# Soft skills in academic procrastination in postgraduate students, COVID-19

*Habilidades blandas en la procrastinación académica en estudiantes de posgrado, COVID-19*

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## Abstract

**Objective**: the research was aimed at verifying the incidence of soft skills in academic procrastination. **Method**: the study was causal correlational, with a sample of 352 graduate students, who were evaluated with the CPA Academic Procrastination questionnaire and the Soft Skills questionnaire, which were submitted online in Google Forms, with prior informed consent. **Results**: The results evidenced an inverse association between soft skills and academic procrastination; furthermore, a low but significant incidence (-,369**) was found between the variables under study. **Conclusions**: A low but significant inverse incidence of the antecedent variable on the consequent variable was found.

**Keywords**: COVID-19, students, Skills, procrastination

## Resumen

**Objetivo**: la indagación estuvo orientada a determinar la influencia de las habilidades blandas en la procrastinación académica en estudiantes peruanos de posgrado en tiempos de pandemia. **Método**: El estudio fue correlacional causal, contó con una muestra de 352 estudiantes de posgrado, los que fueron evaluados con el cuestionario de procrastinación académica CPA y el cuestionario de habilidades blandas, que fueron enviado en línea en Google Forms, previo consentimiento informado. **Resultados**: los resultados evidenciaron una asociación inversa entre las habilidades blandas y la procrastinación académica; además, se halló una influencia baja pero significativa (-,369**) entre las variables en estudio. **Conclusiones**: Se halló una influencia inversa baja pero significativa de la variable antecedente sobre la consecuente.

**Palabras clave**: COVID-19, estudiantes, habilidades, procrastinación

## Introduction

Soft skills (SS) play an important role in the work of human beings, even more so in these times of pandemic, as they allow the establishment of interpersonal relationships through the use of pro-social and critical attitudes, assertive communication, leadership, among others, in order to achieve shared common goals, in order to achieve common shared objectives.[2,3,18]. Likewise, these are acquired at a personal level and in any social environment, being of an interdisciplinary nature[4,5].

The SS in education is closely related to the development of thinking that underlies self-efficacy and critical reflection, which are by-products of soft skills[6,7]. These skills involve the dimensions: Socio-emotional skills, professional ethics, problem-solving, teamwork, and communication skills which are essential in people's pro-social behaviours and attitudes[8].

However, they are not adequately cultivated; this is visualised in the inadequate leadership, lack of mission and vision, and lack of knowledge of their evaluation process, among others[9]. In the pandemic context, the use of technology limits the development of the HBs, leaving aside personal interrelationships[1], and the timely completion of tasks, leading to procrastination.

Academic procrastination (AP) is the voluntary delay of academic activities, which leads to negative consequences in studies, such as educational failure[10,11]. In this situation of procrastination, the self-conscious factor plays a transcendental role, leading the student to experience a feeling of displeasure and personal emptiness, due to fear of failure[11,14;15]. This leads to mental detriment and deficiencies in self-regulation[16] and deficiencies in academic self-regulation and procrastination and the Internet[17], due to the inadequate use of these computer media.

The research aimed to determine the influence of soft skills on academic procrastination in Peruvian postgraduate students in times of pandemic.

## Methodology

The causal correlational study had a population of 1 440 postgraduate students from a private university in Lima, Perú; its probability sample by convenience was made up of 352 students in different study cycles. The instruments used were: a Likert-type questionnaire of soft skills with 41 items[4], and a questionnaire of academic procrastination, Likert-type with 22 items[17]. These were sent to the students in Google Form via email. The data were coded according to the participants responses, and then statistically processed through correlation testing and ordinal logistic regression. Ethical criteria were assumed maintaining the confidentiality and anonymity of the participants that protects the right to identity and dignity[18].

## Results

Table 1, in the context of COVID-19, shows that there is a highly significant low inverse relationship (-,337**) between SS and AP with p<0.000. Likewise, there is evidence of a highly significant low negative relationship (-,369**) between socioemotional skills and AP, with p<0.000; likewise, there is a highly significant relationship of -,369** between professional ethics and AP, with p<0.000; furthermore, the relationship between problem solving and AP is low (-,391**) with p<0.000; on the other hand, there is evidence that the correlation between teamwork and AP is medium (-,599** ) with p<0.000. Finally, communication skills and academic procrastination have a low correlation (-,336**) that is highly significant. This implies that the higher the development of the SS and its dimensions, the lower the AP and vice versa.

**Table 1 Relationship between soft skills and their dimensions with procrastination**

| Spearman's Rho | | Academic Procrastination (AP) |
|---|---|---|
| Socio-Emotional Skills (SES) | Correlation coefficient | -,336** |
| | Sig. (bilateral) | 0.000 |
| Professional Ethics (PE) | Correlation coefficient | -,369** |
| | Sig. (bilateral) | 0.000 |
| Problem Solving (PS) | Correlation coefficient | -,391** |
| | Sig. (bilateral) | 0.000 |
| Teamwork (T) | Correlation coefficient | -,599** |
| | Sig. (bilateral) | 0.000 |
| Communication skills (CS) | Correlation coefficient | -,336** |
| | Sig. (bilateral) | 0.000 |
| Soft skills (SS) | Correlation coefficient | -,337** |
| | Sig. (bilateral) | 0.000 |
| | Sig. (bilateral) | |
| | N | 352 |

Table 2, to verify the level of influence of the SS on AP, shows an adequate model of influence with $J^2$ =48,032 (2), and a power of influence of 14,5%. The statistical model of influence of the dimensions of SS on AP, which shows the influence of problem solving on PA, shows an adequate $J^2$ =258,137(2), with Pseudo-$R^2$ de Nagelkerke=0,589 which explains the behaviour of the dependent variable at 58,9%. On the other hand, the contrast between socioemotional skills on AP shows a $J^2$ =258,137(2) with p<0.000 and Pseudo-$R^2$ by Nagelkerke=0,142 indicating that the behaviour of the dependent variable at 14,2%. When contrasting professional ethics on AP we have $J^2$ =66,709 (2) with p<0.000 and Pseudo-$R^2$ of Nagelkerke=0,196 which implies that the behaviour of AP reaches 19,6%. Likewise, the contrast of teamwork on AP is observed $J^2$ =164,683(2) with p<0.000 and Nagelkerke's Pseudo-$R^2$ =0,423 which explains that the behaviour of AP as a function of teamwork reaches 42,3%. Finally, the contrast of communicative skills on AP shows $J^2$ =47,033(2) with p<0.000 and Pseudo-$R^2$ of Nagelkerke=0,142 which implies that the behaviour of SS on AP reaches 14,2%. Pseudo-$R^2$ is expected to be close to 1, which is not the case in any of the cases, so it is assumed that academic procrastination is not only influenced by soft skills.

**Table 2 Causal relationship of academic procrastination (AP) as a function of soft skills (SS) and their dimensions.**

| Related variables | Model fit information | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Logarithm of the likelihood-2 | | Chi-square | gl | Sig. | Pseudo R-squared | | |
| | Model | | | | | Cox and Snell | Nagelkerke | McFadden |
| | Intersection only | Final | | | | | | |
| SS and AP | 195,426 | 147,393 | 48,032 | | ,000 | ,128 | ,145 | ,064 |
| PS and AP | 341,849 | 83,712 | 258,137 | | ,000 | ,520 | , 589 | ,343 |
| SES and AP | 181,229 | 134,196 | 47,033 | | ,000 | ,125 | ,142 | ,062 |
| PE and AP | 164,712 | 98,003 | 66,709 | | ,000 | ,173 | ,196 | ,089 |
| T and PA | 275,253 | 110,570 | 164,683 | | ,000 | , 374 | ,423 | ,219 |
| CS and AP | 181,229 | 134,196 | 47,033 | | ,000 | ,125 | ,142 | ,062 |
| Linking function: Logit. | | | | | | | | |

## Discussion

The analysis of the relationship between soft skills and academic procrastination, in the context of pandemic, shows a low significant inverse correlation; this is corroborated by research where SS should be developed from an early age in order to balance SS and hard; curbing the increase in AP[21]. Furthermore, the influence of soft skills on academic procrastination was verified. The SS imply taking into account different constructs; among them, emotional intelligence, capacity to think creatively and to assume decisions in the solution of problems[19].

Likewise, the association between Socio-emotional skills and AP showed an inverse and significant correlation; this result is congruent with the lack of motivation and difficulty in resolving conflicts[22]. There is also evidence of the influence of the Socio-emotional skills on AP, with socioemotional skills being considered basic, both at work and in one's personal life[21,22].

The results show a low significant relationship between professional ethics and AP; it should be noted that academic procrastination should be counteracted with the development of ethical norms and values[4,25,24] . On the other hand, there is evidence of the influence of professional ethics on AP, which is related to another study that found an association with ethical social behaviour[26].

A low inverse relationship was also found between communication skills and AP, if a person has the ability to communicate effectively, he/she is unlikely to procrastinate[26,27]. On the other hand, it was found that the communication skills influence the AP; therefore, a university student who develops an adequate communication skills will allow the members of the group to express their opinions; in this way, they will feel motivated and will avoid procrastination[4,28].

Furthermore, there is evidence that the correlation teamwork and AP is medium; it should be noted that teamwork is the cooperative task performed by people working together[4]. Likewise, there is an influence of teamwork on AP; in other words, there is synergy between the members of a team, where they assume and execute their tasks within the established time, avoiding procrastination[28].

## Conclusions

Soft skills and academic procrastination correlate inversely, as perceived by postgraduate students at a private university in Lima, during the COVID-19 pandemic, which means that the greater the development of SS, the lower the AP presented by the students. Likewise, the influence of SS on AP was found, assuming that this variable is not only influenced by SS, but that there are other variables that explain its behaviour.

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