Academic Procrastination:

The relationship between academic procrastination, goal setting and character traits.

Written by:

Ruben van Valderen

Student number: 352522

Organization: Saxion, Academie Mens & Arbeid

Employer: Boy Schreuder Goedheijt

Period: May 2020 – January 2021

Supervisors: First supervisor Jacqueline Santbergen & second supervisor Trea van der Vecht

Place and date: 4 January, 2021

''During my thesis I came to the conclusion that I am an active procrastinator. I need to feel pressure so I can be most productive. This was not a surprise to my parents as they told me that they are also active procrastinators themselves.'' – Ruben van Valderen, 2020

Deventer, January 2021
Ruben van Valderen

Abstract

Academic procrastination is one of the leading factors that makes students dropping out from school in The Netherlands. Especially among students in higher education. Saxion University of Applied Sciences has started an extensive research on academic procrastination. The purpose of this study is to investigate the relationship of academic procrastination and influencing factors. Eventually to reduce levels of academic procrastination among students with this knowledge. Using a cross-sectional analysis, this study analysed the relationship between five constructs among 125 academic students in 2020 via an online survey. Academic procrastination, goal setting, intrinsic motivation, self-efficacy and self-critical perfectionism have been analysed to investigate whether a correlation was present. It was found that both intrinsic motivation and goal setting correlate negatively towards academic procrastination. Intrinsic motivation and goal setting showed a moderate strong positively correlation to each other. Also, it was remarkable that neither self-efficacy nor self-critical perfectionism showed a relationship towards academic procrastination. This was in contradiction to the literature that was found for this study. This study answers the relationship between academic procrastination and influencing factors. The results indicate that goal setting and intrinsic motivation are the strongest influencing factors on reducing academic procrastination. Therefore, it is recommended that Saxion should introduce a course to try and higher levels of goal setting and intrinsic motivation for their students to reduce academic procrastination. However, further research is needed to identify other factors that could further reduce academic procrastination.

Keywords: 2020, academic procrastination, goal setting, intrinsic motivation, self-efficacy, self-critical perfectionism, perfectionism, character traits, influencing factors, relationship, students, The Netherlands.

Index

List of terms:

HBO: 'Hoger Beroepsonderwijs' = Higher vocational education / University of applied science

WO: 'Wetenschappelijk onderwijs' = University

'α': Cronbach's Alpha

'r': Pearson's product-moment correlation coefficient

Ministerie van Onderwijs Cultuur en Wetenschap: Ministry of Education, Culture and Science.

1. Introduction to the research

The first chapter will describe the relevance and importance of this study. The main research question and sub-questions will be presented. Also, the goal of this research and the purpose of it will be described.

1.1   Introduction

Failing or dropping out from university is a problem in The Netherlands. Dropping out of university also has implications in the future when entering the job market. Academic procrastination is one of the leading causes of this problem and it is at the expense of the Dutch government and her society. The Dutch government published a report stating that in the first year of college, students have a drop out percentage of fifteen percent, also 50 percent of males have either dropped out or changed studies after four years within the sectors economic and education (Ministerie van Onderwijs Cultuur en Wetenschap, 2019). Visser, Korthagen & Schoonenboom (2015) showed in their study that academic procrastination is serious problem in the Netherlands. Especially among students in higher education.

Society is ever changing and transforming. In the current day the progress of technology turns the society in a digital society. This is bringing a lot of pressure on the development of the individual and this makes the study on procrastination as a phenomenon very interesting for the past decades (Litvinova, Kokurin, Ekimova, Koteneva & Pozdnyakov, 2019). Procrastination is understood as conscious delay, failure to complete, or the postponement of planned activities, accompanied by a sense of internal discomfort and a negative emotional state, connected with an expectation of negative consequences. Academic procrastination is postponing academic work on purpose despite knowing that the outcome of this delay will be worse. This is resulting in a delay in student's studies and they will even fail studies because procrastination is leading to a decrease in performance, scores on exams and tests (Steel, 2007). In a study of Day, Mensink and O'Sullivan (2000) they found that 32 percent of the students from their research were severe general procrastinators. General procrastinators are people who recurrently show procrastinating behaviour. Gröpel and Steel (2008) showed that goal setting was efficient to lower levels of procrastination when combined with interest enhancement. Therefore, it is important to research academic procrastination amongst students to prevent or predict delay and failure on finishing studies.

Also, looking at the development of the human brain it has been found that gender and age play a role in planning behaviour. This planning behaviour is established in the mid-dorsolateral prefrontal cortex. Especially in males this part of the brain still matures in the mid to late twenties. Before this stage of adulthood males could have more trouble with planning

performances than females. Still, for both males and females the mid-dorsolateral prefrontal cortex is still in development during the early till mid-twenties (Kaller et al., 2012).

Saxion University of Applied Sciences has started an extensive research in collaboration with the National Research Tomsk State University on procrastination. These organisations are collecting data about the behaviour of students and try to benefit from it. The aim of this research is to understand and explore the phenomenon of academic procrastination. Multiple factors such as goal setting and individual character traits that persists and prolongs this behaviour of procrastination will be investigated. With the collected data these universities are trying to prevent their students from procrastinating.

This research will focus on academic procrastination, goal setting, character traits and their relationship to each other. For this study three specific character traits have been chosen after an extensive literature research. The reason for these three specific character traits is that the literature shows that they have a relationship with academic procrastination. However, there is doubt about this relationship and discrepancies have been found. The literature on these specific character traits will be elaborated in chapter two.

The three-character traits are intrinsic motivation, self-efficacy and self-critical perfectionism. This research will collect data which will be able to advise the universities about their students and their behaviour on academic procrastination. The university will be able to use this information when implementing preventive measures on reducing academic procrastination among their students.

1.2   Research question

For this research three specific individual character traits have been chosen after literature research.

Based on the background and introduction the following research question is formed:

What is the relationship between academic procrastination, goal setting and character traits?

This research question can be divided by the following sub-questions:

Sub-questions:

    a. What is the relationship between, academic procrastination, goal setting and intrinsic motivation?

    b. What is the relationship between academic procrastination, goal setting and self-efficacy?

    c. What is the relationship between academic procrastination, goal setting and self-critical perfectionism?

1.3   Objective of the research

Saxion University of Applied sciences is a large institution in the Netherlands and has close to 27.000 students. This university is located at three different locations in The Netherlands. Within this university located in Deventer there are different kinds of academies each providing specific study programmes. This research is commissioned by the professorship of the academy 'Mens en Arbeid'. Studies like human resource management and applied psychology are offered by this academy.

The goal of this research is to collect data about the behaviour of students. It will be investigated if there is a relationship between individual character traits, academic procrastination and goal setting. This will help to expand the field of knowledge about the behaviour of students at an academic level and which factors have a relationship to each other. With this information the university will be more capable to prevent or intervene students from failing their studies and dropping out of university. Also, the results of this research can be used to improve the quality of education by changing the educational environment to reduce academic procrastination among students.

2. Theoretical Framework

This chapter will take a closer look at the aspects of academic procrastination, goalsetting and some specific character traits that have been chosen for this study. By means of literature research an in-depth look at these constructs will be given. These are the components from which measurement instruments have been gathered.

2.1   Academic Procrastination

A lot of research has been done about procrastination to try and define this phenomenon. Thus, it has been given a variety of definitions over the past decades. For example: ''Procrastination, the act of needlessly delaying tasks to the point of experiencing subjective discomfort'' (Solomon & Rothblum, 1984, p. 503). Another definition of procrastination is: ''Delaying the start of a task until one experiences distress about not having performed the activity earlier'' (Senecal, Koestner & Vallerand, 1995).

However, there are also studies that differentiate passive and active procrastinators. For example, Chu and Choi (2005) say that researchers and psychologists have looked at procrastination as a self-handicapping and dysfunctional behaviour which only looks at the harmful side of procrastination. However, in their study the researchers proposed that procrastination does not have to be behaviour that is only harmful and leads to negative consequences. The differentiate passive procrastinators and tell that they are procrastinating in the traditional sense. These procrastinators are paralyzed by pressure of the task that they have to achieve. This pressure leads to indecision to act and therefore they fail to complete this task. In contrast they talk about ''active procrastinators'' which are the ''positive'' type of procrastinators. These people work very well under pressure and make decisions based on knowing that they need to feel this pressure. When this pressure is not present, they will deliberately do other productive things until this pressure is present. In a further study of Choi and Moran (2009) the term 'active procrastination' is reused to show that they also see a difference in active and passive procrastination. They also see that benefits for some students that purposefully delay a task so that in the future they can work better on this task under pressure.

Bachrach (2012) defined procrastination as "putting off or delaying an action to a later time'', which has a much less negative approach towards procrastination. However, two years later procrastination was looked at differently in another study. It was more about voluntarily behaviour of delaying an action despite knowing being worse off because of this delay. In another study they showed that it is much worse as previous studies. They showed that procrastination was associated with poorer mental health. Procrastinating behaviour led to

feelings of guilt, stress and in general people worried more frequently than those who showed less procrastinating behaviour. This shows that procrastination evidently has a negative side (Rozental & Carlbring, 2014). The literature shows a contradiction on the phenomenon of procrastination. Procrastination is not always seen as behaviour with only negative effects. In some cases, it has desirable outcomes. However, other studies show that procrastination results in poorer health stress, distress and further negative consequences.

2.2   Goal setting

Procrastination is a universal concept, school or work related but it is often poorly understood. Goal setting theorists emphasize that goals are strong motivators of behaviour. Specifically, research on goal setting found that when people are committed or challenged by specific goals that this will lead to a better level of task achievement and performance (Bandura, 1999; Locke & Latham, 2006). Researchers found that to goal setting was linked to other self-regulatory behaviour and planning techniques and goal setting showed a moderate negative relationship with procrastination. Thus, higher levels of goal setting seemed be beneficial on lower levels of procrastination (Gröpel and steel, 2008). In a more recent study by Gustavson and Miyake (2017), they tried to lower levels of academic procrastination of their students. This was done by giving students goal-related exercises for a few weeks which should resist the student's temptations of doing other tasks by learning certain strategies. After analyses it showed that neither goal setting nor these temptation resisting strategies reduced any amount of academic procrastination.

These studies show a discrepancy in the literature about whether goal setting is beneficial to reduce procrastinating. Therefore, more research has to be done to confirm or deny the effect of goal setting on procrastination.

2.3   Intrinsic motivation

Intrinsic motivation is described as doing an activity for the purpose of doing the activity itself. The satisfactions of doing the task from within the individual is stronger than for some separable consequence. When intrinsically motivated a person is moved to act for the fun or challenge of the activity and less or not because of external encouragements, pressures or rewards (Ryan & Deci, 2000). According to Zimbardo, Johnson and Mccann (2013) intrinsic motivation are motives that derives from within an individual. New challenges in work related tasks are an example of this. Intrinsic motivation originates from the necessity to satisfy a psychological need.

The effect of intrinsic motivation on academic procrastination is very high. In a study of Brownlow and Reasinger (2000) they showed that low academic procrastinators were more motivated by internal motivation than were high academic procrastinators. They also showed that students with a high internal motivation had a less aversive look towards academic tasks in general. Lee (2005) affirmed this in a later study where he reported that high procrastination was associated with lack of self-determined motivation, internal motivation and low incidence of flow state. Dunn (2014) also reported that as academic self-regulation an intrinsic motivation increase, passive procrastination would decrease for his sample of students. Thus, intrinsic motivation is very beneficial for the students as passive procrastination is seen as counterproductive behaviour and it decreased. Furthermore, in a recent study they show that a lack of motivation and fear of failure has an indirect influence on academic procrastination and therefore study results (Visser, Korthagen & Schoonenboom, 2015).

2.4   Self-efficacy

The concept of self-efficacy was introduced by Bandura and was defined as: "An integrative theoretical framework to explain and predict psychological changes achieved by different modes of treatment" (Bandura, 1977 p. 191)

This personal efficacy originated from four factors of information that eventually has an influence on behaviour: performance accomplishments, vicarious experience or learning, verbal encouragement, and physiological or emotional states.
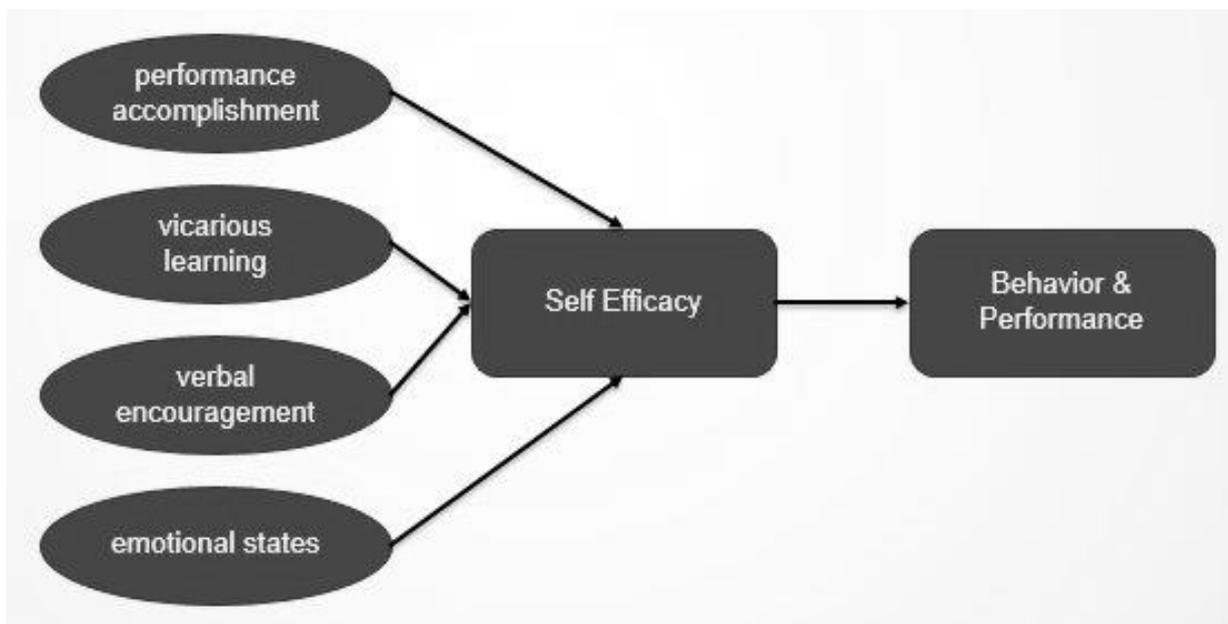
Figure 1. The Components of Self-Efficacy. Adapted from ''Self-efficacy: Toward a Unifying Theory of Behavioral Change'' by A. Bandura, 1997, *Psychological review, 84(2), 191.*

In a later study of Bandura (1994) (as cited by Ziegler & Opdenakker, 2018) self-efficacy is described as: ''The belief of a person about his or her capabilities to execute behaviour that will lead to success in a task.'' (Ziegler & Opdenakker, 2018)

In a more recent article, Bandura (2010) explained that perceived self-efficacy is about someone's belief in the ability to have influence over the events that will affect someone's live. He says that this belief is fundamental for accomplishments, emotional well-being and the essence of human motivation. Self-efficacy has an effect on procrastination. In a study of Wäsche, Allgaier, Lachner, Fink and Nückles (2014) students who showed high levels of self-efficacy assessed their goal achievement as being high. The consequence of high goal achievement led to an increase of self-efficacy. Self-efficacy mediated the effect of perceived goal achievement on procrastination. Thus, students with low perceived self-efficacy are vulnerable for finding themselves in a vicious circle of procrastination. Ziegler and Opdenakker (2018) found that procrastination is dynamic and changes over time. Evidence was found that stresses on the importance of predictors that vary in time. These predictors are self-regulation, self-efficacy and effort regulation.

Also, this negative correlation between procrastination and self-efficacy was found in the study of Chow (2011) where he suggested that an individual's lack of task or domain confidence can result in delaying initiation or completion of tasks. This would mean that when levels of self-efficacy rise, behaviour of academic procrastination should lower. In a more recent study, it has been found that self-efficacy plays a role on academic achievements through lack of motivation and fear of failure. The role of intrapersonal factors was the leading influence on academic procrastination and therefore academic achievements (Visser, 2020).

2.5   Self-critical Perfectionism

Perfectionism has been described as: ''A personality disposition characterized by striving for perfection and setting excessively high goals to perform and to be overly critical towards the evaluations of one's behaviour'' (Stoeber & Childs, 2010). In a study of Hollender (1965) he wrote that an individual's perfectionism originated most commonly from an early childhood where a child is very insecure. This insecurity flow from a need of approval, affection and acceptance from negligent parents. This is also known as socially prescribed perfectionism. Çapan (2010) wrote that after his correlation analysis it showed that perfectionism as a personality trait was an important predictor for not only academic procrastination but also for life satisfaction. In a study of Jadidi, Mohammadkhani and Tajrishi (2011) they looked at the relationship between perfectionism and procrastination and found that perfectionism was positively and significantly correlated to academic procrastination. This means that individuals who experienced a lot of perfectionism were more likely to procrastinate in comparison to people with lower levels on perfectionism. Self-critical perfectionism entails perfectionism on the scale of concern over mistakes, doubts about actions, self-criticism, and socially prescribed perfectionism (Smith, Saklofske, Stoeber, & Sherry, 2016)

2.6   Conceptual model
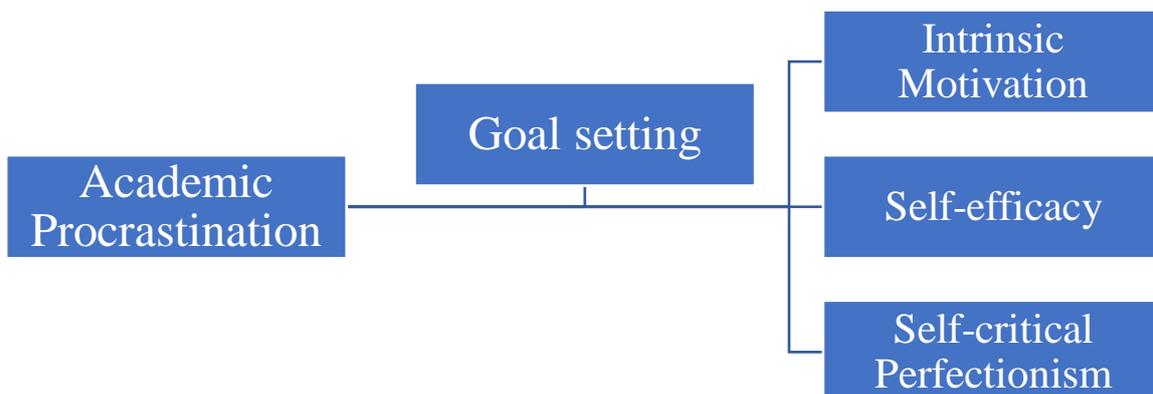
Figure 2. Focus on the conceptual model. The overview of Appendix B is based on a broad literature research. From this overview a selection has been made which led to this model.

3. Research design

This chapter will embody the method of the study and which participants the research is aimed at. Also, the research instruments will be described on how they work and on how they will be used.

3.1   Method

To answer the research and the sub-questions, a cross-sectional study has been used by means of the convergent parallel design to analyse the data. An online survey collected quantitative data. The survey was about five different constructs regarding academic procrastination. The data for this research was collected at one given point in time. The duration of collecting the data was a full week in September of 2020. This is at the beginning of a school year for most students. The choice of a quantitative digital survey was because there were five different constructs that were to be analysed which were all measurement tools with a Likert-scale. To measure these five constructs 60 items were used. Using an online survey to measure these five constructs it was a quick and clear method to collect quantitative data. The online survey was made as user friendly as possible to try and collect many participants. All Likert-scales were fully written out for the mobile users for this online survey which made it easier for the participant to fill out the survey. Also, some pictures of these scales were used to clarify the answers that participants were able to make. By forcing the response of the participant for each item all data that was collected was immediately useful. Incentives in the form of prices that participants can win were included in the survey. This is done to increase levels of motivation to fill out the survey and to collect as many participants as possible. Also, different ranges of Likert-scales have been used in the survey to keep all measurement tools intact. This is important for the validity and reliability of this study.

The digital survey was made via Qualtrics. Students were given a link to start making the survey. This is a digital, quick, useful and environment friendly way to collect quantitative data. Also, in times of a pandemic caused by COVID-19 this is the safest way to collect quantitative data via a survey. The collected data will be virtual immediately and therefore, it was very easy to transform to SPSS. After transferring the collected data to SPSS, the data was analysed. A look at the relationships between academic procrastination, goal setting, and the character traits were made in order to answer the research questions.

3.2   Participants

This research was aimed at studying the features of procrastination at an academic environment. Therefore, the research was aimed at students who are studying at either a college or at a university. This was one of the conditions to be able to participate in this study. Regarding age, gender, living conditions, or prior education there were no conditions to participate in this study. However, since the survey is in English, participants had to be able to read the English language in order to respond appropriately.

The aim was to collect 100 participants or more. Participants in this study were contacted via social media. This is where the survey was widely spread. Participants were able to make the survey via a link which brought them to the online survey which was made via Qualtrics. Because of the conditions for the participants regarding studying at a college or university it was a good sample to reflect the population. This made the sample more randomized, there was a variance in sort of education, came from different regions of The Netherlands and therefore, it reflected the population better.

3.3   Research Instruments

The following five scales were used in this study to measure the five constructs. All scales were processed via Qualtrics and analysed with SPSS.

3.3.1 Academic Procrastination Scale

The Academic Procrastination Scale was developed by means of a pilot study at the University of Texas in. It includes 25 items with a high reliability. It showed a Cronbach's Alpha of 0.95 (McCloskey, 2012). Items on this scale are scored on a five-point Likert-scale. On this scale one indicates 'disagree' on the item and five indicates 'agree'.
For example, when a participant agrees to the question "I know I should work on schoolwork, but I just don't do it" it would indicate that this individual would be more likely to procrastinate to a greater extent than someone who would disagree.

Specifically, this scale demonstrates superior psychometric properties, and predicts academic related outcomes, better than other currently available measurements. From the total of the 25 items a selection of ten items have been made to shorten and to specify the survey towards passive academic procrastination. The ten questions have been chosen for this study can be found in Appendix A.

3.3.2 Academic Motivation scale

The Academic Motivation Scale (Vallerand, Pelletier, Blais, Brière, Senécal & Vallières, 1992) is a measurement tool that is developed in France and is used to measure the participants' motivation toward education. It measures both intrinsic and extrinsic motivation. It consists of three scales that each look at a different type of intrinsic motivation and also three scales for three different types of extrinsic motivation. All of the questions or statements are about 'why you go to college?'. Items on this scale are scored on a seven-point Likert-scale. On this scale one indicates 'does not correspond at all on the item and seven indicates 'Corresponds exactly'. For this study only items regarding intrinsic motivation will be used in the survey. A selection of twelve items have been made in order to measure intrinsic motivation of the participants. These twelve items can be found in Appendix A.

3.3.3 Goal Setting Formative Questionnaire

The Goal Setting Formative Questionnaire (Gaumer Erickson & Noonan, 2018) is designed to measure a student's proficiency in the three essential components of goal setting. These components exist of goals that give meaning to you. Also, they are focused on individual improvement and not compared to others. The third component is that these goals are based on data, including prior experiences and the feedback that someone has experienced from people in their life such as friends, family, teachers or another trusted person.

In total this questionnaire consists of 19 items. Items on this scale are scored on a five-point Likert-scale. On this scale one indicates 'not very like me' on the item and five indicates 'very like me'. For this study ten items have been selected in order to measure goal setting. For each component a few questions have been used. These ten items can be found in Appendix A.

3.3.4 General Self-Efficacy Scale

The General Self-Efficacy Scale is a ten-item scale, which has a relationship towards feelings of optimism, emotion and it is also connected to work related satisfaction (Schwarzer & Jerusalem, 1995). It was developed to try and measure self-confidence about an individual's actions which are leading to success and whether they believe in themselves. This scale is also about how people are responding to certain stressors or difficult life events. The items on this scale were scored using a four-point Likert-type scale where one indicates 'Not at all true' with the corresponding item and five indicates 'Exactly true' with the item. These ten items can be found in Appendix A.

3.3.5 The Big Three Perfectionism scale

The Big Three Perfectionism scale (Smith, Saklofske, Stoeber, & Sherry, 2016) is a new measurement tool to measure perfectionism. It measures ten different facets within perfectionism: self-oriented perfectionism, self-worth contingencies, self-criticism, hypercriticism, concern over mistakes, entitlement, grandiosity, doubts about actions, socially prescribed perfectionism and other-oriented perfectionism. Items were scored using a five-point Likert-type scale where one indicates 'disagree strongly' with the item and five indicates 'agree strongly'. Self-critical perfectionism is divided into 4 different facets. Each facet had around four to five question. The scale self-critical perfectionism consisted of 18 items and the exact corresponding number of items from The Big Three Perfectionism scale are shown below.

Self-critical perfectionism: Sum Concern over mistakes, Doubts about actions, Self-criticism, and Socially prescribed perfectionism.

- Concern over mistakes (COM; 5 items): Sum of items: 8, 17, 24, 35, and 44
- Doubts about action (DAA; 5 items): Sum of items: 2, 11, 22, 25, 32
- Self-criticism (SC; 4 items): Sum of items: 6, 18, 19, and 26
- Socially prescribed perfectionism (SPP; 4 items): Sum of items: 5, 9, 34, and 45

4. Results

This chapter will describe the procedure and response of the study. Also, data-analysis on the reliability of the constructs are made. The frequencies of the outcomes of each scale will be described and the research on the correlations of the constructs will be made.

4.1 Procedure and response

In total there were 125 participants who responded to the study. After analysing the data only one participant was deleted from the data set. This participant finished the whole survey of 60 questions in just 164 seconds. The time being spent on the survey was considered too short for the data to be reliable and valid as concentration, focus and thoughtfulness was needed for a well finished filled out survey. Also, two items were recoded into different values because there were two reverse-scored items on the Academic Procrastination scale. After recoding these two items further analysis was possible after constructing the scales. This was done by computing a new variable by making a mean scale of all the items for each construct. By making these mean scales the correlation analysis was able to be done on the ratio level.

The sample that was used for this study consisted of 124 participants ($N = 124$). This sample consisted of 38 males (30.6%) and 86 females (69.4%). Looking at the current education of the sample 96 participants (77.4%) are in college, university of applied science or doing HBO and 28 participants (22.6%) are studying at a university or attending WO. Looking at the current study year of the participants 46 (37.1%) were in their first year, 28 (22.6%) were in their second year, 23 (18.5%) were in their third year, 12 (9.7%) were in their fourth year and 15 (12.1%) were in their fifth year or higher. The age in of participants ranged from 17 to 29. The mean was 21.4 with a standard deviation of 2.82 and with a frequency of 20 the mode was 21 years.

Table 1 shows the distribution of males and females and their current education. There were more females than males in this study also, more participants were in college or HBO than there were participants at university or doing WO.

Table 1

Response by gender and current education

Gender	College / HBO	University / WO	Total
Male	32	6	38
Female	64	22	86
Total	96	28	124

4.2 Data-analysis

4.2.1 Reliability analysis of the constructs

By means of calculating the Cronbach's Alpha (α) of the five constructs, a reliability analysis has been made. This showed whether a construct was reliable or homogeneous when looked at the consistency of the items within each construct (Baarda, van Dijkum & de Goede, 2014). To verify if there was sufficient internal consistency, the measured Cronbach's Alpha should be at least .7 but preferably higher (Emerson, 2019; Spector, 1992). Looking at the collected data that is shown in Table 2 it defines that all constructs had a Cronbach's Alpha of at least 0.756. Therefore, no items were needed to be deleted in order to gain a higher Cronbach's Alpha. Because all scales showed a Cronbach's Alpha of at least 0.756 it shows that the constructs are reliable which means that the items within each construct had a more than sufficient internal consistency.

The construct Self-critical perfectionism showed a very high Cronbach's Alpha of 0.927. This scale had a lot of items compared to the other scales. When a scale has a high number of items the Cronbach's Alpha will usually get higher because you will comparable questions to measure the same construct (Baarda, van Dijkum & de Goede, 2014). Nonetheless, all constructs were reliable because they all showed a Cronbach's Alpha bigger than 0.7.

Table 2

Homogeneity analysis of the constructs

Construct	Number of Items	Cronbach's Alpha (α)
Academic procrastination	10	.851
Intrinsic motivation	12	.901
Goal setting	10	.805
Self-efficacy	10	.756
Self-critical perfectionism	18	.927

4.2.2 Descriptive Statistics

Five different scales were used for this research and it has been found that all of these scales were reliable. Table 3 shows the frequencies of the outcomes from each scale. This means that it is made possible to see how the students from this study interpret themselves or see themselves on each of the scales. Looking at table 3 it shows whether notable means or standard deviations were present within this study. For each scale 124 usable participants (*n*=124) were included in this study.

The scale intrinsic motivation showed moderate high mean of 4.63 considering the absolute maximum was 7. With a standard deviation of 1.02 it was also had the highest standard

deviation of the scales. A high mean on Intrinsic Motivation would mean that students find themselves to be motivated towards academic tasks and activities. However, with a mean of 2.91 and a standard deviation of 0.74 on Academic Procrastination it also shows that students are moderately known to show behaviour of procrastinating. Goal setting shows a moderate high mean of 3.51 with an absolute maximum of 5 and a standard deviation of 0.68. The students in this study are therefore, known to be reasonably good at setting goals for themselves and think they are important. Self-efficacy also shows a moderate high mean of 3.02 with an absolute maximum of 4 and a standard deviation of 0.39. This shows that the students from this research experience a more than moderate belief in themselves to achieve academic tasks.

Table 3

Descriptive statistics of the constructs

Construct	*Scale range*	*M*	*SD*	*Min*	*Max*	*Sample (n)*
Academic procrastination	1-5	2.91	.74	1.40	4.50	124
Intrinsic motivation	1-7	4.63	1.02	1.17	6.83	124
Goal setting	1-5	3.51	.68	1.30	5.00	124
Self-efficacy	1-4	3.02	.39	1.90	4.00	124
Self-critical perfectionism	1-5	3.05	.78	1.00	4.83	124

4.2.3 Correlation analysis

To measure the relationship of the five constructs the Pearson's correlation coefficient test has been used. The condition for using the Pearson's correlation coefficient test is that the sample of a population has to be at least 30 ($n \geq 30$). Because the sample for this study was larger than 30 ($n = 124$) the conditions for using this test had been reached (Baarda, van Dijkum & de Goede, 2014). This test shows which of the constructs have a relationship to each other, how strong this relationship is and whether they correlate positively or negatively to each other.

Table 4

Correlation matrix of the constructs

Construct	1.	2.	3.	4.	5.
1. Academic procrastination	1.00				
2. Intrinsic motivation	**r= -.391*****	1.00			
3. Goal setting	**r= -.364*****	**r= .563*****	1.00		
4. Self-efficacy	r= -.089	**r= .257****	**r= .386*****	1.00	
5. Self-critical perfectionism	r= .079	r= .101	r= -.006	r= -.168	1.00

**. Correlation is significant at the .01 level (2-tailed)

***. Correlation is significant at the .001 level (2-tailed)

As shown in table 4, five significant correlations have been found. Each correlation had a significance of at least 0.005. This means that the chance of the correlation being based on coincidence is lower than 0.5%. When speaking of the strength of the Pearson's correlation the terms 'negligible' (0.00-0.10), 'weak' (0.10-0.39), 'moderate' (0.40-0.69), 'strong' (0.70-0.89) and 'very strong' (0.90-1.00) will be used (Schober, Boer & Schwarte, 2018)

When looked at academic procrastination and intrinsic motivation, there appears to be a weak/moderate negative correlation between these constructs ($r = -0.39$; $p < 0.001$; $n = 124$). This means that a weak/moderate negative relationship between academic procrastination and intrinsic motivation has been found. A weak/moderate negative relationship will tell us that whenever one of the constructs is more present, the other construct will be lower or vice versa. In this case it will mean that the more academic procrastination, the less intrinsic motivation or the more intrinsic motivation, the less academic procrastination.

When looked at academic procrastination and goal setting, there appears to be a weak negative correlation between these constructs ($r = -0.36$; $p < 0.001$; $n = 124$). This means that a weak negative relationship between academic procrastination and goal setting has been found. This means that whenever someone is procrastinating in an academic environment, the less goal setting is present for this person or vice versa.

Goal setting and intrinsic motivation showed a moderate positive correlation ($r = 0.56$; $p < 0.001$; $n = 124$). This is the strongest correlation that was found. A moderate positive

relationship between goal setting and intrinsic motivation means that these constructs will empower each other. More goal setting will result in more intrinsic motivation or vice versa.

Self-efficacy and intrinsic motivation showed a weak positive correlation ($r = 0.26$; $p < 0.005$; $n = 124$). A weak positive relationship has been found between these constructs. These constructs do empower each other but the relationship that has been found was not very strong. The last found significant correlation was found between Self-efficacy and Goal setting, these constructs showed a weak/moderate positive correlation ($r = 0.39$; $p < 0.001$; $n = 124$). This means there is a positive relationship between self-efficacy and goal setting on weak/moderate level. More self-efficacy will result in more goal setting or vice versa. The reason for using the term 'vice versa' is because the Pearson's correlation coefficient test only tells something about the strength of the correlation, if it is positive or negative and whether it is a significant correlation. It does not show a relationship on which of the construct is dependent for the other.

5. Conclusion, discussion and recommendations

This chapter will give an answer to the main research question by answering the sub-questions first. This be done based on the results that have been found in chapter four. Also, a comparison will be made with the existing literature that was found in chapter two. Furthermore, this chapter includes a discussion of this study and recommendations for the future will be made.

5.1 Conclusion

The goal of this research was to explore if there is a relationship between academic procrastination, goal-setting and specified character traits. Character traits were divided into three specific chosen traits, intrinsic motivation, self-efficacy and self-critical perfectionism. By means of doing quantitative research this study has explored this relationship in order to answer the research questions. The following three sub-questions were formed to answer the main research question and can now be answered:

''What is the relationship between, academic procrastination, goal setting and intrinsic motivation?''

The results of this study show that both goal setting and intrinsic motivation have an influence on academic procrastination. It has been found that both goal setting and intrinsic motivation correlate negatively to academic procrastination. This relationship means that when a person is intrinsically motivated and is competent with setting goals, the behaviour of academic procrastinating should be low. Also, there is a positive relationship between goal setting and intrinsic motivation. The relationship between goal setting and intrinsic motivation was the strongest relationship that has been found. This means that these constructs influence each other in the way that they reinforce each other. Thus, academic procrastination could be reduced by trying to increase levels of goal setting and intrinsic motivation. The positive influence of intrinsic motivation on academic procrastination was also expected as shown in chapter two (Brownlow and Reasinger, 2000). By working on goal setting and intrinsic motivation students would be more likely to show less academic procrastination. Therefore, students would be more likely to be successful at an academic level.

''What is the relationship between academic procrastination, goal setting and self-efficacy?''

The results of this study show that self-efficacy did not have a relationship with academic procrastination. This was remarkable because the literature told otherwise. Wäsche, Allgaier,

Lachner, Fink and Nückles (2014) did find that people with high recorded levels of self-efficacy were more likely to procrastinate less than people who showed low levels of self-efficacy. However, there is a positive relationship between self-efficacy and goal setting. This means that when people internally believe that they can execute certain actions or overcome obstacles and achieve goals are also known to be good at setting goals. These constructs empower each other. Also, a positive relationship between self-efficacy and intrinsic motivation has been found. Because self-efficacy has a relationship on both goal setting and intrinsic motivation it is possible that indirectly self-efficacy has an influence on academic procrastination. More self-efficacy could lead to higher levels of goal setting and intrinsic motivation which lead to less academic procrastination.

''What is the relationship between academic procrastination, goal setting and self-critical perfectionism?''

The results of this study show that there was no relationship between both self-critical perfectionism and academic procrastination or self-critical perfectionism and goal setting. Also, no relationship was found between self-critical perfectionism and intrinsic motivation or self-critical perfectionism and self-efficacy. This was fairly remarkable because according to the literature research in chapter two it was found that perfectionism was positively correlated towards academic procrastination.

Based on the background and introduction the following research question is formed:

> What is the relationship between academic procrastination, goal setting and character traits?

The outcomes of the sub-questions of this study show that there is a relationship between academic procrastination, goal setting and character traits and that they are interconnected to each other. The strongest relationship that has been found in this study is the relationship of Goal setting and intrinsic motivation on academic procrastination. The outcome shows that an increase in goal setting and intrinsic motivation should lower the amount of academic procrastination among students.

The character traits self-efficacy and intrinsic motivation had a positive relationship with goal setting. However, it was unexpected to see that neither self-efficacy nor self-critical perfectionism had any relationship towards academic procrastination directly. Therefore, this

research disproves that there is a relationship between self-efficacy and academic procrastination but also between self-critical perfectionism and academic procrastination.

5.2 Discussion

5.2.1 Validity, reliability and usability

All used scales are derived from literature research and scientific articles. Every scale is used for each specific construct to measure a phenomenon. These scales also had pilots or have been previously been used in scientific study. All names of each construct had a direct correlation to the phenomenon that was tried to be measured. For example, academic procrastination was tried to be measured by the Academic Procrastination Scale (McCloskey, 2012).

Furthermore, it is able to replicate this research by finding the same scales. Also, the appendices show the precise scales and items that have been used for this research can be found. Also, the results of the analyses in chapter four showed that this research was reliable because all scales showed a Cronbach's Alpha of at least 0.756. This meant that there was more than sufficient internal consistency within each construct to speak of reliable research.

The usability of this research can be found in the essence of the relationship and the influence of goal setting and intrinsic motivation on academic procrastination. Follow-up research is able to explore the precise influence of goal setting and intrinsic motivation on academic procrastination. This will be useful to get a better understanding on how to tackle the negative consequences of academic procrastinating behaviour.

5.2.2 Limitations

The limitations of this research can be found in the sample. There is an over-representation of females in contrast to males (86 females and 38 males). A more balanced sample was more preferable. However, this sample was gathered at random which is also preferable. For both a balanced and randomized sample there are benefits and drawbacks. Another limitation is the over-presentation in the current education in the sample (96 HBO and 28 WO). When trying to generalize 'higher education' and making conclusions about these students the sample is not balanced. Therefore, the conclusion might be more about students who are currently studying higher vocational education than about students in University.

This study was aimed at students on an academic level. Therefore, to answer the research questions no further conditions than being an academic student were needed to enter this study. This means that this study was limited by the research questions that were formed. A lot of other research questions could have formed to do a more extensive study. For example, differences

between gender, age and which year of education have not been investigated and were therefore overlooked. This was not a relevant focus to answer the research questions.

For follow-up research it could be very interesting to do research on the influence of age on academic procrastination. Also, this data could still be used for follow-up research as all data was collected anonymously and an informed consent was given for research purposes. For follow-up research it might be easier to find measurement tools which all have the same range on the Likert-scale. This research had many different ranges to measure each construct

It is also possible that the timing of this research brought limitations with it. With the rise of COVID-19 in 2020 it was hard for students to have proper education and a lack of motivation could have had an impact on the sample. Also, this research was spread via social media which reached a lot of students but could never have reached the whole population of students.

5.3 Recommendations

This research was made because there is a lack of knowledge on the topic of academic procrastination and influencing factors. As shown in chapter two the literature sometimes contradicts itself and also some of the results in chapter four are in contradiction to the literature. This means follow-up research has to be done to try and get a better understanding of academic procrastination and influencing factors. Because this study showed a discrepancy compared to the literature that was found it is still not certain what the true influence is of certain factors. More research is needed to verify or falsify relationships between academic procrastination and influencing factors. For follow-up research recommendations could be to try and find a more balanced sample. Another recommendation for follow-up research would be to do a more in-depth study on intrinsic motivation and goalsetting and their effects on academic procrastination. Also, it would be recommended to do a study which looks at the influence of age on academic procrastination. Because the prefrontal cortex is still developing when students are going to university. The prefrontal is linked to planning behaviour and plays a role in procrastination.

However, with the conclusion of this study it is possible to present a solution for this organisation. When looked at the conclusion it shows that intrinsic motivation and goal setting have an influence on academic procrastination. This would mean that by increasing levels of intrinsic motivation and goal setting, the behaviour of academic procrastinating should lower. Based on the conclusions of this research recommendations could be that Saxion University of Applied sciences develops a course in which they try to increase the levels of intrinsic motivation and goal setting for their students. This course could be made by applied psychology students or graduated applied psychologists. Applied psychology students are already suitable candidates for developing this course as they learn from it themselves and are able to help other

students with their studies. For example, second- or third-year psychology students could develop this course for first years. This could work like a buddy-system.

However, this course could also be given by a graduated applied psychologist as he or she will be more experienced to lead this course. Especially when this applied psychologist has experience as a coach or as a trainee. The course could be divided in three separate afternoons spread over two months.

For this course it would be recommended psychoeducation on the subject of intrinsic motivation, goal setting and academic procrastination. Also, in this course it would be recommended to implement exercises on how to set goals and to try and make students enthusiastic about their studies and why they made their choice for their study. At last, it would be recommended to do some self-reflection on the exercises of goal setting and how students look at their own procrastinating behaviour. This course should be done in groups as this experience could be more effective when people feel solidarity in a group.

References

Baarda, B., Van Dijkum, C., & De Goede, M. (2014). Wat is een Pearson's productmoment-correlatiecoëfficiënt en wanneer gebruik ik deze? In *Basisboek Statistiek met SPSS* (pp. 129-130). Groningen: Noordhoff Uitgevers.

Baarda, B., Van Dijkum, C., & De Goede, M. (2014). Hoe kan ik nagaan of een samengestelde score of schaal homogeen is? In *Basisboek Statistiek met SPSS* (pp. 148). Groningen: Noordhoff Uitgevers.

Bachrach, A. (2012). Understanding the Psychology of Procrastination and Overcoming it. Retrieved from: http://www.mosaichub.com/resource_center/resource/understanding-the-psychology-of-procrastination [15. 6. 2014].

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. Psychological review, 84(2), 191.

Bandura, A., Freeman, W. H., & Lightsey, R. (1999). Self-efficacy: The exercise of control.

Bandura, A. (2010). Self-efficacy. The Corsini encyclopedia of psychology, 1-3.

Brownlow, S., & Reasinger, R. D. (2000). Putting off until tomorrow what is better done today: Academic procrastination as a function of motivation toward college work. Journal of Social Behavior and Personality, 15(5), 15.

Çapan, B. E. (2010). Relationship among perfectionism, academic procrastination and life satisfaction of university students. Procedia-Social and Behavioral Sciences, 5, 1665-1671.

Choi, J. N., & Moran, S. V. (2009). Why not procrastinate? Development and validation of a new active procrastination scale. The Journal of social psychology, 149(2), 195-212.

Chow, H. P. (2011). Procrastination among undergraduate students: Effects of emotional intelligence, school life, self-evaluation, and self-efficacy. Alberta Journal of Educational Research, 57(2), 234-240.

Chun Chu, A. H., & Choi, J. N. (2005). Rethinking procrastination: Positive effects of" active" procrastination behavior on attitudes and performance. The Journal of social psychology, 145(3), 245-264.

Day, V., Mensink, D., & O'Sullivan, M. (2000). Patterns of academic procrastination. Journal of College Reading and Learning, 30(2), 120-134.

Dunn, K. (2014). Why wait? The influence of academic self-regulation, intrinsic motivation, and statistics anxiety on procrastination in online statistics. Innovative Higher Education, 39(1), 33-44.

Emerson, R. W. (2019). Cronbach's Alpha Explained. *Journal of Visual Impairment & Blindness*, *113*(3), 327–327. doi:10.1177/0145482x19858866

Gaumer Erickson, A.S. & Noonan, P.M. (2018). Goal setting formative questionnaire. In The skills that matter: Teaching interpersonal and intrapersonal competencies in any classroom (p. 179). Thousand Oaks, CA: Corwin.

Gröpel, P., & Steel, P. (2008). A mega-trial investigation of goal setting, interest enhancement, and energy on procrastination. Personality and individual differences, 45(5), 406-411.

Gustavson, D. E., & Miyake, A. (2017). Academic procrastination and goal accomplishment: A combined experimental and individual differences investigation. Learning and individual differences, 54, 160-172.

Hollender, M. H. (1965). Perfectionism. Comprehensive psychiatry, 6(2), 94-103.

Jadidi, F., Mohammadkhani, S., & Tajrishi, K. Z. (2011). Perfectionism and academic procrastination. Procedia-Social and Behavioral Sciences, 30, 534-537.

Kaller, C. P., Heinze, K., Mader, I., Unterrainer, J. M., Rahm, B., Weiller, C., & Köstering, L. (2012). Linking planning performance and gray matter density in mid-dorsolateral prefrontal cortex: moderating effects of age and sex. Neuroimage, 63(3), 1454-1463.

Lee, E. (2005). The relationship of motivation and flow experience to academic procrastination in university students. The Journal of Genetic Psychology, 166(1), 5-15.

Litvinova, A., Kokurin, A., Ekimova, V., Koteneva, A., & Pozdnyakov, V. (2019). Procrastination as a Threat to the Psychological Security of the Educational Environment. Behavioral sciences (Basel, Switzerland), 10(1), 1. https://doi.org/10.3390/bs10010001

Locke, E. A., & Latham, G. P. (2006). New directions in goal-setting theory. Current directions in psychological science, 15(5), 265-268.

McCloskey, J. (2012). Finally, my thesis on academic procrastination.

Ministerie van Onderwijs Cultuur en Wetenschap, Inspectie van het Onderwijs. (2019). De Staat van het Onderwijs 2019. Retrieved from: https://www.onderwijsinspectie.nl/documenten/rapporten/2019/04/10/rapport-de-staat-van-het-onderwijs-2019

Rozental, A., & Carlbring, P. (2014). Understanding and treating procrastination: a review of a common self-regulatory failure. Psychology, 5(13), 1488.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. Contemporary educational psychology, 25(1), 54-67.

Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients: appropriate use and interpretation. *Anesthesia & Analgesia*, *126*(5), 1763-1768. https://doi.org/10.1213/ANE.0000000000002864

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, Measures in health psychology: A user's portfolio. Causal and control beliefs (pp. 35-37). Windsor, UK: NFER-NELSON.

Senecal, C., Koestner, R., & Vallerand, R. J. (1995). Self-regulation and academic procrastination. The journal of social psychology, 135(5), 607-619.

Smith, M. M., Saklofske, D. H., Stoeber, J., & Sherry, S. B. (2016). The big three perfectionism scale: A new measure of perfectionism. Journal of Psychoeducational Assessment, 34(7), 670-687.

Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. Journal of counseling psychology, 31(4), 503.

Spector, P. E. (1992). *Summated Rating Scale Construction: An Introduction.*

Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. Psychological bulletin, 133(1), 65.

Stoeber, J., & Childs, J. H. (2010). The assessment of self-oriented and socially prescribed perfectionism: Subscales make a difference. *Journal of personality assessment*, *92*(6), 577-585.

Vallerand, R. J., Pelletier, L. G., Blais, M. R., Brière, N. M., Senécal, C. B., & Vallières, É. F. (1993). Academic motivation scale (ams-c 28) college (cegep) version. *Educational and Psychological Measurement*, *52*(53), 1992-1993.

Visser, L. (2020). Academic Procrastination among First-year Student Teachers.

Visser, L. B., Korthagen, F. A. J., & Schoonenboom, J. (2015). Influences on and consequences of academic procrastination of first-year student teachers. *Pedagogische Studiën*, *92*(6), 394-412.

Wäschle, K., Allgaier, A., Lachner, A., Fink, S., & Nückles, M. (2014). Procrastination and self-efficacy: Tracing vicious and virtuous circles in self-regulated learning. *Learning and instruction*, *29*, 103-114.

Ziegler, N., & Opdenakker, M. C. (2018). The development of academic procrastination in first-year secondary education students: The link with metacognitive self-regulation, self-efficacy, and effort regulation. *Learning and Individual Differences*, *64*, 71-82.

Zimbardo, P. G., Johnson, R. L., & McCann, V. (2013). *Psychologie: Een inleiding.* Amsterdam, The Netherlands: Pearson Benelux

Appendices

Appendix A Informed Consent

Dear participant,

Thank you for participating in this study. Note that you can only partake in this study if you are currently studying at either a University of Applied Sciences or a (regular) University.

This survey should take no longer than 20 minutes to complete. The survey starts with some demographic questions (sex, age, year of education) and in total 60 statements will be used to examine academic procrastination. By means of answering questions that are related to educational/university related tasks or activities. Note that different scales are being used in this survey. Keep this in mind when filling out the survey. Additional information will be provided.

Before you start filling in the survey, you are asked to read the following information carefully. At any point of this study, your anonymity will be ensured. The received data are confidential and processed anonymously and therefore it is disclosed in a personally unidentifiable way. Furthermore, the data will not be accessed by third parties. As your participation is completely voluntary, you can withdraw at any time from this survey without any reason. Only if you agree that your data will be used for academic purposes, your data will be analysed by students of the universities of Tomsk and Saxion University of Applied Sciences.

At the end of this survey, all participants who fully completed the survey are able to enter a lottery to win four different prices. For example: A free lunch for two, a beer tasting experience and some gift cards.
Note: You have to leave your e-mailadres at the end of the survey to be able to enter the lottery.

For additional information, please contact Ruben van Valderen by mailing to:
352522@student.saxion.nl

By checking ' I Agree' below, I indicate that I have read the information and I understand that my anonymous data will be used for academic purposes.

Appendix B Overview of the conceptual model after literature research
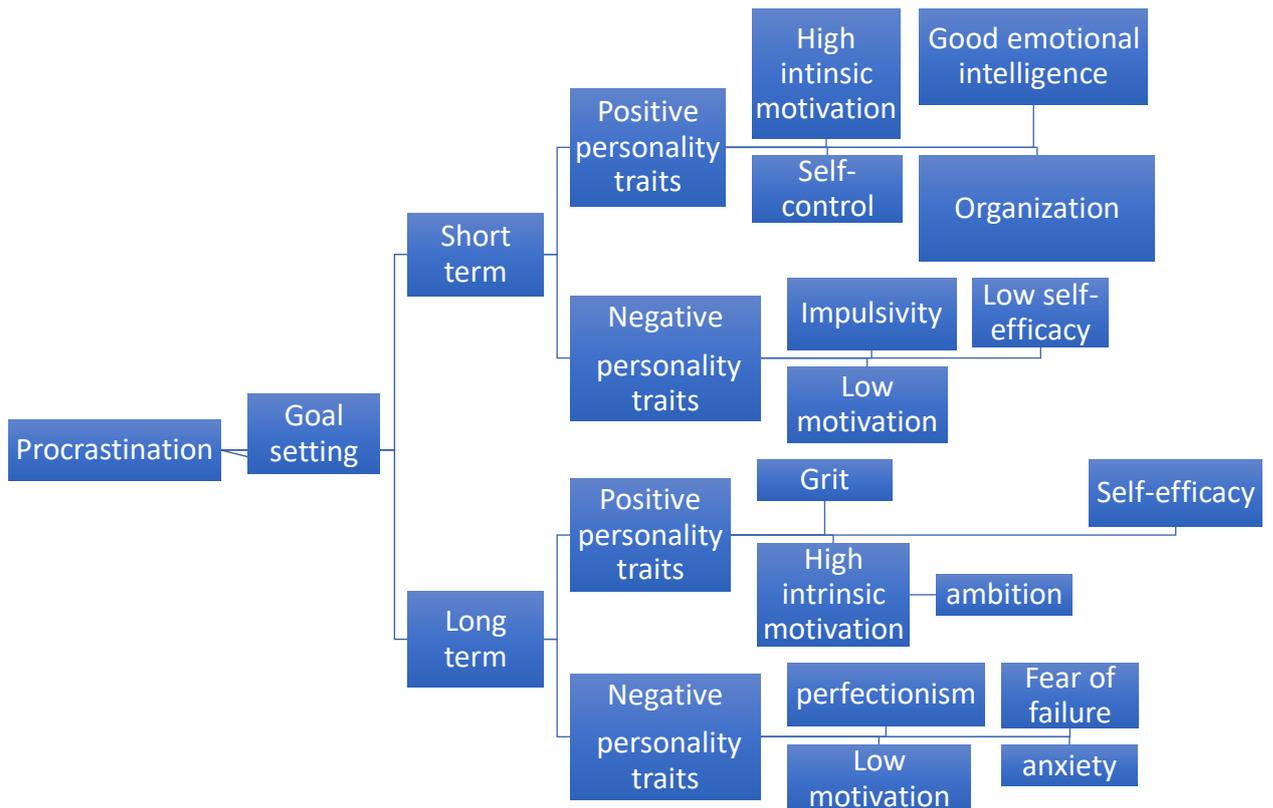
Constructed by Ruben van Valderen and Anita Navazhdai, 2020.

Appendix C Items of the online survey

Academic Procrastination Scale (McCloskey, 2012)

1. **I have found myself waiting until the day before to start a big project.**
2. **I know I should work on schoolwork, but I just don't do it.**
3. **When working on schoolwork, I usually get distracted by other things.**
4. **I waste a lot of time on unimportant things.**
5. **I feel prepared well in advance for most tests ***
6. **Tests are meant to be studied for just the night before.**
7. **I concentrate on schoolwork instead of other distractions***
8. **When given an assignment, I usually put it away and forget about it until it is almost due.**
9. **I find myself talking to friends or family instead of working on schoolwork.**
10. **I don't spend much time studying school material until the end of the semester.**

   * *Indicates reverse-scored items*

Academic Motivation Scale (Vallerand, Pelletier, Blais, Brière, Senécal & Vallières, 1992)

1. **Because I experience pleasure and satisfaction while learning new things.**
2. **For the intense feelings I experience when I am communicating my own ideas to others.**
3. **For the pleasure I experience when I discover new things never seen before.**
4. **For the pleasure I experience while surpassing myself in my studies.**
5. **For the pleasure that I experience while I am surpassing myself in one of my personal accomplishments.**
6. **For the pleasure that I experience when I read interesting authors.**
7. **For the pleasure that I experience in broadening my knowledge about subjects which appeal to me.**
8. **For the satisfaction I feel when I am in the process of accomplishing difficult academic activities.**
9. **For the pleasure that I experience when I feel completely absorbed by what certain authors have written.**
10. **Because my studies allow me to continue to learn about many things that interest me.**
11. **Because college allows me to experience a personal satisfaction in my quest for excellence in my studies.**

12. For the ''high'' feeling that I experience while reading about various interesting subjects.

Goal Setting Formative Questionnaire (Gaumer Erickson & Noonan, 2018)

1. I set short-term goals for myself (like finishing all my homework or exercising for an hour).

2. I set goals to help me be more successful in school.

3. Based on everything I know about myself; I believe I can achieve my goals.

4. I set long-term goals for myself such as earning a college degree or entering a career.

5. I set goals to help me do my personal best.

6. When I'm struggling, I set goals to help me improve.

7. I set goals to achieve what I think is important.

8. When I want to learn something, I make small goals to track my progress.

9. I set goals that are challenging but achievable.

10. My goals are meaningful to me.

General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995)

1. I can always manage to solve difficult problems if I try hard enough.

2. If someone opposes me, I can find the means and ways to get what I want.

3. It is easy for me to stick to my aims and accomplish my goals.

4. I am confident that I could deal efficiently with unexpected events.

5. Thanks to my resourcefulness, I know how to handle unforeseen situations.

6. I can solve most problems if I invest the necessary effort.

7. I can remain calm when facing difficulties because I can rely on my coping abilities.

8. When I am confronted with a problem, I can usually find several solutions.

9. If I am in trouble, I can usually think of a solution.

10. I can usually handle whatever comes my way.

*The Big Three Perfectionism scale (*Smith, Saklofske, Stoeber & Sherry, *2016)*

8. COM: When I make a mistake, I feel like a failure.

2. DAA: I have doubts about most of my actions.

6. SC: I have difficulty forgiving myself when my performance is not flawless.

5. SPP: People are disappointed in me whenever I don't do something perfectly.

17. COM: I am very concerned about the possibility of making a mistake.

11. DAA: I am never sure if I am doing things the correct way.

18. SC: When my performance falls short of perfection, I get very mad at myself.

9. SPP: Everyone expects me to be perfect.

24. COM: The idea of making a mistake frightens me.

22. DAA: I have doubts about everything I do.

19. SC: I judge myself harshly when I don't do something perfectly.

34. SPP: People make excessive demands of me.

35. COM: When I notice that I have made a mistake, I feel ashamed.

25. DAA: I feel uncertain about most things I do.

26. SC: I feel disappointed with myself, when I don't do something perfectly.

45. SPP: People expect too much from me.

44. COM: Making even a small mistake would upset me.

32. DAA: I tend to doubt whether I am doing something ''right''.

Beginning of the first month:

Day 1:

First part of the course:

- 45 minutes of psychoeducation on academic procrastination, goal setting and intrinsic motivation.
- 10-minute break.
- 20 minutes of an exercise on setting goals / achieving academic tasks on a short-term scale.
- 30 minutes of debating and self-reflecting in groups on how they perceive their own academic procrastinating behaviour and which solution they have.

End of the first month:

Day 2:

Second part of the course:

- 45 minutes of what students still remember of the psychoeducation on academic procrastination, goal setting and intrinsic motivation. Also, reintroducing the psychoeducation were needed.
- 10-minute break.
- 20 minutes of an exercise on setting goals / achieving academic tasks on a short-term scale. Also, reflecting on how they did.
- 30 minutes of debating and self-reflecting in groups on how they perceive their current academic procrastinating behaviour and if something changed.

End of the second month:

Day 3:

Third and last part of the course:

- 15 minutes of reflecting on the course, what went well and what went wrong.
- 5-minute break
- 20 minutes of an exercise on setting goals / achieving academic tasks on a short-term and long-term scale.
- 20 minutes of debating and self-reflecting in groups on how they improved and where there is still room for improvement. Also, fallbacks can be discussed with the whole group.

Appendix E Five Statements

   I.   Active procrastinators live a better life. / Actieve uitstellers leiden een beter leven.

  II.   Perfectionism is a consequence of a poor upbringing. / Perfectionisme is het gevolg van een slechte opvoeding.

III.   Procrastination is bad behaviour. / Uitstelgedrag is slecht gedrag

IV.   Setting big goals are better than setting small goals. / Het stellen van grote doelen is beter dan het stellen van kleine doelen.

  V.   Saxion should do more about implementing goal setting for their students. / Saxion zou meer moeten doen aan het implementeren van het stellen van doelen voor studenten.

Appendix F Eigenwerkverklaring

Ondergetekende student:

Ruben van Valderen: 353522

verklaart ondubbelzinnig dat:

1) dit werkstuk eigen werk is en derhalve geen inbreuk maakt op het
 auteursrecht van een ander.

2) alle gebruikte bronnen (waaronder internetpagina's) zijn voorzien van
bronvermelding.

3) het verslag voor niet meer dan 5 % aan overgenomen passages uit
'werk van anderen' bevat.

4) dit verslag ook digitaal is ingeleverd via Blackboard (SafeAssign).

Plaats: Deventer
Datum: 4 januari, 2021

Handtekeningen:
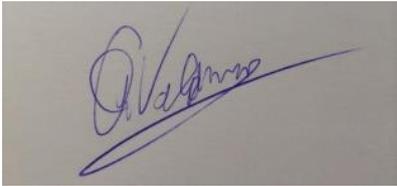
N.B. Schending van bovengenoemde 'Eigen werk verklaring 'wordt als fraude
aangemerkt als bedoeld in Art. 19 OER