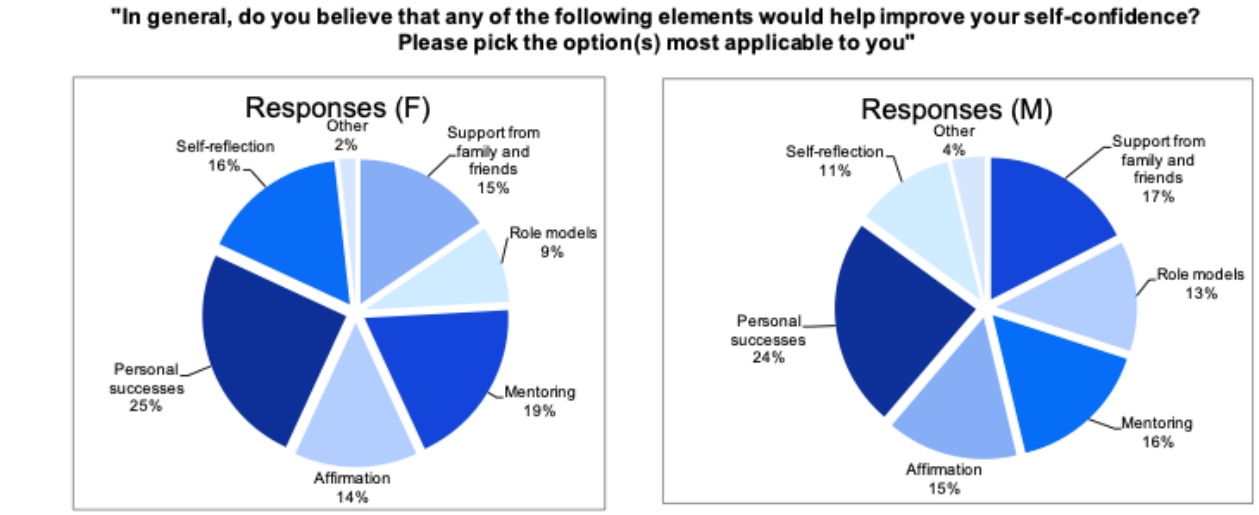


Figure 39. Elements which improve self-confidence.

Appendix E

Reasons for No Increase of Self-confidence (Questionnaire Responses)

- “self-confidence needs a long time to improve”
- “I was already a very confident person when I entered the MiM program and don't feel that any of the work done made any difference in that respect. I am neither more confident nor less confident than before after this program.”
- “I think because of work experience my self confidence was high prior to program”
- “I think my confidence level is usually around the same, but the rapid change/uncertainty in the job market due to the pandemic has made me question my skills in relation to what is available and realistic in the current market, so it has lowered my confidence a bit. Not really related to the MiM program. If corona hadn't happened I think my confidence would have increased.”
- “I have experience in management from before, MIM rather "put me down to earth" rather than raising my confidence”
- “Still self-conscious and unhappy about self-image”

Appendix F

Empowering Elements (Interview Responses)

Empowering Elements (Interview Responses)

- P1M): "My confidence probably increased, due to observing my contributions to the work adding value and being appreciated"
- P4(F): "My confidence increased because gained a lot of hands-on experience"
- P6(M): "My confidence has increased because I have accomplished the goal of finishing this master's program"

- P2(M) "My confidence increased due to the mandatory reflections"
- P5(M) "My confidence increased because I have gotten to know my strengths, and I have become more self-aware"
- P7(F): "The amount of reflection was pretty intense, but this helped making it a habitual activity, which was very valuable"

- P3(F): "My confidence increased by meeting and getting to know mainly very confident women that influenced and inspired me"
- P2(M) "The mentoring aspect helped with confirmation. Seeing someone with experience, who is encouraging you to do things boosts your confidence"
- P8(F) "Receiving feedback on my performance from a teacher, or someone that I look up to, could really help increase my self-confidence"

- P1(M): "Positive feedback, especially informal positive feedback, contributes to my self- confidence"
- P5(M): "Positive feedback contributes more to my self-confidence than constructive feedback"
- P7(F): "Positive feedback adds more to my self-confidence. Everyone likes compliments"

- P3(F): “Constructive feedback contributed more to my self-confidence”
- P4(F): “I gain more from constructive feedback, as long as it’s clear”
- P8(F): “Getting my strengths confirmed by my teammates really helped with self-confidence. It made me believe in my strengths”

Appendix G

Perceptions on a Gender Gap (Interview Responses)

Table 3.

Gender Gap Opinions (Interview Responses)

Response	**YES**	**NO**
There is a confidence gap in the MiM program	● P1(M): "Personally, I don't think I fit the trend, but on a general level it wouldn't surprise me if there's a confidence gap in our program" ● P2(M): "I wouldn't be surprised if you found a gap in the program" ● P3(F): "I'm 100% sure the gap exists in the world, and 99% sure it exists in our program" ● P6(M): "Even though I can't think of a concrete example now, it would not surprise me if you found a confidence gap" ● P8(F): "It wouldn't surprise me at all if you found a confidence gap. Men believe more in their own opinions and speak up more than women"	● P4(F): "Confident men and confident women behave differently. They might have the same confidence level but just portray it in a different way, making it seem men are more confident. Men are more like: 'yeah I got this', mansplaining their way through life. Women are less verbal" ● P7(F): "Men portray themselves as being more confident but this is not the case. In our program I feel women are more confident than guys, but men are perceived as more confident" ● P5(M): I would be slightly surprised if you would find a gap. Women are able to take up more and more space, and are reclaiming their position"
There is a	● P2(M): "I experience women my age believing less in themselves and having lower goals than male	● P1(M): "Even though there has enough been written about the gap for it to have some sort of

perceivable confidence gap in society	peers” ● P3(F): “It’s observable in so many little things. Men just step up and do things, while women always think twice before acting” ● P4(F): “I assume the gap comes from a difference in education. In society the difference in confidence is due to unfair circumstances” ● P5(M): “I can imagine women in general can be more prone to hinder themselves, because they think more than men” ● P6(M): “I observed a confidence gap in a work environment” ● P8(F): “Men take up more vocal space, for example in social settings. Men have more authority and are also given more authority than women”	substance to the claim, personally I haven’t had any experience with a gender gap” ● P7(F): “I don’t perceive a confidence gap in society. Sometimes it’s the opposite even”