Exploring academic procrastination: Perceptions, self-regulation, and consequences

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Abstract

This qualitative study examines academic procrastination among Israeli Master of Education students writing their theses. The majority of the the participants (80% of the 145) reported behaving differently on this task than on other assignments. One of the primary factors influencing procrastination derives from the complexity of the assignment. Considering the research literature describes tight relationships between academic procrastination and academic achievement, one surprising finding concerns the fact that respondents saw no relationship between their procrastination and their final grade. A gap was found between students' self-perception and their actual performance. Approximately 75% of the students perceive themselves as academic procrastinators, but in actuality nearly half of them completed the assignment on time. The starting date was found to be significant. Students who immediately began work upon receiving the assignment strongly tended to submit it on time. Students who did not begin early completed the project later than the scheduled date, if at all.

Practitioner Notes

1. There are challenges to responding to student procrastination
2. Procrastination has a direct effect on student achievement
3. There is a gap between students' self-perception and their actual performance.
4. The complexity of the assignment has an effect on procrastination

Keywords

Academic procrastination, qualitative-constructive method, qualitive content analysis, time management

Academic procrastination is a common phenomenon among students, and some maintain that 70 percent of them procrastinate at times (Balkis & Duru, 2016; Bytamaret et al., 2017; Schraw et al., 2007). Since procrastination impacts academic performance and achievement (Kurtovic et al., 2019), this phenomenon and its consequences deserves extensive examination among college students. When preparing a final graduation asighment students deploy various skills, including schedule management, critical thinking and academic writing skills (Healey et al., 2010; Van Merriënboer & Kircshner, 2018). Students must cope with a workload and schedule they have not previously experienced,which may lead many to procrastinate.

The term procrastination applies when, despite an intention to complete an assignment within a specific timeframe, an individual delays (Macclosky, 2011; Stead et al., 2010; Steel & Klingsieck, 2016). Procrastination represents not only a problem of time management; it is a complex process encompassing efficacy, cognition and behavioral components (Chu & Choi, 2005; Ferrari, 2010; Kurtovicet et al., 2019). The literature distinguishes between conscious, deliberate procrastination (Active procrastination) and procrastination defined as an irrational series of actions perhaps contradicting an individual's self-interest with negative real-world consequences (Pasive procrastination) (Fernie et al., 2017; Steel, 2012).

Tuckman (1991) defined procrastination as an individual's tendency to delay or completely avoid activities within their control, and maintains that it results from a combination of three factors: (a) an individual's doubt in his or her ability to complete the assignment; (b) an inability to delay gratification, and; (c) an individual's tendency to blame external factors for difficult, embarrassing or distressful situations.

Learning-related procrastination is termed Academic Procrastination. Such academic procrastination connects to the manner in which students view the learning task, their use of learning strategies and to the results of their performance on the learning task (Ariely & Wertenbroch, 2002). Academic procrastination can be viewed as a failure of self regulation (Steel, 2007; Steel & Klingsieck, 2016) concretized in the process by which the student utilizes and maintains thoughts, feelings and behaviors to obtain personal goals (Zimmerman & Schunk, 2011). Differing conduct among students creates various degrees of academic procrastination (Grunschel et al., 2013; Klassen et al., 2008). Procrastination, in an academic environment which requires meeting schedules, expresses procrastination as purposeful delay of learning assignments (Kim & Seo, 2015; Rabin et al., 2011; Rosental et al., 2014; Steel & Klingsieck, 2016).

While academic procrastination is not a new phenomenon, it has been found to be especially prevalent among college students. An overwhelming percentage of students (95%) reported delaying academic assignments (Bytamar et al., 2017; Odaci, 2011), and large percentage (50%) reported a general delay completing assignments. Shunk and Ertmer (2000) and Pintrich and Zusho (2002) delineated three stages in the preparation of academic assignments. The first stage involves planning, in which students set out the steps needed to complete the assignment. During this stage, the notion of action relates to students' value scales, motivation and objectives. The second stage concerns preparing the assignment. During this stage students begin working on the assignment as an attempt to regulate levels of motivation and seek for academic achievement. At this stage they decide on learning strategies. Students with time management problems (Lay & Schouwenburg, 1993) and low self-efficacy (Schunk & Pajares, 2002; Wascheleey et al., 2014) found it difficult to begin the assignment and then to persevere (Grunschel et al., 2013). Their attention is usually easily distracted (Dewitte & Schouwenburg, 2002). The final stage involves reflection on the completed task, during which students will attempt to foresee the results of their efforts and evaluate their feelings towards these results. During this reflection stage certain students tend to attribute the results to external factors regardless of predicted success or failure (Ferrari, 2001). Problems may arise during any of these, possibly leading to procrastination (Grunchel et al., 2018).

Literature

Self-efficacy

Self-efficacy refers to an individual's belief in his or her abilities to plan and execute the actions required to attain a goal (Duru & Balkis, 2017; Kim & Seo, 2015 ;Pajares, 1996, 2002; Schunk & Pajares, 2002). Such beliefs influence choices, efforts, coping ability and perserverance in completing various tasks. Those with a high degree of self efficacy will expend greater effort and persevere longer when facing difficulties than those who doubt their abilities (Bandura, 1997). A lower degree of self-efficacy projects high instances of procrastination (Klassen et et al., 2008; Klassen & Kuzucu, 2009; Liu, et al., 2020; Przepiorka et al., 2019; Yerdelen, McCaffrey & Klassen, 2016; Ziegler & Opdenakker, 2018). Self-efficacy projects future behavior because it indicates the efforts students would be willing to expend in challenging situations. The higher a student's degree of self-efficacy, the more they dare put themselves in more challenging situations (Burka & Yuen, 2008; Duru & Balkis, 2017;Kim & Seo, 2015; Òzer, Demir & Ferrari, 2009; Park & Sperling, 2012). Success in academic courses may be considered positive personal experience, which may improve students' self-efficacy. Such experience is based on insight and social comparison (Van Blankenstein et al., 2019)). By contrast, those who feel unable to cope with an assignment delay it more and more (Haghbin et al, 2012.; Steel, 2007; Wachle, et al., 2014).

Motivation

Motivation is vital to students' academic work and achievements. It impacts the choice of academic tasks, time and effort expended on studies, focus on tasks and coping abilities (Afzal, Khan & Hamid, 2010; Sideridis & Kaplan, 2011; Vansteenkiste, et al., 2014). Motivation is a primary factor impacting students' academic success or lack thereof (Pintrich, 2003; Sivrikaya, 2019). The final project's grades and the motivational behavior were lower significantly among procrastinators compared to non-procrastinators (Shaked & Altarac, 2022). Research typically distinguishes between internal motivation to action and external motivation. Internal motivation is demonstrated when an individual acts out of free will. Under external motivation, an individual acts because of the potential reward or because a threat might be lifted. Such circumstances reinforce fear of failure and may negatively impact academic performance (Deci & Ryan, 1985). Those with a low degree of academic procrastination are motivated by both internal and external motivations, while high degree procrastinators are mostly motivated by external factors (Brownlow & Reasinger, 2000; Quispe-Bendezú, 2020).

Factors influencing procrastination in academic assignments

Research describes three primary factors related to procrastination in academic assignments. First, factors tied to the nature of the assignment. Students avoid working on assignments which make them feel uncomfortable. They delay less when assignments are perceived as interesting and include clear instructions (Akerman & Gross, 2005), and more often delay assignments perceived as dreary, frustrating and vague (Blunt & Pychyl, 2000; Nordby, Klingsieck & Svartdal, 2017). Studies have found a strong correlation between being deterred by an assignment and procrastinating in the face of it (Wilson & Neguyen, 2012).

Second, psychological factors such as anxiety, low self-esteem, or a tendency toward defeatism or exaggerated aspirations are all psychological factors which lead to procrastination (Balkis & Duru, 2012; Park & Sperling, 2012). For some students fear of academic assignments turns into actual anxiety, which prevents coping, and therefore leads to extended procrastination (Eckertet al., 2016; Haghbin, McCaffrey & Pychyl, 2012; Steel, 2012). Allen (2010) described the psychological responses to complex assignments involving academic writing generally and term papers and theses specifically, and claimed that these are perceived as expansive and anxiety-inducing activities. Writing an academic paper involves a constant fear of failure. A student's need for per-fection goes hand-in-hand with fear of an advisor's critique, although it is integral to the writing process. Academic procrastination is tied traditionally to failed and ineffective behavior, avoidance and an external locus of control tendency (Kennedy & Tuckman, 2013; Tuckman, 1991). Students

with an externalized locus of control tend to attribute the cause of the procrastination to another. Some blame their procrastination on the lecturer's requirements, which demand they prepare in advance for extensive reading at an especially high-level. Such thoughts reinforce a fear of failure and stimulate more procrastination and avoidance, regardless of whether the lecturer explicitly or indirectly made such demands.

Third, personal and motivational factors such as impulsivity is defined as a need for immediate gratification, which encourages hasty and unplanned responses, not considering consequences and their possible negative impact. Under this definition impulsiveness theoretically opposes procrastination. However, some studies consider them to be inter-related variables. Such studies perceive a generic connection between procrastination and impulsiveness (Loehlin & Martin, 2014), and some studies found procrastination to be an evolutionary byproduct of impulsivity (Rebetez, Rochat & Van der Linden, 2015; Steel, 2010). Procrastinators' tendency to devalue future events and prefer immediate gratification (Wu et al., 2016) is attributed to a lower degree of self-control and impulsiveness. Procrastinators tend to complete specific assignments impulsively, instead of working steadily on assignments from the beginning (Ainsle, 2010; Ferrari, 1993; Rabin, Fogel & Nutter- Upham, 2011; Wilson & Nguyen, 2012).

The rational of the study

The value of a qualitative study examining academic procrastination lies in the multi faceted exposure of its various aspects (Grunschel et al., 2013). Students' reflections on the academic procrastination phenomenon, its causes, time management over the process of writing the final thesis, consequences of procrastination and advisors' professional behavioral are crucial in order reducing procrastination.

Study objectives

1. Examine students' self- perception as it pertains to their own academic procrastination;

2. Identify factors related to academic procrastination when writing a final paper;

3. Examine students' planning and time management during work on the final; and

4. Examine students' perception of the consequences of academic procrastination.

Research questions

1. How do academic students cope with meeting long term assignments?

2. What are the reasons of procrastination of students when writing a final paper?

3. How students regulate their time over the process of writing the final thesis to accomplish the final on time?

4. How did students perceive the consequences of academic procrastination?

Methods

Sample

Students from two Israeli colleges participated in the study – 31 students and 114 students, respectively. In total 145 female students. Each student was enrolled in a Master of Education program in organization and administration of education systems.

Design

This study was conducted using a qualitative-constructive method, with the goal of reviewing students' points of view regarding their individual coping with writing the final paper, learning strategies and their approach to academic procrastination and its results. A qualitative method may be considered most suitable (Taylor et al., 2016) due to the inherent complexity and multi-

dimensionality invloved when writing a final paper. Maxwell (2010) described many advantages to combining quantitative data when analyzing qualitative data in a multiparticipant study. As a positive consequence of the relatively large number of respondents, therefore, the study also incorporated quantitative data represented in absolute numbers and percentages. Questions were distributed via personal email to 170 students scheduled to complete their final paper between 2018-2020, with 145 completed responses (anonymity was maintained throughout). These permit depiction of the frequency of various phenomena in participants' responses and describe the weighting each assigned to the central themes.

Measure

Respondents answered four questions on the subject of writing a final paper, the fiirst three of them open-ended questions thus permitting the researchers to generate a rich textual description of their perceptions vis-a-vis their actual behavior. The research questions were based on the literature review of self regulated learning coponents of Classroom Academic Performance (Allen, 2010; Ariely et al., 2002; Pintrich & De Groot, 1990; Shaked & Altarac, 2022)

Students were asked to answer the following questions:

1. You have been given instructions for writing the final term paper and the final date for submission. When did you begin working on the paper? Explain why.

2. Describe the manner in which you utilize the time at your disposal.

3. Do you consider yourself a procrastinator, that is, someone who delays academic assignments? If so, answer the following questions:

    a. What are the reasons that made you delay writing the final term paper?

    b. Do you behave similarly when you are required to complete other papers? If you do not, explain why.

    c. What have been the consequences of procrastinating when writing the final paper?

    d. Were you satisfied with the grade you received? Explain.

    e. Do you believe the grade you have been given is related to being a procrastinator? If so, explain how.

    f. If you were able to begin the project again, what would you do differently?

4. Were you able to complete the assignment by the scheduled date?

The quantitative aspect of the open-ended questions is demonstrable in the researchers' ability to enumerate the prevalence of certain phenomena in participants' responses.

Findings

Content analysis was conducted on responses, from which six themes were developed: (a) self-perception of academic procrastination; (b) factors influencing academic procrastination; (c) Factors influencing diferent levels of procrastination; (d) procrastination in writing the final Master of Education thesis and other academic assignments; (e) time management over the process of writing the final thesis; (f) Consequences of academic procrastination.

Self perceptions of academic procrastination

A majority of 108 students (representing 74.48% of all study participants) perceive themselves as academic procrastinators while 37 students (25.52%) do not consider themselves as such. One student explains the absence of academic procrastination thus: *"I am not a chronic procrastinator, although over the course of my degree I delayed writing the three major papers"* [the two seminar papers and the final paper].

Factors influencing academic procrastination

There were 115 statements found to describe procrastination by those students who perceive themselves as procrastinators. They report both external as well as personal factors:

External factors included difficulty writing the final paper (40 statements, 34.78%), Various responsibilities related to home and family (27 statements-23.48%), Work related responsibilities (22 statements, 19.13%) and Heavy daily and academic workloads (11 statements, 9.57%). For example:

> *The instructions were not clear, the advisor was not available. I blame the failure to complete it on the academic system which was far from providing students with an appropriate response.*

Personal reasons included lack of motivation, laziness and "no reason*"* (12 statements, 10.43%) and ill health (three statements 2.61%). For example:

> *I had no motivating factor*
>
> *Academic assignments are usually delayed due to laziness*
>
> *The emotional reason is that I did not work on the paper continuously…*

In spite of the fact that the majority if the students see themselves as procrastinators when asked about the actual date on which the paper was completed, it was found that 78 students, representing approximately 54%, reported having successfully completed the paper on time, (62 on time and 16 far ahead of time) (see Table 1, below).

Table 1:

Students' reports of the date of completion

| Submission Date	Frequency	Percent
I have not completed it yet	30	20.70
Far behind schedule	18	12.41
Behind schedule	19	13.10
On time	62	42.76
Far ahead of schedule	16	11.03
Total	**145**	**100.0**

It was decided to examine the factors influencing academic procrastination among the group of 67 actual procrastinators (based on their self-reporting), due to the gap between the number of students perceiving themselves as procrastinators and the reports of the actual date on which the paper was completed. Since the research literature distinguishes between degrees of student academic procrastination (Nordby et al., 2017) and because the issue concerns a long-term assignment, we decided to examine the factors influencing procrastination from three levels of academic procrastination:

- A *high degree of procrastination* – refers to students who had not completed the paper at the time the research was conducted.
- A *medium degree of procrastination* – refers to students who submitted their paper by up to two semesters after the scheduled due date.
- A *low degree of procrastination* – refers to students who submitted the paper late, but no more than one semester after the paper's scheduled due date.

Figure 1, below, shows students' actual conduct on these three levels of procrastination: 30 students self-reported a high degree of academic procrastination (having not completed the paper at

the time the research was concluded); 18 students reported a medium degree (completing it much later than the paper's scheduled due date), and 19 students reported a low degree of academic procrastination (submitted the paper after the due date). A similar percentage of high and low level of procrastinators reported in the overall statements that they do not perceive themselves to be procrastinators. Only one such statement (4.55%) was found among medium level procrastinators. Procrastinators at all three levels ascribed the same reasons for academic procrastination, save for the low-level procrastinators, who do not note "laziness and lack of motivation" and "not sure" as factors found among both medium and high-level procrastinators. Low level procrastinators attribute a greater weighting to "difficulties in the paper and with advisor" (28%) compared to the two other groups (18.18% among medium level procrastinators and 16.67% among high level procrastinators). Medium level procrastinators attribute a greater weighting to the home and the workplace as compared to the other two levels of responsibilities.
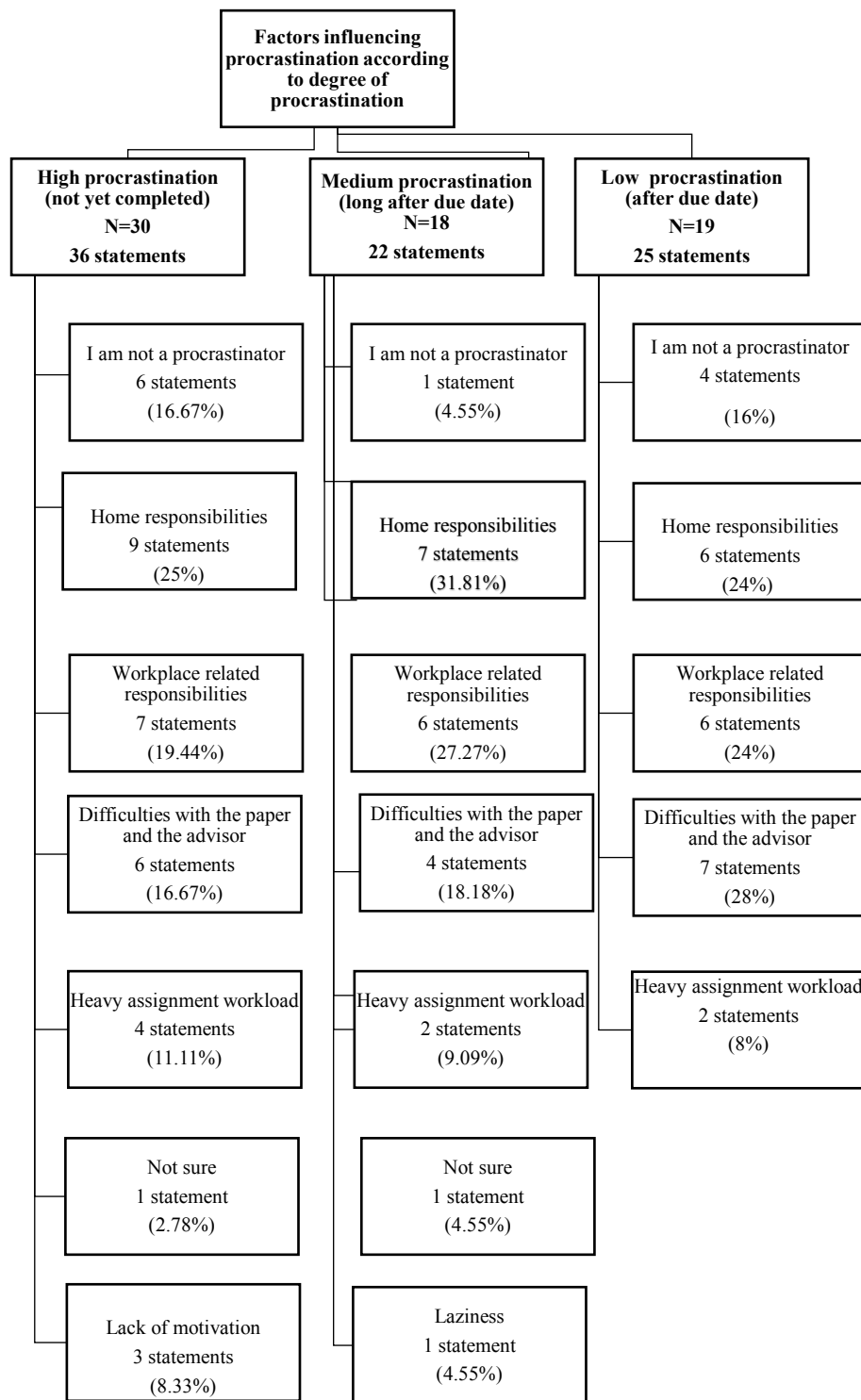
Figure 1:
*Factors influencing three levels of academic procrastination*

Procrastination in academic assignments

There were 29 (20%) of students reported similar academic procrastination writing the final paper as in other academic assignments. 116 (80%) of students reported a change in behavior when writing the final paper in contrast to other writing assignments

> *Throughout my studies I did everything and submitted everything on time. Only the term paper is difficult for me because of its length. Writing papers is relatively harder for me (I prefer exams). I can handle writing a few pages but writing the term paper is taking me a long time.*

Time management over the process of writing the final thesis

According to the Israeli college frameworks, the scheduled period for writing a thesis is three academic semesters. Therefore it was decided to observe procrastination during three different periods (see Figure 2).
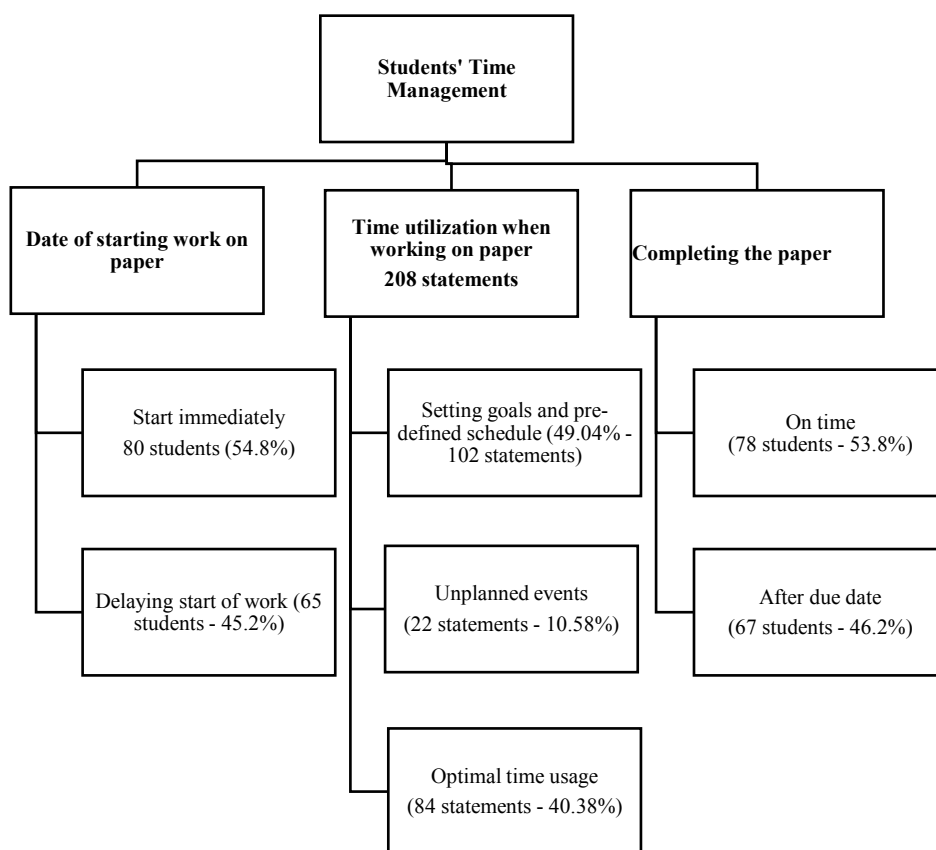
Figure 2:

Students' time management on the final thesis

More than half of the students (80 students) stated that they began working on the paper immediately while 65 students stated that they postponed the start of the work. Figure 2 shows that students who began work immediately upon receiving the assignment were also able to complete it in timely fashion. In contrast, students who delayed starting work on the initial research proposal found it difficult to complete the project on time. Time utilization during writing of the final paper, setting goals and determining a schedule:

I divided the paper into a list of practical tasks and decided when I would do each Set time for interviews and so on. I added reminders in my calendar to make sure I didn't forget. Even if I didn't exactly meet the schedules for all sorts of reasons, Every once in a while (after a month) I prepared a sort of intermediate summary for myself, what I did and what I have left to do and re-create my tasks.

Failure to utilize the time:

I didn't make use of the time. I wasn't working continuously and consecutively and this caused me to be late in submitting the paper.

Prioritizing tasks:

I divided the work into one part that I thought was more difficult, and to the various parts, the easier ones to me. I started with the difficult part and set a final date for myself to complete it. I then moved on to the easier parts and worked the same way there.

Consequences of academic procrastination

In analyzing consequences of procrastination, four categories were identified: impact of academic procrastination, grade satisfaction, reflection on the process and the relationship between procrastination and grades (see Figure 3, below).
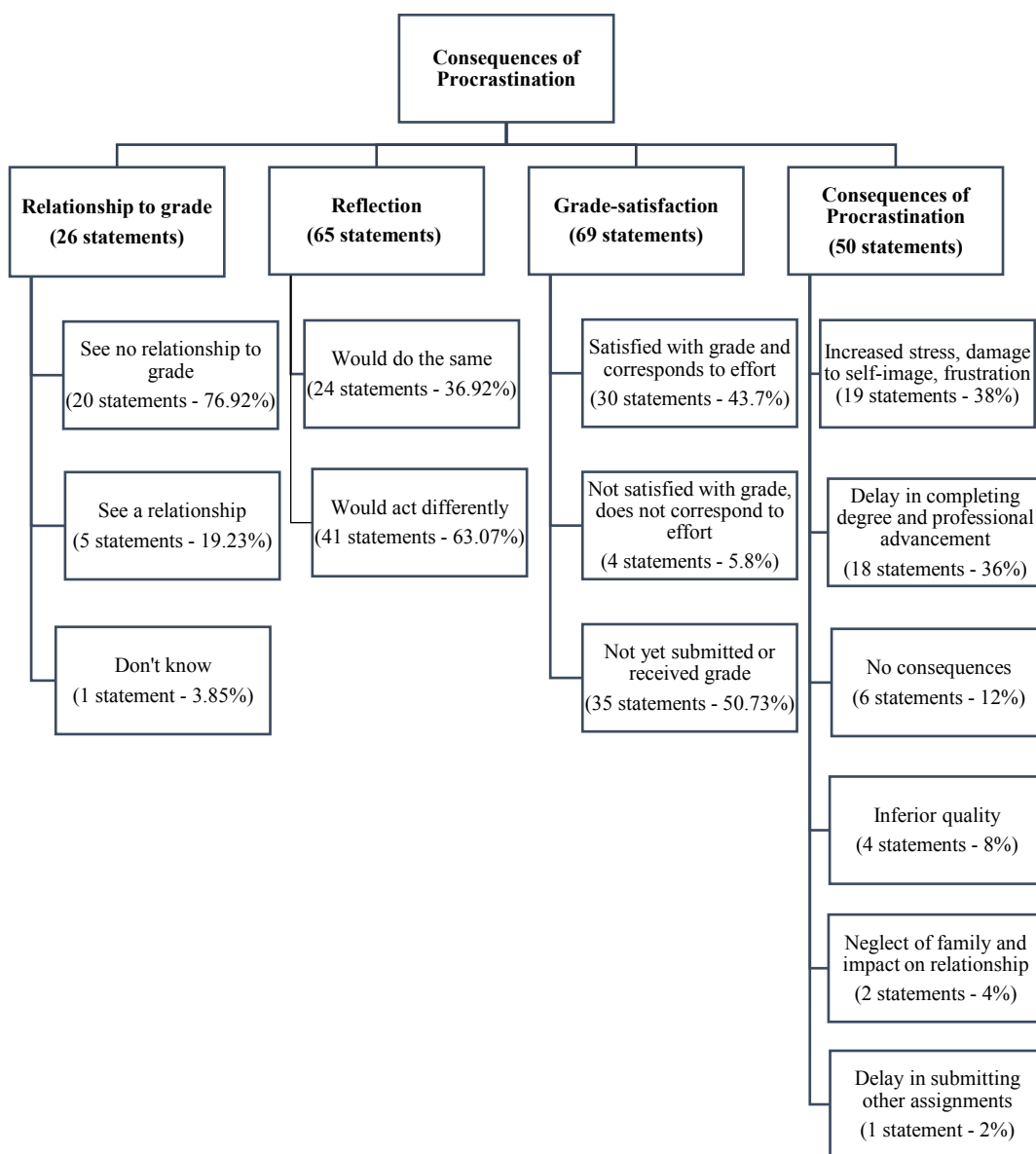
Figure 3:

Consequences of academic procrastination/non-procrastination

Impact of academic procrastination

Students attributed great weight (38% of all statements in the category) to psychological influences: damage to their self-image and even feelings of frustration.

Feelings of stress and damage to self-image*:*

> *I just was under extreme pressure those days; my self-image was damaged.*

Students also attributed a significant weighting to impairment of professional advancement and financial loss (36% of all statements in this category).

Satisfied with the grade and think it reflects the effort:

> *I was very satisfied with the grade because I had given up but the advisor did not…*

> *Not satisfied with the grade and it is not commensurate with the effort: "As a previously excellent student I am not used to failing, and when I do not meet my own expectations obviously the feeling of failure pains me.*

Would act the same:

> *I would go down the same path and make the same effort.*

Experience writing the paper:

> *Writing a paper was a wonderful experience. It's like creating something new.*

Would act differently:

> *I would 'work' on reinforcing my self-confidence and would be less severe with myself in terms of my concerns regarding results and grades*

Make decisions faster:

> *I would make a decision on a topic and not debate and investigate for so long. I would look for interviewees who are easier to schedule with. It was very difficult throughout the year for administrators to grant me the full amount of time needed for the extensive interviews I held.*

Different time management:

> *I only know that had I begun the final paper while I was studying it would've made it easier for me to persevere and complete it.*

Role of the advisor:

> *And if I hadn't had the most amazing advisor in the world… I believe it would not have been easy for me to complete.*

Choose a different research method:

> *I would choose a quantitative paper, which demands fewer stages of thought. It has much more superficial stages and I think that would be easier to cope with.*

Relationship between Grade and Procrastination: In 76.92% of all statements in this category students do not perceive a relationship between their grade and the degree of procrastination, while in only 19.23% of all statements do students perceive a relationship between procrastination and grades. See no connection:

> *From past experience, my procrastination does not impair the final result and I am usually satisfied.*

> *The grades I receive are not related to me being a procrastinator, because once I begin an assignment, I put everything into it, study and don't give up. Eventually I always get good grades.*

See a connection:

> *When I was disappointed by a certain grade many times, I thought that had I not procrastinated I would have done better.*

Discussion

The major contribution of the current qualitative-based research lies in its demonstration of various aspects of academic procrastination as identified by students, themselves. Such aspects address subjective perceptions of academic procrastination and conduct, the nature of the assignment, reasons for the academic procrastination and reflection on consequences.The academic procrastination phenomenon is itself well-researched, because it is prevalent among students and influences academic performance and achievement (Balkis & Duru, 2016; Bytamaret et al., 2017; Schraw et al., 2007). These studies mostly examined the factors and consequences of procrasination over relatively shorttime frames (for example, a term paper) and routine academic assignments, such as reading and writing tasks, studying for exams and submitting papers (Kim & Seo, 2015; Rabin, Fogel & Nutter-Upham, 2011; Rosental et al., 2014; Steel & Klingsieck, 2016).

The current sudy is unique in that it examines academic procrastination when wirting a final paper, which constitutes the crowning requirement for an M.Ed. This paper is considered a long-term complex task which necessitates different conduct than that made for other academic assignments. The majority of students in the current study reported a change in behavior when working on their final paper as compared to their actions in previous assignments. Indeed, research literature distinguishes between various procrastination behaviors in accordance with the nature of the academic assignments (Allen, 2010), and the time required to complete them. Schraw et al., (2007) noted in their study that students reported no delay of assignments in short-term courses and did not delay any assignments during the first 5 weeks of a traditional 14-week course.

Subjective perceptions of academic procrastination

The majority of students reported that they perceive themselves as academic procrastinators, although in actuality fully half of them submitted their final paper on the due date. Such gaps between students' subjective perception of themselves as procrastinators and their actual non-procrastination may be explained by the fact that for some students the delay was active and deliberate. This corresponds with the views of Fernie et al., (2017) and Steel (2012), who distinguish between conscious, deliberate delay in action, termed by Chu & Choi (2005) as Active Procrastination, and uncontrollable procrastination which they call Passive Procrastination. Passive Procrastination is the "classic", un-planned variety which impairs the ability to cope with tasks and meet goals. Passive procrastination is associated with minimal use of effective learning strategies and low levels of confidence, while Active Procrastination is associated with a conscious and deliberate choice to delay completion of assignments. Students who utilize active procrastination report successful completion of the task under time pressure (Hensley, 2013; Kurtovic et al., 2019). Students who perceive themselves as procrastinators can be defined, despite completing the final terrm paper on time, as active procrastinators who have formed an action strategy for themselves, managed their time efficiently (Hensley, 2016; Zohar et al., 2019) and demonstrated executive function which includes initiative, organization and planning of the work (Rabin et al., 2011). An additional explanation for the gap between students' perception of themselves as procrastinators and their actual performance can be based on the approach suggested by Zhang & Feng (2020), who describe an asymmetry between the decision to act in the present and the decision to act in the future. Although these students are presently procrastinating and are avoid work on the project, they expect to complete it in the future, so long as it promises a greater degree of benefit upon its completion. This model explains procrastination as an increase in motivation the closer an assignment's due date approaches (Steel, 2007; Steel & Köning, 2006; Steel & Weinhardt, 2018).

Academic conduct

The manner of allocating time for writing the paper has been examined in the current research over three periods: upon the start of the work, during the process of writing the paper and upon its completion; and it was found that the start date is significant with regard to the submission date. Over half of the students who began the paper immediately upon receiving their instructions were able to complete and submit it on time, and those who did not begin working immediately finished

later than the due date. This finding corresponds with those of previous studies which indicate that students with time management problems (Lay & Schouwenburg, 1993) and low self-efficacy which impacts their choices, efforts and perseverance in the face of various tasks (Schunk & Pajares 2002; Waschle. et al., 2014; Viser. Korthagen & Schoonenboom, 2018; Zhang and Feng.(2020) would find it difficult to begin the assignment and will delay its writing.

This is different than the findings in Chu and Choi's 2005 study, which claimed that the date upon which work is begun on an assignment does not necessarily project its results, and that active procrastinators work well under time pressure when the final date for an assignment approaches. Allen's (2010) distinction between procrastination and small short-term actions and procrastinations concerning complex long-term actions may explain the differences between the findings in the current study and those by Chu and Choi. Writing a final term paper is a complex task in which students are required to demonstrate academic skills such as writing and research, critical thinking and originality (Healey et al., 2010; Van Merriënboer & Kircshner, 2018) as well as an ability to commit and persevere with the task over a full academic year.

When describing their behavior during the writing process students in the current study showed that determining a schedule in advance, setting goals and optimal utilization of the time allotted aided them in avoiding academic procrastination in their final term paper. Lay and Schouwenburg (1993) note these behaviors as significant in reducing academic procrastination.

Factors influencing academic procrastination

Research literature mostly cites personal reasons such as a student's nature or learning skills, as factors influencing academic procrastination (Steel, 2007; Van Erde, 2003), and place less emphasis on external or circumstantial reasons (Funder, 2008). In the current study, six factors were found to influence academic procrastination, among them four categories pertaining to external factors: difficulties in writing the final paper and with the advisor as this relates to writing; job workload; home work load, and; day to day tasks and family obligations. Personal reasons related to health issues, laziness and lack of motivation. Most of the weight assigned to external reasons related to difficulty writing the paper and work and home obligations. Personal obligations, as reported by the students, were assigned a lesser weighting. Lack of motivation and laziness are demostable among students in the absence of a will to act and difficulty perceiving the future, and these reinforce academic procrastination (Yurtseven & Dogan, 2019).

The study did not find demonstrations of psychological reasons such as anxiety, low self-esteem or perfectionism (Khan et al., 2019), or factors related to a lack of learning skills and impaired self-regulation, often described by the research literature as factors of academic procrastination (Grunschel et al., 2013).

Factors of academic procrastination were expressed differently among students experiencing procrastination in varying degrees (Nordby el al., 2017; Visser et al., 2018). The current study examined these factors for three degrees of procrastination: low, medium and high. Low degree procrastinators note the difficulties in writing and with the advisor as reasons for their procrastination, more frequently. than those with medium and high degrees. Students with low degrees of procrastination did not mention internal personal factors while medium and high degree procrastinators mention laziness and lack of motivation as factors. This finding corresponds with work by Visser et al. (2018) who showed that students with low degrees of procrastination are aware of their abilities, rely on their strengths and are determined to complete the assignment on time. Their behavior will not necessarily be related to procrastination (Sæle, Dahl, Sørlie & Friborg, 2017; Visser et al., 2018) and will be perceived more as tardiness or a delay, depending on circumstances (Corkin et al., 2011; Kljajic & Gaudreau, 2018). In contrast, medium and high degree procrastinators, some of whom, according to the findings of the current study, do not perceive themselves as procrastinators, exhibit low degrees of metacognitive awareness. When they are unable to cope with a task, they retire from it and tend to attribute the failure to external factors (Visser et al., 2018). Attributing the failure to external factors is also, occasionally, an attempt to protect one's self-esteem (Grunschel et al., 2013).

Another explanation may be based on a distinction between the three stages of academic writing, where during each stage characteristic problems may arise which may lead to academic procrastination. Attributes such as laziness and absence of motivation dictate planning the required action to complete the assignment, beginning with the first stage. In the second stage, regulatiing levels of motivation plays a significant part in the pace of progress and in academic achievement (Pinttrih & Zusho, 2002; Shunk & Ertmer, 2000).

The nature of the assignment and advisor

The nature of academic assignments (for example: assignments are perceived as interesting/dreary, instructions are clear/not clear) and their due date constitute one of the factors in academic procrastination (Akerman & Gross, 2005, 2000; Nordby et al., 2017). This is especially prominent in term papers and theses (Allen, 2010). Respondents in the current study noted the difficulty writing the final paper as a central factor in their procrastination, and addressed the scope, complexity, absence of clear instructions and difficulty identifying suitable populations for their research. When this factor was examined in accordance with the degrees of procrastination, students with low degrees of procrastination were found to assign greater weighting to the difficulty in completing the assignment and the availability of the advisor, compared to medium and high degree procrastinating students, and this is due to their determination to complete the assignment and meet the deadline (Visser et al., 2018).

Advisors' professional behavioral attributes also constitute a factor in academic procrastination, and these are mostly demonstrated in the methods of the advisor, the feedback provided to students as well as requirements from students (Grunschel et al., 2013; Schraw et al., 2007). In the current study, students only addressed advisors' availability in terms of their response time.

Consequences of procrastination

Unlike other research, in which all the phenomena were described as factors in procrastination, this study reports these as the consequences of procrastination.Students perceived the objective influence of their procrastination as demonstrated in delays in receiving the degree, lower wages and obstacles to professional advancement, and the impact it has on them as individuals. They acknowledged increased stress, damage to their self image and feelings of frustration, which depict an impaired mental state. This phenomenon corresponds with descriptions in the research literature, which point to ties between procrastination and feelings of stress, anxiety and depression (Grunschel et al., 2013; Rice et al., 2012; Sirois, 2014; Wilson & Nguyen, 2012), and explains students' retrospective claim (63% of statements) that they would act differently to avoid academic procrastination. As described above, in the current study, students did not tend to describe personal reasons as factors in their procrastination. Such a finding may attest to a high degree of denial and a tendency to affixblame on external factors. However, once the original due date for the paper passed, personal factors and feelings of stress, impaired self image and even feelings of frustration can no longer be denied and are described as the primary consequences of procrastination.

Academic procrastination and achievement

One of the surprising findings of the current study was that approximately 77% of students do not see a relationship between academic procrastination and grades. This differs sharply with the preponderance of studies on the subject which point to significant relationships between procrastination and academic achievement, in the sense that the higher the degree of academic procrastination the lower the level of academic achievement. Studies runned by Balkis (2013), Kim & Seo (2015), Richardson, Abraham & Bond (2012) and Steel (2007) found a distinct correlation between academic procrastination and achievement. Academic procrastination was even found to predict students' grades. Academic procrastination was also found to adhere to students' grades on projects (Balkis, 2013; Goroshit & Hen, 2019; Kim & Seo, 2015; Kim et al., 2017; Richardson, Abraham & Bond, 2012; Steel, 2007). One of the possible explanations to this dissonance can be that the participants are active procrastinators, and they deliberately postponed

and planned to move the assignment to the later date, they were conscious and were aware of their own strategy to accomplish the assignment, resulting the good academic grades. Reinforcement to that exlplanatory claim is that the majority of students reported that they perceive themselves as academic procrastinators, although in actuality fully half of them submitted their final paper on the due date, means that it's a decisional procrastination.

Recommendations for future studies and practical implications

The present study presents a new perspective on how students perceive and use their time to acomplish long term assignments. In addition to the theoretical contribution, current study fidings have practical application as well. The findings lead to a recommendation to seek proper modes of intervention, that is tools and skills adapted for students which may assist them in minimizing academic procrastination. One such intervention concerns the advisors themselves.The current study, focused on the self-perception of academically procrastinating students, and examined the factors of procrastination, students' academic conduct and the results of their procrastination. It was found that the complexity of the final paper was one of the primary reasons for their procrastination, and therefore, future studies should examine advisors' explanatory methodology as factors in procrastination.

Based on the fidings obtained in this study, the date of starting work on the paper, setting goals predifence schedule help students completing assignments in order reducing procrastination. It's reccommended for advisors to take steps to assist students in time manegement skiils and to encourage them to strart the project without any delay. The study did not analyse demographic individual differences as gender and age of the students. A second limitation may be that our assesment was not sensitive enough to detect the influence of the advisors intervention.

Conflict of interest

References

Allen, D. (2010). *Get Things Done*. Kinneret [In Hebrew].

Ackerman, D.S., & B.L. Gross (2005). My Instructor Made Me Do it; Task Characteristics of Procrastination. Oxford University Press. *Journal of Marketing Education, 27*, 5-13. https://doi.org/10.1177/0273475304273842

Afzal, H., Ali, I., Khan, M. A., & Hamid, K. (2010). A Study Of University Students' Motivation *its* Relationship With Their Academic Performance. *International Journal of Business and Management*, *5*(4), 80-88.

Ainsle, G. 2010. Procrastination the Basic Impulse. *The Thief of Time: Philosophical Essays on Procrastination,* 11-27. https://doi.org/10.1093/acprof:oso/9780195376685.003.0001

Ariely, D., Wertenbroch, K. (2002). Procrastination, Deadlines and Performance: Self-control by Precommitment. *Psychological Science, 13*(3), 219-224. https://doi.org/10.1111%2F1467-9280.00441

Balkis, M. (2013). Academic Procrastination, Academic Life Satisfaction and Academic Achievement:The Mediation Role of Rational Beliefs about Studying. *Journal of Cognitive and Behavioral Psychotherapies, 13*(1), 57-74.

Balkis, M. & Duru, E. (2012). The Direct and Indirect Role of Self- Esteem and Procrastination in Relation to Fear of Failure and Self Worth. *International Joutnal of Human Sciences, 9*(2), 1075-1093. https://doi.org/10.1007/s10212-015-0266-5

Balkis, M., E. Duru, E. (2016). Procrastination, Self Regulation Failure, Academic Life Satisfaction, and Affective Well-being: Underregulation or Misregulation Form. *European Journal of Psychology of Education, 31*(3), 439-459. https://doi.org/10.1007/s10212-015-0266-5

Bandura, A. 1997. *Self efficacy. The Exersise of Control*. Freemen.

Blunt, A. K., & Pychyl, T. A. (2000). Task aversiveness and procrastination: A multi-dimensional approach to task aversiveness across stages of personal projects. *Personality and Individual Differences*, *28*(1), 153-167. https://doi.org/10.1016/S0191-8869(99)00091-4

Bogdan, &Taylor, S.J. (2016). *Introduction to Qualitative Research Methods, A Guidebook and Resource.* John Wiley & Sons. https://www.pdfdrive.com/introduction-to-qualitative-research-methods-e34555026.html.

Bond, M.J., & Feather, N.T. (1988). Some Correlates of Structure and Purpose in the Use of Time. *Journal of Personality and Social Psychology, 55,* 321-329. https://psycnet.apa.org/doi/10.1037/0022-3514.55.2.321

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

Burka, J.B., & Yuen, L.M. (2008). *Procrastination: Why You Do it, what to Do about it.* Cambridge: Da Capo Press.

Bytamar, J.M., Zenoozian, S., Dadashi, M., Saed, O., Hemmat, A., & Mohammedi, G. (2017). The Prevalence of Academic Procrastination and its Relashionship with Metacognitive Beliefs. *Journal of Medical Education Development,10*(27), pp 70-83. https://doi.org/10.18869/acadpub.edg

Chen, G., Gully, S.M., & Eden, D. (2001). Validation of a New General Self-Efficacy Scale. *Organizational Ressearch Methods, 4*(1)*,* 62-82. https://doi.org/10.1177/109442810141004

Choi, J. N., & Moran, S.V. (2009). Why not Procrastinate? Development and Validation of a New Active Procrastination Scale. *The Journal of Social Psychology, 14*9(2)*:* 195-211. https://doi.org/10.3200/SOCP.149.2.195-212

Chun Chu, A.H., & Choi, J.N. (2005). Rethinking Procrastination: Positive Effects of 'Active' Procrastination Behavior on Attitudes and Performance. *The Journal of Social Psychology, 145*(3)*,* 245-64. https://doi.org/10.3200/SOCP.145.3.245-264

Corkin, D. M., Shirley, L. Y., & Lindt, S. F. (2011). Comparing active delay and procrastination from a self-regulated learning perspective. *Learning and Individual Differences*, *21*(5), 602-606. https://doi.org/10.1016/j.lindif.2011.07.005

Creswell, J.W. (2014). *Research Design (4ᵗʰ ed.)*. Sage.

Deci, E.L., & Ryan, R.M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. New York; Plenum.

Dewitte, S., & Schouwenburg, H. C. (2002). Procrastination, temptations, and incentives: The struggle between the present and the future in procrastinators and the punctual. *European Journal of personality*, *16*(6), 469-489. https://doi.org/10.1002/per.461

Duru, E., & Balkis, M. (2017). Procrastination, Self-Esteem, Academic Performance, and Well-Being: A Moderated Mediation Model. *International Journal of Educational Psychology, 6*(2, 97-119. http://dx.doi.org.mgs.hertzog.macam.ac.il/10.17583/ijep.2017.2584

Eckert, M., Ebert, D. D., Lehr, D., Sieland, B., & Berking, M. (2016). Overcome procrastination: Enhancing emotion regulation skills reduce procrastination. *Learning and Individual Differences*, *52*, 10-18. https://doi.org/10.1016/j.lindif.2016.10.001

Ellingson, L.L. (2011). Analysis and Representation across the Continuum. In N.K. Denzin and Y.S. Lincoln (Eds.). *The Sage Handbook of Qualitative Research* (4ᵗʰ ed.).(pp.595-610). Sage.

Ellis, A., & Knaus, W.J. (1977). *Overcoming Procrastination*. Signet.

Fernie, B. A., Bharucha, Z., Nikčević, A. V., & Spada, M. M. (2017). The unintentional procrastination scale. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *35*(2), 136-149. https://doi.org/10.1007/s10942-016-0247-x

Ferrari, J.R. (1992. *Procrastination Encyclopedia of Mental Health*, 1-5.

Ferrari, J.R. (1993). Procrastination and Impulsiveness: Two Sides of a Coin? In W.G. McCown, T.L. Johnson, and M.B. Shure (Eds.). *The Impulsive Client: Theory, Research, and Tratment* (pp.265-276). American Psychological Association. https://psycnet.apa.org/doi/10.1037/10500-014

Ferrari, J.R. (2001). Procrastination as Self Regulation Failure of Performance Effects of Cognitive Load, Self- Awarness, and Time Limits on 'Working Best under Pressure'. *European Journal of Personality, 15*, 391-406. https://doi.org/10.1002/per.413abs

Ferrari, J.R. (2010). *Still Procrastinating?The no Regrets to Getting it Done.* Wiley.

Fraser, B.J. 1994. Research on Classroom and School Climate. In D. Gabel (Ed.), *Handbook of Reseach on Science Teaching and Learning* (pp. 493-541). Macmillan.

Funder, D. C. (2008). *Persons, situations, and person-situation interactions.* In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (p. 568–580). Guilford Press.

Goroshit, M., & Hen, M. 2019. Academic procrastination and academic performance: Do learning disabilities matter?. *Current Psychology*, 1-9. https://doi.org/10.1007/s12144-019-00183-3

Grunschel, C., Patrrk, J., & Fries, S. (2013). Exploring Different Types of Academic Delayers: A Latent Profile Analysis. *Learning and Individual Differences*, *23*, 225-233. https://doi.org/10.1016/j.Jindif.2012.09.014

Grunchel, C., J. Patrrk, K. Klingsieck, & Fries, S. (2018). I'll Stop Procrastinting Now! Fostering Soecific Processes of Self Regulated Learning to Reduce Academic Procrastination. *Journal of Prevention & Intervention in the Community*, *46*(2), 143-157. https://doi.org/10.1080/10852352.2016.1198166

Haghbin, M., McCaffrey, A., & Pychyl, T.A. (2012). The Complexity of the Relation between Fear of Failure and Procrastination. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, *30*(4), 249-263. https://doi.org/10.1007/s10942-012-0153-9

Healey, M., Jordan, F., Pell, B., & Short, C. (2010). The research–teaching nexus: a case study of students' awareness, experiences and perceptions of research. *Innovations in Education and Teaching.* https://doi.org/10.1080/14703291003718968

Hensley, L. C. (2013). *The Fine Points of Working under Pressure: Active and Passive Procrastinationamong College Sudents* (Order No. 3673155). Available from ProQuest Central. (1647194743).

Hensley, L.C. (2016). The Draws and Drawbacks of College Students' Active Procrastination. *Journal of College Student Development, 57*(4), 465-471. https://doi.org/101353/csd.2016.0045

Hicks, R. E., & Wu, F. M. Y. (2015). Psychological capital as mediator between adaptive perfectionism and academic procrastination. *GSTF Journal of Psychology (JPsych)*, *2*(1). 34-40. https://doi.org/10.5176/2345-7872_2.1_27

Howell, A.J., & Watson, D.C. (2007). Procrastination: Associations with Achievement Goal Orientation and Learning Strategies. *Personality and Individual Differences*, *43*(1), 167-178. https://doi.org/10.1016/j.paid.2006.11.017

Kennedy, G.J., & Tuckman, B.W. (2013). An Exploration into the Influence of Academic and Social values, Procrastination, and Perceived School Belongingness on Academic Performance. *Social Psychology of Education : An International Journal, 16*(3), 435-470.

http://dx.doi.org.mgs.hertzog.macam.ac.il/10.1007/s11218-013-9220-z

Khan, S. S., Shah, S. A., & Elahi, H. (2019). Effect of Rumination and Worry, Test Anxiety, and Academic Procrastination on Academic Achievement of Pakistani University Students. *Global Regional Review (GRR)*,*4(1), 420-426.* http://dx.doi.org/10.31703/grr.2019(IV-1).45

Klassen, R.M., Krawchuk, L., & Rajani, S. (2008). Academic Procrastination of Undergraduates:Low Self-Efficacy to Self-Regulate Predicts Higher Levels of Procrastination. *Contemporary Educational Psychology, 33*(4), 915-931. https://doi.org/10.1016/j.cedpsych.2007.07.001

Klassen, R.M., & Kuzucu, E.C. (2009). Academic Procrastination and Motivation of Adolescents in Turkey. *Educational Psychology, 29*, 69-81. https://doi.org/10.1080/01443410802478622

Kljajic, K., & Gaudreau, P. (2018). Does it matter if students procrastinate more in some courses than in others? A multilevel perspective on procrastination and academic achievement. *Learning and Instruction*, *58*, 193-200. https://doi.org/10.1016/j.learninstruc.2018.06.005

Klingsieck, K.B. (2013). Procrastination: When Good Things Don't Come to Those who Wait. *European Psychologist, 18*(1), 24-34. https://doi.org/10.1027/1016-9040/a000138

Kim, S., S. Fernandez, & Terrier, L. (2017). Procrastination, Personality Traits, and Academic Performance: When Active and Passive Procrastination Tell a Different Story. *Personality and Individual Differences*, *108*,154–157. https://doi.org/10.1016/j.paid.2016.12.021

Kim, K.R., & Seo, E.H. (2015). The Relationship between Procrstination and Academic Performance:A Meta-Analysis. *Personality and Individual Differences, 82*,26-33. https://doi.org/10.1016/j.paid.2015.02.038

Kurland R.M., & Siegel, H.I. (2016). Attachment and Academic Classroom Behavior: Self Efficacy and Procrastination as Moderators on the Influence Attachment on Academic Success. *Psychology, 7,* 1061-1074. https://doi.org/10.4236/psych/2016.78107

Kurtovic, A., G. Vrdiljak, & A. Idzanovic, H.I. (2019). Predicting Procrastination:The Role of Academic Achievement, Self- Efficacy and Perfectionism. *International Journal of Educational Psychology, 8*(1), 1-26. http://dx.doi.org/10.17583/ijep.2019.2993

Lay, C. H., & Schouwenburg, H.C. (1993). Trait Procrastination, Time Management, and Academic Behavior. *Journal of Social Behavior, 8,* 647-662. https://doi.org/10.3200/GNTP.166.1.5-15

Liu, G., Cheng, G., Hu, J., Pan, Y., & Zhao, S. (2020). Academic Self-Efficacy and Postgraduate Procrastination: A Moderated Mediation Model. *Frontiers in Psychology*, *11*, 1752. https://doi.org/10.3389/fpsyg.2020.01752

Loehlin, J. C., & Martin, N. G. (2014). The Genetic Correlation Between Procrastination and Impulsivity. *Twin Research and Human Genetics 17* (6), 512–515. https://doi.org/10.1017/thg.2014.60

Macclosky, J.D. (2011). *Academic Procrastination*. In partial fulfilment of the *request* of equirements for the degree of Master of Science in Psychology. University of Texas at Arlington.

Marshall, C., & Rossman,G.B. (2011). *Designing Qualitative Research* (5th ed.) Thousand Oaks, CA; Sage.

Maxwell, J. A. (2010). Using Numbers in Qualitative Research. *Qualitative Inquiry 16*(6) 475–482. https://doi.org/10.1177%2F1077800410364740

Milgram, N.A., G. Batori, & Mowrer. D. (1993). Correlates of Academic Procrastination. *Journal of School Psychology, 31*, 487-500. https://doi.org/10.1016/0022-4405(93)90033-F

Moon, S. M., & Illingworth, A.J. (2005). Exploring the Dynamic Nature of Procrastination: A Latent Growth Curve Analysis of Academic Procrastination. *Personality and Individual Differences, 38*(2), 297-309. https://doi.org/10.1016/j.paid.2004.04.009

Nordby, K., K. Klingsieck, & Svartdal, F. (2017). Do Procrastination Friendly Environments Make Students Delay Unneccessarily? *Social Psychology of Education.20*, 491-512. https://doi.org/10.1007/s11218-017-9386-x

Odaci, H. (2011). Academic Self-Efficacy and Academic Procrastination as Predictors of Problematic Internet Use in University Students. *Computers & Education, 57*(1)*,* 1109–1113. https://doi.org/10.1016/j.compedu.2011.01.005

Òzer, B.U., Demir, A,. & Ferrari, J.R. (2009). Exploring Academic Procrastination Among Turkish Students: Possible Gender Differences in Prevalence and Reasons. *The Journal of Social Psychiligy, 149,* 241-257. https://doi.org/10.3200/SOCP/149.2.241-257

Pajares, F. (1996). Self-Efficacy Beliefs in Academic Settings. *Review of Educational Research, 66*, 543-578. https://doi.org/10.3102%2F00346543066004543

Pajares, F. (2002). Self-Efficacy Beliefs, Motivation and Achievement in Writing: A Review of the Literature. *Reading & Writing Quarterly, 19*(2), 139-158. https://doi.org/10.1080/10573560308222

Park, S.W., & Sperling, R.A. (2012). Academic Procrastinator and their Self-Regulation. *Psychology in Scientific Research, 3* (1)*,*12-23. http://dx.doi.org/10.4236/psych.2012.31003

Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology*, *95*(4), 667. https://psycnet.apa.org/doi/10.1037/0022-0663.95.4.667

Pintrich, P.R., & De Groot, E.V.(1990). Motivational and Self-Regulated Learning Components of Classroom Academic Performance. *Journal of Educational Psychology, 82*(1)*,* 33. https://psycnet.apa.org/doi/10.1037/0022-0663.82.1.33

 Pintrich, P. R., & Zusho, A. (2002). The Development of Academic Self Regulation the Role of Cognitive and Motivational Factors, In A. Wigfield and J.S. Eccls (eds.). *Development of Achievement Motivation*, (CA: Academic Press), 249-284. https://doi.org/10.1016/B978-012750053-9/50012-7

Przepiórka, A., Błachnio, A., & Siu, N. Y. F. (2019). The relationships between self-efficacy, self-control, chronotype, procrastination and sleep problems in young adults. *Chronobiology International*, *36*(8), 1025-1035. https://doi.org/10.1080/07420528.2019.1607370

Quispe-Bendezú, L. E., Araujo-Castillo, R. L., García-Tejada, J. E., García-Tejada, Y., Sprock, A. S., & Villalba-Condori, K. O. (2020). Relationship between Academic Procrastination and Attributions of Achievement Motivation. *International Journal of Learning, Teaching and Educational Research*, *19*(1), 188-205.

Rabin, L. A., Fogel, J., & Nutter-Upham, K. E. (2011). Academic procrastination in college students: The role of self-reported executive function. *Journal of Clinical and Experimental Neuropsychology*, *33*(3), 344-357. https://doi.org/10.1080/13803395.2010.518597

Rallis, S. F., & Rossman, G. B. (2012). *The research journey: Introduction to inquiry*. Guilford Press.

Rice, K.G., Richardson, C.M., & Clark, D. 2012. Perfectionism, Procrastination, and Psychological Distress. *Journal of Counseling Psychology, 59*(2): 288. https://doi.org/10.1037/a0026643

Richardson, M., Abraham, C., &. Bond, R. (2012). Pshychological Correlates of University Students' Aacademic Performance: A Systematic Review and Meta-Analysis. *Psychological Bulletin, 138*(2): 353-387. https://doi.org/10.2037/a0026838

Rebetez,,M. M. L., Rochat, L., & Van der Linden, M. (2015). Cognitive, emotional, and motivational factors related to procrastination: A cluster analytic approach. *Personality and Individual Differences 76,* 1-6. https://doi.org/10.1016/j.paid.2014.11.044

Rozental, A., Forsström, D., Nilsson, S.. Rizzo, A., & Carlbring, P. (2014). Group versus Internet-Based Cognitive-Behavioral Therapy for Procrastination: Study Protocol for a Randomized Controlled Trial. *Internet Interventions, 1*(2): 84-89. https://doi.org/10.1016/j.invent.2014.05.005

Sæle, R.G., Dahl, T.I., Sørlie, T., & Friborg, O. (2017). Relationships Between Learning Approach, Procrastination and Academic Achievement amongst First-Year University Students. *Higher Education*, *74*(5), 757-774. https://doi.org/10.1007/s10734-016-0075-z

Schunk, D.H. (1984). Self-Efficacy Perspective on Achievement Behavior. *Educational Psychologist*, *19*, 48-58. https://doi.org/10.1080/00461528409529281

Schunk, D.H., & Ertmer, P.A. (2000). Self Regulation and Academic Learning: Self-Efficacy Enhancing Interventions. In M. Bookaerts, P.R. Pintrich, and M. Zeidner (eds.). *Handbook of Self Regulation* (CA:Academic Press), 631-649. https://doi.org/10.1016/B978-012109890-2/50048-2

Shaked, L & Altarac, H. (2022)."Whatever I can do tomorrow… I'll postpone to the day after": Academic procrastination, motivational behavior and academic achievement. Hemda'at, *15*, Dea Academic Press [in print] [In Hebrew].

Schunk, D.H., & Pajares, F.(2002). The Development of Academic Self Efficasy. In: A. Wigfield and J. Eccles (Eds.). *Development of Academic Motivation* (pp. 16-31). Academic Press. https://doi.org/10.1016/B978-012750053-9/50003-6

Schraw, G., Wadkins, T., & Olafson, L. (2007). Doing the Things We Do: A Grounded Theory of Academic Procrastination. *Journal of Educational Psychology, 99*(1)*,* 12-25. https://psycnet.apa.org/doi/10.1037/0022-0663.99.1.12

Seo, E.H. (2011). The Relationship among Procrastination, Flow, and Academic Achievement. *Social Behavior and Personality,* 39(2), 209-217. https://doi.org/10.2224/sbp.2011.39.2.209

Seo, E.H. (2012). Cramming, Active Procrastination, and Academic Achievement. *Social Behavior and Personality, 40*(8), 1333-1340.

https://doi.org/10.2224/sbp.2012.40.8.1333

Seo, E. H. (2013). A Comparison of Active and Passive Procrastination in Relation to Academic Motivation. *Social Behavior and Personality, 41*(5), 777-786. https://doi.org/10.2224/sbp.2013.41.5.777

Sideridis, Georgios D., & Kaplan, A. (2011), Achievement goals and persistence across tasks: The roles of failure and success. *The Journal of Experimental Education 79*, (4), 429-451. https://doi.org/10.1080/00220973.2010.539634

Sirois, F. M. (2014). Procrastination and Stress: Exploring the Role of Self-Compassion. *Self and Identity, 13*(2), 128-145. https://doi.org/10.1080/15298868.2013.763404

Sivrikaya, A. H. (2019). The Relationship between Academic Motivation and Academic Achievement of the Students. *Asian Journal of Education and Training*, *5*(2), 309-315. https://doi.org/10.20448/journal.529.20952.309.315

Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology, 31*(4), 503–509. https://doi.org/10.1037/0022-0167.31.4.503

Stead, R., Shamaham, M.J., & Neufeld, R.W. (2010). I'll Go to Therapy, Eventually: Procrastination, Stress and Mental Health. *Personality and Indidvidual Differences, 49*(3),179-180. https://doi.org/10.1016/j.paid.2010.03.028

Steel, P. (2007). The Nature of Procrastination: A Meta-Analytic and Theoretical Review Qintessential Self Regulatory Failure. *Psychological Bulletin, 133*(1), 65. https://psycnet.apa.org/doi/10.1037/0033-2909.133.1.65

Steel, P. (2010). Arousal, avoidant and decisional procrastinators: Do they exist? *Personality and Individual Differences, 48*(8), 926-934. https://doi.org/10.1016/j.paid.2010.02.025

Steel, P. (2012). *The Procrastination Equation: How to Stop Putting Things Off and Start Getting Stuff Done/Piers Steel*. Perennial. Paperback, Reprint. https://psycnet.apa.org/doi/10.1037/0033-2909.133.1.65

Steel, P., & Klingsieck, K.B. (2016). *Academic Procrastination Psychological Anteccedents Revisited. Australian Psychologist, 51*(1)*,* 36-46. https://doi.org/10.1111/ap.12173

Steel, P., & König, C. J. (2006). Integrating theories of motivation. *Academy of management review*, *31*(4), 889-913. https://doi.org/10.5465/amr.2006.22527462

Steel, P., & Weinhardt, J. M. (2018). *The building blocks of motivation: Goal phase system.* In D. S. Ones, N. Anderson, C. Viswesvaran, & H. K. Sinangil (Eds.), *The SAGE handbook of industrial, work & organizational psychology: Organizational Psychology* (p. 69–96). Thousand Oaks, CA: Sage.

Strand, K.H. (2009). *Behavioral Effects of Consideration of Future Consequences and Time Perspective on Self-Regulation and Procrastination in Mastery and Performance-Oriented College Students* (Order No. 3448065). Available from ProQuest Central. (859251341).

Taylor, S.L., Bogdan, R., & DeVault, M.L. (2016). *Instruction to Qualitative Research Methods: A Guidbook and Resource* (4ᵗʰ ed.). Hoboken. NJ: Wiley.

Teddlie, C., & Tashakkory, A. (2011). Mixed Methods Research: Contemporary Issues in an Emerging Field. In N.K. Denzin and Y.S. Lincola (Eds.).*The Sage Handbook Qualitative Research (4ᵗʰ ed.)* (pp. 285-299). Los Angeles, CA:Sage.

Tracy, S.J. (2013)..*Qulitative Research Methodes:Collecting Evidence Crafting Analysis, Communucating Impact.* Chichester, UK: Wiley- Blackwell.

Tuckman, B.W. (1991). The Development and Concurrent Validity of the Procrastination Scale. *Educational and Psychological Measurement, 51*(2), 473. https://doi.org/10.1177%2F0013164491512022

Van Blankenstein, F. M., Saab, N., Van der Rijst, R.M., Danel, M.S., Bakker-van den Berg, A.S., & Van den Broek, P.W. (2019). How Do Self-Efficacy Beliefs for Academic Writing and Collaboration and Intrinsic Motivation for Academic Writing and Research Develop During an Undergraduate Research Project? *Educational Studies*, *45*(2), 209-225. https://doi.org/10.1080/03055698.2018.1446326

Van Eerde, W. (2003). A Meta-Analytically Derived Nomological Network of Procrastination. *Personality and Individual Differences, 35*(6), 1401-14018. https://doi.org/10.1016/S0191-8869(02)00358-6

Van Merriënboer, J., Kirschner, P. (2018). *Ten Steps to Complex Learning*. New York: Routledge. https://doi.org/10.4324/9781315113210

Vansteenkiste, M., Lens,W., Elliot, A.J., Soenens, B., &.Mouratidis, A. (2014). Moving the achievement goal approach one step forward: Toward a systematic examination of the autonomous and controlled reasons underlying achievement goals. *Educational Psychologist*, *49*(3), 153-174. https://doi.org/10.1080/00461520.2014.928598

Visser, L., Korthagen, F. A., & Schoonenboom, J. (2018)."Differences in Learning Characteristics Between Students with High, Average, and Low Levels of Academic Procrastination: Students' Views on Factors Influencing Their Learning". *Frontiers in Psychology, 9,* 808. https://doi.org/10.3389/fpsyg.2018.00808

Wäschle, K., Allgaier, A., Lachner, A., Fink, S., & Nückles, M. (2014). Procrastination and self-efficacy: Tracing vicious and virtuous circles in self-regulated learning. *Learning and instruction*, *29*, 103-114. https://doi.org/10.1016/j.learninstruc.2013.09.005

Wilson, B.A., & Nguyen, T.D. (2012). Belonging to Tomorrow: An Overview of Procrastination. *International Journal of Psychological Studies, 4*(1), 211. http://dx.doi.org/10.539/ijps.v4n1p211

Wohl, M.J., Pychyl, T.A., & Bennett, S.H. (2010). I forgive Myself, Now I Can Study: How Self-Forgiveness for Procrastination Can Reduce Future Procrastination. *Personality an Individual Differences, 48*(7), 803-808. https://doi.org/10.1016/j.paid.2010.01.029

Wu, H., Gui, D., Lin, W., Gu, R., Zhu, X. & Liu, X. (2016). The procrastinators want it now: Behavioral and event-related potential evidence of the procrastination of intertemporal choices *Brain and Cognition, 107*, 16-23. https://doi.org/10.1016/j.bandc.2016.06.005

Yerdelen, S., McCaffrey, A., & Klassen, R. M. (2016). Longitudinal Examination of Procrastination and Anxiety, and Their Relation to Self-Efficacy for Self-Regulated Learning: Latent Growth Curve Modeling. *Educational Sciences: Theory and Practice 16,* (1), 5-22. https://doi.org/10.12738/estp.2016.1.0108

Yurtseven, N., & Dogan, S. (2019). Structural Relationships among Academic Procrastination, Academic Motivation, and Problem Solving Skill in Prep Class College Students= Üniversite hazirlik ögrencilerinin akademik erteleme, akademik motivasyon ve problem çözme becerileri arasindaki yapisal iliskiler. *Pegem Journal of Education and Instruction*, *9*(3), 849-876.

Zhang, S., & Feng, T. (2020). Modeling procrastination: Asymmetric decisions to act between the present and the future. *Journal of Experimental Psychology: General*, *149*(2), 311. https://dx.doi.org/10.1037/xge0000643

Ziegler, N., & Opdenakker, M. C. (2018). The development of academic procrastination in first-year secondary education students: The link with metacognitive self-regulation, self-efficacy, and effort regulation. *Learning and Individual Differences*, *64*, 71-82. https://doi.org/10.1016/j.lindif.2018.04.009

Zimmerman, B. J. (1995). Self-Efficacy and Educational Development. *Self-Efficacy in Changing Societies, 1*, 202-231.

Zimmerman, B. J., & Schunk, D.H. (2011). Self Regulated Learning and Performance. In B.J. Zimmerman and D.H. Schunk (eds.). *Handbook of Self-Regulation of Learning amd Performance*. (New York, N.Y. Routledge), 1-12.

Zohar, A. H., Shimone, L.P., & Hen, M. (2019). Active and Passive Procrastination in Terms of Temperament and Character. *Peerj, 7*, e6988. https://doi.org/10.7717/peerj.6988