

The relation between self-efficacy and job performance

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Preface

Before you lies the master thesis ‘The relation between self-efficacy and job performance’, a qualitative research study into the dynamics between the factors that influence self-efficacy and job performance. This master thesis was written to obtain my master’s degree in Business Administration with a specialization in Business Analysis and Modelling and was carried out in the period from January 2021 to June 2021.

The aim of this study was to provide knowledge about how the different factors of self-efficacy and job performance influence each other, influence self-efficacy and job performance, and how they affect the relation between self-efficacy and job performance. First of all, I would like to especially thank my supervisor prof. dr. A.M.A. van Deemen, whose guidance and commitment has helped me greatly in executing this research. Secondly, I would like to thank Ardan Aldershof for allowing me to gather the data for this research at Karel de Grote College. I would also like to thank my 2nd examiner dr. ir. V. de Gooyert for also providing me with feedback throughout the process of writing my master thesis. Finally, I would like to thank my family and friends for supporting me throughout the entire process.

I hope you will enjoy reading this study.

Kind regards,

Bart Spaan

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Abstract

This master thesis aims to provide knowledge about the relation between the factors of self-efficacy and job performance and how these factors affect self-efficacy, job performance, and the possible relation between self-efficacy and job performance. This research started from a constructed model about the relation between self-efficacy and job performance based on the existing literature, using System Dynamics Theory to analyze this concept. The relation between self-efficacy and job performance has been researched by performing in-depth semi-constructed interviews with different employees at Karel de Grote College, using verbatim transcriptions and open, axial, and selective coding to analyze the gathered data. The results showed that self-efficacy and job performance have no direct relation with one another. The relation between self-efficacy and job performance runs through the different factors within the systems of self-efficacy and job performance. The different factors of self-efficacy and job performance turned out to have more relations with other factors than what was originally interpreted from the existing literature. Especially task performance, social persuasion, and stress turned out to have multiple relations within the gathered data. The analysis resulted in an updated model based on the gathered data. This research concludes that the relation between self-efficacy and job performance runs through the different factors within these systems and self-efficacy and job performance only have an indirect relation. However, it was found that the different factors of self-efficacy and job performance majorly affect each other and the relation between self-efficacy and job performance. Managers can use the knowledge of this research to influence the self-efficacy of their employees and indirectly improve the overall job performance of their workforce. In future research there could be looked into how self-efficacy levels compare between multiple high schools. This research could help to more specifically investigate what practices improve the self-efficacy of the employees and how this may directly improve job performance.

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1. Introduction

As times change and companies are situated in an ever changing and highly competitive environment, because of the recent Covid-19 pandemic or other influences, it is important to have performing constants throughout the organization to ensure survival. One of the important constants should be a well-functioning workforce performing at their highest capacity (Amankwah-Amoah, Khan & Wood, 2020). This raises a question: how does one ensure a well-functioning workforce with a high level of job performance? For this, managers might want to get familiar with the concept of self-efficacy and how to use this to their advantage.

Self-efficacy is a concept that is widely used in every branch of work. Self-efficacy is used to look at the confidence level of an individual, specifically the confidence to execute a specific task. Self-efficacy has an influence on how people feel, think and handle in different situations (Bandura, 1982; Bandura, 1993; Bandura, 2010, p.1). Continuing the research of Bandura, Zulkosky (2009, p.1) describes his own definition of self-efficacy: “*Self-efficacy beliefs influence how people think, feel, motivate themselves, and act*” (Zulkosky, 2009, p. 1; Bandura, 2010, p. 1).

Self-efficacy research mostly takes a general approach to its definitions and how it applies to everyday behavior. The main point that can be seen in the variety of research described above is that almost no researchers look at how to use and influence self-efficacy to gain benefits in other areas. While self-efficacy already looks at the confidence level of individuals to execute a specific task, it might be interesting for organizations to have knowledge of the specific area of job performance. If it is possible for self-efficacy to influence people’s everyday behaviors (Zulkosky, 2009, p. 1; Bandura, 2010, p. 1), it might also be possible for self-efficacy to directly influence job performance.

Job performance is an interesting concept to research with self-efficacy. Job performance is loosely defined as ‘behaviors of employees that contribute to the organization’ (Viswesvaran & Ones, 2000, p. 216). This definition shows that it is an important concept for organizations to optimize. There is a clear knowledge gap in self-efficacy research about the practical usability of self-efficacy and how to influence it. The definitions of self-efficacy are thoroughly researched and job performance is a clear concept, but there is a possibility that self-efficacy can be used and influenced to perhaps improve job performance of individuals throughout whole organizations. For this reason, it is important to investigate this knowledge

gap and provide organizations with the possibility to improve the performance of their employees.

An interesting way to look at this knowledge gap is by introducing system dynamics in this research. System dynamics looks at the system in which variables operate and the relations and influences that exist between the different variables. Concepts that arise because of this are feedback mechanisms. Feedback mechanisms consist of a closed loop of interactions between variables. Each variable is influencing another, depending on the influence they received from the variable influencing them (Rouwette & Franco, 2015; Sterman, 2000). For example, self-efficacy could influence job performance and job performance can influence self-efficacy. This creates an endless loop where these two variables interact with each other and strengthen or weaken each other's influence. This feedback loop can contain multiple variables influencing each other, which will be explained further in chapter 2.

By applying system dynamics, a system can be created around the variables of self-efficacy and job performance. By adding the different factors influencing self-efficacy and job performance to this system, this research can look at the most important feedback loops in the system of self-efficacy and job performance and use this to define the specific relation between self-efficacy and job performance, aiming to fill this knowledge gap.

In the literature described above, and the literature that will be handled in this research, researchers mainly focus on the definitions of self-efficacy and how they increase performance. Many researchers focus on the dimensions and factors of self-efficacy or job performance and try to determine what lies at the concept of these variables, but they are mostly focused on general performance and psychological factors. This research will focus on how that level of confidence in abilities of self-efficacy can be applied and influenced to improve job performance of individuals. Researching and defining this specific relation might help organizations to practically use self-efficacy to improve the job performance in their organization. This is what this research will aim to do, researching the dynamics between self-efficacy and job performance to fill out this gap in the knowledge and provide a practical use for influencing self-efficacy.

1.1 Research objective and questions

As stated in the paragraphs above, there is a knowledge gap in the relation and the dynamics between self-efficacy and job performance, as these concepts have mainly been researched separately. For this reason, the objective of this research will be:

“To gain insight into the dynamic system of factors that influence self-efficacy, job performance, and their mutual relationship, by analyzing the concepts of self-efficacy and job performance using System Dynamics Theory.”

This objective leads to the following main and sub questions of this research:

“How do the factors of self-efficacy and job performance dynamically influence self-efficacy, job performance, and their mutual relationship?”

1. How do the factors of self-efficacy influence job performance?
2. How do the factors of job performance influence self-efficacy?
3. How do the factors of self-efficacy and job performance influence the mutual relationship between self-efficacy and job performance?

1.2 Theoretical and managerial relevance

Researching the relation between self-efficacy and job performance has both theoretical and practical relevance. The theoretical relevance lies in the existing gap of knowledge about the relation between self-efficacy and job performance. Most of the major research towards self-efficacy has found high correlation between self-efficacy and work related performance. This shows that self-efficacy can influence job performance. The knowledge gap lies in how self-efficacy can be influenced to improve job performance. It is important for organizations to gain this knowledge, as Bandura (2010) describes that people with high levels of self-efficacy are generally more successful in life. If high levels of self-efficacy lead to more success in life, high levels of self-efficacy also lead to more success in job performance. When the relation between self-efficacy and job performance is made clear, organizations can use this knowledge to practically improve the self-efficacy of their employees, thus maybe also improving their job performance and overall successes in their work. This research aims to

provide insight in the relation between self-efficacy and job performance, so its knowledge may be used by organizations and in future research.

Researching the relation between self-efficacy and job performance also provides managerial relevance, since it provides insight in how companies may use self-efficacy to improve job performance throughout their organization. By looking into the relation between self-efficacy and job performance, the research will provide insight in possibilities for organizations to influence self-efficacy to improve job performance. This insight could prove to be useful for organizations to survive in an increasingly competitive environment.

1.3 Thesis outline

In this introduction, the concepts of self-efficacy and job performance were introduced as well as the research objective and questions this research aims to answer. The concepts of self-efficacy, job performance and the conceptual model taking the form of a causal loop diagram that will be used in this research will be further described in the theoretical framework in chapter 2. Then a thorough presentation of the research methodology will be provided in chapter 3. After performing several interviews, observations, and document analysis, the data will be analyzed, and sub-questions will be answered in chapter 4. In chapter 5 the conclusion answering the main question of this research as well as a discussion about the process will be provided.

2. Theoretical Framework

In this chapter the concepts of self-efficacy and job performance will be defined by analyzing multiple articles on their definitions and selecting a suitable one for this research. Also, the relations between the different factors of self-efficacy and job performance will be explained, resulting in depictions of the systems of self-efficacy and job performance. After the definitions and relations of the factors have been depicted into separate models of the systems of self-efficacy and job performance, these models will be put together to explore the relations between the factors of self-efficacy and job performance in a merged model. This merged model will serve as the basis of knowledge this research will start from and will (partially) be confirmed or debunked in chapter 4.

Self-efficacy and job performance will conclude in a causal loop diagram of the systems of these concepts. A causal loop diagram will provide a more theoretical framework of the mildly abstract concept of self-efficacy. The merged model will be based on the literature and relations reviewed in chapter 2. The models will show the relation between the factors of the two main variables of this research, self-efficacy and job performance. The final model will show how the first two models interact with each other. To read these causal loop diagrams, a short explanation will be given about their layout. Arrows with a '+' show a positive influence and arrows with a '-' show a negative influence. A positive influence means that if one variable increases (decreases), the variable it has an influence on also increases (decreases). A negative influence means if a variable increases (decreases), the variable it has influence on will decrease (increase) (Sterman, 2000). Circles with a 'B' show a balancing feedback loop. The variables within a balancing feedback loop counteract the influence of each other. If one variable influences the other positively, the other variable will push back with a strength depending on the strength of the first variable. Circles with an 'R' show a reinforcing feedback loop. If a variable in this loop increases, the other variables will increase indefinitely, and if a variable decreases, the other variables will decrease indefinitely. These feedback loops make up the core of the causal loop diagram, as it shows the importance of which variables influence one another. This overview of variables and their behavior within the system, provides a better understanding of the system of self-efficacy and job performance.

2.1 Self-Efficacy

Self-efficacy is about the confidence of an individual that they are sufficient in their skills and abilities to execute a task (Bandura, 1982; Bandura, 1993; Bandura, 2010). Self-efficacy focusses on the efficacy of an individual (Bandura, 1982). Bandura (2010, p.1) provides a definition for perceived self-efficacy as follows: “ *Perceived self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives*”. Perceived self-efficacy is specifically about people’s beliefs about their capabilities to produce designated levels of performance. This research takes a more general approach starting from self-efficacy. The definition Bandura (1982; 2010) provides for self-efficacy is: “*Self-efficacy beliefs determine how people feel, think, motivate themselves and behave*” (Bandura, 1982; Bandura, 2010).

Multiple researchers have followed on Bandura’s research about the concept of self-efficacy. For example, Zulkosky (2009) performs a concept analysis of self-efficacy starting at the research of Bandura and comes to a mainly similar definition, focusing on self-efficacy influencing an individual’s behavior: “*Self-efficacy beliefs influence how people think, feel, motivate themselves, and act*” (Zulkosky, 2009, p. 1). This research has similar findings as that of Bandura et al. (1982). In their research they find a significant correlation for using self-efficacy to influence others behavior (Bandura et al., 1982). This outcome provides an indication that self-efficacy may be used as a tool to influence other people and perhaps also influence their performance.

O’Leary (1985, p. 438) describes a more general definition of self-efficacy in her research about self-efficacy and health, focusing on the performance side of self-efficacy: “*Level of self-efficacy refers to the person's expected performance attainments*”. This definition and research have similarities to Bandura’s (2010, p. 1) definition, which is not surprising as this research starts from the research of Bandura (1977).

Research from Maddux & Gosselin (2012) looks at the three dimensions of self-efficacy which stem from efficacy and influence self-efficacy, namely: magnitude, strength, and generality. These dimensions stem from the research of Bandura (1977; 1982) but received a more recent approach by Maddux & Gosselin (2012). The dimension of *magnitude* refers to an increasing difficulty of tasks an individual believes itself capable to perform (Bandura, 1977; Maddux & Gosselin, 2012, p. 8). For example, a recovering alcoholic may believe he can restrain himself from drinking in a setting where other people are also sober, but he does not think he can restrain himself at a party where everyone drinks alcohol. This

shows that if the magnitude increases, the level of self-efficacy will decrease as the challenges become harder to complete. *Strength* is about the robustness of an individual's belief (Bandura, 1977; Maddux & Gosselin, 2012, p. 8). For example, two different alcoholics may both believe they can restrain themselves from drinking alcohol in a certain setting. It is however possible that one alcoholic has a stronger belief in their capabilities to perform this task than the other, which leads to a difference in level of self-efficacy belief. Because of this, the level of strength an individual possesses in his belief influences the level of self-efficacy positively. A higher level of strength will mean a higher level of self-efficacy. The last dimension, *generality*, refers to how generalizable an experience is for your self-efficacy (Bandura, 1977; Maddux & Gosselin, 2012, p. 8). Generality is about how applicable a specific experience is in general. For example, if an individual must give a presentation, the experience can have an influence on their total self-efficacy level for public speaking, as it is generally applicable to public speaking, regardless of specific job. On the other hand, if a surgeon experiences success in a financial situation, it will not affect the self-efficacy of their specific job, as the financial situation is not applicable on their operating skills. Generality positively influences one's self-efficacy. If the generality of an individual increases, they experience something that is applicable for their total self-efficacy, so their self-efficacy will also increase. These dimensions make up the cornerstone of self-efficacy beliefs used in follow up research from a variety of researchers such as that of Schunk (1991) and Zimmerman (1995).

Bandura (2010) describes four influential sources of self-efficacy, which all influence self-efficacy and ultimately an individual's behavior. These sources include mastery experiences, vicarious experiences provided by social models, social persuasion, and reducing stress and altering their negative emotional proclivities (further in this research mentioned under 'stress') (Bandura 2010). *Mastery experiences* is a variable that is influenced by yourself and the experiences you have. The more experience you have with your designated job or task, the more you will master it, and this will positively influence your self-efficacy. This dimension is affected the most by (work)successes you experience, which will positively influence your self-efficacy, or from (work)failures, which will negatively influence your self-efficacy. People with a lot of experience, will generally have a more robust level of self-efficacy. People who experience easy success will be discouraged by failure more easily, while people who have persevered through failures will be more resilient in their level of self-efficacy (Bandura, 2010, p. 2), which will also make your self-efficacy more robust. In this research, mastery experiences will also be expected to positively influence strength. The more

experience and success one has in doing a certain task, the more strength he/she will have in his/her belief to complete it. *Vicarious experiences* can be influenced by others and yourself. Vicarious experiences are experiences you have of watching other people perform a task. If you see someone of similar capabilities fail at a task, your level of self-efficacy will go down. This is because of the social concept that if someone of similar capabilities cannot perform a certain task, neither can you (Bandura, 2010). In this research, vicarious experiences will also be expected to influence the magnitude of self-efficacy. If an individual has less experiences seeing someone succeed at a specific task, the magnitude of the challenge will be seen as much greater than when the individual has experience watching others succeed at the task. Therefore, vicarious experiences has a negative influence on magnitude. The next dimension, *social persuasion*, is a source in which other people can improve your self-efficacy by complimenting/influencing your work or abilities. Bandura (2010) explains that social persuasion has a positive influence on self-efficacy. A relation that is not handled in the existing literature is the relation from self-efficacy to social persuasion. In this research it is expected that people with a higher level of self-efficacy will not experience the same effects of social persuasion as people with a low level of self-efficacy. This leads to self-efficacy having a negative influence on social persuasion, when self-efficacy increases, the strength of social persuasion will decrease. This results in a balancing feedback loop, where self-efficacy negatively influences social persuasion and social persuasion positively influences self-efficacy. Stress is a source that could be influenced by someone else. If a manager of a certain employee reduces their workload, their stress would decrease, and their self-efficacy could improve. On the other hand, if managers increase the stress of their employees to levels their employees cannot cope with and, in that way, alter their negative proclivities, this will decrease their self-efficacy. In this research, it is also assumed that social persuasion can negatively influence stress. An increase in compliments and coaching from other people should reduce the pressure one feels at their work, thus decreasing their total stress. This interaction leads to another balancing feedback loop through self-efficacy, social persuasion and stress.

Additionally, people with a high level of self-efficacy do not shy away from difficult tasks, but rather seek to master them. They are less prone to depression and commit to completing their tasks (Bandura, 1982; Bandura, 1993, p. 144; Bandura, 2010).

As most researchers start from the definition of self-efficacy of Bandura (1982; 1993; 2000; 2010) and definitions from researchers like Zulkosky (2009) and O’Leary (1985) capture the same essence, this research will use the definition of Bandura (2010, p. 1): “*Self-efficacy beliefs determine how people feel, think, motivate themselves and behave*”. This definition provides the general concept definition of self-efficacy, providing the important concepts self-efficacy determines. It is also one of the most recent definitions Bandura has provided in his years of research on self-efficacy, which makes it more relevant in the present time. The dimensions of self-efficacy will be used from the research of Bandura (1977, 2010) and Maddux & Gosselin (2012). These dimensions are thoroughly researched by Bandura which provides a lot of reliability in the research, while the article of Maddux & Gosselin (2012) provides a more recent approach to the defined dimensions of Bandura (1977). The factors of self-efficacy described above and their influence on each other, result in a causal loop diagram depicting the system of self-efficacy as can be seen in Figure 1.

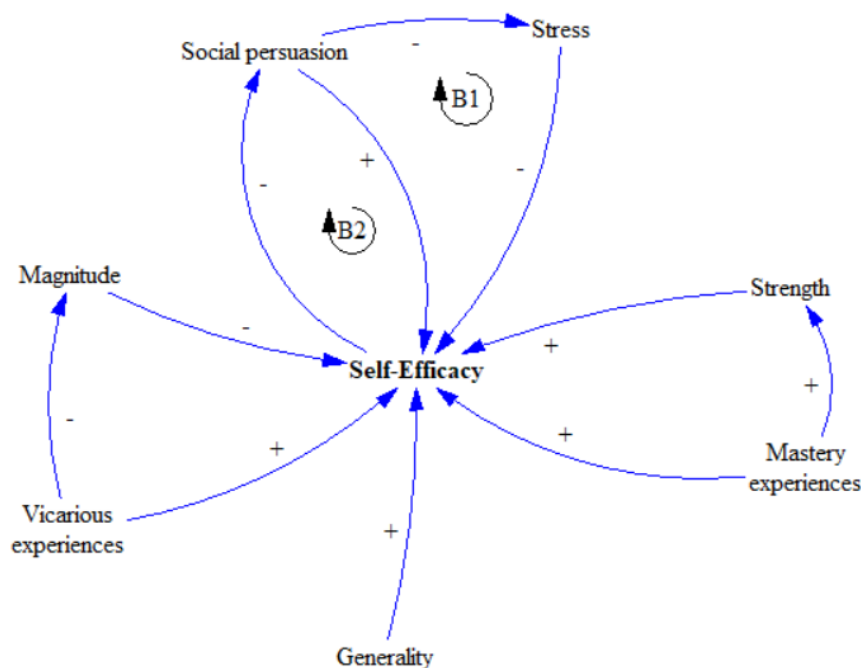


Figure 1. System of self-efficacy

2.2 Job performance

Viswesvaran & Ones (2000, p. 75) define job/work performance as: “...*Scalable actions, behavior and outcomes that employees engage in or bring about that are linked with and contribute to organizational goals*”. This definition focuses on the outcomes that employees engage in, as well as their behavior. Motowidlo & Kell (2012, p. 92) provide a similar definition to that of Viswesvaran & Ones (2000, p. 75): “*Job performance is defined as the total expected value to the organization of the discrete behavioral episodes that an individual carries out over a standard period of time*”. This definition does not focus on the specific contributions individuals make to the organizational goals, but instead focuses on the total value individuals add to the organization as a whole. This definition also adds a time frame to the definition, which makes it measurable for the organization. The article of Rotundo (2002, p. 6) compares a variety of articles on the definition of job performance and concludes that: “*researchers strongly recommend that performance should be defined in terms of behaviors that are under the control of individuals and that contribute to the goals of the organization*”. This definition captures the general definition of job performance, which is to focus on the behavior of individuals which contribute to the goals of their organization. This definition shows overlap with the definition of self-efficacy from Bandura (2010) and Zulkosky (2019), where they describe self-efficacy as a concept that influences the behavior of an individual. This could be an indication for the existing relation where self-efficacy can practically be used to positively influence job performance.

Job performance, or the effectiveness one has in his/her job, can be divided into four dimensions according to the research of Rotundo & Rotman (2002) on the article of Murphy & Kroeker (1988, p. 9), namely: task performance, interpersonal relations, destructive/hazardous behaviors, and down-time behavior. Rotundo & Rotman (2002) compare different authors on their definitions and dimensions of job performance. Task performance refers to the success an individual has in accomplishing their tasks and responsibilities. If an individual completes all their tasks without a problem, their task performance will be high and their job performance will increase, revealing a positive influence from task performance to job performance (Murphy & Kroeker, 1988, p. 9; Rotundo & Rotman, 2002, p. 8-9). Interpersonal relations consist of cooperation and communication skills with colleagues. While this dimension is more useful in some professions over others, almost all professions have some sort of human interaction. This is especially true for the case of Karel de Grote College, where teachers and staff interact with each other daily. Because of

this, interpersonal relations is considered an important dimension of job performance. A good employee should have good communication skills and should be willing to cooperate. The employee is also able to exchange information with their fellow colleagues to improve the work (Murphy & Kroeker, 1988, p. 9; Rotundo & Rotman, 2002, p. 8-9). If an individual has better skills in their interpersonal relations, this will positively influence the job performance of said individual, resulting in interpersonal relations having a positive influence on job performance. Destructive/hazardous behaviors are dimensions that should be kept to a minimum within employees. This dimension refers to the level in which employees destroy company inventory, accidents happen on the working floor and employees disregard security and safety measures. If employees display more of this behavior, their job performance will decrease as they subtract value from the organization (Rotundo & Rotman, 2002, p. 8-9; Murphy & Kroeker, 1988, p. 9). Therefore, destructive/hazardous behavior has a negative influence on job performance. The last dimension, down-time behavior, consists of time that employees are not working on their tasks and adding value to the organization. This could be playing games during working hours, being consistently late for work or even being absent altogether. If this behavior increases and the down-time behavior of employees increases, the total job performance of those individuals will decrease (Rotundo & Rotman, 2002, p. 8-9; Murphy & Kroeker, 1988, p. 9). Therefore, down-time behavior has a negative influence on job performance.

Considering the different definitions provided by the researchers, the definition of job performance that will be used in this article, will be that based on the conclusion of Rotundo & Rotman (2002, p. 6): “*Behaviors that are under control of individuals, which contribute to the goals of the organization.*” This definition consists of the comparison of definitions of major researchers in the job performance area and considers all their different views. The combination of their views on job performances results in a comprehensive definition based on the conclusion of Rotundo & Rotman (2002, p. 6) which provides a solid definition for this research. The dimensions of job performance will stem from the research of Rotundo & Rotman (2002) on the article of Murphy & Kroeker (1988), which consist of: Task Performance, Interpersonal Relations, Destructive/Hazardous Behavior, and Down-Time Behavior. The factors described above and their interactions with each other, result in a depiction of the system of job performance as can be seen in Figure 2.

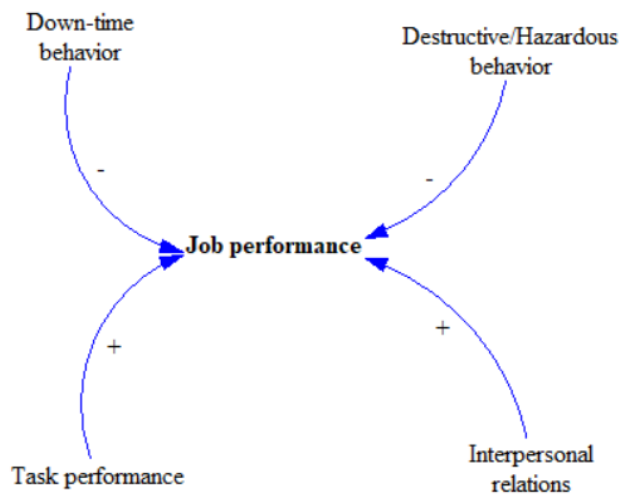


Figure 2. System of job performance

2.3 Causal Loop Diagram

The main relation this research wants to look at is the relation between self-efficacy and job performance. The causal loop diagram in Figure 3 serves as an overview of the concepts discussed in the theoretic framework. In chapter 4, the results will be analyzed together with the causal loop diagram to check whether the relations described in the causal loop diagram are correct. The relation between self-efficacy and job performance will be seen as followed. If someone has a higher level of self-efficacy, their job performance will increase. Job performance will also have a positive influence on self-efficacy. If an individual's job performance increases, they will experience an increased level of self-efficacy. This leads to a reinforcing feedback loop.

If a certain person has more experience, successes and mastery of a certain topic/task, their self-efficacy will increase, as they have more confidence in their own capabilities. The increased mastery also increases the strength of self-efficacy. This increases strength and in turn increases the total level of self-efficacy. If people have more positive vicarious experiences, their self-efficacy will increase. Vicarious experiences also influences magnitude. When a person has more positive vicarious experiences, the magnitude will decrease. This decrease in magnitude in turn leads to an increase of self-efficacy, as the individual has a higher belief it can complete their tasks. The link between social persuasion and self-efficacy goes both ways. If the level of self-efficacy of someone increases, social persuasion will have a lesser effect on that person as their level of self-efficacy is too high to be greatly influenced by social persuasion. This explains balancing feedback loop 2. As

mentioned before, stress has a negative influence on self-efficacy, as the higher a person's stress level becomes, the more their level of self-efficacy will decline.

The next feedback loop in this model is balancing feedback loop 1 through self-efficacy, social persuasion, and stress. If there is more social persuasion, there will be less stress, if a person experiences less stress, they will have a higher level of self-efficacy. If they have a higher level of self-efficacy, there will be less social persuasion, resulting in more stress. This way, the loop balances itself out.

Job performance has four dimensions which influence it, as explained in chapter 2. These dimensions consist of task performance, destructive/hazardous behavior, down-time behavior, and interpersonal relations. Task performance has a positive influence on job performance. Interpersonal relations also has a positive influence on job performance. If an individual displays more destructive/hazardous behavior, their job performance will decrease. This also happens with down-time behavior. If down-time behavior increases, the job performance will decrease. In this research destructive/hazardous behavior and down-time behavior will also be seen as being influenced by stress. Based on the literature, negative emotions can lead to more stress and failures in work. This research will assume that stress has a positive influence on both destructive/hazardous behavior and down-time behavior. If an individual experiences more stress, they will find ways to express this stress into other actions. This may lead to more destructive/hazardous behavior of the individual. Also, to cope with the stress, an individual may take more breaks than allowed to try and decrease their level of stress, but both variables in turn decrease job performance. These two variables are also part of balancing feedback loop 3 and 4. These loops run through job performance which has a positive influence on self-efficacy. Self-efficacy has a negative influence on social persuasion, which in turn has a negative influence on the level of stress. The level of stress will increase which results in an increase of destructive/hazardous behavior and down-time behavior. The increase in these variables both lead to a decrease in job performance, which explains balancing feedback loop 3 and 4.

This causal loop diagram will be used to research the relations between the sources of self-efficacy, job performance and self-efficacy as a whole and ultimately their relation with job performance. It will look at the existing relations and aim to improve the knowledge of them (De Gooyert, 2018).

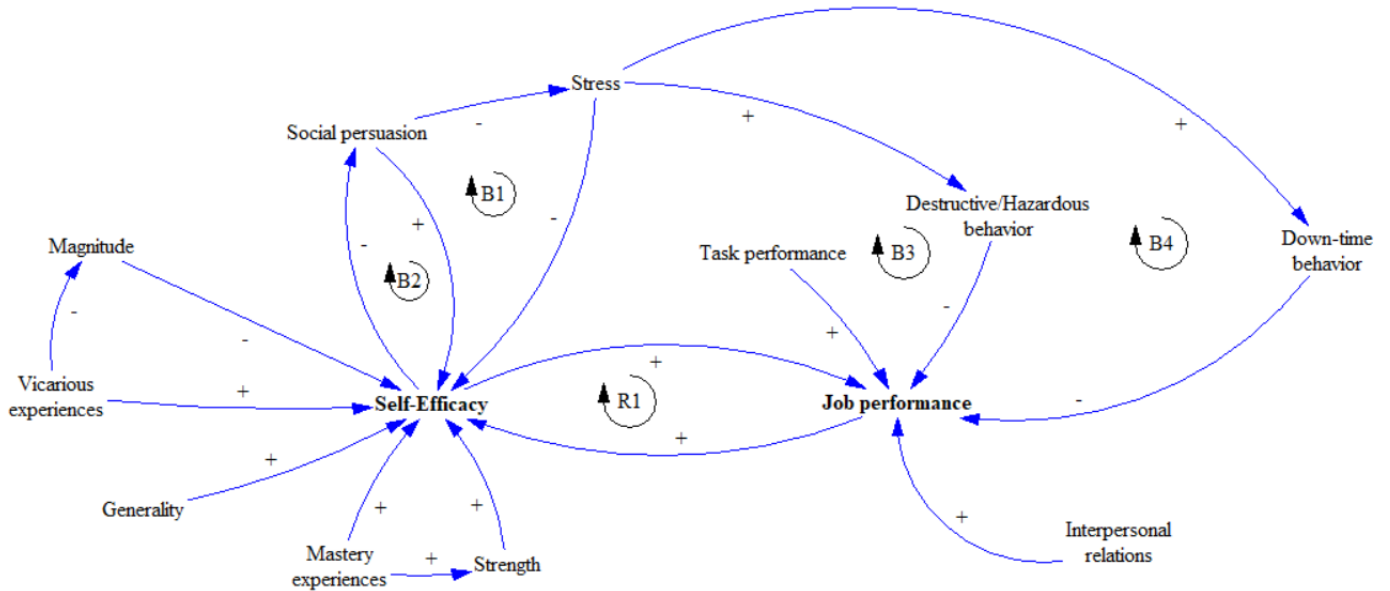


Figure 3: Causal Loop Diagram

3. Methodology

In this chapter, the methodology will be explained that was used in this research. It will start with the overall research strategy, followed by the methods of data collection. Thereafter, an operationalization will be provided to transform the abstract concepts of this research into operational ones. After the operationalization has concluded, the methods of data analysis will be provided. When all the methods used in this research have been provided, an explanation will follow about the initial validity of the methods used in this research. This chapter will conclude with an overview of the research ethics.

3.1 Research strategy

This research will follow a qualitative approach. Qualitative research is defined by Bleijenbergh (2016, p. 12) as research that includes all types of research that involve the gathering and interpreting of non-numerical data, which results in drawing conclusions about a phenomenon in real-time. Qualitative research is useful for this research, because the concept of self-efficacy is centered around the interpretations and experiences of people. While quantitative studies aim to produce facts through numerical data, qualitative studies focus on describing a phenomenon based on interpretations and experiences. The data gathered will be non-numerical through interviews and will aim to draw conclusions on the dynamics that underlie self-efficacy and job performance. Next to qualitative research, System Dynamics Causal Modelling will be applied. System dynamics aims to explain the behavior of complex situations (Sterman, 2000). There are two main methods to apply in system dynamics, causal loop modelling and stock-and-flow diagrams. Causal loop modelling focuses on explaining the feedback structure of a complex system, while stock-and-flow diagrams additionally focus on explaining the stock and flow structure of specific organizations or systems, often using numerical data (Sterman, 2000). Since this research focuses on providing knowledge about a social and abstract concept without the use of numerical data, this research will use causal loop modelling in its qualitative research. It is difficult to use an abstract variable like self-efficacy in a stock that could increase or decrease or add a certain value to the stock. While job performance may be quantifiable, self-efficacy is too abstract to quantify. For this reason, causal loop modelling serves a better purpose as providing a theoretical overview of the concepts. The causal loop models will assist in explaining the relations and feedback systems that underlie the systems of self-efficacy and job performance. The causal loop diagrams will be used for creating the data collection

methods and used as a starting point for the data analysis, which will be further explained in chapters 3.2 and 3.3.

The research method for this thesis, based on the research objective, will be performing an individual case study. Yin (2014, p. 2) describes a case study as a study that investigates a contemporary phenomenon in its real-world context. On a similar note, according to Bleijenbergh (2016), case study research focuses on how certain social dynamics have an influence on another factor or variable (Bleijenbergh, 2016). According to Yin (2014, p. 14) a case study is most applicable when asking a 'how' or 'why' question and when focusing on a contemporary phenomenon over which the researcher has no control. According to this set of criteria, case study is most applicable to this research. The main research question consists of a how question, describing a contemporary phenomenon over which the researcher will have no control

Within case study research, there are variations, including individual or multiple case study, and holistic or embedded case study. An individual case study focuses on gathering its data in one specific case, for example at a specific company department, while a multiple case study focuses on gathering data between multiple locations, for example data collection at multiple companies and/or different departments (Yin, 2014). A holistic case study is a case study that focuses on one unit of analysis within the case, for example performing the case study looking at a company, while an embedded case study studies multiple units within the same case, for example performing the case study at a company but studying different groups and departments within that company (Yin, 2014). This research will make use of an individual embedded case study. An individual embedded case study will help this research to define the dynamics between self-efficacy and job performance within the organization of Karel de Grote College. This raises an external validity problem, as individual case studies are generally not generalizable. To address the problem of external validity, the notion of analytic generalization will be introduced. The use of system dynamics also lends itself to an increased analytic generalization in this qualitative research. In analytic generalization, researchers aim to gather data from a particular case and use that data to project in a broader construct (Polit & Beck, 2010, p. 1453). An ideal model would be able to analyze the concept and develop conceptualizations of processes and human experiences. This is aided by in-depth questioning, where researchers distinguish between information that is applicable to the case and information that is applicable in general terms (Polit & Beck, 2010, p. 1453). By researching this dynamic within an individual case, the internal validity will increase, as the research will be tailored to analyze one specific case. By gathering data from multiple units

within the case, a thorough and conclusion can be drawn about the dynamics between self-efficacy and job performance, especially within Karel de Grote College. This research will try to use data gathered and the formulated model in chapter 2.3 to provide a broader construct of the dynamics underlying the relation between self-efficacy and job performance.

3.2 Data collection

This research will make use of three data collection methods: semi-structured interviews, observations, and document analysis. These data collection methods will be used to gather data from people, social situations, and documents respectively.

Interviewing is a data collection method best used to clarify definitions, elaborating on different topics and providing a way to collect the thoughts of the interviewed in an open way (Luna-Reyes & Andersen, 2013, p. 280). Qualitative research often uses open interviews, which refers to the openness of the questions which allow for the respondent to fill in the question in their own words. According to Bleijenbergh (2016), open interviews can be divided into semi-structured interviews and unstructured interviews. Semi-structured interviews follow a general questioning line to stay on topic, but allow for follow-up questions to be asked where necessary. Unstructured interviews start with an open question and are not structured for the rest of the interview (Bleijenbergh, 2016). In unstructured interviews, the interviewer asks follow-up questions based on the answers the respondent provides until the interviewer is satisfied with the gathered data. Semi-structured interviews continue until all topics have been discussed and the interviewer is satisfied with the data gathered within each topic. Since this research uses the two main concepts of self-efficacy and job performance, which both contain multiple factors of interest, this research will use semi-structured interviews. Semi-structured interviews will assist in gathering data from all necessary factors of self-efficacy and job performance, by following a general guideline of topics during the interview. The semi-structured interview will still leave room for follow up questions, which provides this research with an increased internal validity (Bleijenbergh, 2016). While the unstructured interview provides the best way to gather all data, it is best used when going into an interview, when the interviewer does not know what he wished to achieve. As this research has a clear goal, providing knowledge about the underlying dynamics of self-efficacy and job performance, a semi-structured interview fits best. This research will interview six employees and three team managers within Karel de Grote College. Two employees and their team manager from three different teams. The managers at

Karel de Grote College are interested in how self-efficacy can be influenced to improve job performance of their employees. They do not see their job performance as an issue, but rather see the potential of self-efficacy to improve this even further. By interviewing employees of three different teams, there can be a focus on the self-efficacy levels of the employees and the perceived job performance by both the employees of the different teams and their managers as well as the relations between the variables (Luna-Reyes & Andersen, 2003). It will also provide a more comprehensive overview of self-efficacy, job performance and their connection between different teams. A semi-structured interview will assist in gathering data from the specific concepts of self-efficacy and job performance, while leaving room for follow-up questions where additional data is required. The interview formats for the employees and team managers of Karel de Grote College can be found in Appendix 1 and Appendix 2 respectively.

Observations are used to observe social phenomenon in a natural setting. An observation can be structured/unstructured and participatory/non-participatory. Structured observations are best used when the goal of the research is clear, while unstructured observations can help define the problem definition of the research. Participatory observations require the researcher to participate in the social phenomenon by interacting with the environment, while non-participatory observations require the researcher to not interact with the social phenomenon at all and observe from a distance. Since (especially) self-efficacy and job performance can be viewed as social phenomena, they can be observed, which can be used as important data for this case study. A non-participatory structured observation would prove to be the most fitting method as the goal of this research is clear and self-efficacy and job performance are not variables this research would like to influence. They are concepts that are best observed in a casual working environment where the researcher has no influence. Observations in this research could be done by attending weekly group meetings of the two different teams within an organization. During these observations, variables of self-efficacy and job performance, such as interpersonal relations or social persuasion, can be recognized and analyzed further. This would also increase the validity of the research as it provides extra information about the normal circumstances in the work environment (Bleijenbergh, 2016; Luna-Reyes & Andersen, 2003). Unfortunately, due to circumstances regarding the sensitivity of the information and the Covid-19 measures in the Netherlands, the observations could not be done during this study. The consequences of this limitation are explained in chapter 5.3.

For secondary data, reports of specific group meetings and job performance reviews of the employees from within the organization can provide extra insight in the perceived job

performance and work environment that takes place. These documents can provide useful information to process in the interviews and their questions and what kind of characteristics to look out for during the observation (Bleijenbergh, 2016). Unfortunately, due to circumstances regarding the sensitivity of the information, a document analysis could not be performed. The consequences of this limitation are explained in chapter 5.3.

3.3 Operationalization

In this part, the concepts of self-efficacy and job performance will be made measurable according to operational definitions of their dimensions. According to the theoretical definitions found in the literature, as described in chapter two, an operational definition will be formed. After this operational definition, indicators will be described which will be used in the data collection and analysis methods, especially the interviews.

3.3.1 Self-Efficacy

As described in chapter two, the theoretical definition that will be used for self-efficacy is that of Bandura (2010, p. 1) which is as follows: “*Self-efficacy beliefs determine how people feel, think, motivate themselves and behave*”. According to the articles of Bandura (1977, 2010) and Maddux & Gosselin (2012), self-efficacy consists of magnitude (a), strength (b), generality (c), mastery experiences (d), vicarious experiences (e), social persuasion (f), and stress (g). In this part, these dimensions will be made measurable. An overview of the concept, dimensions, and indicators can be seen in Figure 4.

- a. Magnitude is defined by Bandura (1977) and Maddux & Gosselin (2012) as ‘the increasing difficulty of tasks an individual believes itself capable to perform’. In this study, magnitude is defined as ‘a certain task’s level of difficulty an individual believes itself capable to perform’. The indicator that will be used to measure this dimension is ‘task difficulty’. Task difficulty refers to how difficult a task is perceived in the eyes of the individual. This difficulty can stem from the complexity of a task, but also from the total amount of work a task requires.
- b. Strength is defined by Bandura (1977) and Maddux & Gosselin (2012) as ‘the robustness of an individual’s belief’. In this study, strength is defined as ‘how strongly an individual believes itself capable to perform a task’. The indicator that will be used to measure this dimension is ‘strength belief’. Strength belief refers to how strongly an individual believes it can perform the task. When an individual believes itself capable

of performing a task, there can be a difference in how much that individual believes itself capable to perform that task.

- c. Generality is defined by Bandura (1977) and Maddux & Gosselin (2012) as ‘the generalizability of an experience which influences the self-efficacy of an individual’. In this study, generality is defined as ‘the amount of influence an individual’s generalizable experience has on his/her self-efficacy’. The indicators that will be used to measure this dimension are ‘generalizability’ and ‘general influence’. Generalizability refers to how generalizable a certain experience is for an individual’s specific job. General influence refers to how much influence a general experience has on their self-efficacy.
- d. Mastery experiences is defined by Bandura (2010) as ‘the successes, failures and general working experiences an individual experiences that influence self-efficacy’. In this study, mastery experiences is defined as ‘successes, failures and general work experiences an individual experiences’. The indicators that will be used to measure this dimension are ‘work successes’, ‘work failures’, and ‘work experience’. Work successes and work failures refer to successes and failures an individual experiences specifically in their work environment. Work experience refers to the amount of experience an individual has at performing their job and tasks.
- e. Vicarious experiences is defined by Bandura (2010) as ‘experiences an individual has of watching other people succeed or fail at a task’. In this study, vicarious experiences is defined as ‘The influence other people’s successes or failures have on an individual’s self-efficacy’. The indicators that will be used to measure this dimension are ‘other’s failures’ and ‘other’s successes’. Other’s failures and other’s successes refer to the failures and successes other people have that an individual experiences or is at least aware of. These failures and successes can then influence the individual.
- f. Social persuasion is defined by Bandura (2010) as ‘the influence other people have on an individual’s self-efficacy by complimenting or coaching their work or abilities’. In this study, social persuasion is defined as ‘the amount of complimenting or coaching an individual receives about their work and/or abilities’. The indicators that will be used to measure this dimension are ‘received compliments’ and ‘received coaching’. Received compliments refers to the number of compliments an individual receives about their work and/or abilities. Received coaching refers to the amount of (positive) coaching an individual receives to improve their work and/or abilities.

g. Stress is defined by Bandura (2010) as ‘the altering of negative emotional proclivities influenced by others or yourself’. In this study, stress is defined as ‘the negative influences you or other people have on an individual’s emotional proclivities’. The indicators that will be used to measure this dimension are ‘negative emotions’ and ‘negative influences’. Negative emotions refer to emotions that an individual would rather not experience, such as sadness, anger, or disappointment. Negative influences refers to influences of other people that incite negative emotions, such as sadness, anger, or disappointment, on an individual.

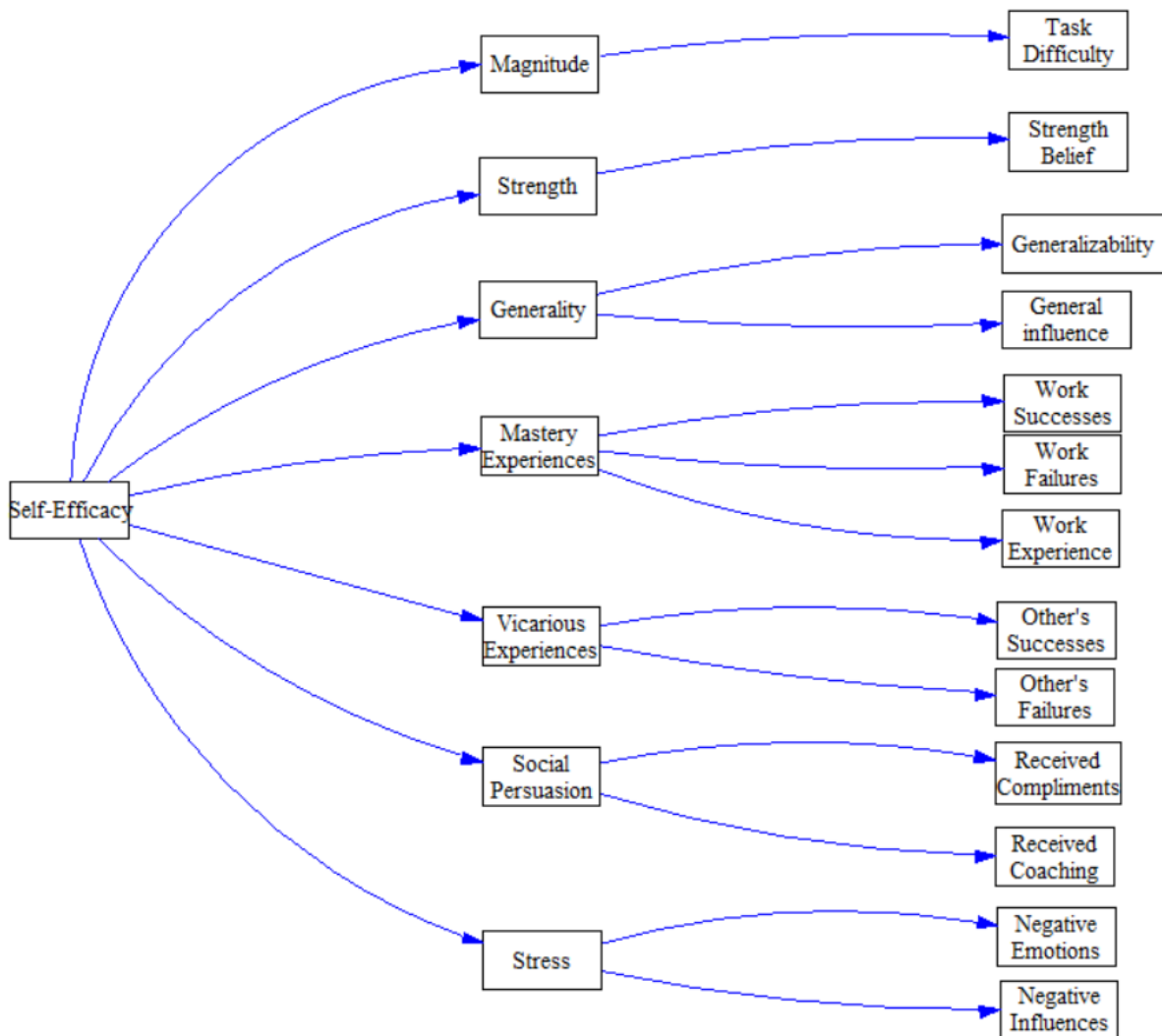


Figure 4. Operationalization of Self-Efficacy.

3.3.2 Job Performance

The theoretical definition that will be used for job performance is that of Rotundo (2011, p. 6): ‘job performance consists of the behavior an individual shows that adds to the goals of the organization’. According to the articles of Rotundo & Rotman (2002, p. 8-9) and Murphy &

Kroeker (1988, p. 9), job performance consists of four dimensions: task performance (a), interpersonal relations (b), destructive/hazardous behavior (c), and down-time behavior (d). In this part, these variables will be made measurable. An overview of the concept, dimensions, and indicators can be seen in Figure 5.

- a. Task performance is defined by Rotundo & Rotman (2002, p. 8-9) and Murphy & Kroeker (1988, p. 9) as ‘the success an individual has in accomplishing their tasks and responsibilities’. In this study, task performance is defined as ‘the number of tasks and responsibilities an individual successfully accomplishes’. The indicator that will be used to measure this dimension is ‘Successfully accomplished tasks’. Successfully accomplished tasks refers to the number of tasks an individual successfully completes within their job.
- b. Interpersonal relations are defined by Rotundo & Rotman (2002, p. 8-9) and Murphy & Kroeker (1988, p. 9) as ‘the skills an individual has in cooperating and communicating with their colleagues’. In this study, the same definition will be applied. The indicators that will be used to measure this dimension are ‘Cooperating skills’ and ‘Communicative skills’. Cooperating skills refer to the ability of individuals to cooperate with their colleagues. Communicative skills refer to the ability of an individual or to clearly communicate their intentions, goals and wishes.
- c. Destructive/hazardous behavior is defined by Rotundo & Rotman (2002, p. 8-9) and Murphy & Kroeker (1988, p. 9) as ‘the level in which employees destroy company inventory, accidents happen on the work floor and employees disregard security and safety measures’. In this study, the same definition will be used. The indicators that will be used to measure this dimension are ‘Company inventory destroyed’, ‘work accidents’, and ‘safety ignorance’. Company inventory destroyed refers to the amount of company inventory an individual destroys. Work accidents refers to the number of accidents that happen to an individual on the work floor. Safety ignorance refers to the number of times an individual does not take safety and security measures into account on the work floor.
- d. Down-time behavior is defined by Rotundo & Rotman (2002, p. 8-9) and Murphy & Kroeker (1988, p. 9) as ‘the time that employees are not working on their tasks and not adding value to the organization’. In this study, the same definition will be used. The indicators that will be used to measure this dimension are ‘legitimate breaks’, ‘illegitimate breaks’, and ‘unexpected events’. Legitimate breaks refers to

the number of legitimate breaks an individual takes, in which time they will not be adding value to the organization. Illegitimate breaks refers to the amount of breaks an individual or takes that are not part of the company's schedule, they take place during work time. Unexpected events refers to all reasons, except breaks, an individual is not partaking in adding value to the organization, which can happen from personal reasons or outside influences.

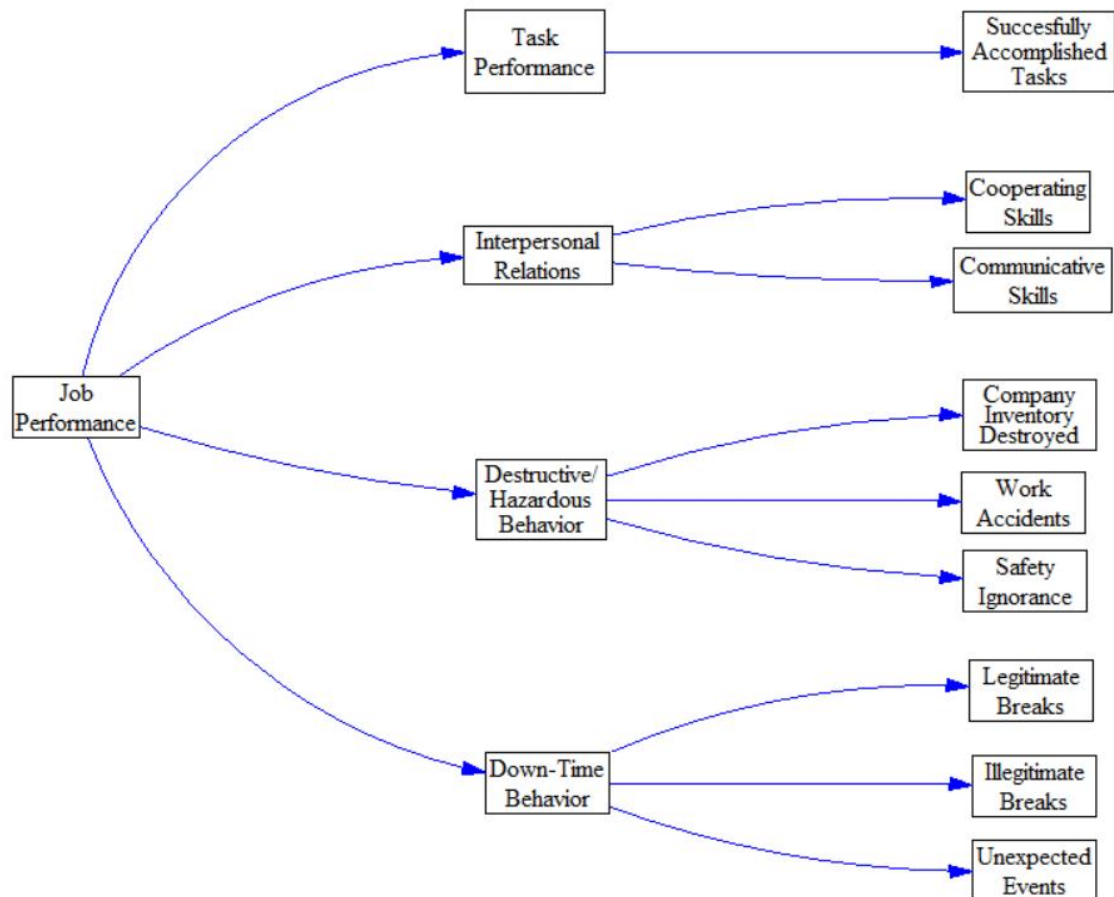


Figure 5. Operationalization of Job Performance.

3.4 Data analysis

The analysis that will be used in this research is that of the grounded theory: “...*grounded theory consists of a set of techniques to identify themes or concepts across texts. However, one of the main objectives of grounded theory resides in linking these concepts to generate meaningful theories*” (Luna-Reyes & Andersen, 2003, p. 284). Before the data will be analyzed, transcriptions of the recorded interviews will be made following a verbatim approach. This means that the interviews will be transcribed word by word (Lapadat &

Lindsay, 1999, p. 66). After that, a coding process will be used following three techniques: Open coding, Axial coding, and Selective coding (Turner, Kim & Andersen, 2014; Moghaddam, 2006). These techniques will be assisted by the dimensions and indicators mentioned in chapter 3.3.

The first part of the open coding process will be searching for themes within the data. The gathered data in interviews, observations and documents can be disorganized, which leads to unclear data. The researcher will take the parts of the data that he/she thinks belong to the same theme and organizes the data that way. This can be a certain word, but also a whole sentence. The 'codes' that are used in this part stem from the interpretation of the researcher and the emerged meaning of the data. At the end of the open coding, the result will be a collection of codes stemming from self-efficacy and job performance (Moghaddam, 2006).

During axial coding, the researcher will identify connections between the different open codes created in the previous part. By combining the different open codes on similar themes or goals, the researcher can identify the few major themes that run through the gathered data. This phase ends in the categories that are most important and will be used to analyze the data. At the end of this phase, the themes are coded after the dimensions of self-efficacy and job performance (Moghaddam, 2006).

In selective coding, the researcher selects the core variable(s) that explain and include all the gathered data. This means that at the end of this phase, the indicators will be assigned to the found dimensions and themes in the coding process. In this research the core that wants to be reached is what the relation is between self-efficacy and job performance. The core variable(s) to be reached are all the variables that are of influence on this relation (Moghaddam, 2006).

The open and axial coding phases will be done per interview and observation. This leads to a clear view per interview and observation of how the data is organized, instead of being influenced by each other. The selective coding phase will be done using all the gathered data, to generate a clear overview of what the core of the data is (Moghaddam, 2006; Luna-Reyes & Andersen, 2003).

3.5 Validity and reliability

The most important types of validity that are applicable to this research are internal validity, external validity, reliability, and analytic generalization. The internal validity of this research is mostly assisted using semi-structured interviews, which focuses on gathering specific data

about all indicators, while leaving room for value adding follow-up questions. The internal validity is also increased by doing an individual case study. By focusing mainly on one case, it becomes easier to ensure a specific focus for the data that the researcher wishes to gather.

The external validity of this research will be rather low, as an individual case study focuses on the specific system of one case. This means that the results of the interviews cannot be generalized as well as a multiple case study could for example.

Reliability refers to the ability of the results to be replicated when this research is performed on another case. The reliability in this research will be low, as only one case will be researched. This means that the data gathered will be rather specific for the case and cannot be easily replicated in other cases.

As mentioned in chapter 3.1, this research will use analytic generalization to aim to provide a broader construct of the dynamics underlying the relation between self-efficacy and job performance. While this research inherently does not have a high external validity, the use of analytic generalization will aim to still provide a general explanation of the concepts of self-efficacy and job performance and their relation (Polit & Beck, 2010).

3.6 Research ethics

Regarding the ethics of this research, some precautions will be taken. Before conducting the interviews with the employees and managers, I will ask if they would prefer anonymity in the thesis. The interview data will only be used for this specific research. They will also be asked if they are comfortable with me using interview data for public display of the research at Radboud University repository. I will make clear for what purpose the information of the interview will be used and ensure them it will be treated confidentially. When these questions have been asked, I will start with the interview, having asked them for their consent to use information and the way they would like to be addressed in the report.

4. Analysis

In the analysis, the gathered data will be analyzed to provide an overview of the relations between the factors of self-efficacy and job performance and their effects on (the relation of) self-efficacy and job performance. The analysis will look at the relations that were in the starting model of the theoretical framework and confirm or debunk them, based on the gathered data. Furthermore, it is also possible that new causal relations come forth from within the data, which have not been included in the model, which will then be applied to the updated model.

First, the relations from within self-efficacy will be discussed. Second, the relations within job performance will be discussed. Thereafter, the influence of factors from self-efficacy on (factors of) job performance will be discussed. Finally, the influence of factors from job performance on (factors of) self-efficacy will be discussed. Whether the relations are confirmed or debunked will be based on the gathered data and the interpretations of the researcher. If the researcher has found a specific relation to contain enough substantiation from within the gathered data, the relation will be confirmed. If a specific relation does not have enough substantiation from within the gathered data, the relation will be debunked. An overview of the confirmed, debunked and newly found relations can be found in Table 1.

4.1 Self-efficacy

Discussing the relations within self-efficacy, first the relations of self-efficacy will be explained. Second, the dimensions from self-efficacy will be discussed, namely: magnitude, strength, and generality. Lastly, the other four sources of self-efficacy will be discussed, namely: mastery experiences, vicarious experiences, social persuasion, and stress. For each factor, the existing relations in the model will be discussed, as well as new relations found in the gathered data.

In the model, self-efficacy is shown to have a negative influence on social persuasion. This relation has not been confirmed by the gathered data, as none of the respondents confirmed that a higher level of self-efficacy resulted in diminished effects of social persuasion.

In the model, strength positively influences self-efficacy. This relation has been found with almost all respondents. This can be seen by an employee saying: *“So I believe the strength of my approach, and that gives me confidence in my work. I think that is essential”*. For the second dimension, generality, the model shows a positive influence from generality to

self-efficacy. This relation is confirmed by the gathered data. The respondents how their experiences at other schools, internships or with general presentations, helped build their confidence for their job. Those experiences where, in general, very generalizable for the employees and showed a positive influence. One of the respondents said: *“I do not think I will forget that specific class anytime soon. It was hard, but it helped me to the point where I enter and present myself to a new class much easier.”* The model shows a positive influence from the third dimension, magnitude, towards self-efficacy. Within the data, magnitude was found to have a negative influence on self-efficacy in some cases. An example of magnitude having a negative influence on self-efficacy can be seen in this quote: *“Sometimes a child may ask if he belongs at this school. In those circumstances, I am not confident in my ability to handle that situation as I think I am not prepared well enough.”*. This data shows that a complex task can influence self-efficacy negatively.

Within the model mastery experiences has a positive influence on self-efficacy. This relation was confirmed by all respondents, as can be seen in quotes like: *“When someone starts talking to me like: you did not finish this and this, and you did not do that correctly, then that definitely does something with my self-efficacy, even if it is only temporarily”*, which shows how work failures can influence one’s self-efficacy, and *“My experiences if something does work or does not work, I take that with me, so I think that it has a pretty big impact on my self-efficacy in how I do my job”*. The second relation of mastery experiences is the positive influence from mastery experiences to strength. This relation has also been confirmed by multiple respondents, mainly within the indicator of work experience. Respondents mainly answered that their work experience makes their beliefs more robust, as can be seen in the quote: *“I, my self-efficacy, is not easily broken down anymore. I have experienced too much here”*. The data also shows that mastery experiences could have a negative influence on stress. Multiple respondents explained that their stress levels decreased throughout their years of working, indicating that especially the indicator work experience leads to a negative influence on stress. This can also be seen here: *“Stress still plays a factor for me, but it is becoming less and less throughout the years”*.

Vicarious experiences was shown to have a negative influence on magnitude. If someone watches others succeed more, they will experience the magnitude (complexity) of a specific task as lower as they have learned from their peers. This relation has not been found to be confirmed by the data. The model also shows that vicarious experiences should have a positive influence on self-efficacy. Almost all respondents explain that vicarious experiences has an influence on their self-efficacy, however not all respondents agree on if the relation is

positive or negative. Some explain that seeing others succeed can boost their self-efficacy, while others explain that seeing other's fail can also boost their self-efficacy, as they see it as their tasks to help their colleagues. At first, the relation can be seen in this quote: *"My siblings always performed very well in school, this made me think that, because we are siblings, I should be able to do that well as well!"*, while on the other hand respondents explained: *"If I see that someone higher up is going through a tough time, then I know I have to stand stronger. I use that as a source of strength, I have to do this"*. Most people in the interviews responded that they do not feel like they measure themselves against others. Most respondents did not feel a lot of influence from those vicarious experiences, other than gaining strength and helping others who fail. Therefore, the relation from vicarious experiences towards self-efficacy will be positive, where the indicator for other's failures will result in a higher level of self-efficacy.

Social persuasion is shown in the model to have a negative influence on stress and a positive influence on self-efficacy. Starting at the negative relation from social persuasion to stress, this relation has been confirmed by multiple respondents. They mainly explained that compliments and coaching led to less negative emotions and overall a more relaxed state of mind. This can mainly be seen in: *"... if you hear something like that, that makes me feel relaxed. It leads to me thinking it is all okay. It helps me enter another lesson more relaxed"*. The positive relation of social persuasion on self-efficacy was confirmed multiple times by all respondents. All respondents explained that compliments they received and being recognized in general, greatly improved their self-efficacy in their work. Most of the respondents also explained that the coaching they received helped them increase their self-efficacy a lot. The quotes that explain their thoughts the most are: *"When I had to give a presentation, I was told that I gave an extraordinarily well presentation. That is the moment that boosts my self-efficacy whenever I have to present to people in the future"* and *"Coaching has been really useful for me, it is a source of confidence, self-efficacy. I now know what I do well, what I do not do well and think to myself, it will all be fine"*. Within self-efficacy, the data did not show other influences of social persuasion.

The last dimension of self-efficacy, stress, had only one initial relation within the model of self-efficacy. The model showed a negative relation from stress to self-efficacy, which has been confirmed by the gathered data. This is mostly seen in this quote: *"Yes, I think stress also has influence on self-efficacy, because you are no longer thinking about: I can do it. You are only thinking about the stress"*. The data did not show any new relations between stress and other factors of self-efficacy.

4.2 Job Performance

Discussing the relations within job performance, first the relations of job performance will be explained. Thereafter, the dimensions from job performance that are included in the model will be discussed, namely: task performance, interpersonal relations, down-time behavior, and destructive/hazardous behavior. For each factor, the existing relations in the model will be discussed, as well as new relations found in the gathered data.

For the existing relations in the model, task performance has a positive influence on job performance. This relation is inherently true, because when the task performance of an individual increases, their total job performance will also increase. This can also be seen in a quote from the interviews: “... *if you make sure you do your tasks and your job right, then you will notice that performance will also improve everywhere else*”. There were no other new relations with task performance, within job performance.

Within the model, interpersonal relations inherently has a positive influence on job performance. When an employee has better cooperating and communicative skills, they will generally have a better total job performance. Most respondents explain that a clear communication is important in maintaining a good performance. They also mention they find cooperating skills very important and a necessary part of working within a school. These skills translate into job performance, as can be seen within this quote: “*I think that when you work within a school system and you are not able to communicate clearly, then it really becomes a mess*”. Another relation that was not in the created model at first, is the positive influence of interpersonal relations on task performance. Many respondents explained that cooperation and communication are important even for finishing their tasks. This is mainly influenced by tasks which need multiple people to complete. This can also be seen here: “*Communicating is especially important in being able to finish tasks*”.

The negative relation from destructive/hazardous behavior to job performance has not been found within the gathered data. In fact, destructive/hazardous behavior as a dimension has not been found anywhere within the gathered data.

Down-time behavior has been found within the gathered data. However, the initially declared negative relation from down-time behavior to job performance has not been found within the data. This mainly has to do with the fact that most employees at Karel de Grote College almost never take breaks, except sometimes legitimate breaks. Because of this, this dimension could not be measured, as there were no respondents who took illegitimate breaks or had unexpected events that turned into down-time behavior. On the contrary, the fact that

most employees display almost no down-time behavior, increases their job performance. The little down-time behavior is most accurately shown in this quote: *“I do not have that many breaks, maybe two 10 minute breaks in a day. I do not have more time to take breaks with all the tasks I have to do.”*

4.3 Influence of self-efficacy factors on job performance

In this part, the different factors of self-efficacy and their influence on the different factors of job performance will be discussed.

In this research, self-efficacy was thought to have a direct positive influence on job performance. This relation, however, has not been found to be entirely confirmed. The specific relation between self-efficacy and job performance will be explained within the conclusion. Self-efficacy does have other influences on factors of job performance that are found within the gathered data. Self-efficacy has a positive influence on task performance. Most respondents explained that a higher level of self-efficacy, leads to them performing a task with more confidence. This confidence led to them successfully accomplishing more tasks and with a better result. This was seen in quotes like: *“All those things with self-efficacy, it eventually leads to better performance”* and *“Because I can be myself more, because I have more confidence in my own abilities, I think that led to me being better at performing my lessons”*. Another relation that was found, is the positive relation from self-efficacy on interpersonal relations. This was mainly seen in the quote: *“Self-efficacy also means not being afraid to look up cooperation...”*. People with a higher level of self-efficacy, will more often look up other people for cooperating on various tasks.

The gathered data found that magnitude can have a negative influence on task performance. When tasks become harder and more plentiful, the average task performance will decrease as employees will not be able to keep up. This can be seen in: *“With the amount of tasks I have, sometimes I send a weird sentence to a colleague or maybe finish up a task subpar...”*.

Mastery experiences was also found to have a positive influence on task performance. This was mainly explained by the respondents as the amount of work experience translating in succeeding at their tasks more often. An explanation can be seen here: *“It is more applicable throughout the years... I notice that some tasks are such a part of my system now, that I rarely make mistakes anymore”*.

The data showed multiple influences of social persuasion on factors of job performance. The first relation is a positive relation from social persuasion to task

performance. This relation mostly stems from the ‘received coaching’ indicator from social persuasion. Respondents explained that their received coaching had a major influence on how they handled their tasks and succeeded in their tasks. This can mainly be seen in: *“The coaching helped me to learn systemic working and where I come from. It has had a major influence on doing my work”*. Another relation that the data showed is that social persuasion can have a positive influence on down-time behavior. The respondents explain that a compliment from someone can make them work harder and thus add more value to the organization. This can be seen in the following quote: *“If you hear that you are doing the right things, that just makes you work that extra bit harder”*.

Stress is shown in the model to have a positive influence on down-time behavior and destructive/hazardous behavior. The positive influence of stress on down-time behavior was sometimes mentioned by respondents, mainly in this quote: *“When I have a lot of other things on my mind, I sometimes need to take some time of school tasks to finish my unrelated tasks”*. The data did not show any evidence that stress could lead to increased destructive/hazardous behavior of the respondents. The gathered data did however show new relations between stress and other dimensions of job performance. According to most respondents, stress can have a negative influence on their task performance. This is best explained by the quote: *“Then the stress absolutely has an effect on your results, the effectivity of your lessons. The quality drops, and it is important that you realize that”*. The data also shows that stress might have a negative influence on the interpersonal relations. Because of stress, some respondents tend to ignore other people and focus on their own tasks. This would show that stress could lead to lower quality of the indicators of interpersonal relations, namely: cooperating skills and communicative skills. This can also be seen here: *“The stress of a person can have a lot of influence on the pleasure I find in my work, doing my tasks, but also hiding from confrontations and others”*.

4.4 Influence of job performance factors on self-efficacy

The relation from the starting model is the positive relation of job performance on self-efficacy. This relation, however, did not turn out to work like this. There was almost no data gathered that showed that job performance had a direct influence on self-efficacy.

However, task performance did turn out to have an influence on self-efficacy. One of the relations that was seen the most, within the data, was that task performance has a positive influence on self-efficacy, resulting in a positive feedback loop. When people succeed in

completing their tasks, their self-efficacy will increase. This was seen in the interviews of most respondents, but especially clear in this quote: “When I have done my task right, it also gives me confidence like: I can do it, I have something to add, I have something to bring. That helps me transition into the next lesson with even more confidence”.

4.5 Overall results

The analysis provided above results in the relations in the systems of self-efficacy and job performance being confirmed or debunked. An overview of all relations and their status can be seen in Table 1.

Relation	Confirmed/debunked
Self-efficacy →- Social Persuasion	Debunked
Social Persuasion →+ Self-efficacy	Confirmed
Social Persuasion →- Stress	Confirmed
Stress →- Self-efficacy	Confirmed
Mastery Experiences →+ Self-efficacy	Confirmed
Mastery Experiences →+ Strength	Confirmed
Strength →+ Self-efficacy	Confirmed
Generality →+ Self-efficacy	Confirmed
Vicarious Experiences →+ Self-efficacy	Confirmed
Vicarious Experiences →- Magnitude	Confirmed
Magnitude →- Self-efficacy	Confirmed
Down-time behavior →- Job performance	Confirmed
Destructive/Hazardous behavior →- Job performance	Debunked
Task performance →+ Job performance	Confirmed
Interpersonal Relations →+ Job performance	Confirmed
Stress →+ Destructive/Hazardous Behavior	Debunked
Stress →+ Down-time Behavior	Confirmed
Self-efficacy →+ Job performance	Debunked
Job performance →+ Self-efficacy	Debunked
Mastery Experiences →+ Task Performance	Confirmed, New
Mastery Experiences →- Stress	Confirmed, New

Social Persuasion →+ Task Performance	Confirmed, New
Self-efficacy →+ Task Performance	Confirmed, New
Task Performance →+ Self-efficacy	Confirmed, New
Social Persuasion →- Down-time Behavior	Confirmed, New
Self-efficacy →+ Interpersonal Relations	Confirmed, New
Magnitude →- Task Performance	Confirmed, New
Interpersonal Relations →+ Task Performance	Confirmed, New
Stress →- Task Performance	Confirmed, New

Table 1. Overview of confirmed/debunked relations.

The overview in Table 1 of confirmed, debunked and newly added relations also results in a newly founded model of the systems of self-efficacy and job performance, which can be seen in Figure 6. In this model self-efficacy has a positive influence on task performance and interpersonal relations. Task performance also has a positive influence on self-efficacy, resulting in reinforcing feedback loop 1. Task performance and self-efficacy also make up the majority of reinforcing feedback loop 2. Reinforcing feedback loop 2 forms through self-efficacy positively influencing interpersonal relations, interpersonal relations positively influencing task performance, and task performance in return positively influencing self-efficacy. Furthermore, self-efficacy is positively influenced by vicarious experiences, mastery experiences, strength, and social persuasion, while being negatively influenced by magnitude and stress. Between these factors influencing self-efficacy, vicarious experiences has a negative influence on magnitude, while mastery experiences has a positive influence on both strength and task performance and has a negative influence on stress. Magnitude also has a negative influence on task performance. Other than the influences already mentioned, task performance is also positively influenced by social persuasion, while being negatively influenced by stress. This stress also positively influences down-time behavior, while negatively influencing interpersonal relations. Social persuasion, however, negatively influences stress. Social persuasion also negatively influences down-time behavior. The interpersonal relations, down-time behavior, and task performance all influence job performance, interpersonal relations and task performance positively influence job performance, while down-time behavior negatively influences job performance. The major thing to see in this model, is that all influences on job performance run through the factors

that influence either task performance, interpersonal relations, or down-time behavior. All these relations result in a newly found model based on the gathered data. A comparison between the theory and the newly found model will be given in Chapter 5.

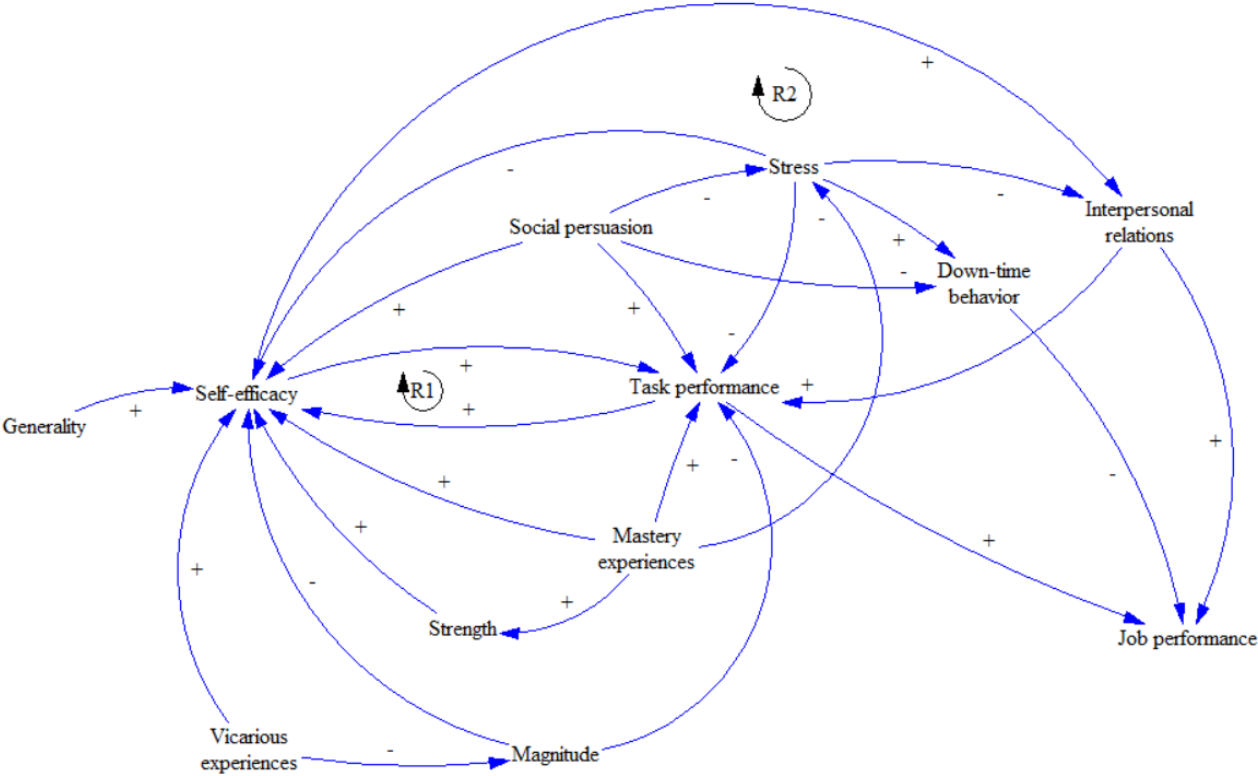


Figure 6. Updated causal loop diagram.

5. Conclusion

In this chapter, a conclusion will be provided for the main question for this research.

Thereafter, a discussion will be provided in which the researcher will reflect on the theoretical and managerial implications of this research, the validity, reliability, and quality of this research combined with a methodological reflection, the limitations this research has met, notes for future research, and recommendations for Karel de Grote College and possibly other high schools.

5.1 Conclusion

In the conclusion, an answer will be provided for the main question of this research: *“How do the factors of self-efficacy and job performance dynamically influence self-efficacy, job performance, and their mutual relationship?”* In the analysis, the existing and new relations in the model of self-efficacy and job performance have been discussed. With this information, an updated model has been formed explaining the dynamics between the factors of self-efficacy and job performance and their influence on (the relation between) self-efficacy and job performance, as can be seen in Figure 6.

The model shows that self-efficacy and job performance do not have a direct connection, which differs from the originally created model from the literature. The different factors of self-efficacy and job performance influence each other, and in turn influence self-efficacy and job performance. Other than what was stated in the original model, task performance has a mutually positive influence with self-efficacy, functioning as the main dimension through which the connection with job performance can be made. What is important to note, is that task performance, instead of job performance, is the only factor of job performance that influences the system of self-efficacy. Down-time behavior, destructive/hazardous behavior, and interpersonal relations, all have no direct connection to the system of self-efficacy and are only influenced by it. There is one connection in which interpersonal relations is used, going through task performance and self-efficacy. However, interpersonal relations still does not have a direct influence on the system of self-efficacy. Furthermore, different from what was gathered from the literature, destructive/hazardous behavior was not found to have any influence in the model and was not found in the data. One of the other conclusions that could be drawn, is that stress influences multiple variables other than self-efficacy, while the literature only showed the influence on self-efficacy, down-time behavior, and destructive/hazardous behavior. As can be seen in the analysis of chapter 4 and

Figure 6, stress also influences task performance and interpersonal relations, which was not stated in the original model. This also applies to social persuasion, which was found in the literature to influence self-efficacy and stress, but was found in the gathered data to also influence task performance and down-time behavior.

Self-efficacy and job performance influence each other through the different factors in their system and have no direct connection, unlike what was found in the literature. The found model, constructed from the gathered data in this research, deviates from the model that was found within the literature. This conclusion shows that the dynamics of the factors of self-efficacy and job performance influence each other's systems and provides an overview of how the underlying dynamics between the factors of self-efficacy and job performance interact.

5.2 Theoretical Implications

This research provides an overview of how the factors and concepts of self-efficacy and job performance interact with each other in a school based organization. It provides information about how the theory of Bandura (1977, 1982, 2010) on self-efficacy differs in application in this specific type of organization and which concepts hold up against the gathered data. The result is an updated model of how the factors of self-efficacy and job performance interact with each other and how they influence the relation between self-efficacy in job performance in a school based system. This updated model shows multiple differences from the model that was originally formed from the literature. The updated model shows that self-efficacy and job performance do not directly influence each other. The underlying dynamics and factors from self-efficacy and job performance interact with each other, which results in the self-efficacy and job performance indirectly influencing each other through each other's systems. This is different from what was interpreted from the literature, where self-efficacy could perhaps be used to directly influence total performance. One of the most important relation that differs from the original model is the role of task performance. Task performance not only influences self-efficacy and job performance, it is also the major link between the two systems, being influenced by self-efficacy, social persuasion, mastery experiences, magnitude, stress, and interpersonal relations. This new knowledge can be used in theory to start from the relation between self-efficacy and task performance, instead of job performance. Also, the newly added relations from social persuasion and stress have major theoretical implications for the relation between self-efficacy and job performance. In the

original model, stress only influenced self-efficacy, down-time behavior, and destructive/hazardous behavior, while social persuasion only influenced self-efficacy and stress. In the new model stress influences not only self-efficacy, down-time behavior, and destructive/hazardous behavior, but also task performance and interpersonal relations. Especially the influence of stress on task performance is important for the theory to grasp, as this can have a major influence as was concluded by the respondents. In the new model social persuasion not only influences self-efficacy and stress, but also down-time behavior and task performance. Similarly to stress, the positive influence of social persuasion on task performance shows the importance of social persuasion in indirectly improving job performance. These differences between the original model and the newly found model have consequences for the theory. Where most relations in the original model were confirmed by the new model, a lot of new relations have been added which were not present in the original model. This shows that the theory lacked the knowledge about some of the relations that should be present within the concepts of self-efficacy and job performance, providing the theoretical relevance of this research.

This difference in results between the gathered data and the literature could stem from the specific case that was researched. The core theory of self-efficacy is possibly not formed with the school system in mind. Another reason for this discrepancy could be the interpretation of the literature by the researcher. The interpretation of the literature of self-efficacy could differ between researchers, because self-efficacy is a complex concept as it has a psychological component. Another reason for this difference in results could stem from the type of literature that was used. For this research, the core concepts of self-efficacy were used. More specified literature of self-efficacy on teachers and schools could have provided a more accurate representation of the important concepts for this specific case. A combination of the research of Dellinger, Bobbet, Olivier & Ellet (2008) and Skaalvik & Skaalvik (2010) would have been more specified on a school system from the start, but would not have allowed the researcher to approach the concept of self-efficacy with its own interpretations.

5.3 Methodological reflection

There are different claims to be made about the validity and reliability of this research, which are influenced by the methods in use and different limitations of this research. The methods in use eventually only consisted of performing semi constructed interviews, followed by a verbatim transcription of the recorded interviews, resulting in an axial coding process of the

transcriptions. This research was originally meant to perform an observation of weekly team meetings and an analysis of documents consisting of performance reviews. The observation of a team meeting, as described in chapter 3.2 has not been done, because of the corona measures limiting the ability to physically meet and the sensitivity of the information discussed in the meetings. The document analysis of performance reviews, as described in chapter 3.2, has also not been done, because of the sensitivity of the information in those documents. This limitation impacts the internal validity of this research, as the firsthand information from the observation could have provided a view on the work atmosphere at Karel de Grote College. The documents of performance reviews could have provided a measuring tool, which would be used to compare the performance reviews with the experiences of the respondents. This document analysis could have resulted in a higher internal validity, as more data would have been available to analyze for the concept of job performance. Other than the difference in methods in use, this research has also had some other limitations impacting the validity and reliability of this research. A limitation stems from the corruption of one of the audio files from the interviews. The recording device was overheated in one of the interviews, which resulted in the last 15 minutes of an interview to not be recorded. The data that was discussed in those last 15 minutes was written out from memory a half hour after the interview was performed. This possibly missing data could have hurt the internal validity of this research, but as the data was transcribed shortly after the interview, it probably does not impact the research in a major way. Another limitation has to do with the amount of people that were interviewed for the research. The research methods mention 9 interviews, while only 8 interviews have been performed. The decision to limit the number of interviews to 8 has been made with the time frame of the research in mind. The gathered data was sufficient to come to a conclusion in this research. Therefore, cancelling the ninth interview would not have major repercussions for the research and the ability to draw conclusions. Also, the interviews were done in rapid succession. All 8 interviews were taken in a time frame of 1 and a half week. If there had been more time to plan the interviews, the researcher would have had the possibility to carefully reflect on each interview before performing the next one, maybe leading to some changes in the structure of the interview. As the interviews were done in a short time frame, the researcher did not have this possibility. This could have led to the researcher not always asking the right follow-up questions or missing out on important information. These factors could have hurt the internal validity of this research. However, as the researcher was able to draw a conclusion from the gathered data, this is not seen as a major limitation.

In conclusion, regardless of the limitations, the internal validity of this research is relatively high, mainly because of the semi-constructed interviews that left room for follow-up questions. This resulted in the interviews being able to specifically gather the data necessary to research the topics of self-efficacy and job performance. However, the external validity of this research is relatively low. Since this research is conducted using a case study focusing on a specific organization, its results cannot be generalized to apply to other companies. The results may be generalizable towards other high schools, but this would have to be researched first to construct a factual claim. The results following the gathered data are specifically tailored towards Karel de Grote College, which results in a low external validity. The test-retest reliability of this research is relatively high. If this research is conducted with the same methods and same respondents, the respondents would likely give the same answers about their levels of self-efficacy and job performance. However, the interrater reliability of this research is rather low. If this research is conducted using the same methods but with different respondents, it would likely lead to different results. This is mainly because of the personal nature of self-efficacy, where different people can vastly differ in their levels of self-efficacy. The same research with different respondents could lead to different relations between the factors of self-efficacy and job performance and maybe even a completely different model.

The methods that have been used in this research are recommended to use when this research would be done again in the future. Especially the semi-constructed interviews should be used to gather specific knowledge about someone's self-efficacy and job performance. However, there is also another method that could prove useful for this kind of research. In this research, the researcher has founded the model individually. By performing Group Model Building, this research could be done together with the employees of Karel de Grote College. Group Model Building is a process where a group of people ranging from 6 to 15 people gathers in a certain number of sessions, where they are guided by a modelling team to tackle messy problems within their organization (Vennix, 1999). By using methods like the Nominal Group Technique and Variable Elicitation, a model could have been created together with the employees of Karel de Grote College. This would also have created a model that is reached by consensus of the participants. This method could be explored if this type of research is done in the future.

5.4 Future Research

In future research, there are things to keep in mind. It would be beneficial for the research if the case is confirmed at an earlier date within the time frame for the research. This would help decrease the limitations regarding the short time frame for the interviews, make it easier to plan a ninth interview and give the researcher time to reflect on each interview. In the future, observations and document analysis could be done to help increase the internal validity of the research. Assuming there are less limiting Covid-19 measures, an observation can be done for the different team meetings. Also, discussing the sensitivity of the information of team meetings and performance reviews and reviewing these possibilities, could lead to performance reviews being part of the analysis of the research. This would enable the researcher to compare the performance reviews with the experiences of the respondents. Another way to improve this research in the future is to consider the effects of the weather on recording devices, ensuring all the recorded data is usable.

There are also a variety of concepts to pursue for future research. In future research, instead of starting from the concept of Bandura, the researcher could form its theoretical framework from research that has already looked into the self-efficacy of school systems and teachers. While this would limit the flexibility of applying the theory of self-efficacy of Bandura, it could help provide a more specific framework that already applies on school systems. Another concept to research in the future could be the specific relation between upbringing and self-efficacy. Multiple respondents mentioned that they feel like their upbringing is a major part of how they experience their self-efficacy. Personality, upbringing, and the concepts of nature/nurture could have a major influence on how self-efficacy is perceived by different individuals. This could provide an even broader overview of all concepts that influence self-efficacy and eventually influence the job performance of an individual. Another possibility for future research could be to apply a multiple case study. By researching multiple comparable schools and comparing how they experience self-efficacy, the research would be able to generalize the results in a more accurate way. It would also allow for more practical applications for the different schools, as their self-efficacy is compared to other schools inciting them to increase their own self-efficacy. To increase their self-efficacy, they could then use the findings of the future research and the implications of this research.

5.5 Recommendations/Managerial Implications

The managerial implications of this research apply to how self-efficacy can be used to increase the job performance of employees, resulting in the practical relevance of this research. This research has created an overview in how the different factors of self-efficacy and job performance influence each other and how they influence self-efficacy and job performance in general. By looking at which factors most strongly influence job performance, managers can influence those factors on their own. In the research, social persuasion was one of the factors that most strongly influenced self-efficacy and task performance and indirectly influenced job performance. Respondents explained that the compliments and coaching they receive have a huge impact on their self-efficacy. The best practice for managers to influence self-efficacy and job performance would be by increasing the amount of social persuasion they use on their employees. By giving extra compliments and coaching their employees more (if their coaching is accepted), the average job performance of their employees will also increase in the long term. The increased social persuasion would also decrease the stress levels of their employees, thus affecting how much down-time behavior they show and again increasing task performance and job performance. In short, the results of this research help managers to better understand how the factors of self-efficacy and job performance influence each other and they can use these results to improve the job performance of their employees.

This research also has some recommendations for Karel de Grote College and other high schools which want to use the concept of self-efficacy to improve job performance. As respondents explain, the compliments and coaching they receive have a major influence on their level of self-efficacy and their task performance, showing that this factor is the best way to indirectly improve job performance of individuals. Individuals with a higher level of self-efficacy, will portray that confidence within their work, which will in general lead to better results. Another way to vastly increase the self-efficacy and task/job performance of employees is by reducing their level of stress. Stress was found to majorly influence task performance, leading to employees sometimes failing at the most general tasks. Reducing their level of stress would decrease the number of times employees will generally fail at their tasks, indirectly improving their levels of self-efficacy and job performance. The best way to reduce the level of stress is by increasing the amount of social persuasion or by decreasing the magnitude of their tasks. It is also important to note that people with more work experience, which have a higher level of mastery experience, will generally experience less stress, which means they will not need as much effort to reduce stress levels. In conclusion, the most

important thing for managers to keep in mind is to increase self-efficacy or maintain a high level of self-efficacy within their employees. Self-efficacy stands at the base of influences, directly influencing one's task performance and interpersonal relations and indirectly influencing job performance. By influencing the factors that influence self-efficacy directly, managers can use the concept of self-efficacy to improve the total job performance of their workforce.

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Appendices

Appendix 1: Employee Interview

Mijn naam is Bart Spaan en ik studeer aan de master business analysis and modelling aan de Radboud Universiteit. In mijn masterthesis doe ik onderzoek naar de relatie tussen zelfvertrouwen en werkprestaties. In mijn onderzoek is zelfvertrouwen het geloof dat mensen hebben in zichzelf over hun competenties om bepaalde vaardigheden en prestaties uit te voeren die invloed hebben op hun werk en leven. Ik wil hierdoor kijken wat de relatie is tussen de zelfvertrouwen van een persoon en hun werkprestaties. Er zijn verschillende variabelen die onder deze begrippen vallen, maar deze zal ik verder toelichten tijdens het interview. Er zal daarnaast vertrouwd omgegaan worden met uw informatie en de gegevens van dit interview zullen alleen gebruikt worden voor mijn onderzoek. Deze gegevens zullen ook worden geanonimiseerd en alleen in een vertrouwelijke bijlage aan de examinatoren van de master thesis worden meegegeven. Heeft u verder nog vragen voordat we met dit interview starten?

1. Zou u uzelf willen introduceren?
 - a. Naam
 - b. Leeftijd
 - c. Werk
2. Wat is de specifieke taakomschrijving van uw werk?
3. Hoe lang bent u al werkzaam bij het Karel de Grote College?

Ik zou graag willen beginnen met enkele vragen die te maken hebben met zelfvertrouwen en hoe dit eventueel invloed heeft op uw werk. Mocht u tussendoor vragen of onduidelijkheden hebben, kan u die altijd stellen.

4. Op welke manier is er verschil in de moeilijkheidsgraad van uw taken?
 - a. Heeft u hier voorbeelden van?
 - b. Hoe gaat u hiermee om?
5. Op welke manier denkt u dat uw persoonlijke successen en falen invloed hebben op uw zelfvertrouwen?
 - a. Heeft u hier een werk gerelateerd voorbeeld van?
 - b. Heeft u ook een voorbeeld in het dagelijks leven?
6. Een onderdeel van zelfvertrouwen is dat er een verschil kan zijn in de hoeveelheid vertrouwen dat mensen hebben in hun competenties. Zo kunnen er twee verschillende

mensen zijn die beiden geloven dat ze iets kunnen uitvoeren, maar kan het zijn dat persoon 1 hier meer in gelooft dan persoon 2. Heeft u het idee dat dit wel eens voor is gekomen bij u?

- a. Heeft u hier een voorbeeld van?
7. Een ander onderdeel van zelfvertrouwen is het zogenoemde plaatsvervangende ervaringen. Dit gaat over dat een persoon meer vertrouwen zou krijgen in zijn eigen capaciteiten als diegene iemand anders ziet slagen, die qua capaciteiten op hem lijkt. Op welke manier heeft dit concept invloed op u gehad?
 - a. Heeft u hier een voorbeeld van?
 - b. Heeft iemand anders falen ook wel eens invloed gehad op u?
 - i. Heeft u hier een voorbeeld van?
8. Op welke manier past u coaching toe binnen uw werk?
 - a. Heeft u hier een voorbeeld van?
 - b. Heeft dit ook invloed gehad op uw werkzaamheden?
9. Op welke manier denkt u dat complimenten en support van anderen invloed hebben gehad op uw zelfvertrouwen?
 - a. Heeft u hier een voorbeeld van?
10. Op welke manier heeft stress invloed gehad op uw zelfvertrouwen?
 - a. Wat voor een emoties ervaart u over het algemeen bij stress?
 - b. Welke factoren en gebeurtenissen veroorzaken stress?
 - c. Hoe gaat u in het algemeen om met de stress?

Dan zou ik u nu graag wat vragen willen stellen over het andere concept van mijn onderzoek, namelijk Job Performance, oftewel werkprestaties.

11. Taak prestaties is een onderdeel van werkprestaties. Het gaat over de hoeveelheid taken die u succesvol afrond. Hoe ervaart u uw persoonlijke taak prestaties?
 - a. Heeft u hier een voorbeeld van?
 - b. In hoeverre denkt u dat uw taak prestaties invloed hebben op uw zelfvertrouwen?
12. In hoeverre is samenwerken belangrijk in uw werk?
 - a. Heeft u hier een voorbeeld van?
 - b. Hoe gaat u dit af?
13. In hoeverre is een heldere communicatie van belang in uw werk?
 - a. Heeft u hier een voorbeeld van?

- b. Hoe gaat u dit af?
- 14. Hoe vaak gebeuren er incidenten op het werk?
 - a. Heeft u hier een voorbeeld van?
 - b. Waar komt dit door?
- 15. Hoe vaak zijn er pauzes binnen uw werk?
 - a. Vindt u dit voldoende?
- 16. Op welke manier denkt u dat zelfvertrouwen invloed heeft op uw werkprestaties?
 - a. Heeft u hier een voorbeeld van?

Dit is het einde van de vragen die ik had voorbereid. Heeft u zelf verder nog vragen?

Dan wil ik u heel erg bedanken voor uw tijd! Ik meld nogmaals dat alle gegevens vertrouwelijk zullen worden behandeld en ze geanonimiseerd zullen worden in de masterthesis. Dit heeft mij zeker verder geholpen in het uitvoeren van mijn onderzoek.

Appendix 2: Team Manager Interview

Mijn naam is Bart Spaan en ik studeer aan de master business analysis and modelling aan de Radboud Universiteit. In mijn masterthesis doe ik onderzoek naar de relatie tussen zelfvertrouwen en werkprestaties. In mijn onderzoek is zelfvertrouwen het geloof dat mensen hebben in zichzelf over hun competenties om bepaalde vaardigheden en prestaties uit te voeren die invloed hebben op hun werk en leven. Ik wil hierdoor kijken wat de relatie is tussen de zelfvertrouwen van een persoon en hun werkprestaties. Er zijn verschillende variabelen die onder deze begrippen vallen, maar deze zal ik verder toelichten tijdens het interview. Er zal daarnaast vertrouwd omgegaan worden met uw informatie en de gegevens van dit interview zullen alleen gebruikt worden voor mijn onderzoek. Deze gegevens zullen ook worden geanonimiseerd en alleen in een vertrouwelijke bijlage aan de examinatoren van de master thesis worden meegegeven. Heeft u verder nog vragen voordat we met dit interview starten?

1. Zou u uzelf willen introduceren?
 - a. Naam
 - b. Leeftijd
 - c. Werk
2. Wat is de specifieke taakomschrijving van uw werk?
3. Hoe lang bent u al werkzaam bij het Karel de Grote College?

Ik zou graag willen beginnen met enkele vragen die te maken hebben met zelfvertrouwen en hoe dit eventueel invloed heeft op uw werk. Mocht u tussendoor vragen of onduidelijkheden hebben, kan u die altijd stellen.

4. Op welke manier is er verschil in de moeilijkheidsgraad van uw taken?
 - a. Heeft u hier voorbeelden van?
 - b. Hoe gaat u hiermee om?
5. Op welke manier denkt u dat uw persoonlijke successen en falen invloed hebben op uw zelfvertrouwen?
 - a. Heeft u hier een werk gerelateerd voorbeeld van?
 - b. Heeft u ook een voorbeeld in het dagelijks leven?
6. Een onderdeel van zelfvertrouwen is dat er een verschil kan zijn in de hoeveelheid vertrouwen dat mensen hebben in hun competenties. Zo kunnen er twee verschillende mensen zijn die beiden geloven dat ze iets kunnen uitvoeren, maar kan het zijn dat persoon 1 hier meer in gelooft dan persoon 2. Heeft u het idee dat dit wel eens voor is gekomen bij u?
 - a. Heeft u hier een voorbeeld van?
7. Een ander onderdeel van zelfvertrouwen is het zogenoemde plaatsvervangende ervaringen. Dit gaat over dat een persoon meer vertrouwen zou krijgen in zijn eigen capaciteiten als diegene iemand anders ziet slagen, die qua capaciteiten op hem lijkt. Op welke manier heeft dit concept invloed op u gehad?
 - a. Heeft u hier een voorbeeld van?
 - b. Heeft iemand anders falen ook wel eens invloed gehad op u?
 - i. Heeft u hier een voorbeeld van?
8. Op welke manier past u coaching toe binnen uw werk?
 - a. Heeft u hier een voorbeeld van?
 - b. Heeft dit ook invloed gehad op uw werkzaamheden?
9. Op welke manier denkt u dat complimenten en support van anderen invloed hebben gehad op uw zelfvertrouwen?
 - a. Heeft u hier een voorbeeld van?
10. Op welke manier heeft stress invloed gehad op uw zelfvertrouwen?
 - a. Wat voor een emoties ervaart u over het algemeen bij stress?
 - b. Welke factoren en gebeurtenissen veroorzaken stress?
 - c. Hoe gaat u in het algemeen om met de stress?

Dan zou ik u nu graag wat vragen willen stellen over het andere concept van mijn onderzoek, namelijk Job Performance, oftewel werkprestaties.

11. Taak prestaties is een onderdeel van werkprestaties. Het gaat over de hoeveelheid taken die u succesvol afrond. Hoe ervaart u uw persoonlijke taak prestaties?
 - a. Heeft u hier een voorbeeld van?
 - b. In hoeverre denkt u dat uw taak prestaties invloed hebben op uw zelfvertrouwen?
12. In hoeverre is samenwerken belangrijk in uw werk?
 - a. Heeft u hier een voorbeeld van?
 - b. Hoe gaat u dit af?
13. In hoeverre is een heldere communicatie van belang in uw werk?
 - a. Heeft u hier een voorbeeld van?
 - b. Hoe gaat u dit af?
14. Hoe vaak gebeuren er incidenten op het werk?
 - a. Heeft u hier een voorbeeld van?
 - b. Waar komt dit door?
15. Hoe vaak zijn er pauzes binnen uw werk?
 - a. Vindt u dit voldoende?
16. Op welke manier denkt u dat zelfvertrouwen invloed heeft op uw werkprestaties?
 - a. Heeft u hier een voorbeeld van?

Ik zou graag willen afsluiten met een paar vragen over een paar van uw werknemers. Het doel hiervan is om uw beoordeling van de werknemers tegenover hun eigen ervaring van hun werk te plaatsen. Deze informatie zal niet met hen gedeeld worden tenzij u daar toestemming voor geeft.

17. Zou u kunnen vertellen hoe de werksituatie is van **WERKNEMER A**
 - a. In hoeverre voldoet deze persoon aan de eisen die u stelt?
18. Zou u kunnen vertellen hoe de werksituatie is van **WERKNEMER B**
 - a. In hoeverre voldoet deze persoon aan de eisen die u stelt?

Dit is het einde van de vragen die ik had voorbereid. Heeft u zelf verder nog vragen?

Dan wil ik u heel erg bedanken voor uw tijd! Ik meld nogmaals dat alle gegevens vertrouwelijk zullen worden behandeld en ze geanonimiseerd zullen worden in de masterthesis. Dit heeft mij zeker verder geholpen in het uitvoeren van mijn onderzoek.