



BENEMÉRITA UNIVERSIDAD AUTÓNOMA DE PUEBLA

FACULTAD DE LENGUAS

**“Academic procrastination in online learning during the
COVID-19 pandemic at the Language Faculty of BUAP”**

A thesis submitted to the Faculty of Languages
for the degree of:

Licenciatura en la Enseñanza del Inglés

Presented by:

Irving Sahid Carrasco Morales

Fall, 2022

Thesis Director:

Dra. Catalina Juárez Díaz



**“Academic procrastination in online learning during the COVID-19
pandemic at the Language Faculty of BUAP”**

This Thesis has been read by the members of the committee of

Irving Sahid Carrasco Morales

And it is considered worthy of approval in partial fulfillment of
the requirement for the degree of

LICENCIATURA EN ENSEÑANZA DEL INGLÉS

Thesis Director




Dra. Catalina Juárez Díaz

Committee Member



Dra. Teresa Aurora Castineira Benítez

Committee Member



Dra. Elizabeth Flores Salgado

Puebla, México

September, 2022

Dedications

This dedication goes to my mother, María de la Luz Morales Sánchez, for her incredibly loving support. Throughout my study years, and as always, she has demonstrated her cherishing love to me and my family. This is the culmination of her unfluctuating effort and work that have pushed me to conclude my university studies. I love you and God bless you now and always.

Acknowledgements

I would like to express my sincere gratitude to my thesis director, Dr. Catalina Juarez Diaz. I could not have undertaken this journey without her invaluable guidance, patience and expertise during the elaboration of this dissertation paper. I would also like to extend my thanks to my thesis readers, Dra. Teresa Aurora Castineira Benitez and Dra. Elizabeth Flores Salgado for their insightful support. Thanks should also go to all of my teachers and friends who supported me throughout my university studies.

Abstract

Procrastination is a growing problem, especially now after more than two years in the COVID-19 pandemic in Mexico, where not all schools have resumed online learning, and this has had implications in students' mental and physical health across all ages, promoting procrastination both directly and indirectly. This study's participants are 79 students from the Language Faculty at BUAP ranging from 18 to 35 years old. The objective of this research was to identify their procrastination tendency and levels of satisfaction with post-pandemic life. The results showed that the participants tend to procrastinate more because of an inability to resist temptations, rather than because of irrationality. They also reported feeling dissatisfaction with their lives, but there was no significant correlation between this fact and their procrastination tendencies. For further research, it is suggested to interview students of the faculty to know more of the reasons that push their procrastination behavior and explore the specific reasons for their dissatisfaction. Other aspects related to procrastination such as behavioral, psychological, socio-economical, physical deprivation and motivation play important roles when it comes to the ability to self-regulate procrastination, so these aspects could also be further investigated.

Table of contents

Dedications.....	1
Acknowledgements.....	3
Abstract.....	4
Table of contents.....	5
Tables.....	9
Introduction.....	10
Chapter I: Statement of the problem.....	12
1.0 Introduction.....	12
1.1 Background.....	12
1.2 Rationale.....	13
1.3 Objective.....	13
1.4 Research questions.....	14
1.5 Hypotheses.....	14
1.6 Significance of the study.....	15
1.7 Keywords.....	15
Chapter II: Theoretical framework.....	17
2.0 Introduction.....	17
2.1 Procrastination; definitions and the psyche.....	17
2.1.1 Motivation and procrastination.....	22
2.1.2 Irrational procrastination and susceptibility to temptations.....	23
2.2 Procrastination-mediating factors.....	24

2.2.1	Support from the environment	24
2.2.2	Emotional regulation.....	27
2.2.3	Future time perspective (FTP)	27
2.2.4	Self-leadership and self-regulation	29
2.2.5	Physical health	30
2.3	Links between technology and procrastination.....	30
2.3.1	Internet connection, devices, and platforms	31
2.3.2	Synchronous and asynchronous modality.....	33
2.3.3	Challenges in technology uses	34
2.3.4	Problematic internet usage.....	36
2.3.5	Poor academic performance.....	36
2.3.6	Participation and invisibility during online learning	38
2.3.7	Preferences for the online modality of education	42
2.4	Recent studies.....	43
2.4.1	Academic Procrastination and Online Learning During the COVID-19 Pandemic 43	
2.4.2	End of procrastination through innovation in education. Factors maintaining motivation in a study among university students	44
2.4.3	Learning during COVID-19: the role of self-regulated learning, motivation, and procrastination for perceived competence.....	45
2.4.4	Procrastination predicts online self-regulated learning and online learning ineffectiveness during the coronavirus lockdown	45

2.4.5	The Phenomenon of Academic Procrastination in Students during Pandemic..	46
2.4.6	What do university students do in online teaching? Reflections on current forms of academic procrastination, experience from the Czech Republic.	47
2.5	Conclusions	48
Chapter III: Methodology		49
3.0	Introduction	49
3.1	Research approach.....	49
3.2	Location of research/context	49
3.3	Sampling.....	50
3.4	Participants	51
3.5	Data collection techniques, instruments, and materials	51
3.6	Ethical consideration	52
3.7	Procedure.....	53
3.8	Data analysis	53
Chapter IV: Results and discussion		55
4.0	Introduction	55
4.1	Socio-demographic data.....	55
4.2	Scale Normality Tests	57
4.3	Procrastination frequencies per individual.....	58
4.4	Medians	58
4.5	Correlations	59
4.6	Discussion	62

Chapter V: Conclusions	64
5.0 Introduction	64
5.1 Conclusions	64
5.2 Implications	65
5.3 Limitations	66
5.4 Suggestions for further research.....	67
References.....	68
Appendix.....	77
Survey: “Estudio sobre la procrastinación y la pandemia COVID-19”	77
Pure Procrastination Scale (PPS)	77
PPS Spanish-translated items	78
Susceptibility to Temptation Scale (STS)	79
STS Spanish-translated items	80
Irrational Procrastination Scale	80
IPS Spanish-translated items	81
Satisfaction With Post-Pandemic Life Scale (SWPPLS).....	81
SWPPLS Spanish-translated items	82

Tables

Table 1. <i>Socio-demographic results</i>	56
Table 2. <i>Reliability Statistics test using the Cronbach Alpha</i>	56
Table 3. <i>Kolmogorov-Smirnov test for the Procrastination Scales and SWL scale</i>	57
Table 4. <i>Levels of individual procrastination</i>	58
Table 5. <i>Medians and Standard Deviation for PPS, STS, IPS and SWPPLS</i>	59
Table 6. <i>Pearson correlations</i>	60
Table 7. <i>Spearman correlations (non-normal)</i>	61

Introduction

This research focuses on identifying the procrastination tendency and the levels of satisfaction with post-pandemic life in students of the Language Faculty at BUAP, so in this part, this paper's content is broken down. Starting with the first chapter, the problem that is explored in this research is stated throughout its sections. First, the background is introduced, which presents the information from other studies that explored procrastination during the Corona Virus Disease 19 (COVID-19) pandemic. Then, the rationale explains the fundamental and essential reasons for this research. A list of the objectives shows the aims that are explored in detail. The research questions are mentioned as well as the hypotheses. Finally, the significance of the study explains the reasons that motivate this study. Furthermore, at the end of this chapter, the keywords are added.

In the second chapter, the literature that adds to this research is discussed. The necessary information is analyzed to add relevant data to contextualize this research. First, definitions of the term procrastination are reviewed. Then, essential terms to understand the complexity of procrastination are listed out. After that, procrastination-inducing factors are discussed in the recent studies section. Finally, recent research about this topic is also reviewed to enrich this study with the points of view from other contexts and similar focuses.

The third chapter presents the methodology description used to answer the research questions and hypotheses introduced in chapter one. Specifically, this section explains the research design, the population of the study, the study model, the sources of the data, and the method used to analyze the data.

The fourth chapter analyzes and unveils the data found during the collection process. First, the socio-demographic data contextualizes the study participants who agreed to participate. Next, details such as gender, age, year of entry, and years of stay are reported. Then, Cronbach's Alpha is displayed to demonstrate the reliability of the scales used for the survey. After that,

the Kolmogorov-Smirnov test is offered, which aids in showing each scale's rates of normality. Finally, the medians and the correlations among the results are rendered and elaborated on to compile the data for the discussion.

Finally, the fifth chapter discusses the conclusions about the results concerning the research questions and hypotheses. Also, the implications of this research findings are depicted after that, with the opinions and suggestions from other authors who carried out similar research. After that, the limitations of this study are mentioned, and finally, the suggestions for further research are reviewed.

Chapter I: Statement of the problem

1.0 Introduction

In this chapter, the problem that is explored in this research is stated throughout its sections. First, the background is introduced, which presents the information from other studies that explored procrastination during the Corona Virus Disease 19 (COVID-19) pandemic. Then, the rationale explains the fundamental and essential reasons for this research. A list of the objectives shows the aims that are explored in detail. The research questions are mentioned as well as the hypotheses. Finally, the significance of the study explains the reasons that motivate this study. Furthermore, at the end of this chapter, the keywords are added.

1.1 Background

Procrastination is a growing problem with multiple interesting variants that increased with the arrival of the COVID-19 pandemic, such as cyberslacking, cyber-loafing, multitasking (Kaliba & Ambrožová, 2021), and invisibility (De-Paola et al., 2022; Melgaard et al., 2022; Sugino, 2021). In addition, psychological problems have also been linked to procrastination; such as loneliness (Anam & Hitipeuw, 2022), isolation (Hämmig, 2019), demotivation (Caplan, 2007; Tezer et al., 2020; Sharaievska et al., 2022; Unda-López et al., 2022) and anxiety (Sugino, 2021). These all seem to both directly and indirectly affect students' performance and ultimately, but most notably, cause a tendency for academic failure (Cerniglia, 2019; Melgaard et al., 2022) or fear thereof (Sugino, 2021; Sharaievska et al., 2022), because of procrastination (Melgaard et al., 2022; Tkáčová et al., 2021; Pelikan et al., 2021; Hong et al., 2021; Herdian, 2020; Kaliba and Ambrožová, 2021; Hebecci et al., 2020). For these reasons, it is of utmost importance and great urgency that research for this context be put

into this growing topic, as it threatens students' performance and academic development, compromising the educational system in Mexico.

1.2 Rationale

The reason for developing this study surged from observing students' procrastination in homework and class assignment performance and delivery and a low degree or complete lack of participation when working and studying in the online modality. This research project explores the reasons behind this problem to add more research into our context, Mexico, and the BUAP. Throughout online education, which began with the pandemic, many instances of monitoring and promoting students' online participation have been observed. Nevertheless, a decreasing level of participation among some students and teachers has also been observed; even when using online tools and websites that make the experience more entertaining, some students have shown disinterest and apathy. As a result, many have left, and groups have been reduced to being closed. By proving that procrastination is a growing problem in the faculty and implementing strategies to reduce it, academic achievement can be increased. (Sugino, 2021).

1.3 Objective

General objective:

To identify the procrastination tendency and the levels of satisfaction with post-pandemic life in students of the Language Faculty at BUAP

Specific objectives:

- To identify the pure procrastination tendency in the Language Faculty at BUAP
- To identify the irrational procrastination tendency in the Language Faculty at BUAP

- To identify the procrastination tendency in regards to susceptibility to temptations in the Language Faculty at BUAP
- To identify the levels of satisfaction with post-pandemic life in the Language Faculty at BUAP

1.4 Research questions

General question:

What is the procrastination tendency and the levels of satisfaction with post-pandemic life in students of the Language Faculty at BUAP?

Specific questions:

1. How much do students of the Language Faculty at BUAP agree that they procrastinate after the COVID-19 pandemic?
2. Which is the most recurrent procrastination tendency in students of the Language Faculty at BUAP, irrational or susceptibility to temptations?
3. How much are students of the Language Faculty satisfied with post-pandemic life in the Language Faculty at BUAP?

1.5 Hypotheses

Hypothesis no. 1 (H1): After the COVID-19 pandemic, students are more susceptible to procrastinate due to temptations.

Hypothesis no. 2 (H2): After the COVID-19 pandemic, students' academic achievement is related to procrastination.

Hypothesis no. 3 (H3): Students procrastination has caused them to be dissatisfied with life.

1.6 Significance of the study

This study is critical because the findings will help teachers, students, and academics understand why some students procrastinate in online learning during the COVID-19 pandemic lockdown. By exploring this information, it is intended that teachers and school directives find solutions to help combat procrastination and possibly aid students in stopping this behavior. Furthermore, this research is crucial because it will deepen a problem hypothesized to have arisen in Mexico in recent years. Research has been put out about this topic in other contexts worldwide, but not much has been explored about Mexico, even less the BUAP. This research aims at adding more information to this context, as the results may vary depending on the culture, beliefs, responsibilities, age, gender, and level of education, among other aspects.

1.7 Keywords

1. *Academic procrastination*:
 - “A delay in tasks or activities related or dependent on learning and studying.” (Steel & Klingsieck, 2016)
 - “A deliberate delay in a practical course of study or learning in spite of the expected deterioration” (Steel, 2007)
2. *COVID-19*: “COVID-19 stands for novel coronavirus disease 2019, which refers to the year of its initial detection. COVID-19 is the illness related to the current pandemic; the illness is caused by the virus SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2).” (Becker, 2022)
3. *Susceptibility to temptation*: “An individual’s ability to resist or succumb to the urge of engaging in tempting activities” (Steel, 2010)
4. *Pure procrastination*: “an equivalent and independent measure of procrastination” (Svartdal, 2017)

5. *Irrational procrastination*: “to voluntarily delay an intended course of action despite expecting to be worse off for the delay.” (Steel, 2007)
6. *Satisfaction with life*: “A cognitive, judgmental process in which an individual assesses their quality of life according to their chosen criteria.” (Diener et al., 1985)

Chapter II: Theoretical framework

2.0 Introduction

In this chapter, the literature that adds to this research is discussed. The necessary information is analyzed to add relevant data to contextualize this research. First, definitions of the term procrastination are reviewed. Then, essential terms to understand the complexity of procrastination are listed out. After that, procrastination-inducing factors are discussed in the recent studies section. Finally, recent research about this topic is also reviewed to enrich this study with the points of view from other contexts and similar focuses.

2.1 Procrastination; definitions and the psyche

The term procrastination can be heard in everyday English and translated into Spanish as either *dilación* or *procrastinación*. The latter has gained popularity among the masses in the last decade thanks to the English word's influence and its social media recognition. The term comes from the Latin verb "*procrastinare*" which translates as "*diferir*" [to defer], "*aplazar*", [to adjourn] and "*posponer*" [to postpone]. Also described as the action or habit of postponing activities or situations that must be dealt with, replacing them with other more irrelevant or pleasant activities (Euskampus, 2015)

Many often regard procrastination as a typical behavior; one could argue it happens to most at least once in their lives. However, not everyone engages in procrastination regularly. For various reasons discussed in this research document, specific individuals are more prone to it. The term refers to the delay in completing a task or activity, failing to take advantage of available time. Some procrastinators know they must engage in an activity that requires their attention. However, instead of focusing on it and completing it, they decide to leave it for later and do some other more-rewarding activities. In some cases, it is possible that the activity never

even be done. Procrastination has been reported as a reason for academic failure (Cerniglia, 2019).

Steel (2002) defines procrastination as putting off or delaying activities, especially those requiring immediate attention. Procrastinators know they should be paid attention to but decide not to. A procrastinator would often leave them for another time, replacing them with more rewarding ones, such as engaging in certain types of diversions. Students might know they have essential activities to carry out before a deadline and fail to prioritize them. Then, they might come back to them at a later point and be able to finish them or fail to do so. It is because of this that procrastination has been linked with academic failure.

Another type is Functional Procrastination, in which the procrastinator engages in other less critical but productive activities. Although it is possible to complete other productive tasks, the one left behind is usually more relevant and requires prioritization (Steel, 2002; Perry, 2012). Steel (2002) explains that delaying some activities until just before a deadline can be a very constructive time management tool, as he argues that the final moment may be the best moment for action for some individuals. However, without a positive modifier, procrastination is typically detrimental by default.

As has been observed, procrastination can be regulated either through self-regulation (Hong et al., 2021; Melo & Mendonça, 2021; Pelikan et al., 2020) or psychological intervention showing positive results (Fernie et al., 2017; Unda-López et al., 2022). On the other hand, the lack of self-regulation is linked to procrastination, as indicated by some studies (Baumeister and Heatherton 1996; Baumeister et al. 1994, as cited in Fernie et al. 2017).

It has been reported that several adverse effects had a toll on mental health during the pandemic. First, confinement, a protection measure against COVID-19, forced people to adapt to novel lifestyles that may have contributed to procrastination. Findings suggested that the

recorded presence of procrastinating behavior may come from confinement and lockdown adaptation. Procrastination has been associated with more significant academic failure, which is in a causal relationship with higher levels of anxiety and psychomotor agitation, depressive symptoms, sense of loneliness and social anxiety, hostility, anger, tension, tiredness, and shyness.

Adverse affective or emotion-related outcomes that impacted students' ability to succeed because of changes in instructional delivery mode and access to resources affected their school performance. Students have expressed stress and concerns associated with moving to online learning education. Among these are feeling lethargic, procrastinating, and experiencing decreased productivity, motivation, focus, and learning ability. Students also expressed concerns about projects, grades, ability to manage the increased requirements of online education, and concerns about the future in general (Caplan, 2007; Tezer et al., 2020; Sharaievska et al., 2022; Unda-López et al., 2022)

Procrastinators have challenges structuring their routines and report spending less time on their studies due to changes in the study environment. A lack of enthusiasm and attention from pupils during online classes has been observed during online learning. Students are not accustomed to online learning with smartphones and computers, which has become a significant setback for them. Additionally, conducting practical classes and evaluating the students learning have been crucial challenges for the teachers (Melgaard et al., 2022; Saha et al., 2022)

A lack of monitoring can be an essential regulating factor for procrastination generated by other psychological problems in some students. For example, even though impulsivity seems like a contributing factor to procrastination-avoidance, it works the opposite way (Cerniglia, 2019) as both traits seem to share the difficulty of managing the achievement of objectives and

the inability to identify priorities, which in turn promotes an individual's procrastinating behaviors. Among such psychological problems is loneliness which is explored in (Anam & Hitipeuw, 2022). Loneliness and academic procrastination are reportedly directly correlated. That is to say, if the level of loneliness is high, then the level of academic procrastination will also be high, and vice versa. This aligns with the Syndemic Theory mentioned in Anam and Hitipeuw, which explains that having more than one psychological problem can increase the chance of academic procrastination.

Specific individuals who have difficulty fitting in social relationships are more prone to experience loneliness and, in turn, academic procrastination. Because of this, lonely people do not experience good social relationships and often do not have close friends. This can cause them to experience academic procrastination because close friends usually help us indirectly regulate psychologically, that is, recover from internal problems. With the help of others, an individual can carry out tasks that would otherwise require an excellent willpower force and mental acuity, which is possible, but not everyone possesses these traits. (Anam & Hitipeuw, 2022)

Some of the reasons why people can have trouble fitting into social relationships could be the absence of ability or difficulty to bond with others; feeling or being ignored, being included but not taken part in the social circle (also known as middle alone), forced to isolation and changing residence. The reason that is most predominantly present during this pandemic is forced isolation. Because of this, certain students might have had trouble fitting in during the pandemic in-person class re-insertion and the socialization that is indubitably presented with it. Having trouble socializing can cause individuals to experience loneliness; this has reportedly been associated with low self-esteem, negative attitudes to others, and lack of social abilities. This leads to social rejection that can make individuals feel lonely, making it a vicious circle

(Anam & Hitipeuw, 2022; Brenlla et al., 2022; De-Paola et al., 2022; Melgaard et al., 2022; Sharaievska et al., 2022; Unda-López et al., 2022)

Loneliness can cause problems such as time management difficulties, interpersonal-relationship issues, and health problems, leading to procrastination. Loneliness also affects an individual's decision-making and initiative, making them more prone to procrastinate. Problems with concentration and attention are usually also present in lonely individuals, as they tend to focus more on forming relationships rather than achieving academic success. Physical health also plays a vital role because it impacts individuals' loneliness. Physical health problems that occur due to loneliness can cause academic procrastination, as well (Hämmig, 2019)

Several students have mentioned that the workload in their classes increased after moving online. Indeed, the drastic change and unpredictability affected the students' social life and daily routines, intensifying their anxiety (Sugino, 2021). Reportedly, from the students' perspective, instructors have assigned more work during online learning than in face-to-face classes. They felt they had to be more aware of Future Time Perspective regarding their school work due dates and rely on self-accountability to get work done, as it felt tenfold more difficult. This impacted their perception of future achievement, as they felt worried about their academic success in the future (Sharaievska et al., 2022)

Procrastination has been linked to parenting styles, as it has been demonstrated that permissive parents increase procrastination in their children. Academic procrastination could increase when parents are less demanding and have no hope for achievement from their children. This relationship can be more visible during adolescence since this is when they need a supportive environment in which they can establish priorities and goals (Rahdadella & Latifah, 2020; Unda-López et al., 2022)

2.1.1 Motivation and procrastination

Motivation is the drive that pushes an individual to act on essential things. Often the things a person is to carry out are hard to accomplish, require a certain degree of effort, or are unrewarding during their development process when compared. A person can come through with them and achieve a positive outcome through motivation. Motivation can be external, internal, or a combination of both. It can also be positive or negative (Williams et al., 2002; Williams et al., 2005). Motivation or a lack thereof is one of the most significant contributing factors to the existence of procrastination (Melgaard et al., 2022; Brenlla et al., 2022; Kang & Zhang, 2020; Pelikan et al., 2021; Tkáčová et al., 2021)

Social pressure as a form of negatively influential motivation factor shows benefit as a mediating factor in avoiding procrastination (Melgaard et al., 2022). Certain students prefer to study or do homework at school to be efficient, especially when they struggle to initiate self-study. It is believed to be because of a procrastinator-student's inability to self-regulate due to a lack of motivation. Motivation plays an essential role in self-regulation as one of the main drivers. However, non-procrastinators did not really face a challenge during or after the pandemic, as they really are able to maintain a good structure and took advantage of extra time for their studies.

Age and gender moderate the link between future time perspective and motivation so that the more individuals are aware of the time they had available for a given task, in correlation with their age, this directly affects their procrastinating behavior. Studies report that younger students and women who score higher in future time perspective are more motivated to perform required tasks for school, such as homework and projects, than older students and men. As has been mentioned before, motivation is inversely correlated to procrastination. Older students

and men who scored higher in future time perspective manifested less motivation to perform school-required obligations (Brenlla et al., 2022)

Studies have reported (Melgaard et al., 2022; Brenlla et al., 2022; Kang & Zhang, 2020; Pelikan et al., 2021; Tkáčová et al., 2021) that motivation can be accompanied by a lack of focus and productivity for many students. The sudden change to online classes made them feel less motivated to accomplish work and not look forward to them. Their enjoyment during online learning was also affected by their expectations (Sugino, 2021), as high or low expectations can play an important role in motivation and, therefore, in procrastination.

2.1.2 Irrational procrastination and susceptibility to temptations.

Occasionally, irrational procrastinators choose to do the things that feel good, despite being aware that these prevent them from developing themselves physically or psychologically or knowing there will be an inevitable negative consequence. According to Steel (2007), being irrational entails choosing a course of action despite expecting that it will not maximize your utilities, that is, your interests, preferences, or goals of both a material (e.g., money) and a psychological (e.g., happiness) nature.

The lack of external motivators is theorized to push students to procrastinate because it also presents susceptibility to temptation. Temptations lead students to procrastinate because they usually represent more rewarding activities, such as consuming social media content, being on the internet, chatting with friends, or playing video games, among other activities (Steel, 2010; Kaliba & Ambrožová, 2021)

2.2 Procrastination-mediating factors

In this section, studies about strategies to combat procrastination are presented, analyzed, and compared to illustrate the knowledge included.

2.2.1 Support from the environment

Often, support from the environment comes from students' classmates, as is proven by Sugino (2021) during his study on group discussions and the effect of procrastination and invisibility. He reported an instance during online learning, while students worked in discussion groups, divided into small groups using the "breakout rooms" Zoom feature. Despite students' invisibility to the teacher and a lack of teacher monitoring, no serious problems arose during the interactions because when the teacher visited each room secretly, students were having lively discussions.

They had mutually made efforts to create a welcoming atmosphere where they all felt comfortable expressing themselves. Class interaction is one of the most critical aspects of learning and academic progress. When the teacher is not present, it renders the environment a bit more relaxed, giving the feeling that they are not being watched, as this may sometimes cause anxiety or the feeling that what they are saying is being evaluated, even if it is not. When they are left alone, students make an effort to participate and do the activity. One of the students will usually, but not always, take the lead and help their classmates in the group to participate and encourage their progress.

Another way to make a class more interactive and involving is through the use of the chat tool. Teachers can ask students to respond through the chat. This way, their classmates can see and react to what they share. For example, if a student makes a mistake, the teacher can correct it, and students can learn from each other's mistakes. Sugino (2021) reports a common attitude

among the students' responses to his research; they found it interesting to exchange opinions through the chat and became aware of others' reflections during the feedback, making classes interesting and getting the feeling that the instructor or guide is considering all opinions.

This made it easier for some to respond online than in face-to-face classes. Invisibility is rendered here in a positive light, as students with social anxiety might feel more comfortable participating in online learning. This is because it acts as a social barrier that allows them not to feel judged, anxious, or concerned with their appearance or facial expressions but lets them interact and share their thoughts.

Melo and Mendonça (2020) state that self-leadership and motivation come hand in hand as the positive association between support from the environment and behavior-focused self-leadership strategies confirms the importance of teachers and classmates' roles in students' motivation as well as in their engagement with the activities provided in the classroom. Social support helps a student motivate toward achieving their academic goals. When a student's circle of support shows them positive attitudes toward their goals and targets, the students gain confidence and feel naturally invited to do them. Despite this being an external factor, recalling the thought makes them feel encouraged, especially when they are alone.

They can then remember what people said to cheer them up and use it when it is hard to concentrate or begin to work. There is a link between self-regulation and self-leadership, which positively affects preventing procrastination. According to the social cognitive theory (Bandura & Walters, 1977, as cited in Melo and Mendonça, 2020), self-regulation and self-leadership can be important regulatory mechanisms for procrastination. The environment's support can, directly and indirectly, influence academic procrastination when facilitated by student behavior-focused behavior-focused self-leadership strategies. This shows how self-influence

and self-motivation can interfere with changing undesirable behaviors, such as academic procrastination.

With support from the environment, which acts as an external motivation, a student can recall this past motivation and use it as positive self-reinforcement, which enables them to look forward to working on their academic projects and tasks, and ultimately achieve a positive academic outcome. However, although it is possible, it is not always present in all students, as not all possess the ability to self-regulate and self-influence; proper training is needed to achieve it.

Support from the environment consists of the incentives offered to students through classmates' or peers' language and behaviors in the classroom. Here, the teacher's role also becomes relevant in this process, as it offers stimuli, disseminates information, provides feedback, and guides content that will influence the learning process and task performance (Coelho Junior, da Silva Abbad & de Lira Todeschini, 2005; Grunschel et al., 2018; Hen & Goroshit. 2018, as cited in Melo & Mendonça, 2020)

Also, the study by Melo and Mendonça (2020) confirms that behaviors can be changed with the help of the environment. Classmates' interactions, development activities, and feedback can have a positive, influential effect that pushes students to work toward the desired objective; academic achievement. Their analysis shows that support from the environment is positively associated with behavior-focused self-leadership strategies (BFS) and negatively associated with academic procrastination. In addition, behavior-focused self-leadership strategies were negatively related to academic procrastination, which means that the more students relied on self-leadership strategies, the less procrastination had space to manifest.

2.2.2 Emotional regulation

One crucial factor that helps combat procrastination is emotional regulation. Therefore, a person who suffers from the adverse effects of procrastination must learn to use emotional regulation. In Cerniglia (2019), we learn that the difficulty in emotional regulation and inappropriate emotional-cognitive content precedes the tendency to procrastinate and cause it. This means that an individual who has trouble regulating emotions is more prone to procrastinate. It has also been suggested to implement organizational skills, set goals, and promote healthy habits, which are techniques that increase levels of self-control, a psychological factor found to have a moderating effect on procrastinating behaviors. Thus, we conclude that learning or acquiring techniques and strategies that help procrastinators is essential.

2.2.3 Future time perspective (FTP)

A fascinating concept we find in Brenlla et al.'s study (2022) is the idea of a future time perspective and its effect on procrastination. This concept refers to an individual's perception of their remaining time in certain aspects of life, work, or school. Brenlla et al. (2022) wanted to prove the hypothesis that the less aware people were about how much time they had left for performing a task, the more they would procrastinate, and how this relates to age and gender. Brenlla et al. (2022) report that age and gender moderated the relationship between future time perspective and procrastination, such that younger students and women scored higher in procrastination than older students and men at lower levels of future time perspective, while at higher levels of this time perspective, older students and men procrastinated more. This is an exciting addition to the literature because it helps analyze the results later in the study.

This study mentions motivation, as is reported in the case of age and gender, moderating the relationship between future time perspective and procrastination. Brenlla et al. (2022) found that younger students and women who scored higher in FTP manifested more motivation than older students and women on lower levels of this time perspective. This means that the more aware the younger students and women were of the time they had left to do an activity, the more motivated they felt, and this had the possibility of having a positive effect on avoiding procrastination.

However, for older students and men, the relationship is inverse, as older students and men who scored higher in Future Time Perspective manifested less motivation than older students and men scoring lower in this time perspective. This means that older students and men showed a sense of comfort in knowing they had plenty of time left to carry out their activities, making them procrastinate more as they felt less motivated. According to Brenlla et al. (2022); younger students find it more challenging to avoid postponing or delaying activities that they feel little interest in when their orientation towards achieving long-term goals is relatively low; a phenomenon that took place for older students with the difference that these would have a better coping mechanism and learning strategies to regulate procrastinating.

Compared with older students who score lower on FTP, younger students who also scored the same on FTP can learn to focus on achieving self-planned long-term goals when they learn to develop them in the first place. They mention several aspects to consider about an older student's inability to carry out academic tasks, such as raising a child, supporting a family, and studying for another career.

2.2.4 Self-leadership and self-regulation

The term "self-leadership" describes an individual's ability to reinforce productive behaviors and increase achievement positively. A person can apply natural rewards in an environment characterized by autonomy (Neck et al., 2019). This allows for autonomous behaviors that lead to satisfaction and performing tasks. In their study, Melo and Mendonça (2020) found that self-regulation and self-leadership can be critical regulatory mechanisms for procrastination. In addition, it was shown that when facilitated by student behavior-focused self-leadership strategies, it showed how self-influence and self-motivation could interfere with changing undesirable behaviors, such as academic procrastination. Self-leadership is closely linked with the Social Cognitive Theory (Bandura & Walters, 1977), which states that subjects are responsible for their own growth and development and can purposefully affect their life circumstances. Because of this, self-regulation plays a vital role in procrastination prevention from an individual's perspective, and it represents their responsibility. However, not all individuals possess the ability to self-regulate and self-organize. It is often obtained from family education or learned later in life.

The self-regulation theory states that individuals' beliefs and abilities can influence their reactions to everyday events (Ryan & Deci, 2000). Melo and Mendonça's study (2020) demonstrated the possibility of understanding the use of behavior-focused self-leadership strategies. With them, individuals can evaluate when, why, and in what conditions certain behaviors occur and, in turn, analyze the cause of the wasted or underused time. Like this, they can change and act in desirable ways in academic tasks, as they have commented on the importance of self-leadership and self-regulation in academic or work contexts. These are ways to redirect an individual's attention toward more critical activities through behavioral strategies, natural rewards, and cognitive thoughts.

Certain activities can be unappealing, unrewarding, or rewarding to a lesser extent, but they need to be done. Through self-leadership and self-regulation, they can be associated with the concept of purpose and self-reward. Melo and Mendonça (2020) applied different methods to promote self-leadership in their participants, using self-observation, self-goal setting, self-reward, and self-feedback for self-correction and self-support. These autonomous approaches formed an individual's self-regulatory system to avoid procrastination. The results of descriptive correlation analyses in Melo and Mendonça's study (2020) demonstrated that support from the environment was positively associated with behavior-focused self-leadership strategies (BFS) and negatively associated with academic procrastination. Behavior-focused self-leadership strategies were negatively related to academic procrastination.

2.2.5 Physical health

Restricted physical contact caused students to yearn for actual exchange. Interactive in-person class components, as well as socialization, have been reported by certain students as second best to fulfilling their desire (Sugino, 2021). Physical exercise can reduce the levels of anxiety and depression, having a weak mediating effect on procrastination (Biricik & Sivrikaya, 2020; Unda-Lopez et al., 2022). It has been reported that implementing physical exercise in a student's routine and generating organizational skills, which can be part of therapy to intervene in procrastination-prone students, can have a positive mediating effect on them (Zack, 2018; Unda-López et al., 2022)

2.3 Links between technology and procrastination

In this section, the links that have been found between technology and procrastination are discussed in the following subsections. Namely, internet connection, devices and platform issues that students have faced during the pandemic. Challenging synchronous or asynchronous

adaptation. Technology use and problematic internet usage, as well as poor academic performance that derived from these problems. Furthermore, participation and invisibility are reviewed, and finally, preferences for online modality of education.

2.3.1 Internet connection, devices, and platforms

From the beginning of the pandemic, the problem of connectivity arose. The world was not ready for all the altercations that the lack of proper technology caused on the learning scene. According to Saha et al. (2022), when physical classes are halted during this pandemic, access to secure and safe online learning platforms is paramount for effective education and learning. Other problems occur when these are not met, such as poor academic performance, invisibility, and a lack of participation. These problems cause improper learning and lead to other student life problems. Valentina and Nelly (2015) reported that some technical issues, including the availability of electronic devices and reliable internet access, were the fundamental conditions needed before implementing an e-learning class.

Living in Mexico, a developing country, many students from poor contexts in this country do not have access to crucial-for-survival services such as running water and electricity, so that the internet might be an even harder-to-obtain service for them. Sugino (2021) also supports this idea in his paper. He noticed that the students' communication environment and personal preferences negatively impacted their adaptation to online learning when they lacked previous experiences with online classes. Certain students reported unstable connections, a lack of appropriate devices, and device malfunctions as the main factors impeding their access to the sessions online. However, he also noticed an interesting fact about motivation: students who initially have negative perceptions of online learning are demotivated even in an ideal environment.

Their negative attitude may affect their online experiences, which in turn may lead to poor academic achievement. This means that their academic performance seems affected even when the situations are favorable if students are not fond of online learning. On the other hand, it means that the students' negative envision of it also affects their experience in online learning. The quality of the internet connection is also crucial, and one of the reasons why it might be poor could be because of a lack of a powerful device that can receive or broadcast a stronger internet signal, but this point should be further investigated. Not having a good internet connection might make a student unable to acquire the knowledge they are supposed to during their online education, affecting their lives from many different scopes.

Moreover, even after this point, it has been stated by De-Paola et al. (2022) that the pandemic has hurt academic performance, despite any technical or internet problems. When it comes to this specific context, their result demonstrated that the impact of online teaching is negative independently of these conditions. It shows a trend of rejection because it represents many unexpected changes in lifestyles that students have expressed in several studies (Anam & Hitipeuw, 2022; Brenlla et al., 2022; De-Paola et al., 2022; Hebebcı et al., 2020; Herdian, 2021; Hong et al., 2021; Hutauruk et al., 2021; Melgaard et al., 2022; Pelikan et al., 2021; Sharaievskı et al., 2022; Sugino, 2021; Tezer et al., 2020; Unda-López et al., 2022)

Another interesting point added to this section is a teachers' use of learning analytic tools (LA), which are special programs or websites targeted at helping a teacher analyze the reasons behind students' behaviors in the class, their performance, and whether or not the outcomes of the learning scene are being met or not through observation, questionnaires, interviews, problem solving and suggestions. Melgaard et al. (2022) report that previously, the effectiveness of said tools proved positive, but only a small number of teachers used LA. Their findings suggest that while LA tools are implemented, and their benefits are well known, their

use is limited or non-existent as there is a lack of an appropriate framework to adopt LA adequately.

The teachers have not adopted LA student follow-ups primarily due to time constraints, limited resources, and a lack of policy framework and encouragement. The lack of use of these tools shows an inadequate evaluation that ignores undersurface problems such as the main argument of this thesis; procrastination. Implementing these tools in all educational settings and contexts, as has been proven in Melgaard et al.'s study (2022), shows a positive impact in improving the education process in many aspects.

Sugino (2021) reports technical and connectivity issues as two such transcendental problems that impeded academic performance in her study, which was carried out at a university in Japan. Some of her participants mention having experienced troubled connectivity during the COVID-19 pandemic in 2020 or device malfunctioning as students in online learning. Most of the technical problems the students reported concentrated on online connectivity. Either an unstable Internet connection or an application malfunctioning restricted their access to the class.

2.3.2 Synchronous and asynchronous modality

Regarding the citation from Sugino's (2021) research document about students' reports of technical and connectivity issues in the previous section, one point that is important to remark and that will be discussed in this section is the availability of synchronous and asynchronous modalities of learning, which have not yet been implemented in all schools of Mexico. Asynchronous modality allows for the recordings of classes to be shared with students by school administrators or teachers so that students can catch up with classes when there are situations that impede their presence. Another factor reported by Sugino's (2021) research is

that a small number of students faced health conditions that influenced their participation style, rendering it difficult or impossible to join class, discuss, and consequently, end up appreciating video classes more.

De-Paola et al. (2022) suggested that delivery mode did not seem to play a significant role in shaping the negative effects of procrastination, especially regarding low academic performance; this is explained by the fact that they are similar when teaching is organized with synchronous and asynchronous classes.

Melgaard et al. (2022) found that procrastinators were more prone to postpone things and not take advantage of additional available time. This is in line with most authors in this research. On the contrary, non-procrastinators prefer the synchronous mode, giving them a well-defined structure and routine with fewer distractions. They also report that students who prefer synchronous style do not appreciate asynchronous mode, which has a negative impact on engagement and motivation to learn. It is interesting to note that the delivery method has little effect on procrastinators; they do not join or participate when the delivery method is synchronous because they perceive a chance to watch the recording later, which they also do not do

2.3.3 Challenges in technology uses

Saha et al. (2022) report that teachers who teach online face several challenges because they are used to working in actual classrooms where they have face-to-face interactions with the students. The most significant issues they identified were difficulty with practical work, followed by difficulty monitoring learners, and inadequate feedback. All faculty members must receive training on using online teaching platforms to make optimal use of the technology. For successful and seamless e-learning, it is vital to ensure that both teachers and students have

reliable internet connections. Without this, digital learning would not be capable of providing any quality education.

However, Melgaard et al. (2022) reported that both teachers and students reported a fundamental knowledge of LMS (learning management systems) due to prior experiences before the pandemic but also reported a steep learning curve while using video streaming platforms like Zoom and Panopto. Regarding this, while LMS is well-liked by both professors and students as a platform for material sharing, its interaction capabilities are not as preferred. The students contend that the current LMS is incapable of productive communication and favor the usage of third-party channels like Discord or Slack. The teachers also voiced similar worries, although despite being receptive to implementing external communication channels, they expressed worries about work overload caused by the sharp rise in student inquiries through various platforms.

According to the instructors' experiences, the switch to a virtual modality resulted in specific issues with digital competencies. The older teachers were the groups that struggled more with issues like communication failure, spending more time preparing for classes, and a lack of face-to-face interaction and emotional exchange with the students, highlighting the possibility that procrastination could be a result of adjusting to the new circumstances being experienced.

It was discovered that the switch to a virtual modality generated certain difficulties with digital competencies based on the teachers' experiences. The older teachers were the ones who struggled the most, with challenges like communication failure, spending more time preparing for classes, and having little opportunity for face-to-face interaction and emotional exchange with the students. This highlighted the possibility that procrastination could be a result of a need for adjustment to the new circumstances being encountered (Unda-López et al., 2022; Valieva et al., 2020; A. Kosycheva et al., 2020)

2.3.4 Problematic internet usage

Tezer et al. (2020) noted that the early years of high school saw more kids engaging in problematic Internet use than in other years. High school students, however, have a tendency to put off finishing their academic work regardless of their grade level. High school students' academic procrastination level is the same regardless of how often they use the internet. Students' GPA rises as their problematic Internet use declines. One could argue that students' GPA would rise as their academic procrastinating behavior reduces. Complementary to this is the result of Odacı and Çıkrıkçı (2014), who states that the problematic use of the internet results from an emotional coping mechanism used after experiencing emotionally undesirable symptoms, not from its configuration as a tool for procrastination (which statistically predicts problematic use). This outcome is consistent with earlier research.

Due to the pandemic and confinement, students in academic settings experienced increased anxiety, fear, stress, and health concerns. According to one study, students' problematic internet use and lack of time management during this period contributed to increased procrastination on their mandatory activities. As a result, the students' performance suffered, and they were under more stress (Unda-López et al., 2022; Tezer et al., 2020; Biricik & Sivrikaya, 2020). Tezer et al. (2020) also noted that male students' problematic Internet usage and academic procrastination were significantly higher than female students during the pandemic.

2.3.5 Poor academic performance

Caplan (2017) finds a link between procrastination and increased academic failure, which increases anxiety and psychomotor agitation in students, as well as depressive symptoms, a sense of loneliness and social anxiety, hostility, anger, tension, tiredness, and shyness.

Previous research indicates that procrastinators are more likely to experience exam anxiety, which harms their performance. Furthermore, while non-procrastinators report higher levels of satisfaction with learning outcomes, some students have reported a need for physical classes to meet the learning outcomes, as they report they would have gotten more out of the lectures if they were physical (Melgaard et al., 2022).

Students reported feeling less intelligent because online classes are more challenging to learn from." They were concerned about their grades, ability to complete required work, and ability to manage multiple online homework and deadlines. They experienced fear of failure after class dynamics changed because that represented a structural compromise that was both unexpected and perceived as unfavorable. They also reported that the grading because of the shift to online learning opened the possibility of delaying taking classes or needing to retake some (Sharaievska et al., 2022).

For an institution used to face-to-face oral or written exams, the assessment may be the most challenging part of the transition to distance learning, as the lack of control over the students makes it difficult to ensure that students are not using unethical means (Saha et al., 2022).

In Sharaievska et al.'s study (2022), some participants reported a link between their lack of productivity and feelings of general apathy, emphasizing troubling emotions. They reported a lack of motivation, eventually making them feel like they do not care anymore. They felt these sentiments were unusual and out of character for many of them, as they were typically swamped, and now they felt idle and useless. Being confined in their bedrooms, they felt unmotivated and lazier, getting the sense that it was difficult to be productive.

Surprisingly, while many students felt less motivated and excited about their coursework, others felt less productive and fell behind deadlines despite their best efforts. Many students reported that they did not retain information as well in an online setting as in a face-to-face

setting. Students reported procrastinating more as they found it more difficult to complete their work on time and reported procrastination if they did not adhere to a specific daily routine. The tricky part for them was being stuck at home all day, as there was not much to do or look forward to once their work was finished. Some students were concerned that the pandemic would render their schoolwork obsolete, questioning the purpose of their studies, instead of focusing on trying to solve the issue. Studies have also reported that behavioral issues that impact a student's academic achievement have had a negative impact because of online teaching, causing them to significantly reduce the number of credits per semester (Sharaievska et al., 2022; De-Paola et al., 2022).

Kang and Zhang (2020) reported that procrastination caused students to "wait until the last minute" to begin or work intensively on their term paper writing. As a result of the deadline pressure, students were prone to commit plagiarism. They claimed that plagiarism was occasionally unavoidable because students had to meet homework deadlines and rush to complete belated term papers by copying without proper digestion and learning. As a result, they said that traditional term paper assignments failed to engage students in scientific literature review and knowledge digestion significantly, leading them to poor academic performance.

2.3.6 Participation and invisibility during online learning

Invisibility seems to be a very discussed point that affects students' participation and academic performance and, in turn, could lead to procrastination. Some studies mention invisibility or specific characteristics in students' class engagement that are notably related to invisibility. For example, it has been mentioned in this paper that a "positive class environment," which includes teacher availability, monitoring, and opportunity for interaction, are crucial aspects of learning that should be met for academic performance to be optimal.

However, online learning seems to lack some of these aspects in specific contexts, which disables students' ability to reach academic success and is often denominated "invisibility."

One such factor that leads students to turn invisible during online learning has been pointed out in the study by Sugino (2021) by a small number of students, and it is family affairs. The fact that the student's family members are living their lives behind the camera makes online learning a bit more difficult for some students who reported being unable to show on camera or enable their microphones because of background noise.

This problem impacted students' participation, as having their family living behind them poses a possible fear of interruption from their side toward the class. It could also be vice-versa while the class carries out an activity that could interrupt a family affair. Although it is recommended that classes be taken in environments that are free from these distractions, some students might not have the opportunity for them. Some students might live in economically challenged backgrounds where there is no other option but to share a room with their families.

In their study, Melgaard et al. (2022) observed that there is no clear link between low engagement and low participation during either online or physical classes when analyzing this behavior in procrastinator students. They mention that both procrastinators and non-procrastinators reported less engagement and participation in online classes than in physical classes. Participants reported challenges ranging from communication being "one-sided" and "boring" to their hesitancy to ask questions online. In other words, if a student is originally a procrastinator, this behavior will be present despite them being in a physical or online learning context. Another point at stake here is their perspective on online learning, which seems to be negative. This could be an excuse for the lack of participation or a genuine concern. Whichever the case, it is true that there is a register of procrastination to participate in online classes from these students' side.

From Melgaard et al. (2022)'s study, we learn that students and teachers participating in live video classes might fear being seen as unfocused. Disabling their cameras caused invisibility which could have affected their performance and engagement and pushed them to procrastinate. Melgaard et al. (2022) stated that during the synchronous mode of delivery for online learning, students would have their cameras disabled, which resulted in a lack of participation and engagement. Participants mainly attributed this behavior to culture, and peer-effect worry about their appearance in online seminars and being more visible in the seminars. From this, we note that invisibility can be caused by concern about one's appearance.

Sugino (2021) mentions a relevant point about invisibility during large online learning discussions: When a class discussion is performed in a group of 4 or more people, certain individuals become invisible, and it is harder to identify them. Sugino points out that the number of participants is particularly crucial for audio-based discussions because it is harder to identify the invisible speaker among more participants. In addition, more participants burden transmission speed; therefore, the optimum number of participants for audio discussions is three or four, slightly fewer than those of the face-to-face small group discussion.

During class activities, certain students tend not to be as engaged as the rest, which could enable them to skip participating. Those students who do not like to participate and often require an external motivator can take advantage of an opportunity to procrastinate on participation here. Those students rejoice in invisibility during the large group discussions, but of course, this leads to poor academic performance and should be prevented by a teacher.

De-Paola et al. (2022) mention an essential point about students' invisibility: a procrastinator students' lack of commitment thanks to an enabling situation. As they found out, students with a stronger tendency to procrastinate are more negatively affected by the shift to online teaching,

maybe because it becomes more difficult for them to commit to studying activities when face-to-face interactions with instructors and peers are missing.

According to this research, procrastinator students are more likely to procrastinate during online learning because they have the "perfect chance," as there is no monitoring. Students may be unable to procrastinate because they have been left without a monitor who checks in on their work progress daily. As we know, procrastination is the inability to prioritize activities requiring attention, often preferring other diversions or unimportant tasks. Therefore, procrastinator students need an external motivator to push them toward their goals.

Sugino's study (2021) reports the case of a student who felt unmotivated to work in an online modality because they lacked monitoring. Another student responded that they were distracted during online classes because their attention would move to other things happening around them at the time, and this affected their concentration, as they would feel "sleepy" or "easily distracted," this proves the point of invisibility due to a lack of monitoring. Another interesting thing to consider for future research is the effectiveness of class engagement from a teacher's method or materials. If the teacher fails to use resources and materials that feel interesting and relate to a student's liking, the lesson will ultimately fail to educate.

From the last point, we remark on another critical point: a teacher's inability to interact with technology due to age or inexperience prevents them from creating engaging learning environments for their classes, which could be another reason that pushes students' procrastination. Melo and Mendonça (2020) state that the teacher's figure and the classroom scenario can positively influence perception about their behavior and how it affects the performance of the activities developed. When students lack monitoring, their work can stagnate, go in a different direction than expected, or open the possibility for them to cheat.

Having a figure that leads, helps to understand the task, and provides feedback is necessary for students to carry out their tasks in the expected way. This can also help students realize when their behavior is slowing their progress. For example, such behavior can be procrastination. This information is related to the next section as well.

2.3.7 Preferences for the online modality of education

During the pandemic, everyone was going through one of the most challenging times they had ever experienced, and most people were choosing to stay at home or were forced to by their governments. This might be one of the reasons why teachers prefer to teach online during but not after it. For example, Saha et al. (2022) reported that more than three-quarters of participants (educators) preferred online teaching during the pandemic, whereas only about 10.05 % of selected teachers favored online teaching after the pandemic.

From the students' perspectives, the situation changed, and some of those who preferred face-to-face classes and real interaction expressed resignation, claiming to accept the current style despite their preference for the other. They expressed concerns about their ability to learn online, work in groups, earn good grades, meet the increased demands of online education, and be successful in the future. Some others expressed desire, wishing they could be in face-to-face classes and yearning for interaction as soon as possible. Initially, out of fear of the pandemic, they resigned themselves to this unusual learning style (Sugino, 2021; Sharaievska et al., 2022; Juárez-Díaz & Perales, 2021)

However, as the same class method was used in the second semester, their dissatisfaction with this one-way instruction grew significantly. It was expressed through a lack of motivation during online classes and a request for chat opportunities. Many students reported that online education was never their top choice for a university experience, wasting money on that

semester because they did not learn well with online classes, hence why they did not sign up for any. They were being forced to do so, not to fall behind, which led them to academic failure and eventual procrastination (Sugino, 2021; Sharaievska et al., 20222022; Juárez-Díaz & Perales, 2021)

However, some students liked certain aspects of online teaching, as was reported by Sugino (2021). For example, some of their participants mentioned that the instructor's feedback and informal chats also helped them form an attachment to the class and encouraged their participation, as they were glad when the instructor would comment on their reflections, which would not usually happen in regular classes, and they would laugh out loud in front of their PCs when they would hear the feedback. In addition, they liked responding in the chat because the instructor would read all entries, which would be encouraging.

2.4 Recent studies

This section presents a group of studies exploring procrastination during the COVID-19 pandemic. Their main topic, along with the type of research, findings, and suggestions for further research, are also mentioned. At the end of the section, a concluding paragraph is added.

2.4.1 Academic Procrastination and Online Learning During the COVID-19 Pandemic

In their "Academic Procrastination and Online Learning During the COVID-19 Pandemic" research paper, Melgaard et al. (2022) explore the possibility that procrastinators have been impacted differently than others. The research is explorative and employs interviews with 19 bachelor's students and 120 master's students at a higher education institution in Norway as a primary method of investigation. The preliminary findings presented in the paper highlight differences between procrastinators and non-procrastinators regarding the desire to study and satisfaction with learning outcomes.

The preliminary findings also highlight challenges associated with student engagement and using the camera during online classes for all students. Further research suggested by the authors includes expanding this study to a larger audience and exploring the possibility of digitally nudging the procrastinators to see if their online engagement could be increased and their learning experience could be improved through follow-ups. In addition to this, the impact of a compulsory class assignment, deadlines, and continuous feedback on procrastinators would also be explored.

2.4.2 End of procrastination through innovation in education. Factors maintaining motivation in a study among university students

In their "End of procrastination through innovation in education. Factors maintaining motivation in a study among university students", Tkáčová et al. (2021) explore the thinking and behavior of young people for effective education regarding the trends that shape it. Especially online, with the recent COVID-19 pandemic lockdown, which has allowed the younger generations to immerse themselves in worlds of culture, language, education and upbringing capabilities outside their immediate context. This paper is qualitative and discusses selected trends that shape and influence the current university youth of Slovakia and the potential attenuation of procrastination due to innovations in education at the time of COVID-19 through structured interviews.

The research participants were 112 university students from various Slovakian institutions. Results showed that the motivation of young people in the study during the COVID-19 pandemic was maintained by factors such as the current approach of the teacher during online education, online education, which includes an expert from practice, online education that encourages activity or challenge, online education as a space to strengthen team and project cooperation, and the use of mobile educational applications in online education. The authors

of this paper suggested exploring the mutual correlations of the findings based on the gender of the respondents as future research.

2.4.3 Learning during COVID-19: the role of self-regulated learning, motivation, and procrastination for perceived competence

Pelikan et al. (2021) explored "Learning during COVID-19: the role of self-regulated learning, motivation, and procrastination for perceived competence". In their paper, they analyzed the case of Austria, where schools closed temporarily and education turned to online modality due to COVID-19. This situation posed significant challenges to teachers, guardians, and students. This research was qualitative, using the experimental method and an online questionnaire as an instrument.

The participants were 2652 Austrian secondary school students. The research found that perceived competence affects adolescents' self-regulated learning, intrinsic motivation, and procrastination. It also presented the differences in school performance between students who perceived themselves as high vs. low in competence for these constructs. For further research, the authors suggest deepening other measures of academic success, such as grades or achievement tests. It also suggested exploring the role of social integration and support, primarily when related to intrinsic motivation and well-being during distance learning, as this aspect was found to be an essential role for SRL while analyzing their data.

2.4.4 Procrastination predicts online self-regulated learning and online learning ineffectiveness during the coronavirus lockdown

In their "Procrastination predicts online self-regulated learning and online learning ineffectiveness during the coronavirus lockdown" paper, Hong et al. (2021) explored the ineffectiveness of online learning and examined how it can be predicted with an analysis of

self-regulated online learning and participants' procrastination disposition. The research method was confirmatory factor analysis with structural equation modeling. Data from 433 participants were collected. The results indicated that procrastination is negatively related to 6 sub-constructs of self-regulated online learning; task strategy, mood adjustment, self-evaluation, environmental structure, time management, and help-seeking. Furthermore, these sub-constructs were negatively related to the learners' perceived ineffectiveness of online learning.

However, the relationship between perceived learning ineffectiveness and environmental structure or help-seeking was weaker than task strategy or mood adjustment, indicating that the latter two subtypes of self-regulated online learning should be considered before students engage in online learning. The authors suggest that future studies compare the effect of the number of hours spent on online learning with those components of SROL (Self-Regulated Online Learning) that may affect the perception of online learning effectiveness during the coronavirus lockdown. Future studies may also compare the level of academic procrastination across different cultures during the coronavirus lockdown to explore how academic procrastination influences students' SROL. Finally, future studies may include academic procrastination as a predictor of perceived learning ineffectiveness to check if its multiple linear regression can confirm the essential nature of academic procrastination.

2.4.5 The Phenomenon of Academic Procrastination in Students during Pandemic

In their paper titled "The Phenomenon of Academic Procrastination in Students during Pandemic," Herdian (2020) aborded the phenomenon of academic procrastination in online learning and the ineffectiveness of online learning, which is linked to students doing academic procrastination. A total of 305 students of the faculty of teacher training and science education filled out questionnaires online regarding the phenomenon of academic procrastination. The

type of research that was conducted in this paper was descriptive, with the use of interviews applied to 305 university students.

The behavior of academic procrastination in teaching and educating students during a pandemic was examined. The result of this research is that there are low and high comparisons regarding academic procrastination. The high behavior of academic procrastination causes students not to be able to receive lessons properly, suggesting a university need to deal with this problem. This study's reasons for academic procrastination illustrate that students do not procrastinate only in several aspects. What is quite a concern is that students do not procrastinate only in the administrative aspect. While on reading assignments, students engage in academic procrastination. Worry is the most common reason for academic dishonesty behavior. For further research, the authors consider that there is a need for a study of stress in students who experience academic procrastination.

2.4.6 What do university students do in online teaching? Reflections on current forms of academic procrastination, experience from the Czech Republic.

In "What do university students do in online teaching? Reflections on current forms of academic procrastination, experience from the Czech Republic." by Kaliba and Ambrožová (2021), the authors explore the activities of students who engage in parallel or instead of online teaching, such as chatting with classmates or friends, playing games, watching movies and series, online shopping, housework (cooking, baking, cleaning) or, in the case of working students, activities arising from their profession in students from the Czech Republic. The research also looks at students' strategies to prevent the teacher from detecting such behavior.

This research used a quantitative approach with a questionnaire applied to 322 part-time and full-time university students, of which 70% were female, as the participants were selected from

the education department, which typically has more female students in the university where the study was carried out. Results showed that academic procrastination in university students is assuming new dimensions in online learning, which is a consequence of the current pandemic. New forms of online procrastination, such as cyberslacking or cyberloafing, increased the students' inclination to postpone or avoid their study activities and instead engage in multitasking, performing a range of parallel operations which distract them from studying. There are several significant factors behind this situation, such as the physical environment where learning takes place, the discussed topic, the competence of the teacher, or the methods employed.

2.5 Conclusions

According to multiple studies, students consider online learning boring or admit their problems with concentration. For example, Hebebcı et al. (2020) recorded the following statement of a student: "We are not used to distance education. That is why I have a problem focusing". From the perspective of procrastination, it is interesting that the students themselves call for greater stress on the asynchronous forms of education: "It would be nice to record the lecture so that we could play it when we are in the mood. That would increase the % of our concentration. 11 hours of lectures are inefficient; they want us to focus maximally for the whole hour and a half every time, but that is just not possible, especially when we have 11 hours, we can focus for 20 minutes at most, we can hardly wonder then that our concentration gets worse and worse." For further research, the authors suggest deepening more analysis of the problem of teaching and learning activities and their solutions.

Chapter III: Methodology

3.0 Introduction

This chapter presents the methodology description used to answer the research questions and hypotheses introduced in chapter one. Specifically, this section explains the research design, the population of the study, the study model, the sources of the data, and the method used to analyze the data.

3.1 Research approach

This study was quantitative, as this research aims at discovering the numbers that represent the procrastination tendency in the faculty. It was also descriptive because with these results from the sample, it was possible to draw conclusions about the general population. Additionally, it was non-experimental, as this method studies the phenomenon of procrastination exactly as it occurred during the pandemic. (Masseroni et al., 2016). The data collection instrument selected for this research is the survey. This research was carried out following this method for the data collection because it aided in answering the research questions practically and allowed for participant behavior analysis. A survey consists of a predetermined set of questions given to a sample. The questions used in the survey include predetermined characteristics that allow for the breakdown of representative information from the sample population of interest (Muhammad & Kabir, 2016). The gathered data made it possible to compare the participants' attitudes and analyze critical differences in their opinions.

3.2 Location of research/context

The context of this research was the Faculty of Languages from the *Benemérita Universidad Autónoma de Puebla* (BUAP). The language faculty offers three terms per year. The main two are spring and autumn, which last for about five months. Moreover, the summer term, a period

of about 1.5 months, is offered as an additional term for students with low academic achievement to catch up with the rest of their classmates and join them in the more extended period.

3.3 Sampling

In his book, Hernández et al. (2014) explains sampling as the subject selection from a large group. This is to obtain a representative interest population sample that will bring data to answer the research questions. There are two main types of sampling; non-probabilistic and probabilistic. In the first type, participants are selected randomly, and they all have the same chances of being selected. Whereas in the latter, a researcher or group of researchers undergo a careful selection process that considers various aspects. The final sample is then deemed appropriate for the specific research needs.

Kumar (2018) divides the non-probabilistic type into the following subtypes. *Quota Sampling* allows for easier selection based on desired characteristics until reaching a quota. *Accidental Sampling* allows for selecting as many participants as necessary, stopping at the desired number; anyone can be selected without considering any specific characteristic. In *Judgmental Sampling* or *Purposive Sampling*, the researcher selects the participants who will form the sample based on preference. *Expert Sampling* is very similar to *Judgmental Sampling*, except the sample is selected by a designated expert. Finally, *Snowball Sampling*, which is also similar to *Accidental Sampling*, except the scope can grow based on recommendations, as the initial sample participants are asked to recommend someone else whom they think is apt to be a participant like them, and so can be done with the next generation.). The Non-Probabilistic, Accidental Sampling approach was selected for this research because it was necessary to obtain as many responses as possible without leaving age and context behind to obtain a significant result.

3.4 Participants

The participants of this research were 79 students from the Faculty of Languages at the BUAP. The ages ranged from 18 to 35, with a mode of 19, a median of 21, and an average of 21.53. The participant sample is composed of 28 males (35.44%), 50 females (63.29%), and one person as non-binary (1.26%). The general average of all the participants is 8.6. All participants were native Spanish speakers, so the instrument was translated into Spanish to ensure a complete understanding of the scales' items.

3.5 Data collection techniques, instruments, and materials

Several types of procrastination scales measure this behavior in different forms. These are mentioned in Fernie et al. (2017) and are listed as follows; General Procrastination Scale; Lay (1986), for fully measuring procrastination, and one of the first scales to be published. The Decisional Procrastination Scale, Mann (1982), measures psychological aspects that affect a procrastinator's decision-making process. Tuckman Procrastination Scale; Tuckman (1991) initially developed for students, though with a few proven limitations. Active Procrastination Scale; Choi and Moran (2009), for measuring intentional procrastination applications in subjects who acted on it directly or indirectly. And finally, the Unintentional Procrastination Scale, Fernie et al. (2017), was used to measure irresistible factors that push students toward procrastination.

This study's measuring tool is an online questionnaire with sets of items that evaluated the participants' levels of procrastination, susceptibility to temptations, and satisfaction with life, using four scales that were translated to Spanish; the Pure Procrastination Scale (Steel, 2007), the Irrational Procrastination Scale (Steel, 2010). In his study, Svartdal (2017) analyzed both scales' validity and concluded that they shared a close correlation based on his results. Although very similar, as they measure the concept of procrastination, they both converge in focus, so it

is considered necessary that both be used for this research. This allows for the identification of pure procrastinators, and then compare these results to determine irrationality and susceptibility to temptations. Svartdal (2017) also used two scales that measured the students' Susceptibility to Temptation Scale and Satisfaction with Life Scale (Steel, 2010). These also helped in demonstrating whether the hypotheses held for this research.

The four scales used in this research were translated into Spanish. The reason for this is because, although most of the participants were part of the English Language Teaching program, some were still attending the first years when they answered the survey. Also, because no proof of English proficiency level was required to answer the form, it was decided to translate them. This is also another interesting point to consider for further research, as the translation validity can be explored in more detail.

These four scales included items that allowed participants to answer the research questions and hypotheses. The questionnaire was administered online with a form that collected 79 total answers within 15 days. Each item was administered alongside a 5-point Likert scale to register a respondent's range of total agreement (5) or total disagreement (1).

3.6 Ethical consideration

This study's participation was voluntary, and participants could opt in or out at any time. Participants were informed of the purpose of the study before they agreed to join. Their identities remained confidential for the duration, and personally identifiable data was not collected. Their identification numbers were required to avoid repeated responses because they could respond more than once. Physical, social, psychological, and other related personal data were confidential.

3.7 Procedure

First, a form was elaborated online, which included the PPS, IPS, STS, and SWLS. Microsoft Forms was chosen for this instrument because it could easily record the individual and average response time. On the 20th of June of 2022, the survey was published on Facebook. Then, students were administered the survey on the 27th of June at the Faculty of Languages, where most of the answers were obtained. When I arrived, I solicited permission from the administration to approach students for this study. After permission was approved, students from the Language Faculty of BUAP were asked randomly to participate in the study. The great majority of the students who were approached agreed to take part in the study at the moment they were asked to, and only a few percentages (of which there is no precise number) were offered the option to answer at a later time because they claimed to be in a hurry. When I approached students, I let them know the purpose of my study and asked them to answer with honesty. 74 of the participants answered the survey on the digital form during this visit, through the use of a generated QR code, and they scanned it on their phones, on which they completed their responses. Five of the total respondents answered on paper because of a lack of a proper electronic device, from which one response was discarded, as the respondent only answered less than half of it. From all the responses that were delivered online, the average time respondents took to complete and send the survey was of 13 minutes and 32 seconds.

3.8 Data analysis

In this study, the data analysis process following Masseroni et al.'s guide (2016), is described. The type of data that was obtained was therefore taken into account first. The data analysis process within the parameters of this quantitative study involved processing the data, taking into account aggregate data (cumulative and collective) as well as those relating to individuals, whether or not those data were structured. The study's primary goal is to test

hypotheses and describe the procrastination behavior of the population under study. The data were evaluated with this goal in mind. The first item sought to identify usual and unusual characteristics in the group under study and how the analysis units were distributed regarding the values of the variables evaluated and the relationships between the variables.

The quantitative results' analysis is carried out with use of statistics, a discipline that assisted in this process by compacting the data and allowed for concise information. In addition, statistics provided the ability to describe the population and draw conclusions from a sample to a larger population. In this way, it is possible to describe collections of observations and make generalizations about the entire universe from the sample data, which required a more complex type of reasoning that included probability theory. The goal of this study is to form a data matrix and then move on to the characteristics of univariate and bivariate descriptive statistics, their requirements, and their analytical capabilities.

Chapter IV: Results and discussion

4.0 Introduction

This chapter analyzes and unveils the data found during the collection process. First, the socio-demographic data contextualizes the study participants who agreed to participate. Next, details such as gender, age, year of entry, and years of stay are reported. Then, Cronbach's Alpha is displayed to demonstrate the reliability of the scales used for the survey. After that, the Kolmogorov-Smirnov test is offered, which aids in showing each scale's rates of normality. Finally, the medians and the correlations among the results are rendered and elaborated on to compile the data for the discussion.

4.1 Socio-demographic data

The socio-demographic data presented in Table 1 showed that the years of entry ranged from 2021 (n=39) to 2012 (n=1) and 2014 (n=1). Most of the participants identified as women (n=50), followed by men (n=28), and lastly, one person selected "other" and typed in "non-binary" (n=1). Ages were categorized into three groups, the first group included students whose ages ranged from 18 to 19 (n=30), the second one ranged the ages from 21 to 29 (n=45), and the last group included ages from 30 to 35 (4). Participants were categorized into two subgroups, "on-time" students (1 to 7 years) and "delayed" students (8 to 10 years), regarding the years of school stay. "On-time" students accounted for 97.5% (n=77) of the total respondents and the remaining 2.5% participants (n=2) were "delayed". School average was subcategorized as follows: group one included school averages ranging from 7.0 to 7.9 (n=9), group two ranged from 8.0 to 8.9 (n=37), and group three ranged from 9.0 to 9.9 (n=33). Of all the participants, 34.2% (N=27) did not report having any failed subjects up that point; 38% (n=30) reported having 1 failed subject, 11.4% (n=9) had two failed subjects, 6.3% (N=5) had

3, 5.1% (n=4) had 4, 3.8% (n=3) had 5 and one person (1.3%) reported having 10 failed subjects. See Table 1.

Table 1

Socio-demographic results

Years of entry	2021	2020	2019	2018	2017	2016	2014	2012	Total
Frequency	39	21	8	6	5	5	1	1	79
Gender	Women			Men		Other		Total	
Frequency:	50			28		1		79	
Percentage:	63.3%			35.4%		1.3%		100%	
Age	18 to 19			21 to 29		30 to 35		Total	
Frequency	30			45		4		79	
Percentage	37.9%			56.9%		5.1%		100%	
Years of stay	“On-time” students: (1 to 7 years)				“Delayed” students: (8 to 10 years)			Total	
Frequency	77				2			79	
Percentage	97.5%				2.5%			100%	
School average	From 9.0 to 9.9			From 8.0 to 8.9		From 7.0 to 7.9		Total	
Frequency	33			37		9		79	
Percentage	41.8%			46.8%		11.4%		100%	
Failed subjects	0	1	2	3	4	5	10	Total	
Frequency	27	30	9	5	4	3	1	79	
Percentage	34.2%	38%	11.4%	6.3%	5.1%	3.8%	1.3%	100%	

4.3 Cronbach Alpha

The Cronbach Alpha indicated a high value (.939) for the procrastination scales and a medium-to-high value (.667) for the Satisfaction with Post-Pandemic life scale. See Table 2.

Table 2

Reliability Statistics test using the Cronbach Alpha

Reliability Statistics		
Scales	Cronbach Alpha	N. of elements
PPS, STS, IPS	.939	32
SWPPL	.667	5

4.2 Scale Normality Tests

The Kolmogorov-Smirnov test showed normality for three out of four scales used in this research. The Pure Procrastination Scale obtained a statistic value of .070 and a significance of .200*, the Susceptibility to Temptations Scale scored a statistic value of .078, with a significance of .200*, and the Satisfaction with Post-Pandemic Life Scale obtained a statistic value of .092, and a significance of .096. These values demonstrate normality on those three scales, whereas the Irrational Procrastination Scale scored .116 and a significance of .010, indicating it is not normal. See Table 3.

Table 3

Kolmogorov-Smirnov test for the Procrastination Scales and SWL scale

Procrastination scales			
Dimensions	Kolmogorov-Smirnov^a		Sig.
	Statistic	gl	
PP	0.070	79	.200*
ST	0.078	79	.200*
IP	0.116	79	.010 (not-normal)
*. This is a lower limit of the real significance.			
a. Correction of the Lilliefors significance.			
Satisfaction with post-pandemic life			
Dimensions	Kolmogorov-Smirnov^a		Sig.
	Statistic	gl	
SW	0.092	79	0.096
a. Correction of the Lilliefors significance.			

4.3 Procrastination frequencies per individual.

In this section, the levels of procrastination are shown per individual, and are presented in the table below. The levels of agreement are presented, based on each participants' responses, calculated based on which was the most common answer they selected for the items in each scale. See table 4.

Table 4

Levels of individual procrastination

	Totally agree	Agree	Neutral	Disagree	Totally disagree	Total
PP	1	15	37	20	6	79
	(1.26%)	(18.98%)	(46.83%)	(25.31%)	(7.59%)	(100%)
IP	1	25	44	8	1	79
	(1.26%)	(31.64%)	(55.69%)	(10.12%)	(1.26%)	(100%)
ST	0	15	59	5	0	79
	(0%)	(18.98%)	(74.68%)	(6.32%)	(0%)	(100%)

4.4 Medians

The Pure Procrastination scale reported a statistic median of 39.9873 and a standard deviation of 10.48136, being this the highest score. The Susceptibility to Temptations Scale showed a median of 35.2532 and a standard deviation of 7.08460. The Irrational Procrastination Scale presented a median of 32.0633 and a standard deviation of 4.26477. From this, we can infer that the participants tend to procrastinate more because of an inability to resist temptations. And lastly, the Satisfaction with Post-Pandemic Life Scale demonstrated a median of 15.1266 and a standard deviation of 3.77022. See Table 5.

Table 5*Medians and Standard Deviation for PPS, STS, IPS and SWPPLS.*

Descriptive		Statistic
PP	Median	39.9873
	Standard deviation	10.48136
ST	Median	35.2532
	Standard deviation	7.08460
IP	Median	32.0633
	Standard deviation	4.26477
SWPPL	Median	15.1266
	Standard deviation	3.77022

4.5 Correlations

This section compares the statistical correlations among the scale results using the Pearson method. The Pure Procrastination scale, Susceptibility to Temptations Scale, the number of failed subjects, the current school average for every participant, and the number of years that respondents have stayed in the major were correlated using the Pearson method because the first two showed appropriate levels of normality rates for this method, as reported on Table 3.

The PPS correlated highly with the STS ($r(77)=.755^{**}$, $p=.000$), moderately with the number of Failed Subjects ($r(77)=.234^*$, of $p=.038$) and inversely with the Current School Average ($r(77)= -.282^*$, $p=.012$). However, it did not present a significant correlation with the Years Of School Stay or the number of Failed Subjects in this sample. The ST correlated inversely with the Current School Average ($r(77)=-.228^*$, $p=.043$), but it did not show a

significant correlation with the number of Years of School Stay. The number of Failed Subjects correlated moderately and negatively with the Current School Average ($r(77)=-.495^{**}$, $p=.000$), but it did not correlate significantly with the number of Years of school stay. And finally, the Current School Average and the number of Years of School Stay did not show a significant correlation with one another. See Table 5.

Table 6

Pearson correlations

Pearson correlations (normal)		PP	ST	Failed subjects	Current School Average	Years of School Stay
ST	Pearson correlation	.775**				
	Sig (bilateral)	0.000				
Failed subjects	Pearson correlation	.234*	0.179			
	Sig (bilateral)	0.038	0.114			
Current School Average	Pearson correlation	-.282*	-.228*	-.495**		
	Sig (bilateral)	0.012	0.043	0.000		
Years of School Stay	Pearson correlation	-0.017	-0.103	0.165	0.131	1
	Sig (bilateral)	0.882	0.365	0.147	0.251	

****.** The correlation is significant at the level 0,01 (bilateral).

*****. The correlation is significant at the level 0,05 (bilateral).

The spearman correlations are presented in the following part. The Irrational Procrastination Scale obtained a low normality score, indicating the need to use the Spearman method to compare its results with the necessary variables. In addition, the other procrastination scales (PPS, STS) were included in the Spearman chart to compare each other and obtain comparable statistics. The IP and the PP correlated highly ($\rho(77)=.787^{**}$, $p=.000$). The IP correlated moderately with the ST ($\rho(77)=.663^{**}$, $p=.000$), however, it did not present a significant correlation with the number of Failed Subjects. The IP showed a slight and inverse correlation with the Current School Average ($\rho(77)=-.303^{**}$, $p=.007$), but it did not correlate significantly with the number of years of school stay. See Table 6.

Table 7

Spearman correlations (non-normal)

Spearman correlations (non-normal)			IP
Dimensions			
Spearman Rho	PP	Correlation coefficient	.724**
		Sig (bilateral)	0.000
	ST	Correlation coefficient	.663**
		Sig (bilateral)	0.000
	Failed subjects	Correlation coefficient	0.167
		Sig (bilateral)	0.142
	Current School Average	Correlation coefficient	-.303**
		Sig (bilateral)	0.007
	Years of School Stay	Correlation coefficient	0.095
		Sig (bilateral)	0.407

****.** The correlation is significant at the level 0,01 (bilateral).

***. The correlation is significant at the level 0,05 (bilateral).**

4.6 Discussion

The results indicate that procrastination is present in faculty students; therefore, these participants may engage in other less important and productive activities rather than the ones they have to be involved in (Steel, 2002). Moreover, the Susceptibility to Temptations Scale showed a median of 35.2532, and the Irrational Procrastination Scale presented a median of 32.0633. From these scores, we can infer that the participants tend to procrastinate more because of an inability to resist temptations. Usually, temptations lead students to procrastinate because they pose more appealing activities, such as being on social media or the internet, chatting with friends, or playing video games (Steel, 2010; Kaliba & Ambrožová, 2021).

The Satisfaction with Post-Pandemic Life Scale, which presented a median of 15.1266, demonstrates that students feel dissatisfied with their lives after the COVID-19 pandemic. The negative emotions may explain the current result that procrastinators can experience, which can indicate dissatisfaction, such as high levels of anxiety and psychomotor agitation, depressive symptoms, sense of loneliness and social anxiety, hostility, anger, tension, tiredness and shyness (Caplan, 2017). Concerning the correlations among the variables, it was found that the PPS correlated highly with the STS. Kaliba and Ambrožova (2021) mention an increase in the students' inclination to postpone or avoid their study activities and instead engage in multitasking, performing a range of parallel operations which distracted them from studying during the COVID-19 pandemic. Tezer et al. (2020) argue that as the academic procrastination behavior of students decreases, their GPA will increase.

The ST correlated very slightly with the number of Failed Subjects. Participants in live video classrooms, including students and lecturers, might worry about appearing inattentive. Turning off their cameras made them invisible, which might have impacted their involvement and

performance and encouraged them to put off tasks. According to Melgaard et al. (2022), students' webcams would be turned off during the synchronous mode of delivery for online learning, which led to a lack of participation and engagement. Most participants linked this conduct to culture and the peer pressure they felt from being more visible in online seminars. This can lead to procrastination in online learning and, ultimately, to poor academic achievement.

The ST correlated slightly and inversely with the Current School Average. Some possible reasons for a students' low academic performance are stress, anxiety, depression, loneliness, and fear of the future, which are linked to procrastination. Some studies have observed this (Biricik & Sivrikaya, 2020; Caplan, 2007).

The ST correlated very slightly and negatively with the number of Years of School Stay. Some procrastinators know they must engage in an activity that requires their attention, but instead of focusing on it and completing it, they decide to leave it for later (Cerniglia, 2019). This means that the more students procrastinate, the later they can finish their major.

Chapter V: Conclusions

5.0 Introduction

This chapter discusses the conclusions about the results concerning the research questions and hypotheses. Also, the implications of this research findings are depicted after that, with the opinions and suggestions from other authors who carried out similar research. After that, the limitations of this study are mentioned, and finally, the suggestions for further research are reviewed.

5.1 Conclusions

This research focus was on finding the procrastination tendency and the levels of satisfaction with post-pandemic life in students of the Language Faculty at BUAP. Through the data recollection, it was possible to discover the following: Regarding the first question, which aimed to discover how much the students of the Language Faculty at BUAP agreed that they procrastinated after the COVID-19 pandemic, based on the results, it was concluded to be positive for the procrastination tendency, evaluated using the Pure Procrastination Scale, in which, based on their responses to the items, it was determined that 15 of the participants showed agreement (18.98%) and 1 participant totally agreed (1.26%), thus indicating a presence of procrastination in the sample. The second interrogative was to find which was the most recurrent procrastination tendency in students of the Language Faculty at BUAP, irrational or susceptibility to temptations, and it was shown that the most frequent was the irrational procrastination, yielding a significance score of ($\rho(77)=.787^{**}$), and having 1 participant (1.26%) who showed total agreement, based on their responses, and 25 participants who showed agreement (31.64%). However, it was found that susceptibility to temptations also presented a strong correlation ($r(77)=.755^{**}$, $p=.000$), with 15 participants (18.98%) who

showed agreement to being susceptible to temptations, based on their responses, indicating that both tendencies are present in students of the faculty.

The third question focused on whether the students of the Language Faculty are satisfied with post-pandemic life in the Language Faculty at BUAP, which was demonstrated to be negative. Aside from these questions, three hypotheses are suggested. The first one was (H1), “After the COVID-19 pandemic, students are more susceptible to procrastinating due to temptations.” this hypothesis was proven true. The second hypothesis was (H2) “After the COVID-19 pandemic, students’ academic achievement is related to procrastination.”, which was found to be true. Moreover, the third hypothesis was (H3) “Students’ procrastination has caused them to be dissatisfied with life.”. It was shown that procrastinator students are not satisfied with life; however, there was no significant link between this fact and procrastination. Based on these findings, this hypothesis is disproved.

5.2 Implications

This research helped demonstrate that procrastination is present in faculty students, thanks to the high rates yielded from the responses found using the PPS, STS, and IPS discussed in chapter four. Therefore, distractions, irrational reasons that push students to procrastinate, such as excessive worry or fear, and general factors such as psychological distractors hold students back on academic achievement, eventually leading to dissatisfaction with life. These findings imply that more attention should be put into this growing problem from all parties involved. Students are recommended to use time management techniques such as the Pomodoro technique or natural rewards to increase productivity, meet deadlines and workloads, create a sense of achievement, relieve stress, anxiety, and depression in order to increase academic success.

A sense of alienation is often present in procrastinating students, which is enabled now more than ever, thanks to the pandemic. The students' re-insertion to academic life offers a plethora of activities they can enjoy, such as sports and artistic or interest clubs which can help them create a sense of belonging and support. Students have a reason to join some of these groups more quickly than when it comes to certain places where they live, which might not offer these recreational opportunities. On the other hand, physical impairment because of elongated periods of physical inactivity, poses several threats to students' well-being, such as obesity, vitamin and mineral deficiencies, and chronic restlessness (also known as "burnout").

The main implication for parents is to push their children to activate themselves physically and talk about the problems they might face that impede lower academic success. And finally, to the faculty authorities, the need to promote more awareness among faculty students about this problem is imperative; creating campaigns to promote psychological health among students, inviting them to talk about their problems, as psychological assistance can be a means of venting out and getting the help they need but have not asked for directly.

5.3 Limitations

The limitation of this study was the design's inflexibility. Although survey research has multiple advantages for this case, such as the ability to obtain countable, specific data that can be objectively analyzed to represent the existence of a phenomenon in a population, it is undeniable that certain aspects behind procrastination in students could be further researched qualitatively in this context to enrich the responses. Furthermore, a complementary study focused on interviewing individuals in the language faculty could also shed light on this problem to know its specific reasons (Coughlan et al., 2009).

5.4 Suggestions for further research

Currently, in Mexico, it might not be possible for many young adults to become self-sufficient and thus apply self-leadership strategies in their lives as it has been estimated that millennials, the current generation with the most significant number of young adults in Mexico, have reported high economic instability, preventing them from becoming independent. Therefore, an interesting approach for research is to explore the socio-demographic and economic aspects that affect procrastination as factors that might work negatively with motivation, preventing students from reaching academic success.

Regarding physical deprivation, it is believed that being in a space for an extended period may cause physical and cognitive damage to an individual, so this could be an exciting research point when linking it to the COVID-19 pandemic, seeing as many students and young people must stay at home, and this might have caused derived problems. One of the reasons for this might be exhaustion from the elongated period in which many Mexican students have been quarantined, rendering them unable to experiment with the world outside, develop their physical abilities and depriving them of social interaction, making them feel like they are not part of a community anymore. Another reason could be the lack of motivation, either from the teachers' or the students' side. Furthermore, the last one could be the lack of monitoring.

This quantitative research aimed to explore the general reasons for students of the faculty to procrastinate. An interesting point to deepen on is exploring the reasons for procrastinating students to engage in this behavior through interviews to know their perspectives, as well as the reasons, not only for students but also for procrastinator teachers. Furthermore, knowing these outlooks could further develop community strategies to combat this generally negative behavior. And lastly, the sense of satisfaction is a significant point that could be further explored, as it has been found to have a clear link with procrastination.

References

- A. Kosycheva, M., E. Tuzhba, T., V. Gaydamashko, I., & S. Yesaulova, K (2020, July). Influence of poor digital competence on procrastination of university teachers. In 2020 The 4th International Conference on Education and Multimedia Technology (pp. 73-77). <https://dl.acm.org/doi/abs/10.1145/3416797.3416832>
- Anam, M. K., & Hitipeuw, I (2022). The Correlation Between Loneliness and Academic Procrastination Among Psychology Students at State University of Malang. *KnE Social Sciences*, 323-332. From <https://knepublishing.com/index.php/KnE-Social/article/view/10221/16762>
- Bandura, A., & Walters, R. H (1977). *Social learning theory* (Vol. 1). *Prentice Hall: Englewood cliffs*. http://www.asecib.ase.ro/mps/Bandura_SocialLearningTheory.pdf
- Becker, A., 2022. *COVID-19 crisis catalog: A glossary of terms - TMC News*. [online] TMC News. Available at: <https://www.tmc.edu/news/2020/05/covid-19-crisis-catalog-a-glossary-of-terms/> [Accessed 20 August 2022].
- Biricik, Y. S., & Sivrikaya, M. H (2020). COVID-19 fear in sports sciences students and its effect on academic procrastination behavior. *International Journal of Applied Exercise Physiology*, 9(10), 50-56. https://www.researchgate.net/profile/Volodymyr-Saienko/publication/344956034_The_structure_model_of_methodical_system_usage_fitness-technology_in_student_physical_education/links/5f9b11cc92851c14bcf2c9e3/The-structure-model-of-methodical-system-usage-fitness-technology-in-student-physical-education.pdf#page=50

- Brenlla, M. E., Fernández Da Lama, R. G., Rodríguez Marengo, I., & Saint Cricq, E (2022). Future time perspective, procrastination and academic motivation in Argentinian college students during the pandemic. <https://repositorio.uca.edu.ar/bitstream/123456789/13914/1/future-time-perspective-procrastination.pdf>
- Caplan, S. E (2007). Relations among loneliness, social anxiety, and problematic Internet use. *CyberPsychology & behavior*, 10(2), 234-242. https://www.academia.edu/download/61560498/Caplan_-_2007_-_Relations_among_loneliness__social_anxiety__and_problematic_Internet_use2019_1219-41849-1w3e1te.pdf
- Cerniglia, L (2019). An exploratory study on adaptive psychopathological risk and problematic use of the web associated with procrastination in university students. https://dehesa.unex.es:8443/bitstream/10662/10079/1/0214-9877_2019_1_1_41.pdf
- Coughlan, M., Cronin, P., & Ryan, F. (2009). Survey research: Process and limitations. *International Journal of Therapy and Rehabilitation*, 16(1), 9-15. <https://www.magonlinelibrary.com/doi/pdf/10.12968/ijtr.2009.16.1.37935>
- De-Paola, M., Gioia, F., & Scoppa, V (2022). Online teaching, procrastination and students' achievement: evidence from covid-19 induced remote learning (No. 202202). http://www.ecostat.unical.it/RePEc/WorkingPapers/WP02_2022.pdf
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S (1985). The satisfaction with life scale. *Journal of personality assessment*, 49(1), 71-75. https://emmons.faculty.ucdavis.edu/wp-content/uploads/sites/90/2015/08/1985_5-SWLS.pdf

- Euskampus* (2015). Yo procrastino, tu procrastinas.... *Universidad del País Vasco*, 1-19.
- 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://link.springer.com/article/10.1007/s10942-016-0247-x>
- Hämmig, O (2019). Health risks associated with social isolation in general and in young, middle and old age. *PLoS One*, 14(7), e0219663. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0219663>
- Hebebcı, M. T., Bertiz, Y., & Alan, S (2020). Investigation of views of students and teachers on distance education practices during the Coronavirus (COVID-19) Pandemic. *International Journal of Technology in Education and Science*, 4(4), 267-282. From <https://eric.ed.gov/?id=EJ1271267>
- Herdian, S. N. Z (2021). The Phenomenon of Academic Procrastination in Students during Pandemic. *International Journal of Social Science and Human Research*(1) From <https://www.ijsshr.in/v4i8/Doc/15.pdf>
- Hernández, R., Fernández, C., & Baptista, P (2014). Metodología de la Investigacion *Editorial* (6a Edicion).
- Hong, J. C., Lee, Y. F., & Ye, J. H (2021). Procrastination predicts online self-regulated learning and online learning ineffectiveness during the coronavirus lockdown. *Personality and individual differences*, 174, 110673. From <https://www.sciencedirect.com/science/article/pii/S0191886921000489>
- Hutauruk, A. F., Gultom, S., & Nasution, A. A. B (2021). Online Learning and Face-to-Face Learning in the COVID-19 Pandemic in SMA Erlangga Pematangsiantar. *Budapest*

International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences, 4(1), 1053-1058. From <https://scholar.archive.org/work/akvaujknvngfrlzzkyxuzsh6xy/access/wayback/http://www.bircu-journal.com/index.php/birci/article/download/1712/pdf>

Juárez-Díaz, C., & Perales, M. (2021). Language teachers' emergency remote teaching experiences during the covid-19 confinement. *Profile: Issues in Teachers' Professional Development*, 23(2), 121–135. <https://doi.org/10.15446/profile.v23n2.90195>

Kaliba, M., & Ambrožová, P (2021, March). What do university students do in online teaching? Reflections on current forms of academic procrastination, experience from the czech republic [Conference session]. In *Proceedings of INTED2021*. https://www.researchgate.net/profile/Petra-Ambrozova-2/publication/350020493_WHAT_DO_UNIVERSITY_STUDENTS_DO_IN_ONLINE_TEACHING_REFLECTIONS_ON_CURRENT_FORMS_OF_ACADEMIC_PROCRASTINATION_EXPERIENCE_FROM_THE_CZECH_REPUBLIC/links/608ea07b458515d315ee7b62/WHAT-DO-UNIVERSITY-STUDENTS-DO-IN-ONLINE-TEACHING-REFLECTIONS-ON-CURRENT-FORMS-OF-ACADEMIC-PROCRASTINATION-EXPERIENCE-FROM-THE-CZECH-REPUBLIC.pdf

Kang, X., & Zhang, W (2020). An experimental case study on forum-based online teaching to improve student's engagement and motivation in higher education. *Interactive Learning Environments*, 1-12. https://www.researchgate.net/profile/Kang-Xiaowei/publication/344601107_An_experimental_case_study_on_forum-based_online_teaching_to_improve_student's_engagement_and_motivation_in_high

er_education/links/5fccd1aa92851c00f85489e4/An-experimental-case-study-on-forum-based-online-teaching-to-improve-students-engagement-and-motivation-in-higher-education.pdf

Kumar, R (2018). *Research methodology: A step-by-step guide for beginners*. Sage.

Masseroni, S., Domínguez, V. & Libonatti, J (2016). Análisis de datos cuantitativos en ciencias sociales: Etapas, posibilidades e interpretación, el papel de la teoría. *Editorial MNEMOSYNE* (pp. 21 – 25).
file:///C:/Users/personal/Desktop/DIPLOMADO%20Mtra%20Caty/CAPITULO%203/anc3a1llisis-de-datos-cuantitativos-web-2.pdf

Melgaard, J., Monir, R., Lasrado, L. A., & Fagerstrøm, A (2022). Academic Procrastination and Online Learning During the COVID-19 Pandemic. *Procedia computer science*, 196, 117-124. From <https://www.sciencedirect.com/science/article/pii/S1877050921022195>

Melo, T. G. D., & Mendonça, H (2020). Academic procrastination: relationships with support from the environment and self-leadership. *Paidéia (Ribeirão Preto)*, 30. <https://www.scielo.br/j/paideia/a/Y8bHsH4TcVkrJcSX7ZxZWfS/?lang=en&format=html>

Muhammad, S., & Kabir, S (2016). Methods of data collection. *Basic Guidelines for Research: An Introductory Approach for All Disciplines*, 1, 202-276. https://www.researchgate.net/publication/325846997_METHODS_OF_DATA_COLLECTION

Neck, C. P., Manz, C. C., & Houghton, J. D (2019). *Self-leadership: The definitive guide to personal excellence*. Sage Publications. pp. 13-63.

- Odacı, H., & Çıkrıkçı, Ö (2014). Problematic internet use in terms of gender, attachment styles and subjective well-being in university students. *Computers in Human Behavior*, 32, 61-66. https://www.researchgate.net/profile/Ozkan-Cikrikci/publication/259516067_Problematic_internet_use_in_terms_of_gender_attachment_styles_and_subjective_well-being_in_university_students/links/5a4c6298aca2729b7c895bf6/Problematic-internet-use-in-terms-of-gender-attachment-styles-and-subjective-well-being-in-university-students.pdf
- Pelikan, E. R., Lüftenegger, M., Holzer, J., Korlat, S., Spiel, C., & Schober, B (2021). Learning during COVID-19: the role of self-regulated learning, motivation, and procrastination for perceived competence. *Zeitschrift für Erziehungswissenschaft*, 24(2), 393-418. From <https://link.springer.com/article/10.1007/s11618-021-01002-x>
- Perry, J (2012). La procrastinación eficiente [Efficient procrastination]. Spain: *Empresa Activa*.
- Rahdadella, D., & Latifah, M (2020, October). Academic Procrastination during the COVID-19 pandemic: The role of student's self-control, parenting style, and family factors. *In Proceedings of the 3rd International Seminar on Family and Consumer Issues in Asia Pacific* (pp. 92-100). <https://ikk.fema.ipb.ac.id/wp-content/uploads/2021/01/2020-ISFCI-PROCEEDING.pdf#page=100>
- Ryan, R. M., & Deci, E. L (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68. <https://doi.apa.org/doiLanding?doi=10.1037%2F0003-066X.55.1.68>

- Saha, S. M., Pranty, S. A., Rana, M. J., Islam, M. J., & Hossain, M. E (2022). Teaching during a pandemic: do university teachers prefer online teaching? *Heliyon*, 8(1), e08663. <https://www.sciencedirect.com/science/article/pii/S2405844021027663>
- Sharaievska, I., McAnirlin, O., Browning, M. H., Larson, L. R., Mullenbach, L., Rigolon, A., ... & Reigner, N (2022). “Messy transitions”: Students’ perspectives on the impacts of the COVID-19 pandemic on higher education. *Higher Education*, 1-18. <https://link.springer.com/article/10.1007/s10734-022-00843-7>
- Steel, P. D. G (2002). The measurement and nature of procrastination. *University of Minnesota*.
From
<https://search.proquest.com/openview/9efd03d37a2b3849bf9e5d6726c56fa4/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Steel, P (2007). The nature of procrastination: a meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological bulletin*, 133(1), 65. <https://doi.apa.org/doiLanding?doi=10.1037/0033-2909.133.1.65>
- Steel, P (2010). The procrastination equation: How to stop putting things off and start getting stuff done. *Random House Canada*.
- Steel, P., & Klingsieck, K. B. (2016). Academic procrastination: Psychological antecedents revisited. *Australian Psychologist*, 51(1), 36-46.
- Sugino, C (2021). Student perceptions of a synchronous online cooperative learning course in a Japanese Women’s University during the COVID-19 pandemic. *Education Sciences*, 11(5), 231. <https://www.mdpi.com/2227-7102/11/5/231/pdf>

- Svartdal, F. (2017). Measuring procrastination: Psychometric properties of the Norwegian versions of the Irrational Procrastination Scale (IPS) and the Pure Procrastination Scale (PPS). *Scandinavian Journal of Educational Research*, 61(1), 18-30.
- Tezer, M., Ulgener, P., Minalay, H., Ture, A., Tugutlu, U., & Harper, M. G (2020). Examining the relationship between academic procrastination behaviours and problematic Internet usage of high school students during the COVID-19 pandemic period. *Global Journal of Guidance and Counseling in Schools: Current Perspectives*, 10(3), 142-156. <https://www.un-pub.eu/ojs/index.php/gjgc/article/view/5549/5024>
- Tkáčová, H., Tvrdoň, M., Králik, R., & Kalugina, A (2021). End of the procrastination through innovation in education. Factors maintaining motivation in study among university students. EDULEARN21 Proceedings. In *Proceedings of EDULEARN21 Conference* (Vol. 5, p. 6th). From https://www.researchgate.net/profile/Roman-Kralik-2/publication/353461307_END_OF_THE_PROCRASTINATION_THROUGH_INNOVATION_IN_EDUCATION_FACTORS_MAINTAINING_MOTIVATION_IN_STUDY_AMONG_UNIVERSITY_STUDENTS/links/61a29c606b9a6f09670ab152/END-OF-THE-PROCRASTINATION-THROUGH-INNOVATION-IN-EDUCATION-FACTORS-MAINTAINING-MOTIVATION-IN-STUDY-AMONG-UNIVERSITY-STUDENTS.pdf
- Unda-López, A., Osejo-Taco, G., Vinueza-Cabezas, A., Paz, C., & Hidalgo-Andrade, P (2022). Procrastination during the COVID-19 Pandemic: A Scoping Review. *Behavioral Sciences*, 12(2), 38. <https://www.mdpi.com/2076-328X/12/2/38/pdf>
- Valieva, F., Fomina, S., & Nilova, I (2020). Distance learning during the corona-lockdown: Some psychological and pedagogical aspects. In *Knowledge in the Information Society* (pp. 289-300). Springer, Cham.

Williams, G. G., Gagné, M., Ryan, R. M., & Deci, E. L (2002). Facilitating autonomous motivation for smoking cessation. *Health psychology*, 21(1), 40. https://selfdeterminationtheory.org/SDT/documents/2002_WilliamsGagneRyanDeci.pdf

Williams, G. C., Gagné, M., Mushlin, A. I., & Deci, E. L (2005). Motivation for behavior change in patients with chest pain. *Health education*. https://selfdeterminationtheory.org/SDT/documents/2005_WilliamsGagneDeci_HealthEdu.pdf

Appendix

Survey: “Estudio sobre la procrastinación y la pandemia COVID-19”

Instructions:

Soy Irving Sahid Carrasco Morales y estoy realizando mi tesis en la facultad de lenguas.

Esta encuesta busca explorar información sobre la tendencia de la procrastinación en la Facultad de Lenguas.

Tus respuestas son muy valiosas ya que ayudarán a la mejora y apoyo de los estudiantes de la Facultad de Lengas BUAP. Apreciamos tu honestidad al responderlas.

La información recopilada será procesada en escala masiva y totalmente confidencial, para usos de investigación.

1. (Matricula) Student ID number:
2. (Edad) Age:
3. (Genero) Gender:
4. (MatRepro) How many classes have you failed so far?
5. (PromActual) What is your general student average score so far?
6. (TiempoEstudio) How many years have you been studying in this career?

Pure Procrastination Scale (PPS)

1. (PPS1) I delay making decisions until it's too late
2. (PPS2) Even after I make a decision, I delay acting upon it
3. (PPS3) I waste a lot of time on trivial matters before getting to the final decisions
4. (PPS4) In preparation for some deadlines, I often waste time by doing other things

5. (PPS5) Even jobs that require little else except sitting down and doing them, I find that they seldom get done for days
6. (PPS6) I often find myself performing tasks that I had intended to do days before
7. (PPS7) I generally delay before starting on work I have to do
8. (PPS8) I am continually saying "I'll do it tomorrow"
9. (PPS9) I find myself running out of time
10. (PPS10) I don't get things done on time
11. (PPS11) I am not very good at meeting deadlines
12. (PPS12) Putting things off till the last minute has cost me money in the past

PPS Spanish-translated items

1. (PPS1) Dejo para después la toma de decisiones hasta que es demasiado tarde
2. (PPS2) Incluso después de tomar una decisión, dejo para después el llevarla a cabo
3. (PPS3) Pierdo mucho tiempo en asuntos sin importancia, antes de llegar a las decisiones finales
4. (PPS4) En preparación para algunas fechas límite, a menudo pierdo el tiempo haciendo otras cosas
5. (PPS5) Hasta los trabajos que no requieren más que sentarme y hacerlos, me doy cuenta de que pasan muchos días antes de que se concluyan
6. (PPS6) A menudo me encuentro realizando tareas y actividades que tenía la intención de hacer desde días antes
7. (PPS7) Generalmente me tardo antes de empezar el trabajo que tengo que hacer
8. (PPS8) Continuamente estoy diciendo: "lo haré mañana"
9. (PPS9) Me parece que siempre se me acaba el tiempo
10. (PPS10) No hago las cosas a tiempo

11. (PPS11) No soy muy buena/o para cumplir con las fechas límites
12. (PPS12) Dejar las cosas para el último minuto me ha costado dinero en el pasado

Susceptibility to Temptation Scale (STS)

1. (STS1) I will crave a pleasurable diversion so sharply that I find it increasingly hard to stay on track
2. (STS2) I feel irresistibly drawn to anything interesting, entertaining, or enjoyable
3. (STS3) I have a hard time postponing pleasurable opportunities as they gradually crop up
4. (STS4) My actions and words satisfy my short-term pleasures rather than my long-term goals
5. (STS5) When an attractive diversion comes my way, I am easily swayed
6. (STS6) I get into jams because I will get entranced by some temporarily delightful activity
7. (STS7) When a temptation is right before me, the craving can be intense
8. (STS8) When a task is tedious, again and again I find myself pleasantly daydreaming rather than focusing
9. (STS9) It takes a lot for me to delay gratification
10. (STS10) I choose smaller but more immediate pleasures over those larger but more delayed
11. (STS12) I take on new tasks that seem fun at first without thinking through the repercussions

STS Spanish-translated items

1. (STS1) Cuando ansío tanto una distracción entretenida y gratificante, me resulta cada vez más difícil concentrarme en lo que tengo que hacer
2. (STS2) Me siento irresistiblemente atraído/a por cualquier cosa interesante, entretenida o agradable
3. (STS3) Me cuesta dejar para después las oportunidades placenteras a medida que surgen gradualmente
4. (STS4) Mis acciones y palabras satisfacen mis gustos a corto plazo más que mis metas a largo plazo
5. (STS5) Cuando se me presenta una distracción placentera, me dejo llevar fácilmente
6. (STS6) Me meto en problemas por fascinarme con alguna actividad temporalmente placentera
7. (STS7) Cuando una distracción está justo delante de mí, la tentación puede ser intensa.
8. (STS8) Cuando una tarea es tediosa, una y otra vez me encuentro divagando con gusto en mis pensamientos en lugar de concentrarme.
9. (STS9) Me cuesta mucho dejar para después la gratificación
10. (STS10) Prefiero los placeres más pequeños, pero más inmediatos a los más grandes, pero más tardíos
11. (STS11) Me pongo a hacer nuevas tareas que al principio parecen divertidas, sin pensar en las repercusiones.

Irrational Procrastination Scale.

1. (IPS1) I put things off so long that my well-being or efficiency unnecessarily suffers
2. (IPS2) If there is something I should do, I get to it before attending to lesser tasks (R)
3. (IPS3) My life would be better if I did some activities or tasks earlier

4. (IPS4) When I should be doing one thing, I will do another
5. (IPS5) At the end of the day, I know I could have spent the time better
6. (IPS6) I spend my time wisely (R)
7. (IPS7) I delay tasks beyond what is reasonable
8. (IPS8) I do everything when I believe it needs to be done (R)
9. (IPS9) I procrastinate

Note: Items designated with an (R) are reverse scored.

IPS Spanish-translated items

1. (IPS1) Pospongo las cosas por tanto tiempo que mi bienestar o eficiencia se resienten innecesariamente.
2. (IPS2) Si hay algo que debo hacer, lo hago antes de ocuparme de tareas menores (R)
3. (IPS3) Mi vida sería mejor si hiciera algunas actividades o tareas antes
4. (IPS4) Cuando debería estar haciendo una cosa, me pongo a hacer otra
5. (IPS5) Al final del día, sé que podría haber aprovechado mejor mi tiempo
6. (IPS6) Paso mi tiempo sabiamente (R)
7. (IPS7) Retraso las tareas y deberes más allá de lo razonable
8. (IPS8) Todo lo hago cuando creo que hay que hacerlo (R)
9. (IPS9) Yo procrastino

Satisfaction With Post-Pandemic Life Scale (SWPPLS)

(Note: This scale was edited to be about post-pandemic life satisfaction)

1. (SWPPL1) In most ways my life is close to my ideal after the pandemic.
2. (SWPPL2) After the pandemic, the conditions of my life are excellent.

3. (SWPPL3) I am satisfied with my life after the pandemic
4. (SWPPL4) If I could live my life over before the pandemic, I would change almost nothing
5. (SWPPL5) So far, I have gotten the important things I want in life.

SWPPLS Spanish-translated items

1. (SWPPL1) En la mayoría de los sentidos, mi vida está cerca de mi ideal después de la pandemia.
2. (SWPPL2) Las condiciones de mi vida son excelentes después de la pandemia.
3. (SWPPL3) Estoy satisfecha/o con mi vida después de la pandemia
4. (SWPPL4) Si pudiera volver a vivir mi vida antes de la pandemia, no cambiaría casi nada.
5. (SWPPL5) Hasta ahora, he conseguido las cosas importantes que quiero en la vida.