

Anti-Procrastination Strategies, Techniques and Tools and Their Interrelation with Self-Regulation and Self-Efficacy

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Abstract

Academic procrastination generates several problems and negative consequences both individually and collectively: low student performance, increased stress, negative effects on physical and mental health, and general waste of resources. Therefore, it demands to be studied and understood in its different forms, so that mitigating mechanisms can be developed. The current work seeks to analyse the phenomenon of academic procrastination within postgraduate students registered for the Management Postgraduate Program in a Brazilian Federal University, in order to identify strategies, techniques and tools utilised by the students to overcome procrastination as well as its relation with the concepts of self-regulation and self-efficacy. The current research is descriptive with a qualitative nature, adopting a phenomenological approach through thematic analysis in order to bring to light the experiences and perceptions of individuals from their own perspectives, challenging structural or normative assumptions. In total, 24 students, 12 from the master's degree program and 12 from the doctorate program in Management were interviewed. As a result, it was noticed that there are some overall inferences that can be taken from the narratives, outlining the phenomenon of academic procrastination and its relations with the concepts of self-regulation and self-efficacy, which led to reinforce the notion that the central elements to understand and specifically combat procrastination are related to the concepts of self-efficacy and self-regulation, which have a considerable influence on students' motivation, behaviour and habits. The research has also pointed to some key strategies, techniques and tools that can be utilised to support further applied research as well as to guide the faculty in supporting the students to overcome or mitigate the procrastination impulse, such as use of goal orientation, visual tools, and academic support starting with undergraduate degrees. The work has an original contribution as no research has been made on that topic utilising qualitative data through a phenomenological approach, which opens a vast and new path for future research.

Keywords: academic procrastination, self-regulation, self-efficacy, anti-procrastination strategies, techniques and tools

1. Introduction

Procrastination is the choice or predisposition to delay an activity or decision that is necessary and that has a specific deadline for its fulfilment, where the expectation of possible negative consequences outweighs the positive consequences of a possible delay, but does not prevent it (Hailikari, Katajavuorini, & Asikainen, 2021; Milgram, Mey-Tal, & Levison, 1998). Procrastination is generally irrational, anti-productive and generated by internal forces, sometimes causing considerable psychological, social and even physical discomfort (Hailikari, Katajavuorini, & Asikainen, 2021; Klingsieck, 2013).

Academic procrastination is a common phenomenon amongst university students, there is evidence that 50% of students procrastinate regularly, whilst approximately 95% occasionally procrastinate in some aspect of their

academic activities (Hailikari, Katajavuorini, & Asikainen, 2021; Zerbe & Berdanier, 2020; Steel, 2007; Senecal, Koestner, & Vallerand, 1995).

Academic procrastination causes severe problems to students and universities alike: poor student performance, increased stress, negative effects on physical and mental health, wastage of resources and talents (Hailikari, Katajavuorini, & Asikainen, 2021; Klingsieck, 2013), hence, it demands to be studied in depth and understood in its different forms in order to develop overcoming mechanisms (Kennedy & Tuckman, 2013; Senecal, Koestner, & Vallerand, 1995).

Research on procrastination whereas in general terms or focused on academic procrastination presents several challenges for the researcher: it lacks a coherent theoretical explanation of behaviour; the phenomenon is difficult to be understood; the surveys have different angles that make it difficult to follow the results; and there are still several methodological difficulties regarding the measurement of the phenomenon and the validity of the results obtained (Hailikari, Katajavuorini, & Asikainen, 2021; Zerbe & Berdanier, 2020; Steel, 2007).

Given such intricate conceptual background, the relevance of the theme, as well as the absence of significant qualitative research on the problem of academic procrastination, specifically on its solution or mitigation in business literature, where there is a lack of robust theoretical foundation in organisational studies regarding strategies, tools, and techniques for overcoming procrastination, as well as a dearth of diverse experimental research (Costa, Bezerra, Ramos, & Araújo, 2022; Hailikari, Katajavuorini, & Asikainen, 2021; Zerbe & Berdanier, 2020; Zhou & Kam, 2017; Kennedy & Tuckman, 2013), the current work seeks to analyse the phenomenon of academic procrastination within postgraduate students enrolled at the Management Postgraduate Program in Brazilian Federal University, in order to identify strategies, techniques or tools utilised by the students to overcome procrastination as well as its relation with the concepts of self-regulation and self-efficacy.

According to Klingsieck (2013), the study of motivation has distinct perspectives: it can be focused on aspects related to: a) Motivation and volitional perspectives – lower levels of self-regulation and academic self-efficacy with higher levels of stress and anxiety; b) Clinical perspective – depression or personality disorders; and c) Situational perspective – focuses on procrastination evoked by situational features, such as the perceived difficulty of the task.

Given the nature of the present research, it will focus on motivational and volitional psychology as well as situational perspective, specifically when analysing the use of strategies, techniques and tools utilised by the students to overcome the procrastination problem. The clinical psychology aspects of the phenomena will not be considered in the current analysis.

2. Theoretical Background

The phenomenon of procrastination exhibits complexity, necessitating its examination through the lens of two distinct manifestations: passive procrastination and active procrastination. Passive procrastination is characterised by fear, indecision, and a lack of confidence, indicating deficiencies in self-regulation and self-efficacy. In contrast, active procrastination is associated with favourable outcomes, such as enhanced academic performance and emotional stability. Active procrastinators harness the pressure of impending deadlines as a motivator, although the correlation between this approach and task effectiveness is not necessarily pronounced. Further research is warranted to explore the underlying mechanisms and factors contributing to these distinct forms of procrastination and their implications for academic performance (Costa et al., 2022; Ratsameemonthon, Tuicomepee, & Blauw, 2018; Strunk, Lane, & Mwavita, 2017).

Understanding the nature of procrastination, whether passive or active, primarily depends on the interconnected concepts of self-efficacy and self-regulation. These concepts intricately relate to procrastination, underscoring its multifaceted nature (Ratsameemonthon, Tuicomepee, & Blauw, 2018; Zhou & Kam, 2017; Kennedy & Tuckman, 2013; Steel, 2007). Self-efficacy encompasses an individual's belief in their ability to mobilise motivation, cognitive resources, and action to meet situational demands. It is closely intertwined with self-image and self-esteem (Zerbe & Berdanier, 2020; Jeffords, Bayly, Bumpus, & Hill, 2018; Zhou & Kam, 2017). Numerous studies have explored the correlation between self-efficacy and procrastination, consistently highlighting that higher levels of self-efficacy are associated with lower levels of procrastination (Zhou & Kam, 2017; Steel, 2007).

Notably, self-efficacy, particularly in conjunction with psychological flexibility, appears to have an inverse relationship with procrastination. Students with higher self-efficacy tend to procrastinate less or experience fewer psychological consequences when they do (Hailikari, Katajavuorini, & Asikainen, 2021; Jeffords, Bayly, Bumpus, & Hill, 2018). When integrated into self-regulation strategies, self-efficacy plays a significant role in coping with and overcoming the urge to procrastinate. Procrastination is often viewed as a failure of academic self-regulation,

typically triggered by stressful situations (Limone et al., 2020; Wolters, 2003). By influencing students' perception of challenges as opportunities rather than threats, self-efficacy can mitigate the effects of stress and anxiety, reducing the tendency to procrastinate (Kennedy & Tuckman, 2013).

Self-regulation encompasses cognitive, metacognitive, behavioural, motivational, and emotional/affective elements that directly influence academic performance, including procrastination. Higher levels of self-regulation are associated with improved academic performance and reduced procrastination (Limone et al., 2020; Strunk, Lane, & Mwavita, 2017; Wolters, 2015; Park, 2012; Zimmerman, 2008). The concepts of self-efficacy and self-regulation are closely intertwined with the idea of psychological flexibility. This flexibility, along with effective time and effort management skills, contributes to reduced procrastination or lesser negative psychological effects resulting from procrastination (Hailikari, Katajavuori, & Asikainen, 2021; Ratsameemonthon, Tuicomepee, & Blauw, 2018).

Psychological flexibility complements self-regulation by enhancing individuals' ability to adapt and adjust their approach to tasks and deadlines. It enables individuals to stay present, engaged, and focused on their values and long-term goals, even in the face of challenging or aversive tasks. By cultivating psychological flexibility, individuals can approach tasks with a more open and accepting mindset, reducing the likelihood of engaging in avoidance behaviours like procrastination. The interplay between self-regulation and psychological flexibility contributes to a more adaptive response to procrastination tendencies. Individuals with higher levels of self-regulation and psychological flexibility are better equipped to recognize and manage the underlying factors that contribute to procrastination. They are more likely to engage in proactive planning, goal-setting, and self-monitoring strategies, as well as to approach tasks with a sense of purpose and commitment (Hailikari, Katajavuori, & Asikainen, 2021; Ratsameemonthon, Tuicomepee, & Blauw, 2018).

The link between time and task management and procrastination is also significant. Managing time and tasks effectively is integral to decreasing procrastination levels and forms an essential component of academic self-regulation (Hailikari, Katajavuori, & Asikainen, 2021; Limone et al., 2020; Wolters, Won, & Hussain, 2017). The literature presents a debate surrounding procrastination: some view it as a self-regulation or time management issue (Wolters et al., 2017), while others perceive it as a complex behaviour influenced by cognitive and emotional elements, personal competence perceptions, psychological factors, difficulty handling negative emotions, and psychological inflexibility (Eisenbeck, Carreno, & Uclés-Juárez, 2019; Visser et al., 2018; Dionne, 2016; Gagnon, Dionne, & Pynchyl, 2016).

Research indicates that self-management, time management, and activity management skills are crucial factors for overcoming procrastination. The ability to set and achieve goals significantly contributes to combating procrastination (Hailikari, Katajavuorini, & Asikainen, 2021; Hafner, Stock, & Oberst, 2015). Therefore, as this work primarily focuses on understanding and applying techniques, tools, and strategies to effectively overcome procrastination, self-regulation, along with self-efficacy, emerges as the key element in studying these methods (Limone et al., 2020; Strunk, Lane, & Mwavita, 2017; Wolters, 2015; Park, 2012; Zimmerman, 2008).

Further to the above tools, there are other significant strategies and techniques that may support individuals to overcome procrastination. For instance, acceptance and Commitment Therapy (ACT) and other forms of behavioural therapies have been studied in relation to their impact on procrastination. These therapeutic approaches emphasise the development of skills to better tolerate stress and negative thoughts, with the aim of reducing procrastination tendencies among students. Research conducted by Hailikari, Katajavuori and Asikainen (2021) as well as Kearns, Gardiner and Marshall (2008) supports the notion that by enhancing individuals' ability to accept and manage stress and negative thoughts, the inclination to procrastinate can be diminished. These findings highlight the potential effectiveness of ACT and similar behavioural therapies as interventions to address procrastination and promote improved academic performance. Further research exploring the specific mechanisms and long-term effects of these therapeutic approaches on procrastination outcomes would contribute to a deeper understanding of their utility in educational contexts.

Furthermore, cognitive and metacognitive learning strategies, including self-regulated learning and goal orientation, have been identified as influential factors in reducing procrastination amongst students. By developing and refining their learning strategies, students can enhance their levels of self-efficacy and self-regulation, ultimately diminishing the propensity for procrastination. This idea is supported by a body of research conducted by Limone et al. (2020), Bellhäuser, Mattes and Liborius (2019), Strunk, Lane and Mwavita (2018), Ratsameemonthon, Tuicomepee and Blauw (2018), Wolters, Won and Hussain (2017), Wolters and Hussain (2015), Bournam et al. (2014), Wäschle et al. (2014), Kennedy and Tuckman (2013), Corkin, Yu and Lindt (2011), Kearns, Gardiner and Marshall (2008), and Wolters (2003). These studies highlight the positive impact of

cognitive and metacognitive strategies on students' self-efficacy and self-regulation, thereby fostering a reduction in procrastination tendencies. Further exploration of the specific mechanisms through which these learning strategies contribute to decreased procrastination would contribute to the development of effective interventions and support systems for students.

Finally, boredom coping strategies have been identified as effective in reducing procrastination among students. By employing strategies to manage and alleviate feelings of boredom, students can experience higher levels of motivation, which, in turn, can influence a decrease in the tendency to procrastinate. Zhou and Kam (2017) conducted research in this area, highlighting the link between boredom coping strategies and their impact on students' motivation and procrastination tendencies. Exploring and implementing effective strategies to cope with boredom can offer valuable insights for educators and individuals seeking to address procrastination and enhance academic engagement.

Based on the literature analysis, it seems that self-regulation and self-efficacy are the two key concepts to understand academic procrastination and the strategies, techniques and tools to overcome it due to two main reasons: a) both concepts encompass all other relevant concepts related to procrastination within the current research scope; and b) it is well established in the specialised literature that academics with high levels of self-regulation and self-efficacy can overcome the procrastinating impulse and maintain a superior level of academic performance.

The literature studied revealed that there is noteworthy correlation between self-efficacy, self-regulation, and procrastination. Self-efficacy, representing an individual's belief in their capabilities to accomplish tasks, exhibits a positive association with reduced procrastination tendencies. Individuals with high self-efficacy tend to view tasks as surmountable challenges, fostering task initiation and persistence. Conversely, low self-efficacy engenders doubt and anxiety, contributing to heightened procrastination as individuals seek to avoid potential failure. Additionally, effective self-regulation, encompassing the management of thoughts, emotions, and behaviours, demonstrates an inverse relationship with procrastination. Individuals proficient in self-regulation possess the capacity to control impulses, navigate distractions, and adhere to task-related objectives, reducing the likelihood of succumbing to procrastination. Conversely, inadequate self-regulation hampers prioritisation, time management, and goal setting, amplifying procrastination tendencies. Consequently, bolstering self-efficacy beliefs and cultivating self-regulation skills are vital in combating procrastination and optimising productivity in academic and professional realms.

3. Methodological Framework of the Study

The current research adopts a phenomenological approach, following Patton (2002) who argues that phenomenological research overlaps with other essentially qualitative approaches, including ethnography, hermeneutics, and symbolic interactionism, which is essential to describe a phenomenon that may greatly vary from individual to individual from a perspective without assumptions or prejudices. Within this context, Patton (2002), Yin (2016) and Saunders, Lewis and Thornhill (2016) point to the understanding that phenomenological methods are particularly effective in bringing to light the experiences and perceptions of individuals from their own perspectives and therefore to challenge structural or normative assumptions, which is essential to fully address the current research objective.

Regarding its epistemological framework, the research is based on Burrell and Morgan (1979) and Japiassu (1977) as well, from the former it draws the understanding of epistemology as the methodical and reflexive study of knowledge in its variety of manifestations – organisation, formation, development, functioning and intellectual products – pointing out to three main schools of contemporary epistemological thought: a) Logic, b) Genetic or Constructivist, and c) Historical-critical; whilst from the latter it borrows the notion that social theory can be conceived from four broad paradigms, based on different sets of metatheoretical assumptions regarding the structure of the social sciences and the nature of society: a) Functionalist, b) Interpretive, c) Radical Humanist, and d) Radical Structuralist.

The authors also consider, Reed's (1985) perspective regarding the three key theoretical indications for the future of organisational studies: a) The avoidance of reductionism and determinism; b) The analytical mediation to balance the restrictions of localism and the vastness of globalism; and c) The theoretical robustness to resist the limitations of conservatism and the distortions of relativism.

Thus, given the present work objective of qualitatively analysing the use of strategies, techniques and tools utilised by the students to overcome procrastination, it is possible to argue that it is influenced mainly by Constructivist and Interpretative epistemological schools, since it seeks to methodically research the logical rules that govern the studied phenomenon – which was carried out during the bibliometric and systematic analysis – without ignoring

the need to start from a psychology of intelligence, constructing knowledge from a humanist perspective, as it can be noted from its phenomenological approach (See Tables 1 and 2).

Likewise, the current work follows both the Functionalist and Interpretive paradigms, given that it presupposes a rational human action, believing that organisational behaviour can be understood through scientific analysis, which is the dominant perspective in organisational studies, without, however, disregarding the need to explain the stability of behaviour from the individual’s point of view, seeking also to understand the more subtle nature of human phenomena, as reality is not always a given fact, but it is also constructed through social interactions (Yin, 2016).

Such paradigmatic balance seems to be necessary to address Reed’s (1985) requirements, as the authors do not intend to present a reductionist analysis of a deeply complex human phenomenon, but rather understand it locally, drawing a unique perspective that can be analysed and compared to other groups in distinct contexts, without incurring into a relativistic or overly restricted position. On Figure 1, it is possible to see a representation of the research process.

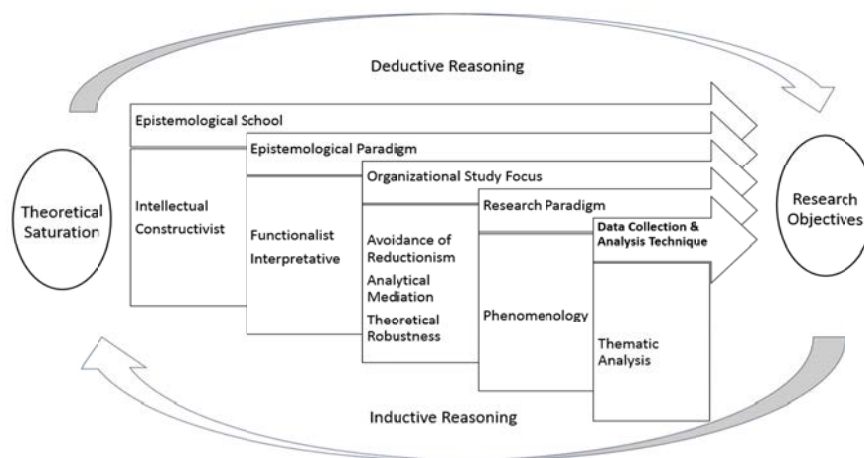


Figure 1. Research process

Source: Elaborated by the authors.

The research was divided into three main stages: a) bibliometric and systematic review b) data collection; and c) data analysis.

Regarding its first stage, in order to analyse previous relevant research, a bibliometric review was carried out first (Macias-Chapula, 1998), followed by a systematic review (Tranfield & Denyer Smart, 2003), using a content analysis approach (Bardin, 2011) in a five-step process: i) initial search; ii) advanced search; iii) initial analysis; iv) advanced analysis; and v) analysis of results.

Table 1 explains in detail the protocol utilised in the first stage of the research as well as the results in number of relevant articles found:

Table 1. Research stage 1 protocol

Steps	Selection Criteria	No. of articles
1	Keywords: Procrastination; Self-Efficacy; Perfectionism. TITLE-ABS-KEY: Procrastination AND Self-Efficacy OR Perfectionism OR Knowledge work (procrast* AND perfecti* OR "knowl* work*" OR "self-eff*")	269
2	Study area: Business, Management and Accounting; Social Sciences; Economics, Econometrics and Finance	106
3	Initial qualitative analysis: Reading titles and abstracts to identify research focused on academic procrastination (undergraduate and postgraduate).	68
4	Advanced Qualitative Analysis: Article analysis to select those that refer directly or indirectly to concepts, tools and techniques to optimise task management, increase personal performance and overcome procrastination in the academic area - undergraduate and postgraduate.	17
5	Content analysis: categorization of results from the analysis of the material considering the theoretical orientation and research objectives.	16

Source: Elaborated by the authors.

It was possible, based on the results from this initial stage, to support the development of the questionnaire structure as well as the analytical categories to support data analysis. Once the questionnaire structure was developed, it was tested with four students from different postgraduation programs. Adjustments were made through a process of brainstorming amongst the researchers, reaching the final questionnaire structure.

During the data collection stage, 24 students, 12 from the master's degree program and 12 from the doctorate program in Management were interviewed. Given the total number of students enrolled in the management postgraduation program – 108 in total comprising 51 master's degree students and 57 doctoral students (PPGA 2021a), the sample utilised is significant, allowing researchers to draw robust inferences.

The current research works with purely qualitative data that can only be analysed and understood in-depth through qualitative analysis, that is, the decoding process utilised by the present authors employs different procedures to apprehend the deep meaning of the communications encoded in it as well as the subtle nature of the object of the study without losing its functionalist perspective (Chizzotti, 2006; Dellagnelo & Silva, 2005). Thus, the research was supported by both deductive and inductive reasoning, following the process specified in Figure 2:

The thematic analysis led to the development of categories based both on the data collected as well the literature review followed Boyatzis (1998), starting with i) the authors' familiarisation with the data; ii) the assignment of preliminary codes to the data in order to describe the content; iii) the search for patterns or themes across different interviews; iv) the review of the themes; v) the definition of the themes; and vi) the final development of the research report, as seen on Figure 2. The development of data categories and its analysis was supported using ATLAS T.I. version 9.0, which was also utilised to build relevant data cross-references.

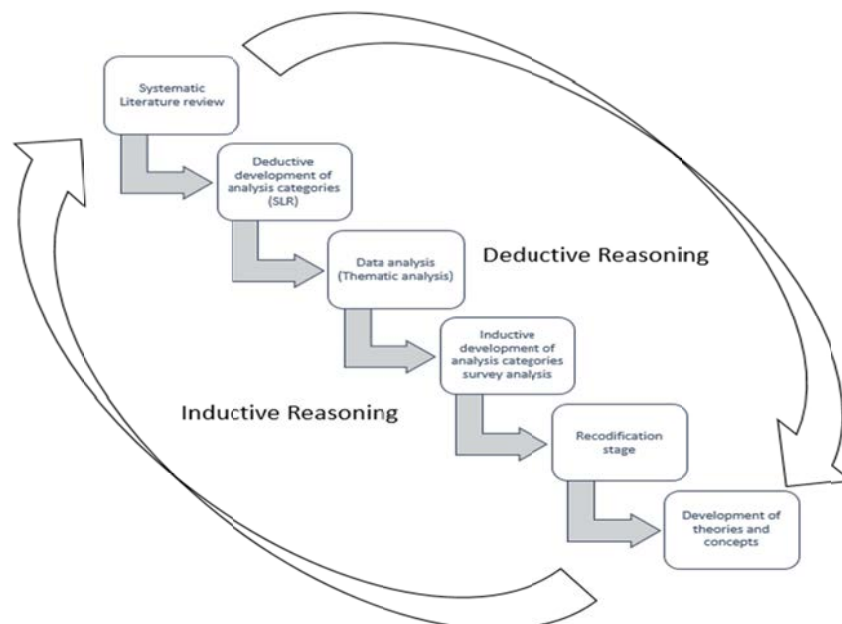


Figure 2. Research analytical process

Source: Elaborated by the authors.

The theoretical dimensions developed for the current work can be seen in Tables 2 and 3. It is possible to notice that the main categories obeyed a deductive structuring, borrowing the main macro-dimensions as well as the strategies, techniques and tools from the specialised literature. Conversely, the micro-categories obeyed an inductive approach, having been taken from the thematic analysis of the interviews. It is possible to see, however, that the micro-categories fit quite well within the predetermined macro-dimensions, which may indicate that the specialised literature already has a robust framework to conceptualise and classify procrastination.

Table 2. Self-regulation: Dimensions, categories and codes

Macro Dimension	Strategies, techniques and tools to overcome procrastination	Micro Categories	Codes	Explanation
Self-Regulation (SR1)	Time and activity management. (TMI)	Balancing Several Demands	BD	Divide time between academic activities, work, family, housework.
		Eat that Frog	EF	Start the day/week with the most important/difficult tasks.
		Study Routine	SR	Set aside specific hours to study, follow a defined schedule, guide academic production focused on temporal deliveries.
		Project Management Approach	PM	Organise the study/learning process as a project, use project management principles to manage academic production.
		Visual Tools	VT	Trello, Kanban, Post-Its, Check Lists, Tasks app, Task Board, Asana, Excel, etc.
		Time Management Techniques	TMT	Pomodoro, Getting Things Done (GTD).
	Cognitive and metacognitive learning strategies including self-regulated learning (LST1)	Conscious elimination of distractions	CED	Hide cell phones, turn off TV, personal isolation, choose different times with fewer interruptions (such as dawn), use apps to control browsing time, etc.
		Digital and/or Physical Schedules	DS	Google Calendar, SIGAA, Conventional Calendar, Planner, Things, etc.
		Study Notebooks	SN	Notebooks for study, recording ideas, etc.
		Visual Tools	VT	Trello, Kanban, Post-Its, Check Lists, Tasks app, Task Board, Asana, Excel, etc.
		Study Routine	SR	Learning process, how the study routine takes place, how the readings are organised, how the preparation is made to do academic work.
		Goal Orientation (GO1)	Delivery by Deadline	DD
	Financial Incentives	FI	Financial gains related to academic performance or course conclusion.	
	Life Commitment	LC	Establish life commitments, need for self-fulfilment, commitment to loved ones, friends, etc., Focus on long-term results.	

Source: Elaborated by the authors.

Table 3. Self-efficacy: Dimensions, categories and codes

Macro Dimension	Strategies, techniques and tools to overcome procrastination	Micro Categories	Codes	Explanation
Self-Efficacy (SE1)	Acceptance and Commitment Therapy (ACT) and other forms of behavioural therapies. (BT1)	Ludic Process - Music	LPM	Listening to music to relax, increase focus, reduce distractions, etc.
		Self-Demand Management	SDM	Reflective activity to avoid burn-out, be aware of one's limitations, be more tolerant with oneself, set aside specific time for leisure, family, friends.
		Psychological Therapy	PT	Undergo therapy for self-acceptance and self-knowledge.
		Self-Commitment	SC	Make commitments to yourself to achieve goals, having a strong sense of personal commitment.
	Exercises and techniques for improving written communication. (WC1)	Not found in the data analysed	N.A.	There was no mention of any sort of systematised effort to improve written communication.
Boredom coping strategies. (BO1)	Physical Activity	PA	Physical activity to promote physical and mental well-being and relaxation.	
	Ludic Process - Music	LPM	Listening to music to get out of lethargy, get motivated, break the procrastination cycle.	

Sourced: Elaborated by the authors.

(SE1 WC1) which refers to exercises and techniques for improving written communication were not found in any narrative, neither any other form of self-improvement exercise, hence, there is no specific code for it in the data analysis, which does not imply that such micro-dimension is not important, but rather, that the interview was not geared towards that concept, which points out to the need of future research around that topic to analyse its relevance in the context of the Management postgraduation program.

4. Results and Discussions

4.1 Descriptive Analysis

On Table 4, it is presented the overall information about the students who have been interviewed.

Table 4. Respondents' profile

Gender		Marital Status	
Male	50%	Married	42%
Female	50%	Single	58%
Father, mother or guardian of a child under the age of 18 who lives in your household?		Do you reside with adult family members (parents, siblings, spouse, etc.)?	
YES	75%	YES	92%
NO	25%	NO	8%
Age group		Employment status	
Under 25 years old	4%	Private institution	8%
From 26 to 35 years old	71%	Public institution	46%
From 36 to 45 years old	17%	Entrepreneur	17%
From 46 to 55 years old	4%	Graduate Scholarship	12%
Over 55 years old	4%	Unemployed	17%
Enrolled in:		Knowledge area	
Master's degree	50%	Applied Social Sciences	92%
Doctorate Degree	50%	Engineering	8%
Course period		Academic level	
1st year	46%	University graduate	25%
2nd year	50%	Specialisation	21%
3rd year	5%	Master's degree	54%
Currently enrolled in how many subjects?			
One	20%		
Two	38%		
Three	38%		
Four	4%		

Source: Elaborated by the authors.

The key feature of the analysed group is that there is a balance in terms of gender, 50% of respondents are men and 50% women. The same balance is found in the issue of academic degree, 50% are master's and the other 50%, doctoral students. Interestingly, the division between genders within the academic degrees is also equally balanced.

There is a slight predominance of singles, 58%; however, a significant majority, 75% are already parents or guardians of children under eighteen years of age; whilst 92% reside with adult family members.

71% are in the age group between 26 and 35 years old, and 17% between 36 and 45 years old, thus being a group with a predominance of young adults (Levinson, 1986).

Half of respondents are in the second year of the course, whilst 45.5% are in the first year; there are only 4.2% of respondents in the third year of their courses. It is necessary to consider that the master's program lasts on average two to three years, and the doctorate, at least four to five years (PPGA, 2021b).

There is a predominance of civil servants, 46%. Only 8% of respondents work in private institutions. 17% are entrepreneurs. There are also 12% of scholarship holders and 17% of respondents without a job or specified source of income. 54% already have a master's degree, an expected number given that 50% of respondents are doctoral students, only 25% have only an undergraduate degree and more than 20% already have a specialisation. The vast majority, 92%, are from the field of Applied Social Sciences, with 8% of respondents coming from Engineering.

As for the number of subjects on which the students are registered, there is a balance between students who are enrolled in two, 37.5% or three, also 37.5%. A considerable number of respondents, 20.8% are enrolled in only one.

4.2 Thematic Analysis

The first relevant realisation in the current research is that there is a ratio of 4 to 1 of codifications related to self-regulation (see Table 4) to self-efficacy (See Table 5) obtained through the interview's analysis. The functionalist aspect related to the concept of self-regulation combined with the objectives of the current research can explain this incidence, which can also be partially explained by the very formation of the students, having a managerial or engineering background which may favour a certain predisposition for measuring and controlling.

To reduce potential analytical biases from the authors, already in the initial phase of familiarisation with the data, the coding and selection of relevant excerpts from the interviews were carried out separately by the authors, only to reach the final coding through joint analysis.

The authors thus proceeded to search for relevant themes and their subsequent refinement, comparing respondents' answers with the theoretical perspectives offered by the specialised literature (see Figure 2) until a saturation of codes was reached, as the authors did not find any more specific phenomena within the narratives and their subjacent macro-categories that could be further coded.

Table 5 presents the codifications referring to the macro-dimension of self-regulation, the percentage of occurrences of these codifications in the narratives and their relative percentage relating to doctoral and master's students, as well as between genders.

Table 5. Self-regulation codification

Self-Regulation	% of Codes	% of Codes amongst doctoral Students	% of Codes amongst master's Students	% of Codes amongst men	% of codes amongst women
(SR1 TM1 BD)	19%	72%	28%	62%	38%
(SR1 GO1 DD)	13%	62%	38%	54%	46%
(SR1 LST1 SR)	11%	65%	35%	43%	57%
(SR1 TM1 DS)	11%	41%	59%	50%	50%
(SR1 TM1 CED)	10%	57%	43%	62%	38%
(SR1 TM1 EF)	8%	53%	47%	65%	35%
(SR1 TM1 VT)	7%	60%	40%	47%	53%
(SR1 GO1 LC)	5%	45%	55%	27%	63%
(SR1 LST1 VT)	5%	55%	45%	73%	27%
(SR1 TM1 PM)	3%	43%	57%	100%	0%
(SR1 LST1 SN)	3%	33%	67%	100%	0%
(SR1 TM1 SR)	2%	40%	60%	20%	80%
(SR1 TM1 TMT)	1%	33%	67%	100%	0%
(SR1 GO1 FI)	1%	50%	50%	100%	0%
TOTAL	100%	57%	43%	58%	42%

Source: Elaborated by the authors.

The codes that occurs most frequently within the codifications related to self-regulation (SR1) and Time Management (TM1) is not related to strategies, tactics or tools *per se*, but rather to the interviewees' perception of the complex and multifaceted nature of their daily lives (BD), in which many activities need to be managed, which often leads to the inevitable need to postpone academic activities. 19% of all codes based on interviews somehow are related to the difficulty of managing multiple demands, balancing family, work, personal life and academic activity. This need is mentioned by 80% of respondents at least once; however, in an isolated case, one respondent mentioned this condition 10 times during the interview. Table 6 displays some of the key narrative as well as the dominant persona to which they are related.

Table 6. SR1 TM1 BD – Key narratives and phenomenological persona

SR1 TM1 BD	Key Narratives	Persona
– Male Doctoral Students	<p>“(…) I have difficulty delimiting the workspaces and the time for studies”.</p> <p>“(…) Look, I’m a very regulated person. I try to be regulated in the sense of having time for everything. As I’ve always worked, so I must organise schedules”.</p> <p>“(…) I have nephews who are like my own children at home, I’m the one who solves everything…”</p> <p>“(…) I personally work and do a PhD. So, my time is greatly reduced to be able to do the research”.</p> <p>“(…) due to the (name of the project deleted) of teaching, some other activities that I end up doing, I have little time left during the week, so I use the weekend for reading”.</p> <p>(…) “In parallel with academic life, sometimes you have concerns, you have a child, you have a health problem, I don’t know what… and sometimes, when you have these things, you have the time, huh? You are available… but your head is not attached to it.”</p>	<p>Predominance of male doctoral students;</p> <p>Hectic and multifaceted life routines;</p> <p>Accumulation of activities that are often mismatched;</p> <p>Men seem to be more sensitive to the pressures of multitasking;</p> <p>Procrastination is seen as inevitable under certain circumstances.</p>

Source: Elaborated by the authors.

Such narrative prevails amongst doctoral students (See Table 5), 72% of (SR1 TM1 BD) is found in their interviews, which suggests that they have a more agitated, complex and multifaceted life routine compared to master’s students. Interestingly, in the interviews, 62% of the excerpts related to this code were found in the men’s interviews, whereas only 38% of the interviewed women narrated the need to balance different demands. Given the generally accepted perspective that women tend to accumulate more responsibilities than men, mainly due to household chores (Schaeffer, 2016), the male-oriented predominance of the code (SR1 TM1 BD) may not indicate that male respondents are busier, accumulating more tasks and responsibilities, but perhaps, they are more sensitive to the accumulation of functions than women. An in-depth discussion about gender disparities is not the objective of the current study, but it would be interesting to explore whether the perception of the need to balance different demands has the same effect on the academic procrastination process between men and women.

Overall, this codification is essential within the current research phenomenological approach, as it was sought to understand the phenomena in their intrinsic aspects, thus finding patterns in their unique nature that can serve as a basis for the development of robust perspectives about the mechanisms used by respondents to combat procrastination and its interrelation with the concepts of self-regulation and self-efficacy.

Regarding strategies, techniques or tools, it is noted that the code (SR1 GO1 DD) was prevalent in the interviews, totalling 13% of all codes used within the macro-dimension of self-regulation (SR1), specifically regarding goal orientation (GO1). This code concerns the need for clearly established deadlines to improve the academic creation process and even study routines. Deadlines, according to the interviewees, bring clarity and perspective, which somehow prevents procrastination and makes the organisation of tasks, study routines, research and other academic activities more easily manageable. Table 7 displays some of the key narrative as well as the dominant persona to which they are related.

Table 7. SR1 GO1 DD – Key narratives and phenomenological persona

SR1 GO1 DD	Key Narratives	Persona
Doctoral students without gender distinction	<p>“Look, I’m a deadline person, right? So, for me I have to do all the program activities on time”.</p> <p>“(…) I usually set deadlines for myself”.</p> <p>“(…) I try to schedule myself weekly, weeks are not months, they are weekly goals”.</p> <p>“(…) I respond a lot to the deadline, right?”.</p> <p>“(…) So, like… those deadlines that are there at SIGAA, they tell me a lot because as I’m always accessing the systems… They tell me a lot. So, it stays there: two days, three days, one day, today. That is a very big symbolism for me and, then, I try to organise the production of tasks in that sense”.</p>	<p>Predominance of doctoral students without gender distinction;</p> <p>Deadlines are motivating elements;</p> <p>Lack of set deadlines can lead to procrastination and demotivation.</p>

Source: Elaborated by the authors.

This perspective is prevalent amongst doctoral students, with 62% of all codifications, pointing to the need for precise, systematic and detailed deadlines. Amongst men and women, however, there is no noticeable imbalance, with men giving a little more emphasis to this need in their narratives (54%). Deadlines are an essential element for self-regulation (Hailikari, Katajavuori, & Asikainen, 2021; Limone et al., 2020; Wolters, Won, & Hussain, 2017); therefore, one notices amongst the interviewees a natural inclination towards this macro-dimension, which may be profoundly influenced by their management and engineering background. It is also noted that some of the phenomena analysed are both intrinsic and extrinsic, that is, both respondents seek to establish precise deadlines to guide their academic efforts and expect to receive similar deadlines from their professors.

11% of the codes in (SR1) corresponded to the code (SR1 LST1 SR), this code is related to the narratives of study routine organisation through the establishment of clear and predetermined processes. This appears to be a powerful metacognitive strategy, as it involves applied discipline not just for the study itself, but for all aspects of student activities, and is thus deeply related to both (SR1 TM1 BD) and (SR1 GO1 DD). It is relevant to note that 65% of these codifications were found in interviews with doctoral students; however, there was again a balance between men and women with a slight accentuation on the part of women, comprising 57%. Perhaps, it is possible to infer that there is a greater dimension on the part of doctoral students within aspects related to self-regulation, this dimension can be influenced by several factors such as maturity, greater number of attributes and responsibilities and greater focus on deadlines (Zerbe & Berdanier, 2020; Bellhäuser, Mattes, & Liborius, 2019; Strunk, Lane, & Mwavita, 2018; Ratsameemonthon, Tuicomepee, & Blauw, 2018).

It is important to note another code (SR1 TM1 SR), which is conceptually close to (SR1 LST1 SR), as this code also concerns study routine (SR), but focuses exclusively on setting schedules and time management (TM1), being a much easier element to measure and control. This code was much less explicit than the (SR1 LST1 SR), appearing in only 2% of the self-regulation coded narratives, that is, the study routine is presented by students much more as an aspect related to learning strategies (LST1) than time management (TM1), being much more subjective and difficult to measure and control. Within the specific criteria of time management, since there was a very small number of mentions, there is no great variation in the codification between doctoral students (40%) and master's students (60%), although there is a much greater concern of women with this control aspect, 80% mention the need to establish fixed times for study. In Table 8 it is presented a comparative analysis between the two codes, displaying key narratives as well as the dominant persona to which they are related.

Table 8. SR1 LST1 SR vs. SR1 TM1 SR – Key narratives and phenomenological personas

SR1 LST1 SR	SR1 TM1 SR
Key Narratives	Key Narratives
“(…) I have to schedule myself in advance, which is for the ideas here in my head, for everything I'm reading, I'm interconnecting, so I do it in advance, planning the readings in my head”.	“(…) so I need to organise myself, organise my daily life and have at least 1 hour to dedicate myself, so when the day comes, I can deliver”.
“(…) Every week, I study a little, I am by no means... I do not like to study at the last minute, quite the opposite. Every week I study a little and I always found it easy to learn and not memorise”.	“(…) I always study at night, from 6 to 10 pm, it's the study time”.
	“(…) but, for example, if I know that I have an article to deliver in 30 days, every day I dedicate a time to at least start building, reviewing the literature, selecting the material”.
Persona	Persona
Doctoral students without gender distinction.	Female predominance, with no distinction between masters and doctoral students.
Definition of clear strategies and processes for academic activities.	Definition of clear times for activities.
The study routine serves to combat procrastination.	The definition and schedule serve to combat procrastination.

Source: Elaborated by the authors.

The code (SR1 TM1 DS) concerns the use of physical or digital diaries, also representing 11% of all encodings within the self-regulation macro-dimension. Their predominance is not surprising given that they are possibly the simplest and most well-known self-regulation tools. However, there was a predominance of its use amongst master's students, concentrating almost 60% of codifications, whilst amongst men and women the number of codifications was equally distributed.

An interesting aspect that was noticed in the interviews was the conscious effort to avoid distractions (SR1 TM1 CED), this effort concerns the macro-dimension of self-regulation (SR1), encompassing elements related to time management (TM1). This element is relatively balanced between doctoral and master's students, but it is slightly

prominent amongst men, 61% of the codifications, which could signal a greater facility for men to be distracted and a greater need for strategies and tools aimed at combating distraction such as a way to overcome the procrastination impulse. Table 11 displays some of the key narrative as well as the dominant persona to which they are related.

Table 9. SR1 TM1 CED – Key narratives and phenomenological persona

SR1 TM1 CED	Key Narratives	Persona
	“(…) Stay away from cell phones”.	Common to both genders and for both masters and doctoral students; Distractions must be countered with artifice; The cell phone is the main distraction; The environment and its distractions can influence academic activities and generate procrastination.
	“(…) sometimes I leave it [the cell phone] in another environment so that it doesn’t send me any signal so I don’t feel dependent on watching it and I can move forward, but it’s always little by little”.	
	“(…) I try to leave the cell phone in another environment, I think this is also another way that I try not to procrastinate”.	
	“(…) My measure is: I always lock myself inside the office to focus specifically on what I’m doing”.	
	“(…) so I do most of my work at night or even at dawn, which is the time when there are fewer people and there is less noise”.	
	“(…) I uninstalled Instagram from my cell phone, and it looked that I’m not a person very connected to social networks, but I noticed that from time to time I went on Instagram and that I had a deadline blowing in my face and I questioned what am I doing here? The cell phone is manipulating me right, then I uninstalled it”.	

Source: Elaborated by the authors.

(SR1 TM1 EF) is one of the most peculiar codes presented in the current survey. The codification is inspired by Tracy (2017) who argues that as a fundamental strategy to overcome procrastination it is necessary to start with the most difficult task or start tasks as quickly as possible. The concept is mentioned by its name only by one of the interviewees; however, the idea is mentioned by many others without association with Tracy (2017), which indicates an intuitive element on the part of the interviewees, perhaps influenced by their own training in Management, which requires a more accurate perception of time and task management. Table 12 displays some of the key narrative as well as the dominant persona to which they are related.

Table 10. SR1 TM1 EF – Key narratives and phenomenological persona

SR1 TM1 EF Men, masters or doctoral students	Key Narratives	Persona
	“(…) I usually try to fulfil the maximum amount of what I schedule in the week at the beginning of the week”.	Male predominance, with no distinction between masters and doctoral students; Emphasis on control rather than adaptation; The task is seen as an obstacle to be overcome.
	“(…) that boring task that you absolutely don’t want, but you have to do, I prefer to do it in the morning”.	
	“(…) So I try to do this as much as possible at the beginning of the week so that I can then be free and focus on the really professional part, understand?”.	
	“And then there’s an English phrase that is ‘eat that frog’ (…) so I look for heavier, more intellectually challenging jobs to put on first thing in the morning.”	

Source: Elaborated by the authors.

Mentions to this strategy are equally relevant between doctoral and master’s students, but they are more predominant amongst men, who concentrate 65% of references to this type of strategy/behaviour. The male narrative theme is related to gaining a greater control over time and activities rather than adapting to different existing demands, which is much more characteristic to the female narrative.

Except for the use of electronic or physical diaries, visual tools (SR1 TM1 VT) were the tools most mentioned by respondents, being present in 7% of all encodings. These tools have some specific characteristics, they concern the macro-dimension of self-regulation (SR1) and the micro-dimension of time management (TM1). It should be noted that there are several distinctions between this code and (SR1 LST1 VT), which also concerns visual tools within the macro-dimension of self-regulation, but refers to narratives that associate these tools not with time

control, but with the organisation of routines (LST1), thus being a cognitive and metacognitive tool. Whilst (SR1 TM1 VT) corresponds to 7% of the encodings in self-regulation, (SR1 LST1 VT) has a slightly lower representation with 5% of the encodings. On Table 13 it is presented a comparative analysis between the two codes, displaying key narratives as well as the dominant persona to which they are related.

Table 11. SR1 TM1 VT vs. SR1 LST1 VT – Key narratives and phenomenological personas

SR1 TM1 VT	SR1 LST1 VT
Key Narratives	Key Narratives
“(…) I also stick things here on the wall, like a little reminder of what I have to deliver, but other than that nothing, they’re just reminders, even so it helps me… To organise myself. And comply”.	“(…) I am a person that I have study cards here beside me, coloured, each one of a colour that I organise”.
“(…) I always do it at the beginning of the week, I write on paper what I need to do during the week, I was even writing what I’m going to do during the week. I go on writing and as I do it and erase it, it gives me such peace”.	“(…) chart here that I call Academic Pending, which is like a Kanban”.
“(…) a very detailed task board with everything that has to be done, everything has to be delivered, (…) many jobs can be successful when we use a more organised, more visual methodology, so I really like working with this look. And that’s it, it helps me a lot”.	“check list, put a bunch of dots every day and put in the wardrobe the tasks I had to do during the week. The objective was to fulfil the tasks, it wasn’t that rigid a thing to do at such time”.
“(…)I do all my control by spreadsheets. And by using the GUT matrix”.	“I use Trello a lot, I use Google Calendar, iPhone Notes also helps me a lot and recently I met a new one that I’m going to try to use now which is Tasks”.
“(…) I am a training production engineer. So, as an engineer, practically everything in my life is controlled by a spreadsheet.”	“He [the subject teacher] used Trello. He used weekly meetings for follow-up only. So, it turns out, with goals, and objectives linked to Trello. The student he, yes, had a delivery to make in the week. And that ends up making him run more, in this matter of discipline”.
Persona	Persona
There is no gender distinction;	Male predominance;
Visual control of tasks emphasises time and activity management;	Visual control of tasks is related to learning strategies;
The feeling of control over time and activities brings relief.	The tools give them a sense of control, which is perceived as positive.

Source: Elaborated by the authors.

It is relevant to notice that the use of visual tools such as cognitive and metacognitive strategies is more pronounced amongst doctoral students (60%), as well as their specific use for time management (SR1 LST1 VT) (55%). These codifications, which represent experiences reported by the interviewees, behave in a very peculiar way when analysed by gender. Whilst more than 70% of the citations of the use of visual tools related to cognitive and metacognitive strategies (SR1 LST1 VT) refer to interviews with men, the use of the same tools for specific time management (SR1 TM1 VT) is gender balanced. This can reinforce the inference of the male controlling narrative, as even the cognitive and metacognitive aspects are perceived as elements that can be measured and controlled.

Table 12 presents the codifications referring to the macro-dimension of self-efficacy, the percentage of occurrences of these codifications in the texts and their relative percentage amongst doctoral and master’s students, as well as between genders.

Table 12. Self-efficacy codification

Self-Efficacy	% of Codes	% of Codes amongst doctoral Students	% of Codes amongst master’s Students	% of Codes amongst men	% of codes amongst women
(SE1 BT1 SDM)	31%	50%	50%	56%	44%
(SE1 BT1 SC)	27%	86%	14%	43%	57%
(SE1 BT1 LPM)	16%	50%	50%	63%	37%
(SE1 BO1 LPM)	10%	100%	0%	20%	80%
(SE1 BO1 PA)	10%	40%	60%	60%	40%
(SE1 BT1 PT)	6%	100%	0%	33%	77%
TOTAL	100%	67%	23%	49%	51%

Source: Elaborated by the authors.

Within this macro dimension (SE1) that encompasses Acceptance and Commitment Therapy (ACT) and other forms of behavioural therapies (BT1), the main codified phenomenon was the idea of self-balance and self-demand management in order to maintain physical and mental health (SE1 BT1 SDM). It was noted within the reports that this is a maturation process that was mentioned in 31% of all codifications, being perceived as a process of understanding that it is not possible to do and have everything and, therefore, it is necessary to manage expectations and frustrations. This dimension has a deep implication with procrastination, as in the specialised literature, low self-efficacy as well as the difficulty in dealing with difficulties and frustrations has a positive correlation with procrastination (Zerbe & Berdanier, 2020; Bellhäuser, Mattes, & Liborius, 2019; Strunk, Lane, & Mwavita, 2018; Ratsameemonthon, Tuicomepee, & Blauw, 2018; Zhou & Kam, 2017; Wäschle et al., 2014; Kennedy & Tuckman, 2013; Corkin, Yu, & Lindt, 2011). Table 13 displays some of the key narrative as well as the dominant persona to which they are related.

Table 13. SE1 BT1 SDM – Key narratives and phenomenological persona

SE1 BT1	Key Narratives	Persona
SDM	<p>“(…) you can’t make demands to yourself all the time”.</p> <p>“(…) I practically don’t take anything from school on the weekend, because I take the weekend off to de-stress’.</p> <p>“(…) What I usually do is have my moment because my moment will make me not feel punished or tired of doing my daily activities. I need my moment”.</p> <p>“(…) Before I gave up my social life, I sacrificed a lot of my mental health in favour of my proactivity. Today no more”.</p> <p>“(…) I don’t like to suffer a lot. I try to review what I can review. I try to see what I didn’t see. And I try to rest my mind to prepare for the race because I think one of the best preparations is for you to be rested and full.”</p> <p>“(…) but in the past, when I had this problem, it greatly affects the person's well-being, because it's as if you were never one hundred percent present, the person who procrastinates when he's off, at leisure, doesn't she can enjoy her leisure time because she procrastinated and got that bad conscience, when she's at work procrastinating she's not working, there's even that text in English mindfulness or mind wondering, so happy people are often people who can be 100 % present at the moment”.</p>	<p>There is no distinction of gender or academic degree;</p> <p>The maturation generated the ability to accept the error;</p> <p>Activity management is seen as a process of personal growth;</p> <p>Procrastination tends to be more active than passive.</p>

Source: Elaborated by the authors.

It is possible to infer that to the extent that the understanding of their own limitations – which differs from simple resignation – is incorporated by the individual in their life narrative, their possibilities of dealing with both procrastination and the negative consequences generated by it increase.

It is noteworthy that in the narratives of master's and doctoral students this element appears evenly, which indicates that it is something that can be developed at a young age, the balance is also maintained between men and women with a slightly higher percentage of men emphasising this narrative (56%).

The second most observed narrative within the self-efficacy dimension (SE1) is also related to Acceptance and Commitment Therapy (ACT) and other forms of behavioural therapies (BT1), focusing on the micro-dimension of self-commitment (SC); the code (SE1 BT1 SC) represents 27% of the narratives. This code has profound implications, as it is related to the self-commitment that one makes with oneself to pursue their goals.

In these narratives, one can see the will to overcome barriers and face challenges within the self-commitment dimension, as well as the narration of a process of individual maturation and empowerment. It has a profound interrelationship with the previous code analysed, (SE1 BT1 SDM), as the management of personal demands is inseparable from the idea of self-commitment. This central element seems to be the main difference between doctoral and master's students, as 86% of this codification is found in the doctoral students' narratives. It is possible to infer that the maturity process that composes self-efficacy and prepares the individual to overcome the procrastinating impulse, first goes through the idea of managing self-demand and then matures into the idea of self-commitment. Regarding gender, there is a balance in this perspective between men and women, with a slight predominance of these codes in female interviews (57%).

It should be noted that this code (SE1 BT1 SC) also has a profound interrelationship with a code developed in the self-regulation dimension (S1), focusing on management by objectives (GO1) regarding the commitment that

individuals adopt during their lifetime (SR1 GO1 LC). These codes are distinct because, whilst (SE1 BT1 SC) refers to commitments to oneself, (SR1 GO1 LC) refers to the commitment to life which encompasses family, society, etc. The division proposed by the authors can, in fact, generate controversy and these are codes that could be rearranged through integration. However, the authors decided to keep them distinct due to the value of the different narratives and their distinct perspectives, as seen on Table 14.

Table 14. SE1 BT1 SC vs. SR1 GO1 LC – Key narratives and phenomenological personas

SE1 BT1 SC	SR1 GO1 LC
<p>Key Narratives</p> <p>“(…) it is about the commitment I have to myself, understand?”.</p> <p>“(…) Because, if there is an activity that the teacher asks for but is not worth anything, I don’t do it. I don’t do it because it won’t add so much to me here. I can do it, but I prioritise last. I try and try to give vent to what will work, which goes with my grade, which will fulfil my knowledge. There’s even something I don’t need to do, but I do, because I know I’ll acquire interesting knowledge, so I try to work that way.”</p> <p>“(…) because it is my personal style, I value the word, the spoken word a lot. (…) Because, as I said, for you to be responsible, there is no physical mechanism, it is something inside the individual, isn’t it?”.</p> <p>Persona</p> <p>Predominance of doctoral students;</p> <p>Narrative balanced between genders, but with a greater tendency towards control than adaptation.</p> <p>Self-commitment is perceived as a strong ally in the fight against procrastination;</p> <p>Self-commitment is presented as a personal value.</p>	<p>Key Narratives</p> <p>“(…) So I try to take my personal planning together with the things that I have in my doctorate, so that one thing doesn’t swallow the other and then I get frustrated because I didn’t do it because of that”.</p> <p>“(…) afraid of setting a bad example, I always know, of writing an ugly story, that person who didn’t make it doesn’t deliver the work… I don’t think it’s an interesting thing, it can happen in the life of every human being, but it’s not something I like”.</p> <p>“(…) I can only talk about the long term now that it is the goal of life”.</p> <p>“(…) But no, I always deliver all the activities because it’s worth points and you have to guarantee it”.</p> <p>Persona</p> <p>Balanced narrative between academic degrees;</p> <p>Predominantly female narrative combined with the idea of adaptation.</p> <p>Commitments to other individuals, institutions, etc. exert great influence on performance maintenance;</p> <p>Self-commitment is presented as a goal.</p>

Source: Elaborated by the authors.

There are also clear distinctions in these codes when we analyse the incidence in the narrative between master’s and doctoral students, (SR1 GO1 LC) they are balanced, in fact, slightly prominent amongst master’s students (55%), which points to intrinsic disparities between the codes revealed by thematic analysis which seeks the themes subjacent to the narratives. However, the most interesting point is the differentiation of this code in the narrative between men and women, more than 70% of this codification is found in female narratives, that is, female commitment seems to be much more influenced by extrinsic factors than male commitment.

Finally, the ludic-musical creative process was a phenomenon perceived in 26% of the narratives, revealing distinct natures. The current authors were able to perceive the phenomenon under two main distinct lenses, (SE1 BT1 LPM) and (SE1 BO1 LPM). Whilst both are part of the macro dimension of self-efficacy, (BT1) is related to the therapeutic process associated with music (LPM), that is, listening to music to relaxing, increasing focus, reducing distractions, etc.; whereas BO1 is related to coping strategies for boredom associated with music (LPM), that is, listening to music to get out of lethargy, staying motivated, and breaking the procrastination cycle. This distinction is not arbitrary, but rather generated by distinct narratives that point to the importance of music for the academic production process.

The apparently subtle distinctions between these codes are more clearly revealed when the analysis is carried out between doctoral and master’s students, whereas (SE1 BT1 LPM) presents itself evenly in their narratives, (SE1 BO1 LPM) is only found in the doctoral students’ narratives. That is, whilst listening to music to avoid distractions and relaxing is something common to both groups, music with a motivational element for coping with lethargy and consequent coping with procrastination is exclusively mentioned by doctoral students. These distinctions are also in evidence in the comparative analysis between men and women, whereas (SE1 BT1 LPM) is predominant in the men’s narrative (62%), (SE1 BO1 LPM) is primarily a female narrative (80%), that is, music seems to exert a much greater force on doctoral students and women as well, especially when it comes to coping with boredom and procrastination, whilst it has a more specific function amongst master’s students and men in general, being perceived more as a tool to combat distractions. These insights can bring important contributions to research aimed at the use of music and other ludic-creative processes as elements to tackle procrastination.

As a result from the theoretical as well as empirical analysis undertaken in the current study, it is possible to affirm that self-efficacy posits that individuals' beliefs in their own capabilities influence their actions and choices. It suggests that individuals with higher self-efficacy are more likely to engage in goal-directed behaviours, persevere in the face of challenges, and exhibit lower levels of procrastination. Self-regulation theory, drawing from social cognitive and cognitive control perspectives, highlights the role of self-control in managing thoughts, emotions, and behaviours. Effective self-regulation involves setting goals, monitoring progress, inhibiting impulses, and maintaining focus, which are crucial in minimising procrastination tendencies. Procrastination, a complex phenomenon, involves the voluntary delay of intended actions despite negative consequences. It is influenced by various factors, including low self-efficacy and poor self-regulation. Individuals with low self-efficacy beliefs and inadequate self-regulation skills are more susceptible to succumbing to procrastination. Thus, the correlation between self-efficacy, self-regulation, and procrastination underscores how beliefs in one's abilities and the ability to regulate behaviour interact to shape individuals' tendencies to delay or initiate actions towards their goals.

Thus, the significance of implementing strategies and utilising tools to enhance self-efficacy and self-regulation, with the purpose of overcoming procrastination, cannot be overstated. These interventions play a pivotal role in addressing the pervasive issue of procrastination among students and researchers. By employing effective strategies such as goal-setting, self-reflection, positive reinforcement, and visualisation, individuals can cultivate a belief in their own capabilities, fostering motivation, confidence, and persistence in tackling academic tasks. Simultaneously, employing tools and techniques to enhance self-regulation, including structured scheduling, time-management strategies, self-monitoring, and goal-oriented methodologies, facilitates the effective management of cognitive and behavioural processes, promoting task initiation, sustained focus, and adherence to deadlines. By embracing these strategies and tools, individuals may empower themselves to overcome procrastination, optimise productivity, and achieve academic excellence. However, in the current study, we have observed that even amongst management post-graduate students, there is a lack of significant and systematised utilisation of strategies, techniques, and tools to overcome procrastination. This finding suggests an opportunity for educational institutions to prioritise these elements to enhance academic performance.

5. Final Considerations

Academic procrastination, being a common phenomenon that greatly affects not only the performance of students, but even of educational and research institutions, is a problem that requires further analysis and understanding, in order to develop the most appropriate ways to mitigate it.

The present work sought, through a thematic analysis supported from a phenomenological approach, to analyse the phenomenon of academic procrastination within postgraduate students enrolled at the Management postgraduate program in a Brazilian Federal University, in order to identify strategies, techniques or tools utilised by the students to overcome procrastination as well as its relation with the concepts of self-regulation and self-efficacy.

It was possible to perceive that there are some key differences on the mechanisms of self-regulation and self-efficacy of master's and doctoral students as well as from women and men alike, which were presented in the Results and Discussion session; however, there are some further inferences that can be taken from the narratives, which outlines the phenomenon of academic procrastination and its relations with the concepts of self-regulation and self-efficacy.

All narratives are much more centred on self-regulation rather than self-efficacy. The narratives revolve mostly around time management, goal orientation and cognitive and metacognitive strategies. However, there is no indication of any systematic strategy adopted by the students, beyond the most basic efforts of time and task management to support routine studies and to overcome distractions. There are very few strategies and principles beyond some key concepts such as beginning the hard activities first, setting deadlines and using visual tools to support progress. There are very few mentions of time and task management strategies beyond visual tools, pointing to a very basic and unsystematic approach to self-regulation.

It was noticed that men's strategies are more inclined to measurement and control whereas women's strategies are more related to adaptation, but in all narratives, it is possible to see elements related to both strategies, which leads to believe that it is possible to set common development strategies and goals for both genders, without being detrimental to any of them. This is a topic that may be open for further research, combining procrastination and gender studies.

Most students seem to be facing several demands at once, which have impact on their academic performance, but such narrative was not used to justify passive procrastination, only the inevitability of postponing certain tasks, which may be a sign of maturity and self-efficacy through the use of cognitive and metacognitive learning strategies including self-regulated learning and goal orientation.

The self-efficacy dimension is overlooked by most students in their narratives, there are very few mentions about strategies of self-development, apart from the idea of self-demand management, which indicates that the group has matured to point in which they can control demands without being overwhelmed by them, perhaps proving the importance placed in the literature to Acceptance and Commitment Therapy (ACT) and other forms of behavioural therapies as an anti-procrastination tool.

Furthermore, in the narratives, there is a considerable element of self-confidence, which is an essential part of self-efficacy, such self-confidence is noticed in student's life commitments, in no way it was noticed an element of doubt about their capability to fulfil them or if they were the right commitments to be made. Thus, despite not having displayed a systematic effort to increase their self-efficacy, the students, nonetheless, prove its importance based on the positive impact of their self-confidence and self-reliance.

The literature analysis that gave support to the research led to the realisation that there is a gap in the study of academic procrastination, specifically in the business literature, which indicates the need to seek new studies with a view not only to understanding the phenomenon, but also to overcoming and controlling it. The authors could not identify any robust theoretical background in organisational studies focusing on the strategies, tools and techniques to overcome procrastination, nor the existence of varied experimental research. The subsequent data analysis has indicated how relevant such research could be, as even in Management post-graduation students, it is not noticed any outstanding use of strategies, techniques or tools to overcome procrastination.

The present research offers a unique perspective by adopting a qualitative, phenomenological approach, which stands in contrast to the predominant quantitative studies found in the existing scientific literature on this subject. Moreover, it not only examines techniques, strategies, and tools to address procrastination but also emphasises their functional scope. Further qualitative research focusing on the phenomenon of procrastination and the underlying themes holds the potential for significant contributions not only to the comprehension of procrastination but also to the development of effective strategies, techniques, and tools for its management. This, in turn, can greatly enhance academic and individual productivity.

As suggestion to the faculty to support the students to overcome academic procrastination and improve their overall performance, it is possible to point out to the following strategies, techniques and tools: a) establishment of clear and specific deadlines by the faculty; b) encouragement of joint use of diaries or other visual tools amongst teachers and students; c) usage of visual progression tools for the courses/activities; d) stimulation, still in undergraduate courses, of the notion of self-regulation and self-efficacy, applying Management Science into self-development.

The present study has certain limitations that should be acknowledged. Firstly, due to time constraints, the analysis of the interviews was limited, considering the complexity of a thematic research based on a phenomenological approach. Further interviews with students would be necessary to explore all the emerging notions and address any potential gaps, thereby constructing new scenarios as the phenomena are further explored and additional underlying themes are encountered. Secondly, the research was confined to a specific sample, which restricts the generalizability of the findings to broader populations. Lastly, it is important to note that only students who were enrolled in at least one discipline in the Management post-graduation program were included in the interviews. Students registered in the program but not currently enrolled in any discipline were not included, which may have introduced a different perspective to the results.

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Authors' contributions

João Florêncio da Costa Júnior: Conception and Design; Data Collection; Data Analysis; Drafting of the Manuscript; and Critical Revision.

Diogo de Menezes Cortês Bezerra: Conception and Design; Data Collection; Data Analysis; and Drafting of the Manuscript.

Dr. Afrânio Galdino de Araújo: Data Analysis; Drafting of the Manuscript; and Critical Revision.

Dr. Anália Saraiva Martins Ramos: Conception and Design; Data Analysis; Critical Revision; Project Administration; and Final Approval.

All authors read and approved the final manuscript.

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Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Obtained.

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The Publication Ethics Committee of the Canadian Center of Science and Education.

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

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