

# Generation of soft skills and its relationship with the social interaction of the individual

## Generación de competencias blandas y su relación con la interacción social del individuo

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### SUMMARY

**Introduction:** *The generation of soft skills in individuals is closely linked to their social development, which can be analyzed in three fundamental stages: the family, formal education, and labor market insertion. The family represents the first space of socialization, where initial skills are acquired that facilitate the transition to academic training, a stage that culminates in higher education and, in turn, serves as a bridge to the world of work, where the individual completes their training process. The research aimed to determine the impact of each educational stage on the development*

*of soft skills. Materials and methods:* A study was conducted with 385 higher education students, employing statistical cluster sampling and a non-experimental, quantitative approach. The data was processed using SPSS version 26 software. **Results:** The results show that individuals with work experience have high levels of development in socioemotional skills, with 64 % of respondents reporting positive experiences regarding their development. In contrast, participants who have not entered the labor market exhibit significantly lower participation rates, with 19 % in problem-solving. **Conclusion:** The family has a limited influence on the formation of soft skills, while formal education plays a more relevant role in aspects such as professional ethics. However, work experience is the determining factor, evidenced by the higher percentage of positive responses in those who have had contact with the world of work. This highlights the importance of educational strategies that integrate academic training with practical experiences, guaranteeing a better preparation of students for their insertion into the labor market.

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### RESUMEN

**Introducción:** *La generación de competencias blandas en el individuo está estrechamente ligada a su desarrollo social, el cual puede analizarse en tres etapas fundamentales: la familia, la educación formal y la inserción laboral. La familia representa el*

primer espacio de socialización, en el que se adquieren habilidades iniciales que facilitan la transición hacia la formación académica, etapa que culmina con la educación superior y que, a su vez, sirve como puente de entrada al mundo laboral, donde el individuo completa su proceso formativo. El objetivo fue identificar la influencia de cada etapa formativa en la generación de competencias blandas. **Materiales y métodos:** Se realizó un estudio con 385 estudiantes de educación superior, utilizando un muestreo estadístico por conglomerados y un enfoque cuantitativo no experimental. Los datos fueron procesados mediante el software SPSS versión 26. **Resultados:** Los resultados muestran que los individuos con experiencia laboral presentan altos niveles de desarrollo en habilidades socioemocionales, con un 64 % de respuestas positivas en torno a su apropiación. En contraste, los participantes que no han ingresado al mercado laboral muestran una participación significativamente menor, con un 19% en resolución de problemas. **Conclusión:** La familia tiene una influencia limitada en la formación de competencias blandas, mientras que la educación formal juega un papel más relevante en aspectos como la ética profesional. Sin embargo, la experiencia laboral es el factor determinante, evidenciado en el mayor porcentaje de respuestas positivas en quienes han tenido contacto con el mundo del trabajo. Esto resalta la importancia de estrategias educativas que integren la formación académica con experiencias prácticas, garantizando una mejor preparación de los estudiantes para su inserción laboral.

**Palabras clave:** Competencias blandas, educación superior, formación profesional, empleabilidad.

INTRODUCTION

The development of soft skills, as observed through an individual’s actions in society, can be examined from three key areas: family, education, and work (1). The first as the core of the individual’s training in his primary relationship, developing in him skills focused on his social performance (2), facilitating his incursion into subsequent processes such as training at initial, primary, secondary and higher levels, the latter constitutes the entrance to the economic field (3), space where technical knowledge or hard skills necessary for their qualification and professional performance are acquired, in order to generate positive changes in their environment (4), leaving aside the being, but the labor field demands that he must also have skills focused on aspects of

his personality, being a deficiency identified by employers and students (5), the work stage as the pinnacle of his training, in which ethics is shown as the pinnacle of this stage (6), the individual must have skills focused on productivity, starting from the socio-emotional to teamwork to mention a few (7), differentiating himself positively to the aspirants that the previous ones have (8).

The model in Figure 1 illustrates the expected relationship between the individual’s interaction stages and the development of soft skills.

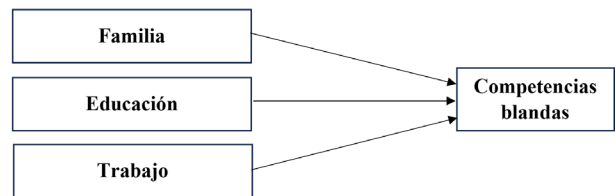


Figure 1. Soft Skills training, **Source:** Own elaboration based on 2, 5, 8.

Higher education constitutes a great training field for future professionals who will participate in the productive field as collaborators or entrepreneurs (9), generating in it a series of technical knowledge focused on their area of study, identified as hard skills, in some aspects it is necessary to complement the previous ones with soft skills (10), necessary to facilitate their incorporation into the productive sector.

Questioning directed from students to institutions, keeping in mind the current direction that employability and entrepreneurship are taking, thanks to the incorporation of technology (11), generating a disconnection between students and their training in hard skills and the final results in terms of income generation or economic stability (12), identifying on their part the need or requirement that their academic instruction not only be focused on the conceptual or content (13). Soft skills involve analyzing aspects related to the individual’s personality, which is developed and strengthened within their primary interaction group, in this case, the family (14). Leading to identifying what work higher education really does in the generation of

these skills, is its role really that of generator or molder (15), a concern that arises from the student, from the questioning between training and their successful entry into the productive sector (16), questioning higher education institutions and their role, do they really identify the need or are they far from it.

Based on the above, this study aimed to investigate the impact of each educational stage on the development of soft skills. This research presents an objective to identify the stage of greatest incidence in the development of soft skills, assuming that the population consists of students and considering that the analysis begins with how the participant perceives their training on the subject.

## MATERIALS AND METHOD

A Likert scale will be used to facilitate the final analysis of the information (17) and to collect the necessary data to achieve the research objective.

The object of study focuses on the students of the business administration program of the national school of sport, with a sample of 385 students, a stratified probability sampling was chosen, taking into account the different levels of training or semesters that the program has, based on the observation of the population from homogeneous subgroups, allowing to have representativeness of each one with respect to the total population (18). The investigation is a quantitative study (19), which involves collecting information in a structured manner for later mathematical and statistical analysis (20). The instrument used by Díaz Quezada and Sanhueza Cartes (21) was adapted in his research called "Elaboration and Validation of an Evaluative Instrument to Monitor the Acquisition of Soft Skills in Undergraduate Students", initially validated by the authors in its content by eight experts on the subject, all were university academics, with 85 % congruence in the responses, through the use of a Likert scale with a reliability index of 95 % and a margin of error of 5 %. To determine its reliability for the present investigation the Cronbach coefficient was used, obtaining 0.94, in terms of relationship to its consistency an excellent result is identified, keeping in mind the need to evaluate the

competencies from five groups. The evaluation of the five groups yielded the following results: professional ethics (0.812), problem-solving (0.827), teamwork (0.773), communication skills (0.755), and socio-emotional skills (0.839).

The questions grouped into groups of competencies related to socio-emotional skills, problem solving and professional ethics obtain results that are considered good according to the coefficient rating scale, when reviewing communication skills and teamwork, the result is acceptable, but not questionable (22), generating the necessary confidence in the researcher for its application, keeping in mind that the results were analyzed with the pilot test carried out on 304 students chosen at random from different training semesters, generating optimism in the continuity of the research.

Taking into account the amount of the total population, which amounts 485 students distributed in nine semesters, both in day and night shifts, the distribution of the sample was carried out by means of a stratified probabilistic method, seeking to obtain homogeneous groups in a random and representative way (23), seeking the representative participation of each stratum or semester with the total population, it is defined by taking half of the students of each semester or stratum as a sampling fraction from a proportionate way (24), allowing to obtain the sample in the following way, first semester with the participation of 63 students, second with 52, third with 49, fourth 47, fifth 37, sixth 42, seventh 36, eighth 32 and ninth 27.

Once the sample has been determined, the data collection tool was transferred to the Google Forms application, based on the availability of email addresses from the previous company that are accessible to students and the institution. Data was then collected classroom by classroom for each session, using assistive technologies such as the development of QR codes and the cell phones of each student.

To identify the stage of participants' social relationships, it was necessary to determine whether they had work experience and whether their previous experience was stable, showing how participation increased over the semester, while the opposite phenomenon occurred with inexperience, decreasing as training progressed.

## GENERATION OF SOFT SKILLS

The operationalization of variables was based on adapting the base research instrument, taken from Díaz Quezada and Sanhueza Cartes (21), which identified five competencies as main variables, each with four indicators that demonstrated its scope. Professional ethics having as indicators punctuality, initiative, compliance and confidence; problem solving with logic, mental agility, analysis and organization; Teamwork with listening, following orders, individual work, and respect; Communication skills with verbal expression, written expression, active listening, transmission of the message and socio-emotional skills with empathy, control of emotions, resilience and decision making and the semesters of training such as secondary school, identified from first to ninth, from this perspective the relationship of the semesters with

the formation of soft skills, allowing to identify aspects linked to the student's evolution or the progress in their training, posing the last semester of training as the step to the labor field.

Starting from a null hypothesis where the incorporation of soft skills in the student is equal to independent of the moment of social interaction and an alternative hypothesis, where differences are identified between what is stated by the null hypothesis and the reality of the participant, from the need to evaluate the previous ones, the use of covariance was proposed, allowing to identify the relationship between both from the responses of each group of participants, with the variable X being the students and the variable Y the employers, presenting the following relationship hypotheses (Figure 2).

<b>H0:</b> Existe relacion entre X y Y
<b>H1:</b> No Existe Relacion entre X y Y
<b>Prueba de Relacion</b>
<b>Parametrica :</b> Covarianza
<b>Criterio de Decision:</b>
<b>COV</b> Positiva se acepta H0
<b>COV</b> Negativa se rechaza H0 y se acepta H1

Figure 2. Relationship hypothesis. Source: Own elaboration based on (17).

## RESULTS

As shown in Table 1, the sample was divided into four groups: those without work experience, associated with the family as a generator of soft skills; those without stable work experience, with training being the source of generation; those who combine their work with their training, showing a shift between family, training and work; and those with stable work experience but who are unemployed.

Based on the results, it was proposed to identify the incorporation of soft skills in each of the study groups, showing in the group of

people who combine their training with work a large concentration of positive responses around socio-emotional skills with 64 %, followed by teamwork with 59 %, an interesting phenomenon when comparing the previous ones in the group of participants without work experience, the differences are abysmal, for the first group only 3 % is achieved. For the second 13 % (Table 2).

To help interpret the differences between each group, the gaps are presented graphically (Figure 3), showing a significant difference between people with work experience and the other groups. Additionally, in certain competencies, the similarity between individuals with unstable work experience is evident.

Table 1. Employment relationship with the current semester

	Students who have not had work experience	Students who have not had stable work experience	Student who combines his training with work	Student who has had stable work experience but is currently unemployed
I	52.60 %	41.70 %	2.30 %	3.40 %
II	47.30 %	32.70 %	10.70 %	9.30 %
III	39.30 %	37.20 %	15.20 %	8.30 %
IV	38.30 %	32.30 %	17.20 %	12.20 %
V	29.40 %	30.30 %	29.20 %	11.10 %
VI	19.30 %	27.20 %	43.20 %	11.20 %
VII	9.40 %	22.80 %	49.40 %	18.40 %
VIII	2.60 %	4.70 %	69.40 %	23.30 %
IX	1.20 %	6.60 %	72.30 %	19.90 %

Source: Own elaboration based on research results.

Table 2. Relationship between economic activity and soft skills

	Professional Ethics	Troubleshooting	Teamwork	Communication Skills	Socio-Emotional Skills
Student who has not had stable work experience	13%	20%	14%	14%	18%
Student who has had stable work experience, but is currently unemployed	20%	18%	19%	14%	18%
Student who combines his training with his work	64%	53%	48%	59%	51%
Student who has not had work experience	3%	9%	19%	13%	13%

Source: Own elaboration based on research results

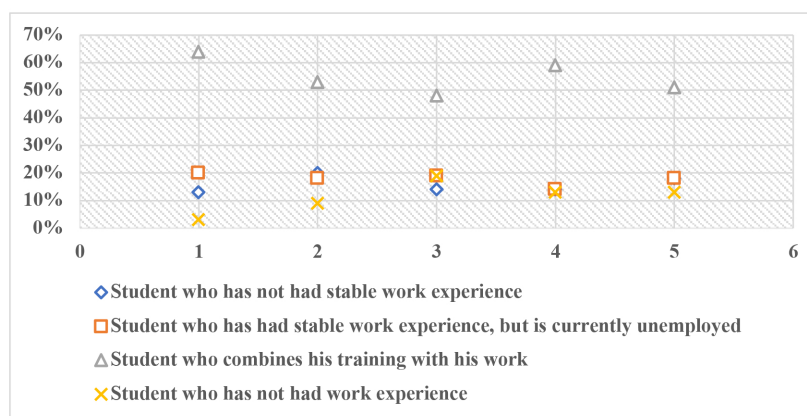


Figure 3. Gaps between economic activities. Source: Own elaboration based on research results.

The relationship between both hypotheses was carried out between the average of the grades provided by each group of participants around each of the study competencies from the covariance, identifying positive relationships against the socio-emotional ones with 0.053, problem solving with 0.038 and the communicative ones with 0.034, but it shows a negative way ethics with -0.032 and teamwork with -0.013. A similar result is observed around the consolidated one, with -0.06 indicating a negative relationship between the qualifications of the students and those granted by the employers, thereby validating the alternative hypothesis. This is noteworthy, as the latter measures the relationship between the qualifications generated by each participating group and the competencies being studied.

### DISCUSSION

When analyzing the generation of soft skills through training, the research results enable us to identify how some can be developed by continuing with the current form of instruction, making it necessary to integrate activities that facilitate their acquisition. Gottschalk (26) expressed the need for their incorporation for immersion in the work field. Marrero Sánchez et al. (27) associate the above with the personal development of the individual, with the academic field serving as a mediator, as stated by Ortega Santos (28), illustrating how training in the professional field should contribute to the development of soft skills in its students.

Starting from a constructivist conceptualization, Bolaño Muñoz (29) states that knowledge is the result of interaction with the environment and the interpretation that the individual generates from it in a dynamic process, demonstrating an individual eager to understand their environment and take ownership of it. Revero Sáenz (30) states that this is not limited to copying, he reconstructs from what he has experienced, showing how the learning process must become an active process, in which the intervention of the student generates more and more participation, not limited only to the contents, with experimentation or interaction being vital in the construction of this (31), an aspect analyzed in the curriculum of the program which does not include the participation of the

trainee, limiting experimentation or interaction beyond the content.

The research is based on the hypothesis stated that the generation of soft skills is generated from the different interactions of the individual with his environment (32), questioning the training and generation of soft skills, supported by Campos (13), from the identification of education not only as an instrument of transmission of concepts and contents, starting from the mission in the higher stage in the incorporation of technical knowledge to the student that allows to obtain the certification as a professional in an area of expertise with the hope of achieving his insertion into the economic field from the above, this stage being necessary in the development of the individual (33), which continues with the search for a job vacancy or the possibility of practicing his profession (34), identifying the need to have skills beyond hard skills to be able to successfully conclude this stage (35), as could be determined by having the opinion of employers around the subject. Our results reveal a negative covariance, thereby discarding the hypothesis that generation can only occur in a single moment of interaction. This finding contradicts the opposite path suggested by Ortega (36), who identified previous instances of their economic activity.

### CONCLUSIONS

This research becomes the starting point for future research on soft skills and how they are generated, bearing in mind that the emergence of technology leads to the development of new skills, making it necessary to go beyond training and incorporate employers more actively into research, from the proposition or experimentation that allows generating the necessary connection between academia and the productive sector around a general need: the employability of young people.

The development of soft skills is a process that is nurtured by the interaction of the individual with their environment, demonstrating how the family, to a lesser extent, influences the individual's acquisition of skills such as teamwork and problem-solving. In the case of training skills, such as ethics, it falls on the formal training of the individual. Still, work increases the percentages

of positive responses by percentages higher than 50 %, concluding that work is the greatest source of generating soft skills and the peak stage of an individual's training.

Higher education is the peak stage for individuals before entering the workforce. Therefore, greater participation in developing soft skills is necessary. This task should not be solely the responsibility of the workforce, as it can lead to a lack of attraction for newly graduated workers in the productive sector, negatively impacting employment rates.

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