



Academic Procrastination and Anxiety in University Students of Initial Education of Apurimac

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ABSTRACT

Aims This study was performed to determine the relationship between academic procrastination and anxiety in students of a university in the department of Apurimac, Peru.

Instrument & Methods In this non-experimental, basic, descriptive-correlational study, the sample consisted of 196 university students from the first four cycles of Initial Education in 2020. Data collection was through surveys for which two questionnaires were used: the Academic Procrastination Scale (EPA) and the State-Trait Anxiety Questionnaire (STAI). Both instruments were found to be highly reliable (Cronbach's alpha greater than 0.8 in both cases). The descriptive and inferential analyses were carried out with SPSS 25 software. Spearman's Rho was applied to corroborate the value of the relationships.

Findings Most of the students exhibited high levels of academic procrastination and anxiety. Inferential analysis showed a statistically significant ($p < 0.05$) but direct and weak relationship ($r = 0.171$) between academic procrastination and anxiety. State and trait anxiety were also evaluated and it was found that their relationship with academic procrastination was positive and weak (Pearson's r close to 0.25 in both cases).

Conclusion The constant practice of procrastinating behavior is a product of recurrent thoughts of postponing academic activities, which is part of the formation of the personality that the temperament and character of the individual.

Keywords Academic Procrastination; Anxiety; State Anxiety; Trait Anxiety; Early Childhood Education

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Introduction

It is undeniable that the increase of the pandemic in the world has damaged the activities that used to be carried out normally, including education, which has led to a significant increase in medical and psychological evasion [1]. In this sense, Wang *et al.* referred that confinement, described as the action of confinement without recent antecedents in the planet, generated an important impression of negative character in the human being [2]. In this regard, Marquina *et al.* observed that anxiety levels showed a progressive increase worldwide fact that has not been alien in front of the university task, since concerning the new contexts of interactivity that has been developing university students, procrastinating behavior was more constant regarding the inadequate use of technological resources without supervision or the absence of good habits of employment of the same, a fact that has compromised the psychological aspect of students and with it a series of difficulties with their professional training [3].

A study under the virtual context conducted in Chiclayo by Ruiz estimated the existence of a low association between academic procrastination and trait anxiety in a sample of 151 Psychology students with a marked medium level of procrastination and academic self-regulation in addition to a moderate level of trait state anxiety [4]. In Trujillo, Cubas set out to determine whether there was a relationship between academic procrastination and trait anxiety; specifically, in 102 students from a private university. The author found a relationship between the variables analyzed, calculating it through Pearson's coefficient. He obtained a value $r=0.557$ establishing as a conclusion that students presenting procrastinating behaviors show considerable anxiety [5]. Estrada and Mamani (2020) corroborated the relationship between academic procrastination and anxiety in 220 students of Education in Madre de Dios, where about 50% showed a high level of procrastination and almost 40%, moderate levels of anxiety, so they concluded that the greater the presence of procrastination, the higher the level of anxiety present among them [6].

In Lambayeque, Albújar & Castro determined the existence of an association between academic procrastination and anxiety in a group of 150 students, from which they concluded that, with procrastinating behavior, there is the presence of anxiety [7]. In Arequipa, Núñez & Cisneros sought to identify whether academic procrastination and addiction to social networks are related, for which they surveyed 220 individuals, finding that these aspects were directly related. Hence, they concluded that if people are highly addicted to social networks, their level of procrastination will also be high [8]. In the case of Lima, Gil & Botello evidenced that there was a relationship between academic

procrastination and anxiety in 290 university students in addition to 70% who presented high levels of anxiety product of procrastination activities being males more likely to develop procrastination behaviors which leads them to experience anxiety levels [9]. Marquina *et al.*, also in Lima, investigated the frequency of academic procrastination in 310 university students. It was shown that almost all of those evaluated carry out their academic activities just before handing them in, presenting high levels of procrastination. They concluded that the presence of procrastination is high; that is, they postpone their academic tasks for other priorities [10].

Regarding the above dilemma, Alonso *et al.* stated that approximately 10% of the world's population had anxiety levels; moreover, only about 30% of them have undergone psychotherapy [1]. Regarding China, Wang *et al.* conducted a study on the association between self-leadership and academic procrastination in 533 university students. They inferred that the practice of relative self-leadership strategies could reduce students' procrastination [2]. It seems that this problem has shown a considerable increase since Fiestas and Piazza mentioned that almost 15% of a study population showed anxiety and that a third of the total suffered from some psychological disorder some years ago [11]. On the other hand, the World Health Organization made known that nearly 300 million people suffer from anxiety on the planet. In the Peruvian case, Marquina *et al.* stated that academic procrastination and anxiety prompted a series of investigations linked to psychology and the university educational field to elucidate the causes and the alteration in mental health in university students [10].

Procrastination is considered the inclination to delay the pending to be accomplished; that is, it is the preference to postpone and procrastinate activities causing anxiety, where such inclination influences the daily chores, so it affects the personal and social growth of the individual [13]. The term procrastination is involved with the characteristic behavior of voluntarily postponing important activities [14]. Procrastination may occur with higher incidence when the individual is confronted with an activity that the individual considers aversive, which may generate unpleasant feelings or negative mood states such as anxiety [15]. From a clinical point of view, some authors have suggested that procrastination is attributable to low brain activity associated with the prefrontal, ventromedial and ventrolateral cortex [16, 17]. On the other hand, Calvet *et al.* stated that procrastination turns into a voluntary or involuntary irresponsible act that often harms the person's environment [18].

On the other hand, Matalinares *et al.* have defined academic procrastination as the progressive postponement of responsibilities, which have importance in academic performance and are

replaced by more insignificant activities; but, at the same time, they give pleasure for being carried in the shortest term and damaging mental stability [19]. The act of procrastination in academics is understood as procrastinating or ultimately leaving the responsibility of a task that happens due to losing value in practical tasks [20].

Academic self-regulation is conceptualized as a dynamic aspect where the learner sets goals to achieve them using different skills such as decision-making, motivational state, autonomy, emotion regulation, and cognitive stability [13]. Academic self-regulation, according to Garzón & Gil, is linked to the forms of learning that the individual has, not being limited to a specific educational program in the transmission of knowledge, establishing their goals, becoming aware of how they direct their learning, which allows them to achieve the goals set [21].

The postponement of activities is understood as a model of behavior with its main characteristic, the act of voluntarily postponing the realization of some activity that must be delivered at a specific time [13]. Trujillo & Noé focus on it as the tendency to postpone the assigned activities, which could lead to stages of anxiety on the person, by not establishing priorities in their activities and feeling that they do not achieve what they set out to do [22]. According to Ayala *et al.*, individuals who tend to procrastinate activities may present determining personality traits such as perfectionism, dependence, and impulsivity, making it a lifestyle [23].

On the other hand, according to Spielberger, anxiety is an unpleasant emotional reaction manifested in an external stimulus, being taken into account as frightening for the person, generating physiological and behavioral modifications [24]. Anxiety can also be referred to as a pattern of reactions that includes motor, cognitive and physiological factors whose reaction would be generated by internal and external stimuli to the individual [25-27]. According to Weinberg & Gould, anxiety comes to be an emotional state that harms the subject generating nervousness, fear, worrying thoughts, and loss of confidence.

Regarding anxiety, Spielberger stated two types, namely; (a) state anxiety, which is a situation or temporary emotional nature is presented in the individual, characterized by the subjectivity of feelings perceived consciously in a moment of tension and apprehension which generates overexcitation in the autonomic nervous system with variants depending on the occasion and magnitude and; (b) trait anxiety, which manifests itself as a relative anxious propensity about personality and perceptions of situations that the individual perceives as a threat in their daily lives, which according to the aforementioned author states that individuals who experience greater anxiety trait reflect greater anxiety state, as those with higher anxiety trait tend to visualize more

threatening events [24]. Other authors defined state anxiety as a cognitive moment related to negative thoughts about a particular event, characterized by subjective feelings [28]. Meanwhile, Weinberg & Gould stated that trait anxiety is related to personality, influencing behavior [29].

Instrument and Methods

The approach of the present study was quantitative, framed under the hypothetico-deductive method and the basic type. A non-experimental design of correlational level was used. The sample consisted of 196 students (13 males and 183 females) of the Early Childhood Education major at a university in Apurimac, whose ages ranged from 18 to 40 years in 2020.

Data collection was through surveys for which two questionnaires were used; the Academic Procrastination Scale (EPA) [5] and the State-Trait Anxiety Questionnaire (STAI) [16]. Both instruments were found to be highly reliable (Cronbach's alpha greater than 0.8 in both cases).

The descriptive and inferential analyses were carried out with SPSS 25 software. The statistical analysis of the data was non-parametric, so Spearman's Rho was applied to corroborate the value of the relationships.

Findings

84.2% of the sample had a high level of procrastination, 12.7% a medium level, and only 3.1% a low level. Regarding the dimensions, 86.7% of the students had high levels of academic self-regulation; 10.7%, medium levels; and 2.6%, a low level. On the other hand, 53.1% had high levels of procrastination; 32.1%, medium level, and 14.8%, low level (Table 1).

Table 1) The frequency of academic procrastination and its dimensions (Numbers in parentheses are percentage)

Levels	Academic procrastination	Academic Self-Regulation	Postponement of activities
Under	6 (3.1)	5 (2.6)	29 (14.8)
Middle	25 (12.7)	21 (10.7)	63 (32.1)
High	165 (84.2)	170 (86.7)	104 (53.1)

46.9% of the students showed a high level of anxiety; 19.9%, a level above average; 15.3%, a low level; 13.8% an average tendency level and only 4.1%, an average level. Regarding state anxiety, it was observed that 57.7% of the students have a high level; 13.3% are above average levels, and 11.1% have a low level; also, 10.2% have a tendency to average state anxiety, and 7.7% gave answers that placed it in the average. On the other hand, 45.4% have a high level of trait anxiety; 20.4%, a low level, also obtaining that 17.3% are in levels above the average; 14.3%, a tendency to the average of the levels of trait anxiety and only 2.6% are in the

Table 2) The frequency of anxiety and its dimensions (Numbers in parentheses are percentage)

Levels	Anxiety	State Anxiety	Trait Anxiety
Under	30 (15.3)	22 (11.1)	40 (20.4)
Average trend	27 (13.8)	20 (10.2)	28 (14.3)
Average	8 (4.1)	15 (7.7)	5 (2.6)
Over average	39 (19.9)	26 (13.3)	34 (17.3)
High	92 (46.9)	113 (57.7)	89 (45.4)

The correlation between academic procrastination and anxiety in Early Childhood Education students of a university in Apurimac was 0.171, showing a direct, positive but weak correlation ($p=0.017$). Likewise, the Spearman's Rho value obtained for the relationship between academic procrastination and state anxiety (0.248), as well as the relationship between procrastination and trait anxiety (0.249), was direct, significant ($p<0.05$) but weak among the aforementioned students.

Discussion

The descriptive statistics showed that most of the students presented high levels of academic procrastination regarding anxiety levels. Regarding the first specific objective, the results showed that 84.2% presented a high level and only 3.1%, a low level. Therefore, students would have constant thoughts of leaving academic activities to the last minute and thus represent these thoughts in procrastinating behaviors. In this regard, it is worth mentioning that there were congruencies with several authors [6-8, 10]. On the other hand, it is worth mentioning the coincidence with the study of Cubas, who found that 50% of his interviewees presented a moderate level and 27% a high level of academic procrastination [5].

The existence of a positive relationship ($p=0.017$), direct, but low (Spearman's Rho=0.171) between academic procrastination and anxiety in Early Childhood Education students at a university in Apurimac was confirmed. This finding was higher than that reported by Ruiz, who obtained a correlation between the variables of 0.068 [4]. On the other hand, the results reported by Estrada & Mamani were relatively higher since they indicated a significant correlation (Spearman's Rho=0.359 and $p=0.0001$) [6]. Also, Gil & Botello showed a relationship between these variables [9].

The anxiety levels found showed that 46.9% of the students presented a high level of anxiety followed by 19.9%, with an average level, with which it was found that more than half showed anxiety levels above the average, which would be showing feelings of uneasiness, tension or oppression as an emotional reaction. In a similar line is the study of Albújar & Castro, who stated that 76.7% of their participants showed high state anxiety levels; 90% of the students showed high levels of trait anxiety [7]. There was also a coincidence with the results of the

research of Gil & Botello, who indicated that 70% of students analyzed showed high levels of anxiety, with females being mainly affected [9].

The results showed a statistically significant correlation regarding the relationship between academic procrastination and state anxiety (Spearman's Rho=0.248). This result coincided with that reported by Albújar & Castro, who determined a direct and positive relationship (Pearson's $r=0.454$) between the aspects of academic procrastination and state anxiety [7].

It was determined that there was a statistically significant correlation between academic procrastination and trait anxiety. This result had a relatively minor coincidence with Cubas and Albújar & Castro. They showed a positive and significant relationship between academic procrastination and trait anxiety (Pearson's $r=0.557$ and 0.457 , respectively) [5, 7]. On the other hand, it is worth noting that the result shown in the present study differs from that concluded by Constantin *et al.*, who indicated that there was no statistically significant relationship between academic procrastination and trait anxiety [30].

Conclusion

The constant practice of procrastinating behavior is a product of recurrent thoughts of postponing academic activities, which is part of the formation of the personality that the temperament and character of the individual.

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