

Exploring Methods to Minimise Procrastination in Higher Education

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Abstract

The purpose of this article is to examine ways in which to alleviate procrastination by presenting students with possible solutions to minimise the effect of the problem and assessing which methods they deem most helpful. The ultimate aim is to provide students with options to help reduce the occurrence of procrastination and its negative effect on academic performance. The quantitative research study was conducted by presenting a workshop on methods to alleviate procrastination to final year graphic design students and having them complete a questionnaire to determine the method perceived as most helpful. As part of the literature study the research examined reasons for procrastinating as well as the influence of self-efficacy and motivation to reduce the negative effects of procrastination. Results from the study indicate that there is no universal cause to procrastination as it deals with psychological and therefore individual issues meaning there is no universal 'cure'. The good news however is that there are some aspects where educators can help to alleviate its symptoms such as giving clear instructions, starting assignments in class and offering additional guidance and skills development beyond the curriculum.

1 Introduction and Context of the Study

William James noted over 120 years ago that "Nothing is as fatiguing as the eternal hanging on of an uncompleted task" (Klassen, Krawchuk & Rajani, 2007). Procrastination is not a new phenomenon; however, it is a costly one that can lead to stress and illness (Klassen et al. 2007). Wlodkowski (2005) identified procrastination as a major obstacle in adult learning. Solomon & Rothblum (1984:503) suggest that procrastination leads to poor academic performance, including low grades and course withdrawal.

Taken from this perspective, this study aims to explore methods in which to reduce the occurrence of procrastination in Higher Education students studying towards a degree in graphic design. It will do so with the help of a workshop aimed at providing students with various tools and methods to minimise the negative effect of procrastination on academic performance.

1.1. Background to the problem

Procrastination is extremely prevalent in adults (Harriot & Ferrari, 1996). Its consequences can be trivial, such as putting off Christmas shopping, to failing to plan for retirement which echoes into greater societal problems. Procrastination is also rampant in academia: It is estimated that over 70% of students engage in academic procrastination (Argiropoulou & Ferrari, 2015).

Hayden (2014) states that we are entering a 'golden age of procrastination.' Technology is frequently being blamed for this, as the rise of technology brings with it increasingly stimulating distractions such as social media, games, and films. As their popularity rises, so does the frequency of procrastination since students would more readily engage in leisure activities than academic ones.

Briody (1980 from Steel, 2007) estimates that over 95% of procrastinators wishes to reduce it. Although it is clear that there is a need to minimise its occurrence, there is still much to learn about its causes. Ferrari (1994:673) from Klassen et al. 2007) agrees that procrastination is "one of the least understood of human miseries" and that the theoretical constructs for procrastination are less well established than other psychological conditions in spite of its prevalence.

2 Problem Statement

2.1. Research problem and evidence to substantiate research problem

Procrastination predicts a decrease in work, and academic performance (Knaus, 2000:154). Students who procrastinate take longer to begin with important tasks, have less confidence in their abilities, and tend to have negative associations about their studies. Klassen et al. (2007) found that negative procrastinators had a lower self-efficacy for self-regulation.

Self-efficacy is the belief one has about one's abilities to successfully complete tasks (Bandura 1993:128) and has a direct influence on motivation. All tasks require some form of motivation for completion. People with high levels of self-efficacy are more likely to take on difficult tasks, seeing them as opportunities to learn and grow, whereas people with low levels of self-efficacy are more likely to avoid challenges. There exists a strong correlation between procrastination, self-efficacy and motivation (Klassen et al. 2007).

The tendency for procrastination increases the longer students study. Solomon and Rothblum (1984:503) note that final year students procrastinate more than their first-year counterparts. Based on this the study will be conducted using third year students as the sample population, studying towards a degree in graphic design.

Graphic Design is a deadline driven industry. Being able to manage one's time and meeting deadlines is a vital skill for any graphic designer to master. Failing to do so may result in devastating consequences such as major financial losses.

The group selected performs poorly when it comes to self-regulation and time management. Sixty to seventy percent of the group needlessly delay projects by taking too long to get started and not showing sufficient progress during the course of each project. Ten percent of the group habitually miss deadlines or ask for deadline extensions. This problem has been noted by the academic development co-ordinator, the student relationship manager, and all lecturers who engage with the group.

This problem was informally addressed by the author, whereupon all of the members of the group openly admitted to procrastinating on some level or another. It was verbally expressed that they are easily distracted, have difficulty getting tasks going, struggle to meet deadlines, which directly leads to poor academic performance.

2.2. Research Questions

This study aims to examine ways in which to alleviate procrastination by presenting students with suggestions to determine which methods they deem most helpful. The goal is to reduce the occurrence of procrastination as it has a negative effect on academic performance. The following questions will be addressed.

- Why do students procrastinate?
- Which of the methods against procrastination did students find helpful in minimising procrastination?
- In what way can students use methods against procrastination to expand academic prowess?

2.3. Research Objectives

This study aims to determine the value of exposing students to different methods to minimise procrastination and how it can be applied by students to achieve academic success. As

mentioned, little is known about the causes and preventative methods concerning procrastination in spite of its prevalence (Rozental, 2014 and Klassen et al. 2007). This study aims to investigate the reasons for student procrastination, along with identifying what types of procrastinators they are. This will in turn determine the best suited method in the alleviation of this ailment based on the findings.

3 Literature Review and Key Definitions

3.1 Literature Review

3.1.1. Overview of Procrastination in Higher Education and Graphic Design

As mentioned, procrastination is prevalent in higher education and it has a direct impact on students overall academic performance (Solomon & Rothblum, 1984:503 and Knaus and O'Brien from Steel, 2007:3). In spite of prevalence, much is still to be understood about its causes and its cures (Steel, 2007) as its exact nature is still being debated.

Due to its prevalence, it becomes crucial for educators teaching in a visual field, such as graphic design, to understand the workings of procrastination and motivation as students' self-efficacy has a direct impact on the work they produce (Richards, 2003).

3.1.2. Relevant previous research findings

Procrastination and self-efficacy are closely related (Steel 2007:15). Klassen et al. (2007) found that low levels of self-efficacy are indicative of procrastination. This means that students who have little faith in their own abilities tend to procrastinate more and in turn sparks a vicious cycle of poor performance (Knaus, 2000). Self-efficacy (Bandura 1982 from Knaus 2000 and Klassen et al 2007), looks at a person's ability to organise, regulate, and direct one's actions to achieve a desired outcome: high levels of self-efficacy often result in a positive outcome.

Other noteworthy mentions include Ringenback's (1971 from Knaus 2000:154) history of procrastination, *Parkinson's law* which dictates that students will take as long to complete a project as the time that they are offered, and *student syndrome*, which states that students will only engage with academic activities at the last possible moment (Smith 2010,409). In addition, Knaus (2000) has written extensively on procrastination including blame avoidance or exoneration theory and his Do-it-now method. Lastly Steel (2007) wrote about the nature of

procrastination and temporal motivation theory which is a combination of classical and established motivational theories.

3.1.3. Theoretical constructs

This study will present three different models to minimise procrastination to students. The first model is the six types of procrastinators identified by Sapadin (1999), suggesting ways in overcoming each. Procrastination types include the perfectionist, the dreamer, the worrier, the defeyr, the crisis-maker and the over-doer procrastination 'personality' type. Sapadin (1999) developed a self-assessment quiz to help individuals identify which type of procrastinator they are and offer possible solutions to assist in minimising procrastination per type.

The Do-it now model proposed by Knaus (2000) uses five key points in procrastination and sublimates them with positive alternatives in a sort of step by step programme. These steps include awareness, action, accommodation, acceptance, and actualisation.

The last method provides students with *Ten Tips* for minimising procrastination, which is made up by cross referencing from various sources (See table 1 below). Since there exists a seemingly endless wealth of information on procrastination and the alleviation thereof, this method tests the validity of more contemporary, however low-brow sources.

Table 1: Ten Tips for Minimising Procrastination with related sources.

Method	Sources
1. Start Easy	Starks, S.R. 2011
2. Break the task into smaller bits	Chua, C. s.a, Unstuck.com. 2016, Sapadin, L. 1999, Burns, D. 1989
3. Have a detailed timeline	Chua, C. s.a, Unstuck.com. 2016, Sapadin, L. 1999
4. Control distractions and the environment	Chua, C. s.a, Starks, S.R. 2011, Unstuck.com. 2016
5. Get a buddy	Chua, C. s.a, Unstuck.com. 2016
7. Rewards	Unstuck.com. 2016, Sapadin, L. 1999
8. KISS (Keep it safe and simple)	Chua, C. s.a, Sapadin, L. 1999, Burns, D. 1989
9. Focus on a positive outcome	Unstuck.com. 2016
10. Just do it.	Chua, C. s.a, Unstuck.com. 2016 Sapadin, L. 1999

3.2 Key Definitions

Related to the above, it is important to contextualise a number of key definitions that will influence the understanding of this research project.

3.2.1 Procrastination

Procrastination finds its origins in Latin: *pro*, meaning forward, and *crastinus* meaning tomorrow (Starks, 2011). Thus procrastination literally means to forward something to tomorrow. Freedictionary.com (2015) defines procrastination as “put off doing something, especially out of habitual carelessness or laziness.” Procrastination deals with a psychological, and therefore humanistic issues (Dietz, Hofer & Fries 2007:2).

3.2.2 Self-Efficacy

Self-efficacy is the belief an individual has in their own abilities to complete tasks or reach a goal (Bandura, 1993). Self-efficacy strongly influences the effort and persistence with which one will complete a task, and consequently the performance of a student (Klassen, Krawchuk & Rajani, 2007). Self-efficacy plays an important role in the self-regulation of motivation (Bandura, 1993:60).

3.2.3 Motivation

Motivation is an individual's ability to be moved into action (Ryan & Deci, 2000:54 and Jordan, Carlile & Stack, 2008:154). Motivation looks at the levels of energy, inspiration and drive that are needed to complete a task. A person is considered unmotivated if they lack inspiration or the drive to act (Ryan & Deci, 2000:54). Being aware of the functioning of motivation enables educators to drive students toward successes (Włodkowski, 2005).

4 Research Methodology

4.1. Post Positivism as Worldview

This study makes use of post-positivism as a worldview. Post positivism makes use of the scientific method and adapts it for the social sciences such as education (Taylor & Medina, 2013). Post positivism aims to be objective in its approach, and seeks to find universal correlations in social patterns and the way people behave. Furthermore, post positivism grants the researcher the opportunity to also engage with qualitative methods in understanding social phenomena, such as procrastination that deals with psychological or humanistic issues. Post-positivism supports social movements that aspire to better the world and lead to social change (Ryan, 2006:12). Here, it aspires to improve the lives of students by enabling them to better cope with procrastination.

4.2. Quantitative Methodology Description

Quantitative research, as the name implies, deals with quantities or numerical data. As it does not concern itself with beliefs or values, it is more objective in its approach than qualitative methods. It seeks to make conclusions based on general findings (Maree, 2012:145). Here, the phenomena must be researched, described and explained to gain a thorough understanding of the topic (SAGE publications 2010).

It is important to keep in mind that the research conducted is only exploratory in nature and small in scope. This means that the data collected cannot be generalised as it may not necessarily apply to other fields. Exploratory research is employed when the researcher wants to *explore* a topic or identify key concepts, usually in an unknown field (Du Plooy-Cilliers, 2014:75) within a limited scope.

4.3. Applicable Survey Design

The survey design type used is cross-sectional (Du Plooy-Cilliers & Cronje 2014:149). Cross sectional surveys aim to gain an understanding of a phenomenon in a specific point in time (1), allows for data to be collected based on individual characteristics (2), and combines it with information about the outcome (3): such as the best methods to employ in minimising procrastination (Du Plooy-Cilliers & Cronje, 2014:149).

4.4. Questionnaire Design and Data Collection Method

The research will be conducted by making use of data collected from a questionnaire. The questionnaire is designed to meet the research objectives set out above (FOA Corporate Document Repository n.d.). Care has been taken to ensure that the questions asked align the issues, aims, literature review of the study (Burgess, 2001:6).

The questionnaire (Annexure A) contains various types of questions such as open and closed ended questions, multiple choice questions, and rankings. Various question types were used to ensure user friendliness and efficiency in creating an accurate portrayal of the situation. In addition, special care has also been given to factors such as (1) the appearance of the questionnaire, (2) question sequence, (3) wording of questions and the (4) response categories as Maree (2012:158) suggest. This has influenced the sequence in which the questions were asked: The questionnaire starts by trying to determine the prevalence of, and reasons for procrastination, to determine if there is a common cause. It then moves on to investigate the perceived usefulness of each of the methods demonstrated to minimise procrastination.

As motivated above, the study will make use of a cross-sectional survey that will take place in the third year graphic design course, during the first semester in 2016. The study will take the form of a one-hour workshop that focuses on methods to alleviate procrastination in an attempt to minimise this negative behaviour. This will then be followed by the survey, taking approximately 1015 minutes to complete.

5 Population and Sampling method to be applied

5.1. Description of the population

As was stated, procrastination is extremely prevalent in higher education (Knaus and O'Brien from Steel 2007:3), and its frequency increases as the student's academic career progresses (Solomon & Rothblum 1984:128). It was also found that there is no significant gender difference when it comes to engaging in procrastination (Ferrari and Olivette 1993, from Harriott & Ferrari 1996:611). For this reason, the study used respondents of both genders, who exhibit signs of procrastination, in their third and final year of degree studies, roughly aged between 20 and 22.

5.2. Sampling method and Size

As it is impossible to use the entire population identified, the study makes use of a sample group (Du Plooy-Cilliers et al. 2014:131). Sampling carries several benefits including reduced costs, an increase in speed in data summarisation, and a greater accuracy because of reduced numbers (Ross 2005),

A non-probability convenient sampling method was used for the study as the respondents are conveniently close and easily accessible (Ross 2005 & Maree 2012:172). Convenient sampling has the advantage of being cost and time effective. However, it is frequently critiqued for being biased as researchers can be selective about who they include, or omit (Ross, 2005).

To ensure accurate results, Ross (2005) advises that the sample group exhibit the same characteristics as the population identified. As such third year graphic design students aged between 20 and 22 were selected to partake, leading to a final sample size of ten students.

5.3. Limitations Applicable to the Research.

Du Plooy-Cilliers et al. (2014:275) define limitations as restrictions or constraints in the research that is beyond the researcher's control, including time, budget and resource disposal. This study is limited by the sample size as access to respondents is restricted. Since only a small sample size can be pulled, the results cannot be used as a generalisation. Furthermore, the research is only exploratory in nature which implies that the findings may not be comprehensive or accurately estimated. Lastly, since the study deals with a change in behaviour, the impact of the intervention needs to be tested over a longer period, fully measure if any changes have occurred.

5.4. Ethical Considerations, Validity and Reliability.

Great care has gone into conducting the research with integrity and in an ethical manner as a lack thereof can have far reaching consequences (Du Plooy-Cilliers et al 2014:265) and brings the validity of the research into question. For this reason, participation was done on an entirely voluntary basis, as Trochim (2006) suggests. Respondents were not persuaded with rewards or threats as it can influence how they answer the questions (Du Plooy-Cilliers et al 2014:265). Furthermore, respondents were made fully aware to the procedures and risks involved and every effort has been made to ensure that the results presented are valid and reliable (Verhoef

& Hilsden, 2004). No information was fabricated or changed to swing in favour of the desired outcome.

6 Results

6.1. Data analysis process.

Khan (from Du Plooy-Cilliers et al. 2014:205) suggest that data needs to be analysed and reworked into meaningful material in a manner that is suitable and just to make valid conclusions. The survey results from the ten respondents was analysed according to the model suggested by Tochim (2006:A) which includes three steps namely: data preparation, descriptive statistics and inferential statistics.

Firstly, in terms of data preparation, the data was checked for accuracy to pick up on any errors (Verhoef & Hilsden 2004:23) and numbered for the sake of record keeping. Next the raw data was entered into Excel to be calculated and logged. Authors such as Hannon (2007) recommend starting with the easy questions such as close ended questions, such as questions 1-6, 10.1 and question 12. These results were captured by use of a Likert scale ranging from 1 to 5.

The open-ended questions, question 7 to 9, 10.2 and question 11 were looked at later as they present more qualitative data. This was done under the descriptive statistics phase (Tochim, 2006:A) where the data is described with rudimentary structures to highlight patterns the information is pointing toward (Verhoef & Hilsden 2004:23).

After the initial assumptions were made, the data was again reviewed to look deeper at the associations between variables. This *inferential statistics* phase strengthens original assumptions and highlights patterns in hope to answer the research questions posed.

6.2. The results from the survey

The results and findings from the survey are posted below. For the sake of clarity and argument, questions that are similar in nature are grouped together. The findings and analysis are also grouped together for ease of reading.

6.2.1. Category 1: Occurrence of procrastination and the need to reduce it. (Question 1-3)

Questions 1-3 deals with the prevalence of procrastination and the need to reduce it. One hundred percent (100%) of the respondents identified themselves as procrastinators, and 90% of the respondents indicated a desire to reduce the occurrence of procrastination (Figure 1). Respondents placed themselves between average (40%) and high levels (50%) of procrastination (Figure 2).

Percentage of participants who would like to reduce the occurrence of procrastination (Question 3)

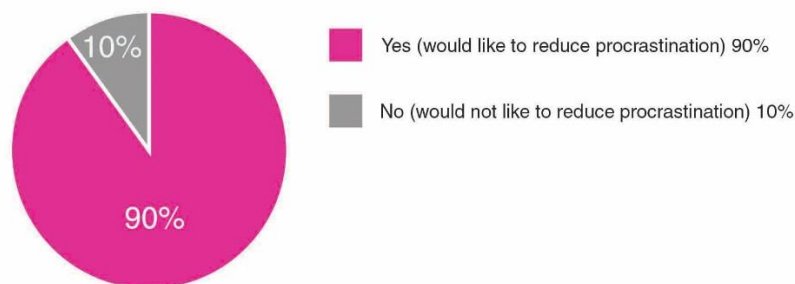


Figure 1. Percentage of respondents who would like to reduce the occurrence of procrastination.

Level of procrastination (Question 2)

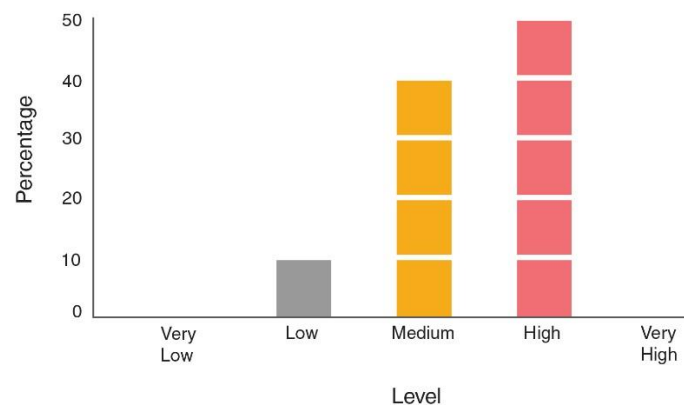


Figure 2: Levels of procrastination.

The research findings are in accordance with the Knaus and O'Brien (Steel 2007:3) who argues that all students procrastinate to some level, and Briody (Steel, 2007) who estimates that over 95% of procrastinators wishes to reduce it. Respondents see themselves overall as high levels of procrastinators.

6.2.2. Category 2: Reasons for procrastinating (Question 4, 10, 11, & 12)

Questions featured in category two aims to identify the reasons why students procrastinate. If it can be understood why students procrastinate, it becomes easier to find possible solutions to this behaviour, in other words the cause gives guidance to the cure. The results as to why students procrastinate are displayed using the following legend (Figure 3):



Figure 3: Survey results Legend

6.2.2.1 Scared to Begin

Question 4.1 and 12.3 address the difficulty in starting a task: Forty percent of participants agree that they are scared to begin while 50% of responses are mostly neutral to getting academic tasks going (Figure 4). This implies that students find it difficult to get academic tasks going. One or two respondents commented that they find it very hard to begin, but once they get started the task becomes easier.



Figure 4: Results: Scared to begin

6.2.2.2 Fear of Failure

Questions 4.11, 12.1 and 12.2 (Figure 5) examined the fear students have of failing. An alarming 60% of students strongly agree that the fear of failure worries them. Similar findings were repeated in question 4.11 where the figure rises to 80%. Forty percent of students also strongly agree that if they fail, others will think less of them. Fear of failure is often a cause for procrastination (Burns 1993) as it can become paralyzing. Both Burns (1993) and Sapadlin (1999) suggest that perfectionism may be the root case for this as students resort to 'black and white' thinking where everything that is not perfect is a waste of time. Sapadlin (1999) advises to strive for what is achievable rather than what is ideal.



Figure 5: Result: Fear of Failure.

6.2.2.3 Perfectionism

The findings show that there is a need to submit 'perfect' work with 50% (40% agree and 10 strongly agree) of students agreeing with this. It is interesting to note that the need to be perfect does not directly relate to being the best in class. This seems to imply that the standard of perfection is self-imposed and not determined by peers, as being seen as 'the best' rates fairly neutral.



Figure 6: Results: Perfectionism.

6.2.2.4 Workload

Questions 4.8 and 12.9 (Figure 7) illustrates that 70% to 80% of students agree or strongly agree that they have too much work to do, inspire of the curriculum and academic schedule, such as the correlation of hand in dates was strategically worked out to avoid this. It is possible that the respondents are shifting the blame to the institution for bombarding them with work.

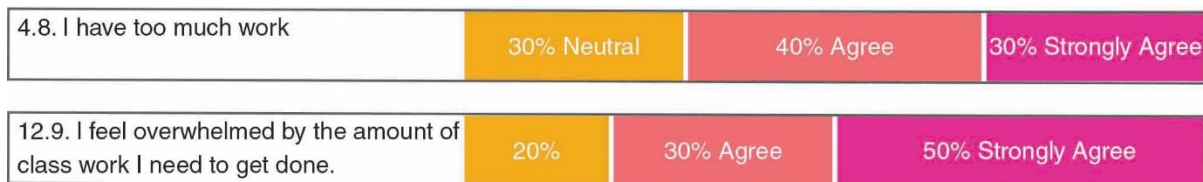


Figure 7: Results: Workload

6.2.2.5 Task Enjoyment

Task enjoyment plays a big role in procrastination (Wray 2014). Sixty percent of students agree, and 20% of students strongly agree that they will avoid a task if they are not interested in it (Figure 8). Fifty percent also agree that they will also procrastinate in it if they don't find the task enjoyable. Distraction also plays a major role in procrastination– with 50% of the respondents strongly agreeing that they are easily distracted. This impulsive distraction becomes problematic when long term rewards are being put off in favour of short term temptations (Steel 2010). Boredom and 'having better things to do' showcases fairly neutral correlations when it comes to reasons why students procrastinate.

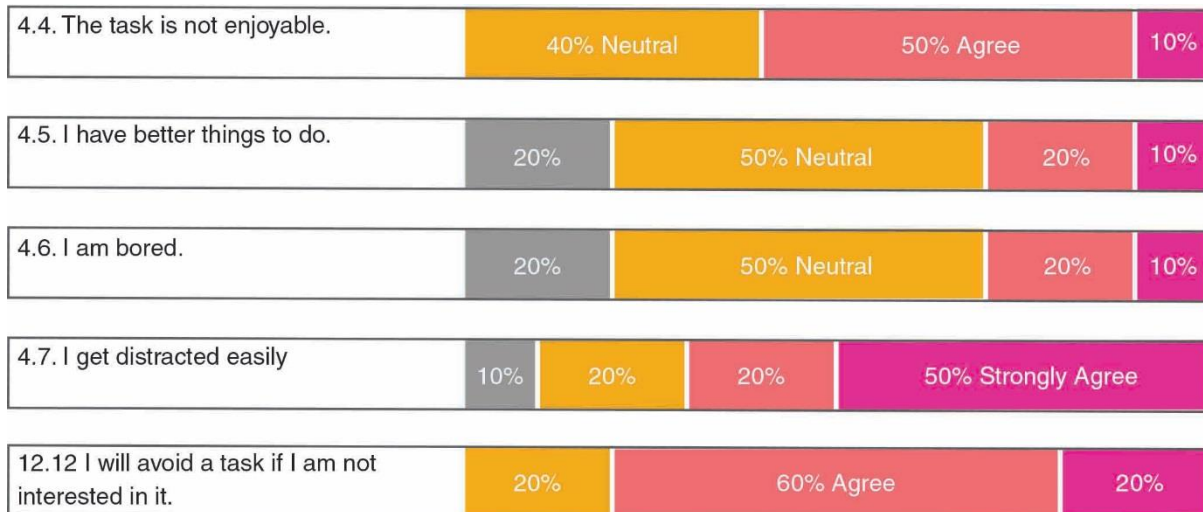


Figure 8: Results: Task enjoyment

6.2.2.6 Time management

Procrastination is seen as an inability to regulate oneself (Rozenal, 2014) and goes hand in hand with time management. The study found that respondents are neutral to negative with regards to their time management abilities. Fifty percent disagree in stating that they can estimate how long it will take them to do a task (Figure 9), whilst 60% of respondents indicate that they make detailed lists of what it is they need to do. Since respondents were not asked how closely they stick to these lists, it is not possible to draw conclusions between the comprehensiveness of lists and the actual execution thereof. When it comes to balancing academic responsibilities with personal life, 40% strongly agree and 10% agree that they found it difficult, whereas 40% are neutral and 10% find it difficult.



Figure 9: Results: Time management

6.2.2.7 External influences

Fifty percent of respondent agreed (10% agreed and 40% strongly agreed) that it is the lecturer's responsibility to motivate them, where the remaining 50% was neutral toward this regard (Figure 10). Students also agreed (50% agree and 10% strongly agree) that they work better if the lecturer imposes strict deadlines. Here, however, motivation is external as the responsibility falls on the educator to regulate the student.



Figure 10: Result: External Influences

6.2.2.8 Internal influences

As mentioned, self-efficacy and motivation play a big role when it comes to procrastination. Authors such as Wlodkowski (2005) advocate that internal motivation is preferable to external motivation as it results in higher academic achievement. Students who are internally motivated are more content in their studies, retain and apply their knowledge better, and perceive themselves as more competent. When it comes to self-efficacy and their internal belief systems, respondents tended to be divided. Respondents were neutral (40%) to negative (30% disagree and 10% strongly disagree) when in agreeing that they are lazy. Results were neutral when it came to skill competency as 30% disagreed, 40% was neutral, and 30% agreed that they have the necessary skills to complete a task (Figure 11).



Figure 11: Result: Internal Influences.

6.2.2.9 What can be done

From these findings it is evident that students are not always sure about the task at hand as 40% agreed, and 10% strongly agreed (Figure 12) to this. The group also defiantly prefers a calm predictable class environment with 60% agreeing and 10% strongly agreeing to this. Forty percent have also strongly agreed that they want immediate results, and don't want to wait for an outcome. Most of these factors the educator has control over and may be useful to look at in an effort to reduce the occurrence of procrastination.

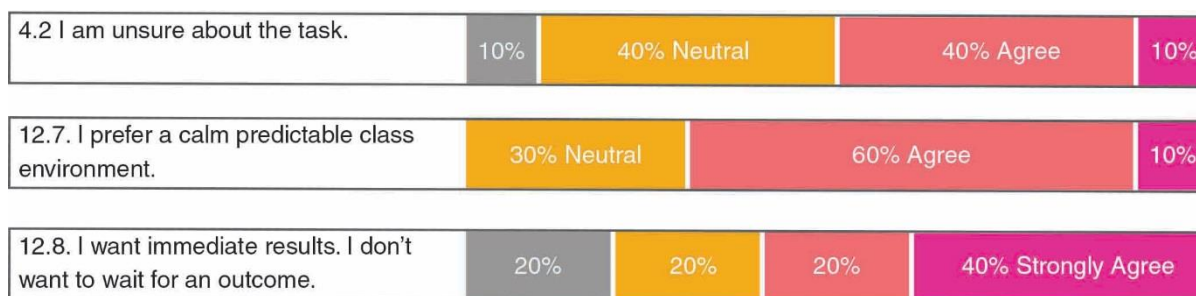


Figure 12: Result: What can be done

6.2.2.10 Other

Respondents tend to be divided as to knowing why they procrastinate, with 30% agree to knowing why and 20% strongly agree to knowing why (Figure 13). However, in comparison to the other statistics shown, this result leans toward the neutral. Question 4.10 simply reaffirms that students procrastinate, with 90% agreeing that they do procrastinate. Eighty percent of the group liked the way the workshop was presented and approximately 90% (40% agreeing and 50% strongly agreeing) of the group found the workshop helpful. Seventy percent (60% agree and 10% strongly agreeing) stated that they will use the methods shown in their daily activities.



Figure 13: Results: Other

6.2.3. Category 3: Methods to minimise procrastination. (Question 5-11)

This section represents the findings of which methods students deemed most helpful in minimising the occurrence of procrastination.

6.2.3.1. Overall

Overall the *Six Types* (ST) and the *Ten Tips* (TT) are closely matched in terms of preference, with the *Do-it-now!* (DIN) method not dragging far behind (Figure 14). All results show a positive reaction towards the methods -this is also evident in the comments that were received. However, this is problematic as results remain inconclusive as to which method the respondents prefer.

Methods participants found most helpful

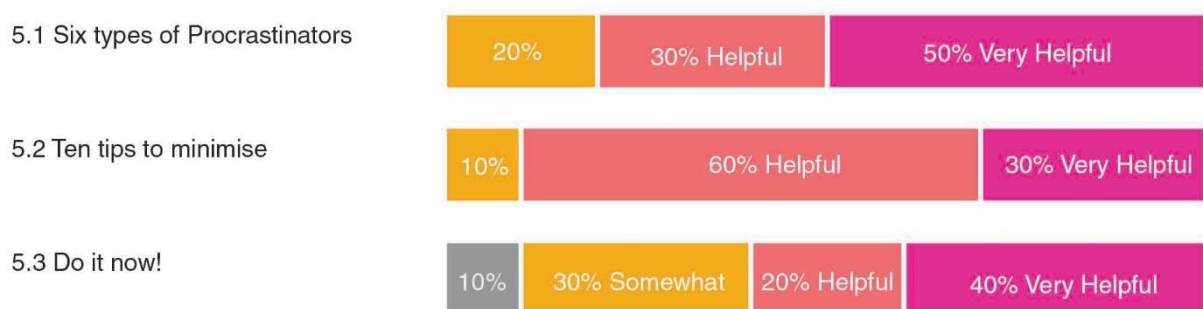


Figure 14: Results: Methods participants found most helpful.

6.2.3.2. Method 1: Six types of procrastinators (Question 7)

This question aims to determine which of the six procrastination personalities identified by Sapadin is the most prominent in the sample group. Results were fairly evenly distributed between the different 'procrastination personalities' with dreamer, worrier, defyer and over-doer each achieving 20% and crises maker and perfectionist each having 10% (Figure 16). This means that there is no dominant personality type and that each student is unique as was also observed by Rozental (2014).

Procrastination Personality Types (Sapadin)



Figure 16: Results: Procrastination Personality Types (As identified by Sapadin)

Respondents liked the fact that this method 'links to personality types'. It was suggested that because this is a personal approach that accommodates the individual, it makes it easier to solve the problem as the one-size-fits-all mentality does not apply. Most comments (60%) followed this path.

6.2.3.3. Method 2: Ten Tips to minimise procrastination (Question 8)

Respondents reacted positively to the ten tips method and found it 'helpful, informative and motivating.' They also suggested that the method only works if it is applied and that it 'seems easy enough but it may not be when it comes down to it' or it only applies to certain tasks. The information is easy to digest as it is presented in bite-size bits. One respondent mentioned that it is helpful in the sense that he/she does not have to 'figure it out on my own'.

6.2.3.4. Method 3: Do it now! (Question 9)

Respondents found it hard to 'change to this mind set' of the *Do-it-Now!* method. The suggestion of simply 'doing it' did not seem greatly helpful as it seemed slightly obvious. Others again found it easier to keep going once they got started and found it the 'perfect motivation! Just do it, you are going to have to eventually anyway'. Thirty percent of respondents responded positively to this method were 10% were negative, the remaining 60% did not comment.

6.2.4. Category 3: Methods to minimise procrastination: Discussion

Due to the complicated nature of procrastination there is no one-size fits all solution. Results were also close as to which methods students prefer. It is the believe of this paper that Sapadlin (1999) is on the right track as her method works on identifying the individual and finding a tailor-made solution, however as mentioned matters are more complex than that.

Respondents kept on repeating that 'it is easy if they can only get started' - which is in a way, is the method Knaus (2000) suggests. Knaus aims at creating a sort of a 'system overhaul' to address deeply rooted psychological issues that aims at creating a dramatic and lasting change in the individual's mindset and habits. This however is a process and does not offer the quick solution as the Ten Tips offer. Although the respondents found the Ten Tips more helpful it is based on a short-term solution to get you going.

The difficulty is that the study needs to be done more in depth and over a longer period of time to see if true change has occurred or not. Although all respondents (100%) did state that they will use the methods shown, it remains to be seen.

7 Findings, Recommendations and Contribution

The exploratory research conducted confirms that procrastination is a major performance barrier to learning in higher education (Wlodkowski, 2005). It is evident that help is needed, however it is not clear what the best method is to do so as respondents seemed to grasp at anything thrown their way.

As to identifying the main reason why students procrastinate it may be too soon to jump to conclusions as Steel (2007) suggests. Although it was observed that fear of failure, and distraction rank among the highest reasons. The difficulty lies in that it is hard to pinpoint the exact reason why students procrastinate since procrastination deals with psychological, and therefore individual issues. Procrastination is more than just putting something off, it is a 'complicated failure of self-regulation' and intrinsically tied to emotions and deeply rooted psychological issues (Jaffe, 2013), which is regrettably beyond the reach of this study.

This is not to say that the reduction of procrastination is a lost cause. From an educator point of view there is a lot that can be done. Educators can ensure that they explain the task clearly so students know what to do and what is expected of them. Assignments can be started in class so students can get over their initial fear of starting or knowing where to start. Students skill levels need to be assessed to determine if and where help is needed. For example, if a student struggles with photoshop, the educator can help with remedial classes. This in turn will boost student self-efficacy. Students need to come accustomed to managing their time effectively. The study found that students work better if an educator imposes 'mini' deadlines throughout a project as they can gauge where they are and work according to a steady pace.

The difficulty still remains that ultimately it is the student who is responsible for their own learning and motivation as they will have to be self-reliant on completion of their studies. However, these are fundamental skills that form a part of a student's education and sets them on a course towards a better future.

The researcher would recommend further research on the topic of procrastination since the study was only exploratory in nature and small in scope with a sample size consisting of only ten participants. Furthermore, the scope was too broad, and perhaps overly ambitious. The results concluded only reflected a snapshot of a potential behavioural change that needs to be measured over a longer period of time.

8 Conclusion

This study has demonstrated that procrastination poses a real barrier to learning and that there is a need to reduce its occurrence. However, doing this is easier said than done as it is difficult to pinpoint its exact causes. It was determined that each case is individual and should be treated as such, this idea is supported by authors such as Rozental (2014). Sapadlin (1999) also brought fourth this notion by classifying procrastinators into various 'procrastination personalities' in an attempt to 'treat' each based on its own merit.

The difficulty lies in that the individual, here the student, needs to find what works for him/her in order to be able to regulate themselves. This does not mean that they need to walk the journey alone. There are some factors that educators have control over as mentioned above and supported by Weimer (2009). However it is the opinion of the author that it is the primary function, and unique privilege, of the educator to sculpt and guide the mind of an individual into being a better version of him/herself, as opposed to just getting a degree for job assurance.

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Annexure A: Questionnaire

Methods to Minimise Procrastination in Higher Education

Dear Respondent

This questionnaire is part of a survey which intends to gather responses from Higher Education students at a currently involved in Graphic Design as a study field. It forms part of a larger research document that explores methods to minimise procrastination in Higher Education.

By taking part in this workshop and completing this questionnaire you are making an important contribution to the study of academic procrastination, and ultimately the future of teaching and learning in Higher Education.

Be assured that your responses are completely anonymous. Responses to the survey cannot be traced back to you the respondent. No personally identifiable information is captured unless you voluntarily offer personal or contact information in any of the comment fields. Additionally, your responses are combined with those of many others and summarized in a report to further protect your anonymity.

Thank you kindly for participating in the research

Instructions

- Please answer all the questions as truthfully as possible.
- Where applicable, indicate your response to each item by circling the appropriate number.
- Where relevant, use the spaces provided to add your own comments if you wish.

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Question 1: Would you identify yourself as a procrastinator? Please tick the relevant box.

Yes	No
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Question 2: At what level of procrastination would you place yourself? Please tick the relevant box

Very Low	Low	Average	High	Very High
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Question 3: Would you like to reduce the occurrence of procrastination? Please tick the relevant box.

Yes	No
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Question 4: Why do you procrastinate? Use the scale below to give an indication of how much each of the possibilities apply to you.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am scared to begin					
I am unsure about the task at hand					
I am lazy					
The task is not enjoyable					
I have better things to do					
I am bored					
I get distracted easily					
I have too much work to do					
I don't know					
I don't procrastinate					
I'm scared I will fail					

Question 5: Which one of the methods did you find most helpful? Use the scale below to give an indication of how much each of the methods apply to you.

Method	Not Helpful	Disagree	Somewhat helpful	Helpful	Very Helpful
Six (6) types of procrastinators					
Ten tips to minimise procrastination					
Do it now!					

5.2 Suggest a reason why you found these method(s) helpful:

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Question 6: What type of procrastinator are you?

Perfectionist	Dreamer	Worrier
Defyer	Crises maker	Over-doer

Question 7: What are your thoughts on the six types of procrastinator's method?

Question 8: What are your thoughts on the *Do-it-Now!* method?

Question 9: What are your thoughts on the Ten-tips-to-minimise-procrastination method?

Question 10:

10.1 Would you use any of these methods in your studies?

Yes	No
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10.2 Suggest a reason why or why not?

Question 11: What do you believe would motivate you in your studies?

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Question 12: Please explain your views on the following statements related to procrastination within your academic environment:

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The prospect of failing worries me.					
If I fail others will think less of me.					
I have difficulty getting academic tasks going.					
I need to be the best in class.					
Whatever I hand in needs to be perfect.					
I believe that I have all the skills needed to complete the tasks expected of me.					
I prefer a calm predictable class environment.					
I want immediate results. I don't want to wait for an outcome.					
I feel overwhelmed by the amount of class work I need to get done.					
I find it difficult to balance academic responsibilities and personal life.					
I am able to motivate myself to get my work done.					
I will avoid a task if I am not interested in it.					
I am good at managing my time.					
I can accurately estimate how long it will take to complete a task.					
I make detailed lists of tasks I need to get done.					
I found the workshop helpful.					
I am going to implement the methods shown in my daily activities					
The educator (Lecturer) is responsible for motivating me					
I work better if the Lecturer imposes strict deadlines					
I like the way the workshop was presented					

End of Questionnaire, thank you for your time