Personal conditions associated with procrastination in university students


Received: 26.02.2020 Accepted: 13.05.2020

Abstract
The objective of this study was to establish the association between personal conditioning factors and academic procrastination in 710 students aged 16 and 35 (51.1% men and 48.9% women) from the first to the tenth cycle of two universities located in Lima. Was used the quantitative approach, the research design was non-experimental cross-sectional. For this, the Procrastination Assessment Scale-Students (PASS) test was administered, the statistical test chosen for the results: Chi square. The results showed that procrastination is associated with the sex, age and college of origin of university students.

Keywords: academic procrastination; sex; age; college of origin; University students.

Introduction
Procrastination is a kind of "vicious circle" that has negative consequences on tasks and on the sense of personal effectiveness; despite this, the final achievement leads to further procrastination. This action presents a secondary effect of an adaptive strategy, in which the limbic system and the prefrontal cortex participate, both of which have been evolving for years.

The limbic system is characterized by being more excitable and instinctive; the prefrontal cortex is rational and focused on the execution of actions and achievement of long-term goals (Steel, 2011).

Similarly, it is known that the capacity for efficient time management is related to self-control, organization, planning and other behaviors required at work (Dezcallar, Clariana, Gotzens, Badia and Cladellas, 2015). Academic procrastination refers to the postponement of activities in the school environment and is defined as the action of voluntarily and involuntarily delaying the completion of tasks for different reasons, which brings about subjective discomfort (Domínguez, 2016).

According to these authors, procrastination interacts in a game of rewards mixed with the tension and stress of postponement and the subsequent relaxation and gratification for the execution of the task carried out at the last moment (Alba and Hernández, 2013). Procrastination is an interactive occurrence in which one ignores or delays punctual attendance at a session or mandatory sentence. This potentially problematic behavior can be demonstrated in the performance of the task; that is, by evasive delay or delayed decision making (Mohd, 2015). Understanding procrastinating behaviour in university students is a complex matter since there is a set of institutional factors, contextual factors such as...
imprecise instructions from teachers, and personal factors such as personality traits.

In this last group, the vision of university
work and the way in which it is organized stands
out. In this regard, Domínguez and Campos
(2017); Khan et al. (2014); Olea and Olea
(2015); Özer et al. (2009); Steel and Ferrari
(2013) concluded that men were closer to a
procrastinator profile than women since they
presented higher scores in postponement of
activities and lower scores in academic self-
regulation.

The results of the above-mentioned authors
coincided with the literature on the subject in that
men are more likely to observe less regulated
procrastinating behavior.

Among the structural factors, the family, the
quality of education, the models, the educational
system and the different types of poverty stand
out; situations that can generate this type of
activities and behaviors; therefore, procrastination is a phenomenon applicable to
different groups and levels of people who are
regulated in terms of necessary responsibilities
In this context, it is important to note that there
are many cases of procrastination, where the
individual refuses to attend to some activity as
simple as the execution of a task or the making
of a decision without taking into account the
negative purposes that it contains to defer it and
of the adverse, annoying and inevitable
consequences that entail its nonrealization, this
has to do with a social and cultural genetics of
peoples (Balkis and Duru, 2007).

Theoretical Foundations

1. Procrastination factors

The essential factors of procrastination have
generated interesting evidence: (a) difficulty in
emotional control; that is, having failures in the
regulation of emotions leads the student to
annoyance, anger, among others, and influences
the failure to complete academic tasks on time;
(b) social maladjustment; that is, having
difficulties in adapting to the university academic
context, leads the student to postpone tasks; (c)
fear of making mistakes; that is, if the student
presents a lack of self-confidence and fear of
failure, his motivation to do the tasks will
decrease and, therefore, he will procrastinate; (d)
family problems; that is, a dysfunctional family
climate affects the student’s emotional state as
well as his/her academic performance; for
example, he/she does not want to study or do
homework; and, (e) absence of study habits and
motivation; that is, poor study habits or
counterproductive academic performance will
affect both the student’s motivation and the
completion of homework (Hernandez, 2012).

Among other factors of procrastination are
the following: (a) teacher teaching strategies;
that is, students with teachers who perform
constant evaluations tend to procrastinate less
than those with teachers who only evaluate them
with final exams; it should be noted that
procrastination not only has negative
consequences in the academic area but also in
health (Clariana, Cladellas, Badía and Gotzens,
2011); (b) teacher leadership capacity; That is,
he or she not only guides his or her students to
achieve goals, but also motivates them, since
they perceive him or her as a pleasant person
with many skills and the ability to provide
rewards as well as punishments for being the
leader and guide of the class group (Ausubel,
Novak and Hanesian, 2006); and, (c) age, that is,
procrastinators are more likely to be found in
younger groups because people overcome this
tendency to procrastinate as they get older and
gain control over themselves (Rodríguez and

2. Classification of procrastination

There are three types of procrastination: (a)
family procrastination: it occurs in the family
setting, where procrastination behaviors can be
understood as voluntary delay in carrying out
household duties; (b) emotional procrastination:
(b) emotional procrastination: is a behavior
loaded with emotions because of which people
find special emotions at the time of
procrastination due to the excess of energy that
they evidence; and (c) academic procrastination:
refers to the voluntary avoidance of
responsibilities and activities because they do
not have motivation at the time of executing them
because they perceive these obligations as
aversive (Pardo, Perilla and Salinas, 2014).

3. Causes of procrastination

Procrastination is the result of three basic
causes, according to Ellis and Knaus (2002),
which often overlap: (a) self-limitations: these
refer to how people value themselves through
self-critical thinking and negative and derogatory
self-affirmations. In a cyclical manner, the
procrastinator devalues himself or herself due to
past and present procrastinating behaviors,
which promote procrastination and feelings of
anxiety and depression; (b) low frustration
tolerance: arises when the subject recognizes
that in order to achieve future benefits he or she
must work hard in the present and face the
current and unbearable suffering that it may
taunt; and (c) hostility: understood as an
emotional manifestation derived from an
irrational claim against all those related to the
task that was postponed as a subconscious or
unconscious act against other significant people
such as parents, teachers and friends.

4. Consequences of procrastination
The study of the consequences of procrastination has a negative impact that not only encompasses a specific area of the person; but tends to manifest itself in various areas of life: (a) personal because irrational procrastination behaviors are related to poor or low well-being on a physical and psychological level having diverse consequences on physical health, mental health, even reaching economic and/or material development; and (b) academic level since procrastination is negatively related to academic achievement and development. This behavior has positive consequences in the short term; however, in the medium and long term, it creates disadvantages in the student's life (Steel, 2011).

In Peru, there is little research on this topic; on the other hand, it is necessary to study other population segments that include public educational centers and other cities in the country since it would give us a much broader vision about the quality of the Peruvian educational system, the styles of education and the way in which they are carried out.

Methodology

This research has a quantitative approach by performing statistical data processing procedures. The hypothetical-deductive method has been used, which by definition is that which starts from inferences to arrive at particular conclusions from the hypothesis (Sánchez and Reyes, 2015). The type of research was substantive since it was "oriented to describe, predict or backtrack reality" (Sánchez and Reyes, 2015, p.45). The study was carried out within the explanatory level, which, following Sánchez and Reyes (2015) It consisted of explaining the causes of the association of the phenomenon in a circumstance of time and space. Likewise, the design was non-experimental in cross-sectional terms because the subjects were studied at a single moment without manipulating the variables (Hernández and Mendoza, 2018; Fathi, & Dastoori, 2014).

Seven hundred and ten students from the first to the tenth cycle of the Faculty of Education of two public universities in Lima, aged between 16 and 35, participated (347 female and 363 male); all of them collaborated voluntarily; therefore, they signed an informed consent in which the objectives of the study and the commitment to safeguard the confidentiality of the information collected were presented.

The non-probabilistic sample was used for convenience. The instrument was the PASS test (Solomon and Rothblum, 1984) which consists of 44 items and is divided into two dimensions. The first part of the test has 18 items that determine the frequency of procrastination and the degree to which this culminates in anxiety. It divides procrastination by academic activities and, in turn, asks how much discomfort or tension each of these activities generates in the student.

Response options are presented on a Likert scale with values from 1 to 5 with descriptors of 1 (never), 2 (almost never), 3 (sometimes), 4 (almost always), and 5 (always). The second section of the PASS ranges from item 19 to 44. These items inquire into the cognitive-behavioral reasons for procrastination.

Before presenting the inferential analyses, the Kolmogorov-Smirnov normality test was performed, which established a non-normal data distribution; then the Pearson Chi-square was performed for the association of the variables.

Analysis of results

The findings of the inferential aspects of the analysis of the association of personal conditions and procrastination according to age, sex and school of origin are present below.

Table 1. Association of personal conditions and procrastination

<table>
<thead>
<tr>
<th>Variables</th>
<th>Chi-square of Pearson</th>
<th>Signification asymptotic (bilateral)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>103,466&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.000</td>
</tr>
<tr>
<td>Age</td>
<td>84,133&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.000</td>
</tr>
<tr>
<td>School of origin</td>
<td>61,865&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.000</td>
</tr>
</tbody>
</table>

In Table 1, procrastination is associated (or dependent) on sex, age and school of origin, as shown by the test (Chi-square $x^2 = 103.466a, 84.133a$ and 61.865a, respectively), and it is shown that the $p$ value is lower than the level of significance assumed $p < 0.05$.

Against these comparisons, the alternate hypothesis is accepted and the null hypothesis is rejected; therefore, it is established that personal conditions are associated with the procrastination of students.
Testing of first specific hypothesis

Table 2.
Information associating personal conditions and the prevalence of procrastination in different academic areas of students

<table>
<thead>
<tr>
<th>Variables</th>
<th>Chi-square of Pearson</th>
<th>Signification (bilateral)</th>
<th>asymptotic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>325.541(^a)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>299.578(^a)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>School of origin</td>
<td>200.568(^a)</td>
<td>.000</td>
<td></td>
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</tbody>
</table>

In Table 2, the prevalence of procrastination in different academic areas of the students is associated (or depends) on sex, age and school of origin, as shown by the test of independence (Chi-square \(x^2 = 325.541\), \(299.578\) and \(200.568\), respectively), and it is also shown that the \(p\) value is lower than the assumed significance level \(p<0.05\).

Against these comparisons the alternate hypothesis is accepted and the null hypothesis is rejected; therefore, it is established that personal conditions are associated to procrastination prevalence in different academic areas of the students.

Testing of second specific hypothesis

Table 3.
Information associating personal conditions and reasons for procrastinating

<table>
<thead>
<tr>
<th>Variables</th>
<th>Chi-square of Pearson</th>
<th>Signification (bilateral)</th>
<th>asymptotic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>19.248(^a)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>78.312(^a)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>School of origin</td>
<td>50.618(^a)</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

In Table 3, the reasons for procrastinating students are associated with (or depend on) sex, age and school of origin, as shown by the test of independence (Chi-square \(x^2 = 19.248\), \(78.312\) and \(50.618\), respectively), and it is also shown that the \(p\) value is lower than the assumed significance level \(p<0.05\); in view of these comparisons, the alternate hypothesis is accepted and the null hypothesis is rejected; therefore, it is established that personal conditions are associated with students' reasons for procrastination.

Discussion

The aim of this work was to establish the association of personal conditions and procrastination in university students taking into account age, sex and school of origin. The study of procrastination is immersed in a continuous process of analysis at the university level; for this reason, procrastination is a complex phenomenon that integrates cognitive, emotional and behavioral aspects plus the time interval needed to perform the task (Ferrari, 2010). As for inferential analysis, procrastination is associated (or dependent) on sex, age and school of origin as shown by the test of independence (Chi-square \(x^2 = 103.466\), \(84.133\) and \(61.865\), respectively) due to the assumed significance \(p<0.05\). In this regard, Schouwenburg et al. (2004) consider procrastination as a multidimensional concept that brings together a series of components; for example, under impulse control, lack of persistence, lack of discipline at work, lack of ability to manage time and inability to work methodically.

In general, the results coincide with the literature on the subject, since it can be seen that the prevalence of procrastination in different academic areas is associated with (or depends on) sex, age and school of origin, as shown by the test of independence (Chi-square \(x^2 = 325.541\), \(299.578\) and \(200.568\)). A greater tendency to procrastination is more likely among males, as noted by Van Eerde (2003). The sex/gender variables have been taken into account in several studies with adult populations and it would be necessary to investigate how daily or everyday tasks associated with one of the two genders are related to procrastination (Özer, Demir and Ferrari, 2009).

With respect to the reasons for procrastination, they are associated with (or depend on) sex, age and school of origin as shown by the test of independence (Chi-square \(x^2 = 19.248\), \(78.312\) and \(50.618\)) due to the assumed significance \(p<0.05\). In this sense, many studies performed with university population indicated that there were no differences according to age; however, the age range of the university population is somewhat restricted. Studies with adult population indicate a gradual decrease in procrastination according
to the passage of time (Diaz-Morales, Ferrari and Cohen, 2008).

Conclusions

Procrastination is associated (or dependent) on the sex, age and school of origin of the students due to the assumed significance p<0.05. According to statistical evidence, it was observed that, as for the female sex, 0.7% presents low level, 19.6% presents average level, 25.6% present’s high average level and 3% presents high level; and, as for the male sex, 6.8% presents low level, 31.3% presents average level and 13.1% presents high level of procrastination.

In this regard, the results coincide with the study by (Dominguez, Prada and Moreta, 2019) where the male gender is more prone to procrastination in the academic environment. The result obtained allows us to foresee mechanisms to contain the negative impact that procrastination has on the teaching and learning processes at university.

With regard to age, those under 20 years of age, 4.2% present a low level, 32.3% present an average level, 7.9% present a high average level and 6.9% present a high level; as to those between 21 and 23 years of age, 5.8% present a low level, 19.2% present an average level, 9.4% present a high average level and 3% present a high level; as for those over 24 years of age, 0.3% present a low level, 3.9% present an average level, 6.5% present a high average level and 0.7% present a high level for procrastinating. The results coincide with the literature in that one of the personal conditions is age, since procrastinating behavior increases progressively, mainly in adolescence and decreases in adulthood (Rodríguez and Clariana, 2017).

Finally, as for students from public schools, 6.9% present a low level, 27.3% present an average level, 6.8% present a high average level and 7.3% present a high level.

As for students from private schools, 3.4% present a low level, 28% present an average level, 17% present a high average level and 3.2% present a high level of reasons for procrastinating. This finding reinforces what was proposed by Gonzalez and Sanchez (2013), who mentioned that procrastination is not a problem limited to poor time planning, but an interaction between emotional aspects such as fear of failure, cognitive as excessive confidence, and behavioral as problems in self-efficacy.

References


evidence. The Spanish journal of psychology, 10(1), 91-96.