



## **Master Plan Of Suppliers In Pharmacy, For The Supply Of Supplies**

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### **Abstract**

Business organizations must design a master plan, since, this document will allow to establish various strategies, as well as, purposes and goals that the business structure wants to achieve, in this sense, a planning with defined objectives is outlined to short, medium and long periods of time, the planning of the development of activities related to suppliers, admits to reduce costs, increase productivity or profitability, hence, it is essential to collect data regarding suppliers, such as greater internal contribution in the supply of the pharmacy, in addition, of contribution in the improvement of the distribution of inputs and quality of the same, it is proposed as a general objective: to make a review of the master plan of suppliers in pharmacy more effective for the supply of medicines, as well as, supplies or pharmaceutical products. As for, the methodology of the inquiry will be based on the documentary method, through the management of worksheets, implementing the hypothetical-deductive method. In this sense, master plan which must contain the purposes or objectives, plans or programs and premeditated that consent to carry out a planning, as well as, extend the distribution of the company in terms of devices, assets and subjects for the progress of a logistics management, among the advantages of a master plan are considered primarily achievement of the purposes set out in a clear and projected manner, also, programming and control of movements mainly the optimization of commercial relationships with customers and suppliers. In short, in the management of suppliers it is essential to take into account that they are obliged to be reliable and accredited by the corresponding entities, since they must have health documentation, effectively perform specific measures, offer quality products and with high standards under appropriate environments, which must supply the articles during the time demanded.

**Keywords:** Pharmacy; Medications; Objectives; Planning; Suppliers.

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## **1. Introduction**

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All organizations must design a master plan, since, this document will allow to establish various strategies, as well as, purposes and goals that the business structure wants to achieve, in this sense, a planning with defined objectives is outlined to periods of short, medium and long times; where, among the aspects to be considered is the budget and the operational flowchart of all activities, however, it is necessary to note that each master plan is different, has standards, requirements and levels adapted to the needs of the company. Likewise, during the realization of the master plan it is essential to elaborate a projection of each of the stages, updating the existing actions, to examine the progress presented, at the same time, to propose strategies that solve the difficulties, as well as, needs observed. (Noain, 2017)

In this sense, the negotiation process is immersed in the participation of representatives of the pharmaceutical industry, as well as drug distributors; because, suppliers supply products or services, in addition, of inputs for the effective operation of the pharmacy. That is why the planning of the development of activities related to suppliers, allows to reduce costs, increase productivity or profitability, also, greater participation in the sector and in the various markets, therefore, the increase in the profits of the pharmacy as a business organization. (Chaman & Salas, 2020)

Hence, the following question arises: What would be the most effective master plan of pharmacy providers when it comes to supplying medicines, as well as pharmaceutical supplies or products?

It can be pointed out that the development of the process is a reasonable chain of actions that aims to change the aspects related to the access and exit of products from the pharmacy warehouse, since this rotation of merchandise is the fundamental element that each establishment must consider when carrying out actions of acquisition of products, as well as, when deploying some action, specifically, during the procedure of selection of suppliers, necessary in the course of the supply of medicines and pharmaceutical products. Hence, it is essential to collect data regarding suppliers, such as greater internal contribution in the supply of the pharmacy, in addition, contribution in the improvement of the distribution of inputs and quality of them. (Andrade, 2018)

In another order of ideas, the organization of the operations of a pharmaceutical establishment, as well as its control, implies examining the operation of the inventory, inputs, resources, among others, whose integration within a single process determines the dynamics of the actions through the programming of methodologies with the purpose of carrying out and optimizing the development of the processes involved in the acquisition and distribution of medicines to obtain excellent profitability. In this way, organizational aspects are highlighted with reference to, marketing, customer assistance, suppliers, competitiveness, organizational disposition; among others, which leads to the development of a master plan in conjunction with the outline of the process map and the respective procedures manual. (Paredes, 2019)

Simultaneously, through the analysis of previous research related to the subject, based on the search for solutions to the lack of management of suppliers, the general objective is to propose the development of a master plan of suppliers in pharmacy for the supply of medicines, as well as supplies or pharmaceutical products. Also, as specific objectives: *\*Describe the main aspects of a master plan of suppliers in pharmacy, for the optimization of the process of acquisition of inputs, \*Classify the types of suppliers of pharmaceutical products according to their functionality within the pharmaceutical establishment, \*Demonstrate the usefulness of the master plan of suppliers in pharmacy for the supply of products of pharmaceutical origin.*

In this way, most business structures continuously carry out a redesign of their master plan for the pharmacy, since it admits to achieving a high competitiveness in the market which covers, therefore, allows to examine the organizational context of the pharmacy, considering the dynamics of the environment, whose analysis will allow to make a diagnosis that describes the reality managing to establish convenient tactics according to the needs, (Herrera, 2019). Therefore, the following conjecture is exhibited: any business organization such as pharmacies, must design a master plan of suppliers that allows it to achieve its purposes and purposes outlined in the future, which can have a duration of short, medium and long term, in reference to its size, as well as, the geographical space that it addresses where the fulfillment of activities for the operation of the maintenance of the stock of medicines is at a higher level.

In this perspective, the development of a master plan requires data or information (qualitative and quantitative) as a primary resource; in addition, the support of technological instruments, such as technological applications, mathematical logic, statistics (regression analysis) and averages, among others, as regards, the activities to be carried out for the design of the master plan with reference to suppliers in pharmaceutical establishments, it is essential to carry out the strategic plan of the business organization (pharmacy), where, the mission, vision and organizational objectives must be shown, in conjunction with the internal and external analysis. (Torres, 2019)

At the same time, the construction of corporate strategies that address the problem, through the construction of the SWOT matrix; determining the period of time to be executed each of the purposes and the dynamics of the actions to be carried out, then identifying the market to which the products or articles are directed, forecasting the demand according to the behavior of the consumer, also, the market trend; finally, analyze the costs of operations, at the same time, prepare a budget by area to link it at a general level. (Duque, 2020)

## **2. Method**

As for, the methodology of the inquiry will be based on the documentary method, since, the research is placed under this type, because, through a bibliographic review, the information is stored from contents, materials, novelties, in correspondence with the problem from other frequent and specific points of view. Likewise, together worksheets will be handled, where, the data obtained from preliminary projects in relation to the subject will be synthesized, through the use of the file in which the information is examined so that it is trusted, from this node, reduce time, (Baena, 2017). Likewise, the hypothetical-deductive method will be implemented, since a hypothesis based on concurrent events is built at the beginning, as well as conceiving the effects or influences, which, in turn, will be demonstrated or unequivocal through experience. (Behar, 2008)

## **3. Results**

### *3.1. The master Plan.*

Business organizations make a proposal of a strategic nature called a master plan which must contain the purposes or objectives, plans or programs and premeditated that consent to carry out a planning, as well as extend the distribution of the company in terms of devices, assets and subjects for the progress of a logistics management (Chávez, 2018). In this sense, fundamental aspects such as: study of the environment, in addition to establishing the mission, vision and objectives of the organization, at the same time, unification of the management spaces of the organization with logistics management

(customer service, inventory, purchasing, transport and storage), finally, the control and evaluation of the results, must be taken into account, on the other hand, the master plan allows a company to obtain goals and purposes in the short, medium and long period of time, as well as generates the optimization of relationships with customers, since it takes into account the needs of active participants in the logistics chain. (Triviño, 2020)

It is important to note that, among the advantages of a master plan, they are considered primarily the achievement of the purposes set out in a clear and projected manner, as well as programming and control of logistics movements, relevant disbursement of orders, responsibility in the acquisition of results, illustration of the procedures of entry and exit in the logistics systematizations, maintenance of machines and devices in recommended conditions, as well as optimization of commercial relationships with customers and suppliers. (Vilca & Vilca, 2019)

In reference to, the different activities that correspond to be processed with the intention of promoting the logistics area, is attributed to a method deployed by an adherent of goods and services such as: subjects, capital, research and raw material, which are related to each other, in addition to being operated as a fluid dynamic procedure, in order to, achieve the purposes set out in the mission and vision of the organization, where they are areas with a high level of analysis, supply scheduling, purchase orders, agreement of product prices, management of sellers, stocks and inventory management. (Rodríguez, 2017)

### 3.2. *Pharmaceutical sector.*

It should be noted that the pharmaceutical sector has continuously experienced transformations during the last years, which include the progress of new products, as well as the innovation of the same, in addition, of the multiplicity of the market, therefore, the incursion of new agents; at the same time, the manufacture of high quality products has driven the industry to increase its capacity for competition, as well as to promote agreements for the protection of intellectual property and the expiration of patents. Another significant feature is to provide at the national level on the occasion of opening new markets, including that of generic drugs offering competitive prices and universal quality schemes. Today, the manufacture of medicines at the national level is relative in the territory and has become an attraction for multinationals. (González, 2017)

It should be considered, on the other hand, that the pharmaceutical service is established as an essential column in patient care, so that the activities generate the development of clear, standard and registered procedures, in this way, provide an adequate service adjusted to the needs, also, offer goods and services, likewise, products efficiently through the use of inputs, (Ruiz, 2019). Indeed, within the competences of offering primary care in the health environment, there is the dispensing of medicines, therefore, it is essential to carry out dynamic actions where pharmacy personnel exhibit high degrees of professional ethics, providing the patient with timely information related to all operations and procedures with medicines such as administration, preservation, unfavorable resistance, as well as, of the completion of the treatment determined by the attending physician. (Pasmíño & Ríos, 2019)

In this way, it is necessary after the analysis of the real context, the processes of the pharmaceutical service are standardized, allowing to forge a management manual adjusted to the new conditions, in order to respond in an adequate and assertive way to the requirements of the users, (Valderrama, 2021). However, it is highlighted that among the main indications of inefficiency of pharmaceutical establishments is the difficulties that arise in the supply chain, since there are too many in inventories,

as well as the breakdown of marketing due to lack of product or merchandise, late cancellations, delay in the manufacturing scheme, the absence of compounds and raw material, the lack of agreement between the negotiations, the degree of assistance in the attention of the clients, the continuous movement of the personnel, the absence of systematization in the operations or processes, the illiquidity and the cost of human talent, among others. (Torres & Calsina, 2020)

### 3.3. *Supply of pharmaceutical inputs.*

In other words, the absence of supply of medicines generates not only consequences at the financial level, but also at the hospital and humanistic levels, which are harmful to patients, also, forges in the same way the obligation of responsibility attached to workers in the health sector, (Rubén, Castro, Molinero, & Acosta, 2020). Hence, at present, the pharmaceutical sector exhibits the development of high levels in the provision of the service adapted to the needs of patients, since, most of the time it is essential to have joint planning operations between the administrators of the pharmaceutical establishment and the suppliers, in this way, the availability of medicines will be guaranteed, as well as, products in the quantities requested, in addition, emphasis is placed on the real management of information between the pharmacy – supplier, in order to have assertive forecasts. (Reyes & Dimas, 2021)

Likewise, among the elements to be considered to meet the expectations of patients or customers, is the decrease in the effect caused by the increase in out-of-stock products, a situation derived by error in the planning of one of the two parties, (pharmacy – supplier), therefore, it is essential to strengthen the activities that promote the planning processes, in order to guarantee the adequate flow of communication between the dynamic supplier and the pharmaceutical establishment, it is therefore imperative to jointly implement an optimal supply. (Dávila, 2020)

Hence, the distribution and commercialization of pharmaceutical products is essentially based on the adequate and real registration of inventories, guaranteeing the movement or flow of them in their stock through their entry and exit of goods, in this sense, the improvement actions that generate the efficient control of this dynamic, allow the exact quantity of stocks to be determined, (Ulloa, 2020). Another significant feature to be taken into account when selecting suppliers, is undoubtedly the quality of the product which is a fundamental requirement to certify the validity and safety of a drug, therefore, the pharmaceutical industry is responsible for carrying out actions that ensure that the medicines produced conform to the intended use, in addition, comply with the requirements provided for its purchase – sale. (Díaz, 2018)

### 3.4. *Logistics process.*

In accordance with the above, logistics has a connection between the strategies developed in conjunction with the activities during the distribution process, which is essentially aimed at optimizing the flow in the delivery of pharmaceutical products, as well as the occurrence of merchandise shortages through standards and instruments used in operations related to the logistics of the marketing process of pharmaceutical articles in the different pharmacy establishments. (López, Muñoz, & Vázquez, 2017)

At the same time, the application of schemes, as well as, tactics that support the consignment of medicines through a master plan of optimization between the pharmacy and the provider where the needs of the patient are met, therefore, it is essential to strengthen such planning, therefore, the continuous review of the database of providers, Frequent customers, drugs with high demand, in turn,

supply management programs and their acquisition will allow maintenance and competitiveness in the market. (Tuarez, 2020)

Obviously, the actions or activities related to logistics including the acquisition of inputs, raw materials, machines, stock, transport, as well as operations related to the optimal functioning of the pharmacy are established as a priority according to the execution in accordance with the provisions of the master plan, (Rizo, 2017). In this sense, the master plan germinates from the programming or planning of the commercialization of the products of the business organizations and, therefore, from the strategic plan, where, the essential requirements for the optimal, effective and ideal operation are established, in the course of a period of time, that is why, it is based on the demand of the clients, as well as, in the projections given by the commercialization. (Marqués, Negrin, Hernández, Nogueira, & Medina, 2017)

Therefore, the continuous analysis of the areas of planning, production control, as well as the service levels offered by the business organization is directly linked to the marketing area, specifically, with the sales area, which is why the requirement arises to develop an appropriate production planning and control system, in other words, the progress of the Master Plan, Material Requirements Plan and the Approximate Capacity Plan, which together form the primary instruments for the performance of the product request that increases the degree of service to the sales area in the structures dedicated to the distribution of products. (Huamán, 2018)

In this way, the outline of a business plan allows to deploy the economic viability, as well as the financial one in addition to the approval of implementing a specialized pharmacy for patients with a specific condition or disease, therefore, differentiated drugs are distributed, complemented with pharmacotherapeutic follow-up, and nutrition plans, (Prieto, 2021). It should be noted that to determine the effectiveness, the analysis of external and internal factors of the pharmaceutical industry is carried out, through the review of the competitive advantages exposed in a SWOT matrix to achieve the approach of corporate and strategic purposes, likewise, it is essential to carry out an economic and financial study; in this way, quantify the total investment, as well as the financing, and exhibit the financial indicators and their exhaustive study. (Canales & Flores, 2019)

In this sense, it is understood that pharmaceutical companies are conducive to deploying a Marketing Plan for the Pharmacy Network, through the administration of creative and innovative teams for the increase of economic purposes, for this, it is essential to inquire about the functioning of the market, examine the context of the commercial sector, SWOT analysis, to establish the Weaknesses, Threats, Strengths and Opportunities. In this sense, among the priorities should be considered the degree of loyalty of buyers; gradual perspective of the pharmacies of the Network and the complacency of the users before the surveillance or care. (Sánchez, 2020)

### 3.5. *Supplier Management.*

Finally, in relation to the management of suppliers it is essential to take into account that they must be reliable and authorized by the corresponding entities, since they must have a health credential, comply with specific measures, provide quality products and with high standards under appropriate conditions, which must supply the articles during the required time, dates, quantities and environments, in this sense, the pharmaceutical establishment is responsible for preparing a list of suppliers with verified and updated data, where, the evaluation of their performance must be reviewed, this database at the same time, must contain the turnover rate that has the products that it offers. (Vilca & Vilca, 2019)

On the other hand, it is necessary to carry out a classification of the suppliers, in which, the basic suppliers are exposed, identified as those who affirm the permanence, as well as, the functionality of the activities of the pharmacy, taking into account, the primary objectives of a pharmacy such as marketing, dispensing of medicines, in addition to providing the services of pharmaceutical care, therefore, they provide a high assortment of medicines, for pharmacy and sanitary items, emphasis is placed on the fact that they are suppliers who maintain a dynamic, continuous and permanent relationship; in second place are the strategic suppliers, which seek to provide pricing policies, promotional supports, training, inputs and activities related to marketing oriented to the pharmacy channel, acquisition rappels, provide a large number of advantages, in turn, are visualized as partners in the monitoring and control operations regarding the progress of the merchandise. (Vilca & Vilca, 2019)

On the other hand, within the classification of suppliers are the critics who supply a product or service with low turnover or movement within the inventory, in addition, being an article of complicated regeneration, however, it presents little review, insufficient advertising effect, so that, said product obeys the work done by the regents in pharmacy, as well as information transmitted verbally by the customers of the pharmacy who know the product. (Rodriguez, 2017)

Ultimately, the inconsequential suppliers are contemplated, where those distributors who are easy to contact, frequently attend the pharmaceutical establishment, however, do not provide a different added value, or highly address stocks, as well as distribution routes. (Rodriguez, 2017)

#### **4. Conclusions**

The design and execution of a master plan is based on the qualitative and quantitative information available, as well as the support of technological tools, where, the tasks to be carried out must be exposed in said plan, in this case, emphasize the suppliers of the pharmaceutical establishments, in which, it is essential to outline a strategic plan of the business organization whose operations involve the control of the inventory, in order to optimize the development of the processes involved in the acquisition and distribution of medicines, hence, the master plan will allow to establish various strategies, as well as, purposes and goals that the business structure with the active participation of representatives of the pharmaceutical industry, mainly, suppliers therefore distribute products or services, In addition, of inputs for the effective operation of the pharmacy, therefore, the planning of the development of activities related to suppliers, admits to reduce costs, increase productivity or profitability.

In effect, the pharmacy is responsible for designing a master plan of suppliers that allows it to achieve its purposes and purposes schematized with projection to the future, with a duration of short, medium and long term, in reference to its size, as well as, the geographical space that faces the fulfillment of activities for the operation of the maintenance of the stock of medicines is at a higher level, in addition, to obtain a high competitiveness in the market. In this way, the master plan with reference to suppliers in pharmaceutical establishments is essential to carry out the strategic plan of the business organization, in this case, a pharmacy, in which, it is necessary to build the mission, vision and organizational objectives, in conjunction with the internal and external analysis, tracing the SWOT matrix, through, the recognition of the market aimed at the products to be marketed, predict demand according to consumer behavior, thus determining the market trend; finally, examine the costs of operations, together, manufacture an overall cost estimate.

On the other hand, the logistics of a pharmaceutical service provider goes hand in hand with unique factors such as the rotation and availability of medicines, these criteria are fundamental within the study which in many cases are not taken into account when making the choice of your provider.

In short, the management of suppliers is unavoidable to take into account that they are obliged to be reliable and accredited by the corresponding entities, since they must have health documentation, effectively perform specific measures, offer quality products and with high standards under appropriate environments, which must supply the articles during the time demanded, dates, quantities and environments, in this sense, the pharmaceutical company is responsible for drawing up a list of suppliers with verified and updated data.

## References

- Andrade, M. (08 de 2018). Elaboración de una guía por gestión de procesos de selección de proveedores para optimizar la rentabilidad en la Farmacia La rebaja, D. M. Q. Periodo 2018. Obtained from <https://www.dspace.cordillera.edu.ec/bitstream/123456789/4558/1/32-FAR-18-18-1723043434.pdf>
- Baena, G. (2017). Metodología de la investigación. (Tercera ed.). México: Grupo Editorial Patria. Obtained from [http://www.biblioteca.cij.gob.mx/Archivos/Materiales\\_de\\_consulta/Drogas\\_de\\_Abuso/Articulos/metodologia%20de%20la%20investigacion.pdf](http://www.biblioteca.cij.gob.mx/Archivos/Materiales_de_consulta/Drogas_de_Abuso/Articulos/metodologia%20de%20la%20investigacion.pdf)
- Behar, D. (2008). Metodología e la investigación. Bogotá: Editorial Shalom.
- Canales, O. J., & Flores, R. P. (05 de 08 de 2019). Plan de negocio: farmacia especializada para pacientes con Diabetes Mellitus. Obtained from [https://repositorioacademico.upc.edu.pe/bitstream/handle/10757/651718/Canales\\_OJ.pdf?sequence=3&isAllowed=y](https://repositorioacademico.upc.edu.pe/bitstream/handle/10757/651718/Canales_OJ.pdf?sequence=3&isAllowed=y)
- Chaman, W. E., & Salas, Z. J. (12 de 05 de 2020). Propuesta de mejora en la gestión logística y comercial para reducir costos en una empresa distribuidora del sector farmacéutico de la ciudad de Trujillo. Obtained from <https://repositorio.upn.edu.pe/bitstream/handle/11537/25286/Chaman%20Wilson%2c%20Ernesto%20Ra%20c3%20bal-%20Salas%20Zavaleta%2c%20Javier%20Alonso.pdf?sequence=1&isAllowed=y>
- Chávez, T. M. (2018). Gestión Logística En Almacenamiento, Distribución Y Transporte De Productos Farmacéuticos, Dispositivos Médicos Y Productos Sanitarios En Laboratorios De Las Áreas De Farmacia Y Laboratorio Del Centro De Salud De Characato – Arequipa, 2017. Obtained from <http://tesis.ucsm.edu.pe/repositorio/handle/UCSM/8130>
- Dávila, L. E. (04 de 12 de 2020). Propuesta de mejoramiento de la planificación de la demanda de laboratorios Icofarma S.A. Obtained from <https://repository.ucatolica.edu.co/bitstream/10983/25484/1/Trabajo%20de%20grado%20Erika%20Yaneth%20Davila%20Laverde.pdf>



- Díaz, F. V. (2018). Implementación de un plan de gestión de proveedores de materias primas, insumos y servicios críticos, para laboratorio Fresenius Kabi Chile. Obtained from <http://dspace-uss.eastus.cloudapp.azure.com:8080/xmlui/handle/uss/1142>
- Duque, D. S. (16 de 12 de 2020). Expectativas y satisfacción de los usuarios de establecimientos farmacéuticos minoristas, de la Localidad Antonio Nariño, en los barrios Policarpa Salavarrieta y Santander, en la ciudad de Bogotá. Obtained from <https://repositorio.unal.edu.co/bitstream/handle/unal/78820/1013633464.2021.pdf?sequence=1&isAllowed=y>
- González, P. N. (14 de 04 de 2017). Análisis del cambio de la cadena de suministro de las multinacionales farmacéuticas del mercado colombiano y su correlación con el crecimiento de la industria farmacéutica nacional. Obtained from <https://repository.unimilitar.edu.co/bitstream/handle/10654/16308/GonzalezPradaNatalia2017.pdf?sequence=1&isAllowed=y>
- Herrera, R. R. (2019). Rediseño de un plan estratégico para mejorar la competitividad de una farmacia ubicada en el distrito de Santiago de Surco en Lima. Obtained from [http://repositorio.urp.edu.pe/bitstream/handle/URP/2511/ADM\\_T030\\_08801306\\_M%20%20%20%20herrera%20ruiz%20ricardo%20vilo.pdf?sequence=1&isAllowed=y](http://repositorio.urp.edu.pe/bitstream/handle/URP/2511/ADM_T030_08801306_M%20%20%20herrera%20ruiz%20ricardo%20vilo.pdf?sequence=1&isAllowed=y)
- Huamán, V. Y. (2018). Implementación de un sistema de planeación y control de la producción para mejorar el nivel del servicio en una empresa farmacéutica. Obtained from [http://cybertesis.unmsm.edu.pe/bitstream/handle/20.500.12672/10068/Huaman\\_vy.pdf?sequence=1&isAllowed=y](http://cybertesis.unmsm.edu.pe/bitstream/handle/20.500.12672/10068/Huaman_vy.pdf?sequence=1&isAllowed=y)
- López, P. M., Muñoz, A. M., & Vázquez, M. R. (2017). Resultados de una metodología para la identificación de distribución inversa de medicamentos en oficinas de farmacia. *Rev. Esp. Salud Publica*, 90(20), 1-12. Obtained from <https://www.scielo.org/pdf/resp/2016.v90/e40007/es>
- Marqués, L. M., Negrin, S. E., Hernández, N. A., Nogueira, R. D., & Medina, L. A. (2017). Modelo para la planificación de medicamentos y materiales de uso médico en instituciones hospitalarias. *Gestión y política pública*, 26, 79-124. Obtained from <http://www.redalyc.org/articulo.oa?id=13358184004>
- Noain, C. M. (05 de 05 de 2017). Sostenibilidad económica del servicio de seguimiento farmacoterapéutico en la farmacia comunitaria española. Obtained from <https://dialnet.unirioja.es/servlet/tesis?codigo=147763>
- Paredes, F. Y. (05 de 09 de 2019). Mejoramiento de procesos operativos en la Farmacia El Descuento San Francisco. Obtained from <http://repositorio.puce.edu.ec/handle/22000/17054>
- Pasmíño, G. J., & Ríos, C. Z. (2019). Nivel de aceptación de medicamentos genéricos por usuarios que acuden al Departamento de farmacia del Hospital San Juan de Lurigancho, 2019. Obtained from <http://repositorio.uma.edu.pe/bitstream/handle/UMA/212/53-2019%20%28FINAL%29.pdf?sequence=1&isAllowed=y>
- Prieto, R. F. (02 de 2021). Diseño de un sistema de gestión de seguridad y salud en el trabajo para Distribuciones Farmacéuticas el Reino, Bogotá. Obtained from <https://repositorio.ecci.edu.co/bitstream/handle/001/885/Dise%c3%b1o%20de%20un%20siste>

ma%20de%20gesti%c3%b3n%20de%20seguridad%20y%20salud%20en%20el%20trabajo%20para%20Distribuciones%20Farmac%c3%a9uticas%20el%20Reino.pdf?sequence=1&isAllowed=y

- Reyes, C. A., & Dimas, Y. C. (22 de 02 de 2021). Propuesta de un modelo CPFRR (collaborative, planning, forecasting and replenishment) en un laboratorio farmacéutico del sector salud con un cliente vic del canal cadenas. Obtained from <https://repository.unilibre.edu.co/bitstream/handle/10901/19098/Propuesta%20de%20un%20modelo%20CPFRR%20%28Collaborative%2c%20Planning%2c%20Forecasting%20and%20Replenishment%29%20en%20un%20laboratorio%20farmac%c3%a9utico%20del%20sector%20salud%20con%20un%20>
- Rizo, A. (2017). Ideas para formular un plan maestro de reapertura del Hospital San Juan de Dios de Bogotá. *Revista Facultad Nacional de Salud Pública*, 32(02), 123-127. Obtained from <http://www.redalyc.org/articulo.oa?id=12030433015>
- Rodriguez, V. E. (2017). Análisis del proceso logístico de farmacia en la Clínica San Juan de Dios Arequipa - 2016. Obtained from <http://repositorio.unsa.edu.pe/handle/UNSA/6427>
- Rubén, M., Castro, L., Molinero, A., & Acosta, J. (2020). Soluciones tecnológicas de las farmacias comunitarias al desabastecimiento de medicamentos: aplicación del modelo colaborativo en red y 'big data'. *Farmacéuticos Comunitarios*, 12(4), 37-46. Obtained from <https://www.raco.cat/index.php/FC/article/view/375564/468987>
- Ruiz, N. M. (2019). Análisis, diseño e implementación de un sistema de control de inventarios para la farmacia "Danafarma". Obtained from <http://repositorio.unp.edu.pe/handle/UNP/1874>
- Sánchez, S. M. (08 de 2020). Plan de marketing para la red de farmacias Medimas. Obtained from <https://repositorio.uide.edu.ec/handle/37000/4268>
- Torres, C. E. (2019). Gestión con la aplicación de TICs en las micro y pequeñas empresas en el rubro de ventas de fármacos y otros en el Distrito de Miramar Provincia de Trujillo, 2018. Obtained from [http://repositorio.uladech.edu.pe/bitstream/handle/123456789/20144/tecnologias\\_informacion\\_torres\\_coronel\\_eli.pdf?sequence=1&isAllowed=y](http://repositorio.uladech.edu.pe/bitstream/handle/123456789/20144/tecnologias_informacion_torres_coronel_eli.pdf?sequence=1&isAllowed=y)
- Torres, C. N., & Calsina, M. W. (2020). Modelo de gestión de la cadena de suministro y la rentabilidad de los principales laboratorios farmacéuticos del Perú. *Revista Industrial Data*, 23(01), 53-72. doi:<http://dx.doi.org/10.15381/idata.v23i1.16265>
- Triviño, R. G. (2020). Diseño de una aplicación móvil de ventas online de productos farmacéuticos de la farmacia "ExiFarma" de la ciudad de Balzar en el año 2020. Obtained from <https://repositorio.itb.edu.ec/bitstream/123456789/2669/1/PROYECTO%20DE%20GRADO%20DE%20TRIVI%c3%91O%20RON.pdf>
- Tuarez, P. K. (2020). Propuesta de estrategia al proceso de distribución en la Farmacia 911 ubicada en el Cantón Santa Cruz Provincia de Galápagos. Obtained from <https://repositorio.itb.edu.ec/bitstream/123456789/2607/1/Tuarez%20Pe%c3%b1afiel%20Katherine%20Jessenia.pdf>

Ulloa, R. J. (2020). Mejoras al registro de inventario de los productos farmacéutico de la empresa DIFARE S.A. Obtained from <https://repositorio.itb.edu.ec/bitstream/123456789/2605/1/ULLOA%20REYES%20JEAN%20CARLO.pdf>

Valderrama, H. M. (2021). Rediseño del manual de procesos del servicio farmacéutico de la ESE Hospital San Rafael del municipio de Yolombó 2020. Obtained from [http://bibliotecadigital.udea.edu.co/bitstream/10495/18719/13/ValderramaMaria\\_2021\\_Redise%c3%b1oManualProcesos.pdf](http://bibliotecadigital.udea.edu.co/bitstream/10495/18719/13/ValderramaMaria_2021_Redise%c3%b1oManualProcesos.pdf)

Vilca, T. P., & Vilca, T. J. (28 de 11 de 2019). Mejora en la gestión logística y de calidad, para incrementar la rentabilidad de la cadena de Boticas Pacífico. Obtained from <http://hdl.handle.net/11537/23218>

Makalenin Türkçe başlığı buraya yazılır....

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### Özet

Türkçe özet.

*Anahtar sözcükler:* anahtar sözcükler1; anahtar sözcükler2; anahtar sözcükler3

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## **The Degree Of Practicing Sustainable Leadership Among High School Leaders In West Of Dammam From The Teachers' Perspective**

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**Abstract:** The study aimed to identify the degree of practicing sustainable leadership and its dimensions among high school female leaders in west of Dammam from the female teachers' perspective and investigate the nature of the differences at the level of significance ( $\alpha \leq 0.05$ ) in the responses of the sample members about the degree of practice among school female leaders according to the study variables. In order to achieve the study objectives, the descriptive survey method was adopted, and a questionnaire based on Hargreaves and Fink's Sustainable Leadership model was designed. The questionnaire included the following dimensions: Learning and Success Sustainability, Sustainability of Leadership among others, Distributed Leadership, Conservation of Material and Human Resources, Justice, Long-Term Perspective, Learning from the Lessons of the Past. It was applied to all the study community consisting of (657) female teachers and the retrieved questionnaires were (321). The study concluded many results including that the degree of sustainable leadership practice among high school leaders in west of Dammam was very high. The results also indicated that there were statistically significant differences at the level of (0.05) or less in the direction of the study members about the degree of sustainable leadership practice among high school leaders in west of Dammam from the teachers' perspective due to (qualification, school type, years of experience) variables. The researcher reached many recommendations based on the study's results such as increasing training courses.

**Keywords:** Sustainable Leadership; High School Leaders and Human Resources.

### **Introduction**

Leadership is an essential pillar and axis to which various sectors are entrusted, especially in the modern era. Throughout history, leaders have been the key to positive and impactful change for the societal renaissance. In light of the 2030 vision and the tremendous scientific development, it has required a different qualitative leadership to achieve the requirements, develop and renaissance the nation and achieve the ambitious vision. The rapid changes that the Kingdom of Saudi Arabia is going through in various economic, social, environmental and technological fields affect and create challenges for educational institutions (Al-Sahli, 2009), which necessitated adapting to them to ensure survival and continuity, and since the educational process is the basis for building Societies and peoples, within an integrated system capable of managing and leading the educational process to achieve the hopes and aspirations of societies, this requires developing

countries that seek progress and development to give very great importance to education, by paying attention to those in charge of managing educational systems and those who perform the educational process, In addition to paying attention to the methods and practices in order to enhance and improve the results (Ishtiwi, 2017). Moreover, education sector faces a problem in the quality of leaders and the reason for this is the increase in work pressure, insufficient school funding, and the diversity in the abilities of the growing students (Hargreaves & Fink, 2006).

Leadership topics are among the topics that have attracted the attention of scholars and researchers, which at the present time requires conscious leadership capable of achieving the requirements of the modern era, and able to face future challenges from radical transformations in various aspects of life and capable of continuity and sustainability (Eid, 2015). Leadership is considered one of the administrative processes, it is one of the most influential on individuals' motivation to perform, their behaviors, attitudes, loyalty, and work satisfaction. It is also a major focus of the relationship between employees, as the leader is the engine of the work team (Al-Ghamdi, 2011). It is the foundation of the organization and the essence of the administrative process, through its formulation of the organization's vision, mission and future goals, raising the efficiency of human and material resources, and consolidating values (Al-Hijn, 2017).

Hargreaves & Fink (2003) point out that sustainability includes an integrative, holistic and environmental way of thinking, and that it is an intellectual view of the world that takes the complexity of human and natural systems for granted and is necessary to address the complexities of the knowledge society. Leaders develop sustainability through the way they engage with, commit to and protect deep learning in their schools, through the way they support others in their efforts to promote and support this learning, and through the way they support themselves in their work, so they can persevere in their vision and avoid burnout, besides making sure that the improvements they make will continue over time and especially after they are gone.

We find that sustainable leadership from the point of view of Hargreaves and Fink is able to achieve many advantages that can be listed as follows (Grooms & Reid-Martinez, 2011): Sustainable leadership creates and sustains sustainable learning. It also ensures success over time. It also addresses sustainable leadership issues of social justice, and sustainable leadership works to develop human and material resources instead of depleting them. In addition to developing environmental diversity and capacity. Finally, sustainable leadership undertakes the participation of activists with the environment.

That leadership has an important role in achieving balance and sustainability and has become more urgent to face environmental, social and economic challenges, which are difficult to achieve sustainability due to restrictive rules and procedures, short-term perspective and conflict of interests (Sotarauta et al., 2012), it is easy to suggest change in education but it is difficult to implement, and very difficult to maintain (Hargreaves & Fink, 2006), and Boe & Hognestad (2019) point out that sustainable improvements in educational environments depend on successful leadership, and Sutaruta also points out that the human factor must be better taken since they are the ones who make leadership and change in sustainable development, leaders are the actors who have more power than others in society. It is necessary to overcome bureaucratic constraints, so that we find their influence working outside the traditional limits of authority, and that sustainable leadership works flexibly, interconnectedly, interactively, collaboratively and cares about the impact on the surrounding environment. and society (Sotarauta et al., 2012).

To overcome this, sustainable leadership has come to be considered in the current era as a modern leadership approach, used to address the challenges of traditional leadership, which has become unable to face the many challenges and increasing complexities in educational systems, and as sustainable leadership directs educational institutions towards the importance of shifting from the traditional approach to education aims to expand the administrative and sustainable leadership systems, by following a long-term approach that

makes the development of managers and administrators in educational institutions a part of the organizational development process, and to ensure that all elements of organization internally and externally in educational institutions are sustainable, which contributes to improving performance and educational outcomes, as well as increasing competition between educational institutions (Al-Hadrawi et al., 2018).

Sustainable leadership refers to those behaviors, practices, and systems that create lasting value for all stakeholders in organizations including investors, the environment, future generations, and society. It is a concept that obliges institutions to change their behavior and systems, and transform them into sustainable systems, as a means to conserve their human, material and natural resources (Al-Tablawy, 2018). It revolves around finding solutions to organizational, social, and economic problems change and development, and its ability to influence and motivate workers and society by imposing sustainable knowledge in its principles without neglecting the past, which leads to improving the present and the future (Zulkiffli & Latifi, 2016). The results of many Arab studies also confirmed that the use of traditional leadership styles is not commensurate with the development of the educational process in light of global changes, including the Shehadeh study (2008), which showed that there is a weakness in the participation of workers in the decision-making process and their interaction with the rapid changes with the external environment.

The role of educational institutions at the present time is no longer limited to the transfer of knowledge, research and manufacture, but one of the forces for economic growth and a tool for transferring the accumulated cultural and scientific experiences between learners and workers. A study (Awadallah, Michael, & Aidaros, 2019) indicates that sustainable leadership is a leadership style that cares about aspects of the educational process, and also various leadership studies indicate that school principals play a major role in the quality of education in schools (Bush, Kiggundu & Moorosi, 2011; De Villiers & Pretorius, 2011; Drysdale, Goode & Gurr, 2009). The sustainability approach to education goal is to develop a long-term vision that includes maximizing economic values and creating a positive and supportive environmental impact of social development on society.

### **Study Problem**

Through reviewing the literature, previous studies and research related to the subject, the importance of the role of school leaders in the educational system, their role in the development of educational institutions and the need to qualify, train and adopt modern administrative trends to make their role in the educational process successful is obvious. Recent trends have emerged, including sustainable leadership that seeks investment Optimizing the material and human resources, investing opportunities, and setting a long-term vision for continuous improvement and providing quality education.

The importance increases with the current trends of the Kingdom of Saudi Arabia that crystallized in the 2030 vision. This was confirmed in the Human Capacity Development Program for the necessity of developing the capabilities of all citizens of the Kingdom, building an integrated educational journey and lifelong education and training, improving equal access to education, and developing a solid educational foundation for everyone contributes to instilling values from an early age, preparing young people for the future local and global labor market, enhancing their work culture, developing citizens' skills by providing lifelong learning opportunities, and improving educational outcomes (Saudi Arabia Vision 2030, 2017).

Despite the efforts made in the educational system to develop school leaders, the reality of schools, as indicated by some local studies (Hawala & Al-Mutairi, 2019; Al-Mahraj, 2018; Al-Tawala, 2020) is due to the shortcomings in the performance of school leaders in the Kingdom, the weak roles, and the lack of qualified leaders As the plan of the Human Capacity Development Program indicated, there are challenges in the educational system, most notably governance, short-term planning, centralization of decision-making,

weakness in the teaching profession and school leadership, low quality, low student participation in enrichment activities, weak infrastructure and transportation, and the difference in performance between public schools. eligibility, and a lack of alignment between curricula and programs and the needs of the labor market. (Implementation Plan for the Human Capacity Development Program, 2020). Hence, it was necessary to adopt a modern leadership style that works to improve leadership practices to support leaders, as sustainable leadership depends on continuous improvement, as it is the cornerstone for developing and achieving sustainability.

Sustainable leadership is important as a leadership style concerned with the development of leaders and educational staff, and this has been confirmed by studies such as (Lambert, 2011; Conway, 2015) because of the importance of this style and its effectiveness in improving and changing organizations. Cook's study (2014) indicates the importance of Sustainable leadership and the need for it to maintain the academic growth of students and the professional growth of teachers. The study of Awadallah, Aidaros & Mikhail (2019) stresses the need for a sustainable strategy to improve schools and that sustainable leadership aims to improve the educational process, also the study in (Ishtiw, 2017), which indicated the importance of the practice of sustainable leadership by education directors in Gaza governorates, for this reason the researcher seeks in this study to reveal the degree of sustainable leadership practice among school leaders, in light of the scarcity of studies that dealt with sustainable leadership in schools at the local and Arab levels, especially the studies that dealt with sustainable leadership confirmed that it is possible to benefit from sustainable leadership in developing educational work.

Based on the foregoing, the importance of sustainable leadership in educational institutions appears. By looking at our educational institutions, we find that the solutions that are provided are temporary and solve a specific problem in a specific time only. The contribution of sustainable leadership to strengthening relationships and strengthening team spirit is in addition to the future vision and long-term planning. It may contribute significantly to improving the levels of learning and teaching processes in educational institutions in general and schools in particular.

That is why the current study came to fill that scientific gap in this field, and to support the development of school leaders. The problem of the current study is to answer the following two questions:

- What is the degree of sustainable leadership practice among secondary school leaders in the western city of Dammam from the teachers' point of view?
- Are there statistically significant differences at the significance level ( $0.05 \alpha \leq$ ) in estimating the degree of sustainable leadership practice among secondary school leaders in western Dammam from the point of view of the teachers due to the study variables (number of years of experience, educational qualification, specialization)?

### **Objectives of The Study**

The current study sought to reveal the degree of sustainable leadership practice among secondary school leaders in the western city of Dammam from the female teachers' point of view, in addition to that. The researcher aimed to achieve several goals, the most important of which are the following:

- Revealing the degree of female leaders' practice of sustainable leadership and its dimensions for female secondary school leaders in western Dammam from the point of view of the teachers.
- To reveal the nature of the differences at the significance level ( $\alpha \leq 0.05$ ) in the responses of the study sample members, about the degree of sustainable leadership practice among secondary school leaders in western Dammam from the point of view of the female teachers, due to the study variables (number of years of experience, educational qualification, specialization).

### **Study Significance**

The importance of this study stems from the importance of the role of the leader, which concentrates on building and developing societies, refining individuals' personalities, and developing their skills within the educational institution, as sustainable leadership may help those in charge of preparing and planning for the development of leadership competencies in the educational field by holding workshops, seminars and training courses. It is hoped that the results of the study will contribute to raising awareness of educational institutions, by introducing the direction of sustainable leadership; To work on the development and success of educational institutions, improve the environment, and activate educational technologies to serve them and achieve a vibrant society.

### **Objective Limits**

The current study was limited to a number of limits related to the topic of the study as follows:

The study is based on measuring sustainable leadership practices on the "Hargreaves and Fink" model, and it includes the following main dimensions: education and sustainable learning, leadership sustainability (career succession), leadership of others (distributed leadership), societal justice, diversity, conservation of human and material resources, and learning from the past (Hargreaves & Fink, 2006), and revealing the degree of sustainable leadership practice among secondary school leaders of the Department of Education in the West Dammam office.

**Spatial limits:** The spatial boundaries of the current study were limited to secondary schools affiliated to the Education Office, west of Dammam, in the Kingdom of Saudi Arabia.

**Time limits:** The current study was implemented during the first academic year of 1441-1442 AH.

**Human limits:** The research community consists of all female teachers affiliated with the West Dammam Education Office in government public education schools for girls, whose number is (657) female teachers (Ministry of Education, 1442 AH).

### **Terminology of Study**

**Sustainable leadership:** Procedurally, sustainable leadership is defined as that contemporary leadership style that adopts practices that help it develop teachers' skill, optimize the use of material, human and technical resources to achieve a socially effective environment and through it focus on the sustainability of learning, and the development of leadership skills for the educational institution, through the response of the study sample members to the paragraphs of sustainable leadership dimensions (sustainability of learning and success, sustainability of leadership among others, distributed leadership, conservation of material and human resources, justice, long-term perspective, learning from past lessons) in the questionnaire prepared in this study, which is based on the Hargreaves and Fink model with its seven principles that fit with the special nature of schools as an educational institution.

### **Previous Studies**



Nartgün, Limon & Dilekçi, (2020) study: “The relationship between sustainable leadership and perceived school effectiveness: the mediating role of work effort.” It aimed to determine the extent to which the role of teacher effort influences the relationship of sustainable leadership and perceived school effectiveness. Its sample consisted of 411 teachers, and a questionnaire was used to collect data. Three different scales were used in the study: the “Sustainable Leadership Scale”, the “Perceived School Effectiveness Scale” and the “Work Effort Scale”, according to the descriptive correlative approach, and its most prominent results are that the sustainable leadership degrees for school administrators as above average except for social sustainability. The teachers also saw that their school was effective and that their work effort was above average. It was found that there are high and medium-level correlations between the variables of the study. In light of this, sustainable leadership has a statistically significant effect on: perceived school effectiveness, and teachers' work efforts. However, it was found that work efforts did not have a mediating role in the relationship between sustainable leadership and perceived school effectiveness, which means that the effect of sustainable leadership does not occur through teachers' work efforts.

Hawala and Al-Mutairi's study (2019) entitled: “The reality of applying the dimensions of sustainable leadership for female leaders of public secondary schools in the north of Riyadh.” It aimed to reveal the level of application of government secondary school leaders to the dimensions of sustainable leadership in the north of Riyadh from the point of view of the teachers, and also aimed to identify the statistically significant differences for the following variables: (qualification, years of service, and number of training programs), and its sample consisted of (291) female teachers. And the questionnaire tool was used to collect data according to the descriptive survey method, and one of its most prominent results was that the application of sustainable leadership dimensions is done through estimating school projects for community service, and that the link between the content of academic results and the lives of students contributes to achieving the dimensions of sustainable leadership and develops the students' continuous learning skills.

Ishtiwi study (2017) entitled: “The degree to which education directors in Gaza governorates practice the sustainable leadership style and ways to develop it.” It aimed to reveal the extent to which educational leaders in Gaza Governorate practice sustainable leadership patterns. Its sample consisted of (122) administrators and heads of departments in the directorates of education in the governorates of the Gaza Strip. It used a questionnaire of (48) items according to the descriptive analytical approach, the most prominent results was that the relative weight of practicing sustainable leadership styles reached (78.2%). ) from the point of view of the research sample members, besides that, the results confirmed the absence of statistically significant differences due to each of the variable job title, academic qualification and years of experience in the arithmetic mean of the research sample members The extent to which education administrators in the research community practice sustainable leadership styles. Its most prominent results were the need to increase interest in holding training courses and programs that are concerned with developing the skills of the deputy director, by transferring some of the experiences possessed by managers, in addition to assigning them to assume part of the responsibilities.

Al-Rashidi and Al-Azmi study (2016) entitled: "Evaluation of the leadership practices of school principals in the State of Kuwait in light of the principles of sustainable leadership". It aimed to study the compatibility of leadership practices with the principles of sustainable leadership among middle school principals in the State of Kuwait. In addition to identifying the principles of sustainable leadership among middle school principals. Its sample consisted of (7) principals of middle schools in Kuwait. To achieve this, the survey approach was used, and the interview tool was used with (7) principals of middle schools in Kuwait. One of its most prominent results was that there are no statistically significant differences at the level of significance in the opinions of the study sample members about the compatibility of leadership practices

with the principles of sustainable leadership among middle school principals in Kuwait City due to the variables (educational qualification, gender, experience years, specialization), in the light of the researchers recommended a set of recommendations, the most important of which was the necessity of taking care of applying the ideas of tacit knowledge management and employing them in developing the experiences of administrators and teachers in schools in the State of Kuwait.

Conway Study (2015) "Sustainable Leadership for Sustainable School Results: Focus on Building School Leadership Capacity." It aimed to study the role of sustainable leadership in influencing school outcomes, as well as focusing on building school leadership capabilities. The research sample consisted of (30) schools, and the study tool used three stages: first, analysis of the results of standardized regular tests, then school reports, and finally the case study, and to achieve this, the descriptive analytical approach was used. One of its most notable results was that teachers and school administrators should plan together to provide the best arrangements and opportunities that lead to educational improvement through a broad approach. Principals and teachers must support the development and transformation of a professional learning community that has the potential to be a strategic, self-aligned reflector of educational institutions and schools, seeking to improve contextually and culturally relevant educational institutions and schools.

Cook's study (2014) entitled: "Sustainable School Leadership: Teachers' Perspective". It aimed to identify the importance of sustainable leadership for principals and teachers in educational institutions and schools. Its sample was represented by (220) graduates of the educational management program in the study community, and it used the questionnaire tool, according to the descriptive analytical approach, and among its most prominent results is that it can help teachers achieve sustainable leadership; This is done by assuming leadership responsibilities and supporting and developing students and their capabilities. One of its most prominent results was that the school principal is the main leader in the sustainable leadership process. This is because he is the first and last person responsible for making decisions and developing plans and ideas.

Kadji et al., (2013) study entitled "Sustainable School Leadership: Exploring the Role of Primary School Principals". It aimed to identify the types of leadership likely to support education for sustainable development effectively in primary schools. The study sample consisted of (320) school principals in Cyprus for the primary stage, and the questionnaire tool and interviews were semi-structured according to the descriptive analytical method. One of its most prominent results was that some of the enabling factors for implementing sustainable development, such as encouraging teachers to engage in sustainable development programs, cooperation with others and other support methods that reflect what is usually expected of school principals without seeking deep change. Limiting factors included principals' mistrust in the management skills of sustainable schools, limited willingness to challenge the status quo, limited participation in important actions in support of ESD activities and features of a national education policy.

## **Study Methodology**

This study used the descriptive survey method, for its relevance to the nature of the study, as it is the best method to know the degree of sustainable leadership practice among secondary school leaders in the western city of Dammam.

## **Study Population and Sample**

The study population consists of all the female teachers working in the West Dammam Education Office in the public education schools for girls, whose number is (657) female teachers (Ministry of Education, 1442 AH).

### The Study Samples

The study tool, the questionnaire, was distributed to all members of the population in an electronic way, and the total sample amount was (321) female teachers, with a percentage of (48.8%) of the original study population.

### Study Tool

The researcher chose the questionnaire as a study tool for data collection, after reviewing the literature and previous studies and by referring to the method used, he questions, objectives and hypotheses of the study; This is due to its relevance to the study's objectives, methodology, and society, and to answer its questions. The tool (the questionnaire) was built, it consisted of (31) items, divided into seven dimensions (education and sustainable learning, sustainability of leadership (career succession), leadership of others (distributed leadership, community justice, diversity, conservation of human and material resources, learning from the past).

### The validity of the study tool

#### The face validity

The questionnaire was presented to (12) faculty members in its initial form, in order to identify the face validity of the questionnaire, and to ensure that it measures what it was designed to measure), the questionnaire was arbitrated in terms of its ability to Measure what was prepared to be measured, its relevance to the objectives of the study, and expressing what they see as modification, deletion, or addition of items.

#### Validity of the internal consistency of the questionnaire

The Pearson's correlation coefficient was used to verify the internal consistency of the questionnaire, by calculating the Pearson's Correlation Coefficient; to identify the degree to which the items of each dimension are related to the total degree of the dimension to which the expression belongs, as in Table No. (1).

Table 1: Pearson correlation coefficients for the items of the first dimension: teaching and sustainable learning with the total score of the dimension.

Item number	Item	Correlation coefficient with the dimension
1	The school's vision includes a commitment to continuous education and learning.	**0.708
2	The leader encourages teachers to develop higher-order thinking skills for students.	**0.901
3	The leader encourages the teachers to develop the skills of self-learning among the students.	**0.889
4	The leader instructs the teachers to use the various evaluation methods.	**0.904
5	The leader suggests references and scientific resources to enhance the educational curricula in teaching.	**0.863

Item number	Item	Correlation coefficient with the dimension
6	The leader seeks to develop and improve the professional growth of her teachers.	**0.843

\*\* Significant at the significance level of 0.05 or less

\*\* Significant at the significance level 0.01 or less

Table 2: Pearson's correlation coefficients for the second-dimension items: Leadership sustainability (career succession): with the total score of the dimension.

Item number	Item	Correlation coefficient with the dimension
1	The leader plans leadership succession by imparting expertise to agents and teachers	**0.897
2	The leader works to prepare female leaders who can take responsibility.	**0.929
3	The leader contributes to training teachers to practice leadership skills.	**0.945
4	The leader provides the teachers with feedback to improve their performance.	**0.852

\*\*Significant at the significance level of 0.05 or less

\*\* Significant at the significance level 0.01 or less

Table 3: Pearson's correlation coefficients for the third dimension items: Leading others (distributed leadership): with the total degree of the dimension.

Item number	Item	Correlation coefficient with the dimension
1	The leader delegates some of her powers to the teachers to exercise leadership tasks.	**0.859
2	A leader cares about everyone's participation in the decision-making process.	**0.928
3	The leader trusts the teachers' ability to carry out their responsibilities efficiently	**0.880

\*\*Significant at the significance level of 0.05 or less

\*\* Significant at the significance level 0.01 or less

Table 4: Pearson correlation coefficients for items of the fourth dimension social justice: with the total degree of the dimension.

Item number	Item	Correlation coefficient with the dimension
1	When implementing organizational measures, the leader maintains good relations with the local community.	**0.920
2	A leader puts the public interest ahead of the private interest.	**0.914
3	School leadership contributes to solving societal problems.	**0.883
4	The leader instills the principle of fairness in the educational environment.	**0.918
5	The leader promotes among her employees the value of social responsibility.	**0.908

\*\*Significant at the significance level of 0.05 or less

\*\* Significant at the significance level 0.01 or less

Table 5: Pearson correlation coefficients Fifth dimension items: diversity with the total degree of the dimension.

Item number	Item	Correlation coefficient with the dimension
1	School leadership benefits from local resources to support learning and schooling.	**0.900
2	The leader supports interactive communication between the school and the family.	**0.925
3	The leader promotes creativity and innovations in education and teaching methods according to the multiple types of intelligence.	**0.921
4	The leader supports professional learning communities.	**0.904

\*\*Significant at the significance level of 0.05 or less

\*\* Significant at the significance level 0.01 or less

Table 6: Pearson's correlation coefficients for the sixth dimension items: Conservation of human and material resources with the total degree of the dimension.

Item number	Item	Correlation coefficient with the dimension
1	The leader encourages the teachers to work together towards achieving the set goals.	**0.866
2	The leader considers the capabilities of the teachers while assigning them tasks.	**0.935
3	The leader appreciates the efforts of the teachers and commends them.	**0.925
4	The leader provides a suitable work environment for her teachers according to their needs.	**0.944
5	The leader is keen to make optimum use of the available resources.	**0.913

\*\*Significant at the significance level of 0.05 or less

\*\* Significant at the significance level 0.01 or less

Table 7: Pearson's correlation coefficients for the seventh-dimension items: Learning from the past with the total degree of the dimension.

Item number	Item	Correlation coefficient with the dimension
1	The leader works on archiving information and data within a technical program to benefit from them at any time.	**0.894
2	The leader seeks information through feedback to improve work processes.	**0.948
3	The leader encourages teachers to use the results of previous decisions in solving current problems.	**0.949
4	The leader seeks to benefit from the experiences of other schools in improving teaching methods.	**0.910

\*\*Significant at the significance level of 0.05 or less

\*\* Significant at the significance level 0.01 or less

It is clear from the above that the values of the correlation coefficient of each of the item with its dimension are positive, and statistically significant at the significance level (0.05) or less, where the values ranged (0.708-0.949); Which indicates the internal consistency between the questionnaire statements and their dimensions, and their validity to measure what they were prepared to measure.

### Reliability of the questionnaire

To ensure the Reliability of the questionnaire, the reliability coefficient of Cronbach's Alpha ( $\alpha$ ) was calculated.

Table 8: Cronbach's alpha coefficient to measure the reliability of the study tool.

Dimensions	Reliability	Number of items
The first dimension: education and sustainable learning	0.923	6
Second Dimension: Leadership Sustainability (Job Succession)	0.927	4
Third Dimension: Leading Others (Distributed Leadership)	0.864	3
The fourth dimension : societal justice	0.947	5
The Fifth Dimension: Diversity	0.932	4
The sixth dimension: the conservation of human and material resources	0.952	5
The seventh dimension: learning from the past	0.944	4
Total reliability	0.985	31

It is clear from Table No. (14) that the reliability coefficient is high, reaching (0.985), which is consistent with the dimensional reliability coefficient, this indicates that the questionnaire has a high degree of reliability that can be relied upon in the field application of the study.

## Results

### **The main question: What is the degree of practicing the dimensions of sustainable leadership among secondary school leaders in the western city of Dammam from the point of view of the teachers?**

To determine the degree of sustainable leadership practice among secondary school leaders in the western city of Dammam from the point of view of the teachers, the arithmetic mean and standard deviation of its dimensions and the rank of each dimension were calculated, and Table (9) shows the results.

Table 9: The responses of the study sample about the degree of sustainable leadership practice among secondary school leaders in western Dammam from the female teachers' point of view.

Item number	Dimension	Arithmetic mean	SD	Rank
1	The first dimension: education and sustainable learning	4.36	0.704	2
2	Second Dimension: Leadership Sustainability (Job Succession)	4.13	0.904	6
3	Third Dimension: Leading Others (Distributed Leadership)	3.96	0.971	7
4	The fourth dimension : societal justice	4.30	0.815	3
5	The Fifth Dimension: Diversity	4.37	0.733	1
6	The sixth dimension: the conservation of human and material resources	4.28	0.851	4
7	The seventh dimension: learning from the past	4.21	0.839	5
The degree of sustainable leadership practice among secondary school leaders in the western city of Dammam from the female teachers' point of view		4.25	0.763	Very high

Table 9 shows the responses of the study sample about the degree of sustainable leadership practice among secondary school leaders in western Dammam from the female teachers' point of view with arithmetic mean of 4.25 out of 5 degrees which falls in the first category of the five-point Likert scale, which indicates very high. This practice of sustainable leadership was addressed through seven dimensions, five of which came with arithmetic means indicating a very high degree of practice. The researcher attributes this to the awareness of the Ministry of Education about improving the environment and its educational institutions in addition to its outputs. The Ministry is working to achieve its vision of building a knowledge society, it launched a number of initiatives related to sustainable development (Ministry of Education, 2018), this agrees with the study of Ishtawi's (2017), which dealt with the degree to which education directors in Gaza governorates practice sustainable leadership style and ways to develop it, which stated that the relative weight of the practice Patterns of sustainable leadership reached (78.2%), and Kennedy's study (2011), which dealt with sustainable leadership in an elementary school, confirmed that the school leader achieved sustainable leadership by organizing efforts and integrating various resources to achieve common goals. It has also realized that it has maintained leadership through the leadership development movement. The participating teachers noted that sustainable leadership is achieved through communication and cooperation in an atmosphere of trust and appreciation at the individual and collective levels, and the study of Kantaputra and

Saratun (2013), which dealt with the reality of sustainable leadership practices at the oldest university in Thailand, and its results showed that most sustainable leadership practices were achieved.

While it differed with the results of the Al-Ardan study (2020), which found that the degree of academic leaders' performance in the light of sustainable leadership came to a medium degree, and Al-Rashidi and Al-Azmi study (2016), which evaluated the leadership practices of school principals in the State of Kuwait considering the principles of sustainable leadership, at a medium degree, with an arithmetic mean of (2,633).

The fifth dimension: Diversity ranked first among these dimensions with an average of 4.34, which is a very high degree of practice, followed by the first dimension: education and sustainable learning with an arithmetic mean of 4.34, then the fourth dimension of societal justice with an arithmetic mean of 4.3, and in the fourth rank came the sixth dimension: conservation of human and material resources with arithmetic mean of 4.28, then the seventh dimension: learning from the past with a mean of 4.21, all of which indicate a very high degree of practice, while the second dimension: leadership sustainability came in the sixth rank with a mean of 4.13 with a high degree of practice, finally the third dimension: Leading others as the least practiced dimensions with an arithmetic mean of 3.96 which means a high degree of practice only, while the standard deviations of these dimensions were large to indicate a difference in the opinions of the study sample about its statements, the responses to the items of the dimensions came as follows:

**The answer to the second question: To what extent are there statistically significant differences at the significance level (0.05 or less) in the degree of sustainable leadership practice among female secondary school leaders in western Dammam from the point of view of the teachers due to the study variables (qualification, years of experience, type of school)?**

### **Differences according to the qualification variable**

To identify whether there were statistically significant differences in the responses to the study items according to the difference in qualification, the T-TEST test was used; To show the significance of the differences in the responses to the study items according to the difference in the qualification variable, and the results came as shown in table 10.

Table 10: The results of the T-TEST test for the differences in the responses to the study items about the degree of sustainable leadership practice among secondary school leaders in western Dammam from the point of view of the teachers according to the (qualification) variable.

Dimension	Qualification	number	Arithmetic mean	SD	T value	Degree of freedom	Level of significance
The first dimension: education and sustainable learning	Bachelor and less	310	4.388	0.689	3.393	319	0.001
	Postgraduate	11	3.667	0.799			
Second Dimension: Leadership Sustainability (Job Succession)	Bachelor and less	310	4.151	0.891	2.533	319	0.012
	Postgraduate	11	3.455	1.036			
	Bachelor and less	310	3.990	0.955	2.848	319	0.005



Dimension	Qualification	number	Arithmetic mean	SD	T value	Degree of freedom	Level of significance
Third Dimension: Leading Others (Distributed Leadership)	Postgraduate	11	3.152	1.099			
The fourth dimension: societal justice	Bachelor and less	310	4.335	0.794	3.738	319	0.000
	Postgraduate	11	3.418	0.948			
The Fifth Dimension: Diversity	Bachelor and less	310	4.399	0.714	3.447	319	0.001
	Postgraduate	11	3.636	0.924			
The sixth dimension: the conservation of human and material resources	Bachelor and less	310	4.303	0.834	3.010	319	0.003
	Postgraduate	11	3.527	1.009			
The seventh dimension: learning from the pas	Bachelor and less	310	4.235	0.834	2.433	319	0.016
	Postgraduate	11	3.614	0.801			
The degree of sustainable leadership practice among secondary school leaders in the western city of Dammam from the teachers' point of view	Bachelor and less	310	4.278	0.746	3.307	319	0.001
	Postgraduate	11	3.516	0.888			

It is clear from the results shown in Table 10 that there are statistically significant differences at the level of (0.05) and less in the study items trends about the degree of sustainable leadership practice among secondary school leaders in western Dammam from the point of view of the teachers according to the (qualification) variable for all dimensions and for the dimension as a whole, as if the direction of differences for all dimensions is in the direction of the bachelor's qualification or less.

### Differences according to the type of school

To identify whether there were statistically significant differences in the study items responses according to the different type of school, the T-TEST test was used; To show the significance of the differences in the study items responses according to the difference in the type of school, and the results came as illustrated in the following table

Table 11: The results of the T-TEST test for the differences in the responses to the study items about the degree of sustainable leadership practice among secondary school leaders in western Dammam from the point of view of the teachers according to the variable (type of school).

Dimension	Type of school	number	Arithmetic mean	SD	T value	Degree of freedom	Level of significance
The first dimension: education and sustainable learning	Public school	302	4.389	0.651	2.621	319	0.009
	Private school	19	3.956	1.235			

Dimension	Type of school	number	Arithmetic mean	SD	T value	Degree of freedom	Level of significance
Second Dimension: Leadership Sustainability (Job Succession)	Public school	302	4.169	0.859	3.368	319	0.001
	Private school	19	3.461	1.297			
Third Dimension: Leading Others (Distributed Leadership)	Public school	302	3.998	0.922	2.691	319	0.007
	Private school	19	3.386	1.467			
The fourth dimension: societal justice	Public school	302	4.345	0.777	3.717	319	0.000
	Private school	19	3.642	1.111			
The Fifth Dimension: Diversity	Public school	302	4.397	0.710	2.384	319	0.018
	Private school	19	3.987	0.984			
The sixth dimension: the conservation of human and material resources	Public school	302	4.309	0.797	2.768	319	0.006
	Private school	19	3.758	1.396			
The seventh dimension: learning from the pas	Public school	302	4.243	0.795	2.506	319	0.013
	Private school	19	3.750	1.312			
The degree of sustainable leadership practice among secondary school leaders in the western city of Dammam from the teachers' point of view	Public school	302	4.285	0.719	3.108	319	0.002
	Private school	19	3.711	1.181			

It is clear from the results shown in Table (11) that there are statistically significant differences at the level of ( 0.05) and less in the study items trends about the degree of sustainable leadership practice among secondary school leaders in western Dammam from the point of view of the teachers according to the variable (school type) for all dimensions and for the axis as a whole, and the direction of differences for all dimensions and the dimensions as a whole was in the direction of public school versus private schools. This can be interpreted as due to the different procedures and goals that public schools seek, and the way they employ material and human resources.

### Differences according to years of experience

To identify whether there were statistically significant differences in the responses to the study items according to the difference in years of experience variable, the "One Way ANOVA" was used; To show the significance of the differences in the responses to the study items according to the variable years of experience, and the results came as shown in the following table (12):

Table 12: Results of "one way ANOVA test" of the differences in the study items responses about the degree of sustainable leadership practice among female secondary school leaders in western Dammam from the teachers' point of view, according to the variable years of experience

Dimension	Source of Variance	Sum of Squares	Degrees of Freedom	Mean of Squares	F value	Statistical significance	Comment
The first dimension: education and sustainable learning	between groups	5.959	2	2.979	6.210	0.002	significant
	within groups	152.565	318	0.480			
	total	158.524	320				
Second Dimension: Leadership Sustainability (Job Succession)	between groups	7.581	2	3.790	4.751	0.009	significant
	within groups	253.683	318	0.798			
	total	261.264	320				
Third Dimension: Leading Others (Distributed Leadership)	between groups	11.547	2	5.773	6.334	0.002	significant
	within groups	289.868	318	0.912			
	total	301.415	320				
The fourth dimension: societal justice	between groups	8.444	2	4.222	6.572	0.002	significant
	within groups	204.282	318	0.642			
	total	212.726	320				
The Fifth Dimension: Diversity	between groups	2.248	2	1.124	2.104	0.124	Not significant
	within groups	169.891	318	0.534			
	total	172.139	320				
The sixth dimension: the conservation of human and material resources	between groups	4.034	2	2.017	2.818	0.061	Not significant
	within groups	227.641	318	0.716			
	total	231.675	320				
The seventh dimension: learning from the past	between groups	4.516	2	2.258	3.250	0.040	Significant
	within groups	220.947	318	0.695			
	total	225.463	320				
The degree of sustainable leadership practice among secondary school leaders in the western city of Dammam from the	between groups	5.757	2	2.879	5.074	0.007	Significant
	within groups	180.415	318	0.567			
	total	186.172	320				

Dimension	Source of Variance	Sum of Squares	Degrees of Freedom	Mean of Squares	F value	Statistical significance	Comment
teachers' point of view							

\*\* significant at a level of 0.01 or less

\* significant at a level of 0.05 or less

It is evident from the results shown in Table (12) that there are statistically significant differences at the level (0.05) and less in the study items trends about the degree of sustainable leadership practice among secondary school leaders in western Dammam from the point of view of the teachers according to the variable (years of experience) for all Dimensions and for the dimensions as a whole, except for the fifth dimension: diversity, and the sixth dimension: the conservation of human and material resources, where the significance level for them was greater than the significance level 0.05, to find out the direction of the hypotheses, Scheffe's post-test was used, the trend for years of experience was from 5 years or more. These results differed with the results of Younes study (2017), which confirmed that there were no statistically significant differences in the degree of practice due to the study's variables: gender, academic qualification, years of service, which also coincided with the study of Ishtiwi (2017), which confirmed the absence of Statistically significant differences attributable to each of the variables of job title, academic qualification and years of experience in the arithmetic mean of the research sample members' estimation of the extent to which education directors in the research population practice of sustainable leadership patterns, the study of Al-Rashidi and Al-Azmi (2016) Which confirmed that there were no statistically significant differences.

### Recommendations

1. Increasing training courses and workshops on sustainable leadership for secondary school leaders in western Dammam regarding the dimension of distributed leadership and succession; The results revealed that the level of school leaders' application of these dimensions is lower than the rest of the dimensions of sustainable leadership.
2. Urging the teachers that sustainable leadership is a shared responsibility to be applied successfully and effectively. Sustainable leadership cannot be the responsibility of the sustainable leader only, but subordinates at all levels must participate with him in the decision-making processes.
3. Enhancing the level of application of secondary school leaders in western Dammam to the dimension of distributed leadership, by increasing the leaders' confidence in the teachers' ability to carry out their responsibilities efficiently, increasing their interest in the participation of everyone in the decision-making process, and working to activate the delegation of authority by the leader with some of powers to teachers to exercise leadership tasks, and provide the opportunity for the independence of teachers in the implementation of school activities.

### References

- Al-Ardan, Amal bint Arif bin Darzi. (2020). The reality of sustainable leadership performance in emerging Saudi universities. *The Arab Journal of Educational and Psychological Sciences: The Arab Foundation for Education, Science and Arts*, 13, 67-107.

- Al-Ghamdi, Fahd bin Hazaa. (2012). Practical practice degrees and training needs for creative leadership as perceived by academic leaders at Al-Baha University (Master's Thesis). Umm Al-Qura University, Saudi Arabia.
- Al-Hadrawi, Rafid Abbas; Al-Janabi, Sajjad Attia; Al-Mayali, Hakim matroud. (2018). The role of sustainable leadership in achieving organizational excellence: an analytical study at Najaf International Airport. *Kufa Studies Center Journal: University of Kufa - Kufa Studies Center*, 49, 185-210.
- Al-Hijn, Mohieldin Hassan. (2017). The relationship of strategic leadership in enhancing the transparency of administration Experience with the Palestinian Security Forces (Master's Thesis). Management and Politics Academy for Graduate Studies, Al-Aqsa University, Palestine.
- Al-Mahraj, Abdul Karim bin Abdul Aziz. (2018). The reality of the application of participatory leadership by school leaders in the governorates of Hotat Bani Tamim and Al-Hareq. *Journal of Scientific Research in Education: Ain Shams University - Girls' College of Arts, Sciences and Education*, 19 (14), 1-42.
- Al-Rashidi, Hussein; Al-Azmi, Faisal. (2016). Evaluating the leadership practices of school principals in the State of Kuwait in light of the principles of sustainable leadership. *Journal of Scientific Research in Education: Ain Shams University - Girls' College for Arts, Sciences and Education*, 18 (6), 495-533.
- Al-Sahli, Fahid Ali. (2009). The degree of academic leaders' application of transformational leadership in teacher colleges in the Kingdom of Saudi Arabia (unpublished master's thesis). Yarmouk University, Jordan.
- Al-Tawala, Matar Ghali. (2020). The reality of the application of creative management in schools affiliated to the Education Office in Samira Governorate from the point of view of teachers. *Journal of Education: Al-Azhar University - College of Education*, 185(1), 135-172.
- Awad Allah, Walaa; Aidaros, Ahmed; And Mikhail, Angie Nassif. (2019). Sustainable leadership as an approach to improving institutional performance in public secondary schools in Egypt. *Journal of the Faculty of Education: Benha University - Faculty of Education*, 30 (119), 530-564.
- Boe, M., & Hognestad, K. (2019). The dynamics of pedagogical leaders' everyday leadership. *Leadership for learning: The new challenge in early childhood education and care*, 259-272.
- Bush, T., Kiggundu, E., & Mooros, P. (2011). Preparing new principals in South Africa: the ACE: school leadership Programme1. *South African Journal of Education*, 31(1).
- Conway, J. M. (2015). Sustainable leadership for sustainable school outcomes: Focusing on the capacity building of school leadership. *Leading and managing*, 21(2), 29-45.
- Cook, J. W. (2014). Sustainable School Leadership: The Teachers' Perspective. *NCPEA International Journal of Educational Leadership Preparation*, 1-17.
- De Villiers, E., & Pretorius, S. G. (2011). Democracy in schools: are educators ready for teacher leadership?. *South African Journal of Education*, 31(4), 574-589.
- Drysdale, L., Goode, H., & Gurr, D. (2009). An australian model of successful school leadership: Moving from success to sustainability. *Journal of Educational Administration*, 47(6), 697-708. <https://doi.org/10.1108/09578230910993087> (2), 223-233

- Eid, Hala Fawzy. (2015). A proposed conceptualization to achieve creative leadership among university leaders in the Kingdom of Saudi Arabia. *Arab Studies in Education and Psychology*, 9 (61), 387-426.
- Grooms, L. D., & Reid-Martinez, K. (2011). Sustainable leadership development: A conceptual model of a cross-cultural blended learning program. *International Journal of Leadership Studies*, 6(3), 412-429.
- Hamadouch, Sofiane. (2017). The importance of adopting corporate social responsibility to achieve sustainable development. *Global Journal of Economic and Business*, 2(1), 23-35. <https://doi.org/10.12816/0039904>
- Hargreaves, A., & Fink, D. (2003). Sustaining leadership. *Phi delta kappan*, 84(9), 693-700.
- Hargreaves, A., & Fink, D. (2004). The seven principles of sustainable leadership. *Educational leadership*, 61(7), 8-13.
- Hargreaves, A., & Fink, D. (2006). *Sustainable leadership*. San Francisco.
- Hawala, Suhair bint Muhammad; And Al-Mutairi, Noura Belihan. (2019). The reality of applying the dimensions of sustainable leadership among female leaders of public secondary schools in the north of Riyadh. *Educational Sciences: Cairo University - Faculty of Graduate Studies of Education*, 27(4), 364-407.
- Ishtawi, Muhammad Omar Ahmed. (2017). The degree to which education directors in Gaza governorates practice the sustainable leadership style and ways to develop it (unpublished master's thesis). The Islamic University (Gaza), Gaza.
- Kadji-Beltran, C., Zachariou, A., & Stevenson, R. B. (2013). Leading sustainable schools: exploring the role of primary school principals. *Environmental education research*, 19(3), 303-323.
- Kantabutra, S., & Saratun, M. (2013). Sustainable leadership: Honeybee practices at Thailand's oldest university. *International Journal of Educational Management*.
- Kennedy, M. P. (2011). Sustainable leadership in an elementary school: How one school principal and members of the school community view the sustainability of leadership. University of Hartford.
- Lambert, S. (2011). Sustainable leadership and the implication for the general further education college sector. *Journal of further and Higher Education*, 35(1), 131-148. <https://doi.org/10.1080/0309877X.2010.540319>
- Ministry of education. (1443) sustainable development. Retrieved from: <https://www.moe.gov.sa/ar/aboutus/aboutministry/Pages/sustainabledevelopment.aspx>
- Nartgün, Ş. S., Limon, İ., & Dilekçi, Ü. (2020). The relationship between sustainable leadership and perceived school effectiveness: The mediating role of work effort. *Bartın Üniversitesi Eğitim Fakültesi Dergisi*, 9(1), 141-154.
- Saudi Arabia Vision 2030. (2017). Vision of Kingdom of Saudi Arabia. Retrieved from: <https://www.vision2030.gov.sa/ar/>
- Shehadeh, Hatem. (2008). The reality of administrative practices of education directors in the governorates of Gaza in the light of strategic management standards and ways to develop them (Master thesis). The Islamic University, Gaza, Palestine.

- Sotarauta, M., Horlings, I., & Liddle, J. (2012). In Liddle J., Horlings I., Sotarauta M., Sotarauta M., Horlings I. and Liddle J. (Eds.), *Leadership and change in sustainable regional development* (1st ed.). Routledge. <https://doi.org/10.4324/9780203107058>
- Tablawy, Najwa Abdullah. (2018). Sustainable leadership and the effectiveness of organizational performance to achieve sustainable development. A research paper presented at the International Scientific Conference: Sustainable Development in the Light of Conflicts and Crises. Birzeit University, Palestine.
- United Nations Educational, Scientific and Cultural Organization. (2016). Education for sustainable development. Retrieved from: <https://ar.unesco.org/themes/education-sustainable-development>
- United Nations. (2013). sustainable development goals. Retrieved from: <https://www.un.org/sustainabledevelopment/en/sustainable-development-goals/>
- what the research tells us. national college for school leadership, Panda symbol, World Wide Fund for Nature.
- Younes, Amani. (2017). The degree of sustainable leadership practice by UNRWA school principals in Gaza governorates and its relationship to the quality of career of their teachers (unpublished master's thesis). The Islamic University (Gaza), Palestine.
- Zulkiffli, N., & Latiffi, A. (2016). Theoretical Review on Sustainable Leadership (SL). *MATEC Web of Conferences*, 66, 45. <https://doi.org/10.1051/mateconf/20166600045>.



## **Spare Time And Leisure Activities In Older Adults, During Social Isolation**

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### **Abstract**

Human beings, upon reaching this stage of old age, experience a phase of social isolation, caused by the decline of body structures and functions at the biopsychosocial level. Likewise, in March 2020, as a preventive measure to curb the spread of the covid-19 virus, social isolation is abruptly and permanently decreed for the entire Colombian population, with a greater impact on this population due to comorbidity criteria. Hence the importance of evaluating the different leisure and free time activities carried out by institutionalized older adults in times of social isolation. A descriptive quantitative methodological approach was adopted. The results show that older adults invest much of their time in activities that do not require greater physical effort or professional accompaniment, such as watching television or listening to the radio (91%). However, some of the activities have been abandoned as a result of the physical deterioration associated with the aging process, such as reading and walking, observed in 67% and 36% of the cases, respectively.

**Keywords:** Elderly, activities of daily living, leisure and free time, nursing homes, etc.

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### **Introduction**

Currently, the World Health Organization (WHO) refers that the older adult population is increasing, which includes those aged 60 years and older. This population comes from a process of active participation in social environments, as dynamic beings in various fields, however, sometimes aging is related to the normal deterioration of health where you can see the difficulties in the physical,

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and cognitive levels which in turn leads to initial isolation with family and later with the social (Hernández-Vergel et al., 2018). For this reason, the figures show that older adults are increasing rapidly, where a worldwide increase is estimated for the period 2015 to 2050 such population will double from 12% to 22% (WHO, 2017).

Likewise, it is considered that the older adult person is considered by society as a population with a high vulnerability index even more in the times of pandemic that is currently experienced, taking into consideration that at this stage of life is where the decline of each of the physical, cognitive and social skills begins, in addition to the passage through which they face such as from the production stage to retirement which can cause an alteration in the free time and leisure of this type of population.

In Colombia, according to the National Administrative Department of Statistics (DANE, 2021) of the total number of the population aged 65 years and older, approximately 99% reside with their families, in contrast with the remaining 1% of people living in Specialized Places of Accommodation-Geriatric Centers (hereinafter LEAS). As for the elderly living in centers/asylums, they are referred to as institutionalized persons (Rojas, 2012), and others, deduced that the elderly upon entering these centers initiate a transformation process where the main thing is the observation and later the adaptation to their new life, where a significant correlation between the autonomy and independence of the elderly person and the deterioration of health due to Institutionalization is evidenced. Likewise, these people may develop other dependencies or losses at the psychological level or material objects.

For this reason, older adults may feel lost in the new context, when entering these centers/nursing homes, they break interpersonal relationships, which have been formed throughout their lives, and thus may limit their adaptation and independent participation in daily life activities. This implies difficulty in self-motivation in pleasurable and interesting activities such as leisure and free time, which are diminished or null, which restricts new social relationships with peers, leading to experience low personal growth, decreased cognitive functions, depreciation of self-esteem and, therefore, affects the quality of life and subjective well-being.

For the above, it is important to emphasize that older adults are progressively losing skills and abilities to perform in different areas of occupation, which in turn affects the loss of most of their roles. For this reason, leisure and free time activities of interest and pleasure should be progressively included in the daily routine of the elderly to favor the maintenance of skills for as long as possible, since through these activities, intrinsic motivation is implemented so that they can develop naturally and autonomously in the different activities, working together cognitive and motor skills which favor the performance in the activities of daily and instrumental life. It is important to keep in mind that older adults should not be allowed to adopt a sedentary lifestyle, since this causes an increase in contractures and pain in the joints, since the absence of exercise in their body leads to a reduction in muscle mass and strength, generating a weakening of the joints, leaving them more exposed to pain in the neck, waist and back, which hinders their autonomous performance.

### **Activities of daily living**

Human beings can perform various activities daily, some of which are necessary for life because they contribute to their maintenance, such as bathing, eating, and dressing, among others. However, there are other activities in which they can participate that are different from these basic activities, some associated with tasks in their environment and others that offer satisfaction and well-being.

For Horgas (1998), it is essential to analyze the types of activities of daily living in older adults as the target population of this research:

- a) Basic activities of daily living, are associated with personal sustenance and aim at the physical survival of the person.
- b) Instrumental activities of daily living, which are related to the actions performed by the older adult to ensure that he/she is an active part of a social or work environment.
- c) Leisure and social activities, which are directly linked to self-enriching activities performed mainly in a social or community environment.

These activities of daily living are essential in the diagnosis of the quality of life and the functional assessment of older adults, as reviewed in the work of Acosta and González-Celis (2010). Regarding leisure and social activities in older adults, those proposed by Lemon et al. (1972) are considered, which are later mentioned in the activity theory proposed by Litwin & Shiovitz-Ezra (2006), who classify them as follows:

- (a) Informal activities, among which the following stand out: going on a trip, chatting with family, friends or neighbors, or having interaction with children, whose link is likely to be their grandchildren.
- b) Formal activities, which include supporting religious tasks such as visiting homes in the community or caring for the sick, carrying out handicraft workshops or making objects or artistic creations, or caring for the environment, which commonly occurs in groups of older adults.
- c) Solitary activities, which include reading newspapers or books, listening to the radio, watching television and other related activities.

In addition, it can be said that these activities are not exclusive, since many factors influence this aspect, such as, for example, the health or mobility limitations of the older adult, personal tastes that are strongly influenced by the income or lifestyle to which the person was accustomed during his or her productive working life. In this sense, it is stated that "some of the most popular activities to occupy free time in old age are gardening or reading, watching sporting events on television, visiting friends or relatives, going for a walk or training in creative activities" (Acosta & González-Celis, 2006, p. 290).

### **Leisure Activities**

The occupations of the institutionalized older adult population, especially in the development of Leisure and Free Time activities, derive from programs organized by governmental entities or educational institutions, where they structure academic programs with human resource personnel, with higher educational levels, financial support and leadership that is not always appreciated or valued by the collective and the institution. Even so, due to the pandemic, these programs were suspended, bearing in mind that this is a population vulnerable to contagion. Despite the limitations imposed, the intrinsic and extrinsic motivation, interests that generate immediate gratification, requests, and desires of these people must be known, that promote active aging with depreciation or prevention of the deterioration of physical and cognitive body functions, which can be executed through modalities that involve the use of leisure and free time, considering the quality of life and thus increasing subjective well-being (Hernandez, 2018).

Within the American Occupational Therapy Association (2014) it is stated that a voluntary activity that is performed for self-motivation in a space of time not committed to mandatory activities can be considered leisure time activities. On the other hand, Chacón et al. (2016) classify them as those activities that are executed in spaces different from everything usual or every day that could be used properly or simply, wasted. When this occupation is creatively executed, the older adult develops capabilities in the body functions related to the musculoskeletal and mental system, in turn, it favors personal balance while enriching the person's experiences. Therefore, free time is used to develop activities of personal taste and interest, with a defined purpose and/or objective that is of immediate gratification, either of personal growth, improvement of health or quality of life (Padial et al., 2018).

For such reason, this research stems from the scarce understanding of leisure and free time occupational interests about the prospects of active participation of the older adult in times of mandatory social isolation due to covid-19, as a response to stop the rapid contagion and mitigate the affectations in the population (WHO, 2020; Mahase, 2020). These considerations determine an affectation in all human occupations, since it suddenly led the inhabitants regardless of the life cycle to modify and alter habits and routines, causing an emotional imbalance, generating a process of resignification of preferences or affinities, not only to the educational community, but also to the common population, and with greater reason, it can be expected to have effects on the most vulnerable social groups such as the elderly (Hernández et al., 2021; Hernández et al., 2019).

### **Methodology, Materials and methods**

The research characteristics of this project are the following: quantitative in nature, at a descriptive level, following a cross-sectional field design. Being a field study, the data collection is obtained directly from the primary source, which, in this case, corresponds to a group of institutionalized older adults. Data collection was managed in compliance with all biosecurity protocols to mitigate the probability of covid-19 infection.

Likewise, the data collection instrument used is composed of two sections: an initial part in which the socio-demographic profile is defined, with questions related to age, gender, marital status, occupation, level of study, and whether there is a person who supports the activities, whether there is any disability and what type; as a second section, the leisure and free time activities are determined, for which the modified interest list instrument of Kielhofner and Neville (1983) is used, consisting of the collection of data associated with the tastes and interests of the human being. The instrument consists of three parts, the first part the person answers about the interests and another part indicates the interests according to the occupational history, the interests that the person keeps pleasantly and the future predominance of participating in them. This instrument has been translated into Spanish and validated in the context by Rogers et al. (1978), who analyzed the validity of the classification or systematization of interests through the application of factor analysis, taking into account the projection of the instrument in practice according to the association with the MOHO. It was modified by Scaffa (1981), and later by Kielhofner and Neville (1983), to be applied to the adult population and to achieve the reliability and validity of the instrument.

The sample consisted of 20 institutionalized older adults whose ages ranged from 60 to 90 years. These participants belonged to a nursing home in the city of San José de Cúcuta, Colombia, which is made up of approximately 90 people. However, for the selection of the sample and determination of its size, the

inclusion criteria were considered as being older than 60 years, not having a neurological history or alterations of consciousness/cognitive and that they agreed to be part of this research voluntarily.

## **Results and discusión**

The results have been organized according to the composition of the instrument, that is, first the demographic profile and then the diagnosis of interests in leisure and free time activities. Likewise, the descriptive results associated with each variable under study are initially presented and then discussed concerning the literature consulted.

### **Socio-demographic profile**

Regarding the socio-demographic profile of the surveyed older adults, it was determined that:

Regarding gender, 84.2% are women and the remaining percentage (equivalent to 15.8%) corresponds to men. These figures exceed 30% the predominance of the female gender in the 2020 population projection in Colombia, where it is estimated that there were 680,8641 older adults and 55% of them correspond to the female gender (DANE, 2021).

Regarding age, 42.1% are between 60 and 70 years old, 36.8% are between 71 and 80 years old, and the remaining percentage is over 81 years old. This situation becomes a challenge for the institutions dedicated to the care of this population, since they must ensure that they remain active until the last day of their lives, with emotional and physical well-being, as highlighted by Gutiérrez-Robledo (2002), who states that this is one of the greatest challenges that public health must face in the various countries because of the growing increase in the elderly population.

Regarding marital status, 21.1% are married, 5.3% are separated, 31.6% are single, 36.8% are widowed, and of this percentage, 21.2% are women. Finally, the remaining 5.3% are in a free union. Several studies have highlighted the importance of being married or having a partner in the aging process for all human beings, regardless of gender, since they feel supported to face the activities that the day-to-day brings (Madrid & Garcés, 2000; Van & Henkens, 2005). In some cases, the adult person is without a partner but has the support of a family member, but when asked if they had someone to support them or to be aware of their needs, it was determined that in 84.2% of the cases, they said no, then this situation could enhance in their feelings of loneliness and abandonment (Hernández et al., 2019; Hernández-Vergel, 2018).

When exploring the occupation, they performed before being admitted to the asylum, it was determined that all the women were engaged in household activities, while, men, they assured that they performed independent activities of various trades. In both cases, the results contrast with the findings of the DANE report (2021), which mentions the existence of gender differences in terms of daily working hours and the economic remuneration received for the activity performed, being less favorable for women who, when performing household chores, work longer hours (between 8 and 12 hours a day) and receive little or no remuneration. But this same situation, when analyzing the percentage of unemployment in adults over 60 years of age in Colombia, shows that by October 2020, 8.2% of the unemployed were men, in contrast to the 2.5% corresponding to women. For the same measurement date, 62.5% of people over 60 years of age were self-employed and only 14.2% were formally employed.

Concerning the schooling attained by the informants, it was determined that 5.3% had a Secondary Basic Education, corresponding entirely to the female gender. A total of 78.9% had completed some grade

of primary education but had not finished it, while 15.8% had never entered the Colombian education system. These results are similar to those reported by the DANE report (2021) which mentions that 49.3% of older adults for the year 2018 reported Primary Basic Education as the maximum educational level reached, while 14.2% did not reach any educational level.

Continuing with the characterization, they were asked if they had any type of disability that impeded their normal performance, to which 42.2% responded that, yes they were affected, half by a physical disability and the other half by a visual disability.

Regarding the degree of disability, it was determined that of the 42.1% who are affected, 10.5% are at a mild level, 15.8% at a moderate level and 15.8% at a severe level.

Concerning the degree of affectation according to gender, it was determined that at the mild level, it is distributed equally between men and women, while at the moderate level the percentage of women affected is double that of men, and at the severe level is only observed in women.

As mentioned, "aging is considered as a process where a progressive deterioration occurs in the organism, leading to morphological, functional, psychological and biochemical alterations, causing vulnerability" (Camargo-Hernández & Laguado-Jaimes, 2017, p. 164). The reason why it is normal that, at this stage of the human being, limitations or alterations of body structures or functions occur, therefore disabilities directly affect the normal development of activities that were previously considered everyday activities.

### Leisure Activities

Advancing in the research objective, the degree of affinity of the older adults with six activities was explored: gardening, sewing, board games (parquets, dominoes, cards), listening to the radio or watching television, walking and reading. These activities were assessed at four different points in time: in the last ten years, in the last year, currently, and if they would like to in the future.

The first activity evaluated with the older adults corresponds to gardening (understood as maintenance and care of plants, that is, watering them or cleaning their leaves), to which it is concluded that opinions are divided on this subject, given that half say they like this activity, highlighting that they have done it in the last year, but some have abandoned it at present, but would like to resume it in the future (Table 1).

The gardening activity could be classified as physical recreational activity, as reviewed in Acosta and González-Celis (2010) along with other activities such as dancing, going on trips, playing with children, walking, hiking, singing, and swimming, among other activities.

**Table 1.** Gardening activity.

Moment of time	Answer options	
	Yes	No
In the last ten years	47.4%	52.6%
In the last year	52.6%	47.4%
Currently doing it	47.4%	52.6%
Would like to do it in the future	52.6%	47.4%
<b>Percentage Average</b>	<b>50.0%</b>	<b>50.0%</b>

The second activity evaluated with the older adults corresponds to sewing (understood as mending unpatched pieces, gluing buttons, and sewing pillows, among others). It was determined that an average of 65.8% of them have not carried out this activity and are not interested in doing it today or in the medium term (Table 2).

It is noteworthy that at least one out of every three older adults surveyed said that they have developed actions associated with this activity and that they are interested in continuing to do so. Sewing, along with activities such as watching television, playing board games, reading, painting, drawing, going to the movies or doing yoga, are classified as mental recreational activities in the work of Acosta and González-Celis (2010).

**Table 2.** Sewing activity.

<b>Moment of time</b>	<b>Answer options</b>	
	Yes	No
In the last ten years	42.1%	57.9%
In the last year	26.3%	73.7%
Currently doing it	31.6%	68.4%
Would like to do it in the future	36.8%	63.2%
<b>Percentage Average</b>	<b>34.2%</b>	<b>65.8%</b>

The third activity evaluated with the older adults corresponds to participation in board games such as parcheesi, dominoes, cards or playing cards, among many others. Table 3 shows that participation in various board games are activities that four out of ten people in this nursing home engage in. This affirmation is strengthened by the fact that this activity has been carried out in the last year, is currently being carried out and is considered to be present in future actions within the asylum. When comparing the relative percentage by gender concerning the liking for board games, it was determined that older adults of the male gender have greater acceptance than women.

This finding is contrary to that identified in the work of Acosta et al. (2014) who concluded that the percentage of participation in these activities was the same among men and women.

**Table 3.** Sewing activity.

<b>Moment of time</b>	<b>Response options</b>	
	Si	No
In the last ten years	26.3%	73.7%
In the last year	47.4%	52.6%
Currently doing it	47.4%	52.6%
Would like to do it in the future	47.4%	52.6%
<b>Percentage Average</b>	<b>42.2%</b>	<b>57.8%</b>

Watching television or listening to the radio corresponds to the fourth activity evaluated with institutionalized older adults. Table 4 shows that nine out of ten of the people surveyed have linked this activity as part of their past, present and near future.

A situation that allows intuiting that it is an activity strongly promoted within the nursing home, given its low complexity and requirement of support staff Rayén et al. (2016). As mentioned in Litwin and Shiovitz-Ezra (2006), and Schaie and Willis (2003) watching television or listening to the radio is classified within the category of solitary activities, since they are performed independently.

In the group of informants surveyed, there was evidence of favoritism towards these two activities, since they are considered recreational and fun, but as described in the research by Árraga and Sánchez (2007) "this activity has come to replace the need for company in those who live alone" (p. 40), which could be happening in them, given that more than 90% of them have more than twelve years in the asylum and less than 5% receive a visit from a family member regularly.

**Table 4.** Activity associated with listening to the radio or watching television.

<b>Moment of time</b>	<b>Response options</b>	
	Yes	No
In the last ten years	84.2%	15.8%
In the last year	94.7%	5.3%
Currently doing it	94.7%	5.3%
Would like to do it in the future	89.5%	10.5%
<b>Percentage Average</b>	<b>90.8%</b>	<b>9.2%</b>

When exploring the activity of walking among the surveyed older adults, it was determined that it was a recurrent activity in their past, but as time has passed, its intensity has decreased, possibly due to the physical deterioration associated with their aging process.

This situation allows concluding that an average of 64.5% of the informants consider this activity to be part of their daily routine, as shown in Table 5. In the research conducted by Fernández-Mayoralas et al. (2015), the concept of "active aging" is highlighted. As the positive view of aging and participation in activities of different types" (p. 40). One of the characteristics of active aging is that the older adult can mobilize autonomously, which points to the improvement of their quality of life and enhances the concept of enjoying successful aging.

**Table 5.** Activity associated with walking.

<b>Moment of time</b>	<b>Answer options</b>	
	Yes	No
In the last ten years	100.0%	0.0%
In the last year	68.4%	31.6%
Currently doing it	36.8%	63.2%
Would like to do it in the future	52.6%	47.4%
<b>Percentage Average</b>	<b>64.5%</b>	<b>35.5%</b>

In the last activity evaluated in older adults, which corresponds to the habit of reading, it could be determined that on average 32.9% perform this activity, but when observing the evolution of the percentage as a timeline it can be evidenced that it is an activity whose percentage has been decreasing as time goes by.

Although not enough research has been conducted on the possible relationship between language and the aging process, Stuart-Hamilton (2002, cited in Martínez, 2015, p. 10) highlights the process of reading in older adults and states that "this should be understood as the process of decoding and understanding the message, within which, in addition, different cognitive, perceptual, memory and linguistic skills are involved". In the daily life of older adults, although they have more free time that could be invested in reading, this is not the case. In this same study, it is highlighted that although those who have developed this habit since their youth, in adulthood they change the type of readings they review, for example, now they are interested in reading newspapers due to their simplicity. Additionally, another factor that influences the disinterest of the older adult population in reading is the possible physical and psychological limitations that arise at that age.

**Table 6.** Activity associated with reading

Moment of time	Answer options	
	Yes	No
In the last ten years	63.2%	36.8%
In the last year	42.1%	57.9%
Currently doing it	10.5%	89.5%
Would like to do it in the future	15.8%	84.2%
<b>Percentage Average</b>	<b>32.9%</b>	<b>67.1%</b>

## Conclusions

This work aims to evaluate the different leisure and free time activities carried out by institutionalized older adults in times of social isolation. The methodological proposal of the quantitative approach was followed to make a description of the observable or manifest characteristics of the group of 20 institutionalized older adults whose average age was 68.5 years.

It was found that the older adults experienced feelings of abandonment and lack of direct attention, which caused damage to their biopsychosocial state and alterations of routines in participating in leisure and free time activities that were pleasurable, aroused their interest and produced immediate gratification. Based on the above and the results found, it can be concluded as the main finding of this research that most of the participants' free time (at present) is mainly devoted to watching television or listening to music since these activities do not require greater accompaniment by the institution's support staff.

The senior centers/nursing homes were forced to suspend the programs established by the Universities or governmental entities, especially for almost the entire year 2020 due to the covid-19 pandemic. As of February 2021, society urgently demands a return to controlled normality in which biosecurity measures and protocols issued by the WHO must be strictly complied with. Despite this situation, access to this type of place is still very restricted, so the elderly population of the nursing home under study, from March 2020 to the date of writing this article (June 2021), has remained in contact with more than 95% of the time only with the staff of the institution, which has reduced to a minimum the covid-19 infection in them (only one case).

## References



- American Occupational Therapy Association. (2014). Occupational Therapy Practice Framework: Domain and Process. *American Journal of Occupational Therapy*, 68(Sup.1), 1-48. <https://doi.org/10.5014/ajot.2014.682006>
- Acosta, C. O., Echeverría, S. B., Vales, J. J., Ramos, D. Y. & Bojórquez, C. I. (2014). Variables psicosociales asociadas a la frecuencia de actividades de ocio en adultos mayores mexicanos. *Psicología y salud*, 24(1), 109-119.
- Acosta, C. O., González-Celis, A. L. M. (2010). Actividades de la vida diaria en adultos mayores: la experiencia de dos grupos focales. *Enseñanza e Investigación en Psicología*, 15(2), 393-401.
- Árraga, M., & Sánchez, M. (2007). Recreación y calidad de vida en adultos mayores que viven en instituciones geriátricas y en sus hogares. Un estudio comparativo. *Espacio abierto*, 16(4), 737-756.
- Camargo-Hernández, K., & Laguado-Jaimes, E. (2017). Grado de deterioro cognitivo de los adultos mayores institucionalizados en dos hogares para ancianos del área metropolitana de Bucaramanga-Santander, Colombia. *Universidad y salud*, 19(2), 163-170. <https://doi.org/10.22267/rus.171902.79>
- Chacón, R., Arufe, V., Cachón, J., Zagalaz, M. L., & Castro, D. (2016). Estudio relacional de la práctica deportiva en escolares según el género. *SPORT TK-Revista EuroAmericana de Ciencias del Deporte*, 5(1), 85-92. <https://doi.org/10.6018/249161>
- Departamento Administrativo Nacional de Estadística. (2021, enero). Informe Adulto mayor, características generales. DANE. <https://www.dane.gov.co/files/investigaciones/genero/presentacion-caracteristicas-generales-adulto-mayor-en-colombia.pdf>
- Fernández-Mayoralas, G., Rojo, F., Forjaz, M. J., & Rodríguez, V. (2015). Envejecimiento activo y participación en actividades de ocio entre adultos mayores residentes en comunidad y en institución. En M. J. Monteagudo, J. Cuenca, R. San Salvador, Aportaciones del ocio al envejecimiento satisfactorio (pp. 39-65). Instituto de Estudios de Ocio y Universidad de Deusto.
- Gutiérrez-Robledo, L. M. (2002). Looking at the future of geriatric care in developing countries. *Journal of Gerontology, Medical Series*, 57(3), M162–M167. <https://doi.org/10.1093/gerona/57.3.M162>
- Hernández, V., Prada, R., & Hernández, C. A. (2018). Bienestar subjetivo entre adultos mayores institucionalizados en la ciudad de Cúcuta, Colombia. *Diversitas: Perspectivas en Psicología*, 14(1), 243-262.
- Hernández, V. K., Solano, N., & Fernández, F. (2019). Entorno social y sentimientos de soledad en adultos mayores institucionalizados. *Revista Cuidado y Ocupación Humana*, 8(2), 6-15.
- Hernández, V. K., Prada, R., & Hernández, C. A. (2021). Afectaciones ocupacionales y emocionales derivadas del aislamiento social en tiempos del Covid-19. Un estudio de casos. *Revista Boletín Redipe*, 10(2), 295-311. <https://doi.org/10.36260/rbr.v10i2.1214>
- Hernández-Vergel, V., Prada-Núñez, R., & Hernández-Suárez, C.A. (2018). Adaptación del perfil PERMA de bienestar subjetivo para adultos mayores institucionalizados colombianos. *Revista Ciencia y Cuidado*, 15(1), 83–97. <https://doi.org/10.22463/17949831.1235>
- Horgas., A. L., Wilms, H. U., & Baltes, M. M. (1998). Daily life in very old age: everyday activities as expression of successful living. *The Gerontologist*, 38(5), 556-568. <https://doi.org/10.1093/geront/38.5.556>
- Kielhofner, G., & Neville, A. (1983). The Modified Interest Checklist. Unpublished manuscript, Model of Human Occupation Clearinghouse. Department of Occupational Therapy. University of Illinois at Chicago.

- Lemon, B. W., Bengtson, V. L., & Peterson, J. A. (1972). An exploration of the activity theory of aging: Activity types and life satisfaction among in- movers to a retirement community. *Journal of Gerontology*, 27(4), 511-523. <https://doi.org/10.1093/geronj/27.4.511>
- Litwin, H., & Shiovitz-Ezra, S. (2006). The association between activity and wellbeing in later life: What really matters? *Ageing & Society*, 26(2), 225-242, <https://doi.org/10.1017/S0144686X05004538>
- Madrid, A. J., & Garcés, E. J. (2000). La preparación para la jubilación: Revisión de los factores psicológicos y sociales que inciden en un mejor ajuste emocional al final del desempeño laboral», *Anales de Psicología*, (1), 87-99.
- Mahase, E. (2020). Coronavirus: covid-19 has killed more people than SARS and MERS combined, despite lower case fatality rate. *BMJ*, 368(m641), <https://doi.org/10.1136/bmj.m641>
- Martínez, M. (2015). Taller de promoción de lectura con adultos mayores: beneficios de la lectura durante el envejecimiento (tesis especialización, Universidad Veracruzana). Repositorio Institucional UV. [https://www.uv.mx/epl/files/2015/12/Protocolo\\_MarianaMarti%CC%81nezFortuno-4.pdf](https://www.uv.mx/epl/files/2015/12/Protocolo_MarianaMarti%CC%81nezFortuno-4.pdf)
- Organización Mundial de la Salud. (2017, 12 de diciembre). La salud mental y los adultos mayores. Centro de prensa. OMS. <https://www.who.int/es/news-room/fact-sheets/detail/la-salud-mental-y-los-adultos-mayores>
- Organización Mundial de la Salud. (2020, 03 de marzo). Alocución de apertura del director general de la OMS en rueda de prensa para las misiones diplomáticas sobre el Covid-19. OMS. <https://www.who.int/es/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-mission-briefing-on-covid-19---4-march-2020>
- Padial, R., Viciano, V., & Palomares-Cuadros, J. (2018). Adherencia a la dieta mediterránea, la actividad física y su relación con el IMC, en estudiantes universitarios del grado de primaria, mención de educación física, de Granada. *ESHPA - Education, Sport, Health and Physical Activity*, 2(1), 30-49. <https://doi.org/10.30827/Digibug.49836>
- Rayén, A., Bastías, G., Valdivi, G., Cheix, C., Barrios, X., Rojas, R., Gálvez, M., & Fernández, M. (2016). Adultos mayores en Chile: descripción de sus necesidades en comunicación en salud preventiva. *Cuadernos.Info*, (38), 85–104. <https://doi.org/10.7764/cdi.38.964>
- Rogers, J., Weinstein, J., & Figone, J. (1978). The interest checklist: an empirical assessment. *American Journal of Occupational Therapy*, 32(10), 628-630.
- Rojas, M. J. (2012). La intervención enfermera como instrumento de formación en cuidados y autocuidados de personas mayores en el espacio domiciliario (tesis doctoral, Universidad de Huelva). Repositorio Institucional UHU. <http://rabida.uhu.es/dspace/handle/10272/6047>
- Scaffa, M. (1981). Temporal Adaptation and Alcoholism (master's thesis, Virginia Commonwealth University).
- Schaie, K. W., & Willis, S. L. (2003). *Psicología de la edad adulta y la vejez*. Pearson Educación.
- Stuart-Hamilton, I. (2002). *Psicología del envejecimiento*. Morata.
- Van, H., & Henkens, K. (2005). Couple's adjustment to retirement: A multi-actor panel study. *J Gerontol B Psychol Sci Soc Sci*, 60(1), 11-20. <https://doi.org/10.1093/geronb/60.1.s11>



## **Impact Of Zika On Infants**

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### **Abstract**

**Objective:** To describe the level of impairment in performance skills and maturational age of children in the Valientes del Futuro program with neonatal Zika virus infection.

**Materials and Methods:** The research is framed with a quantitative approach of a correlational type supported by field research and non-experimental design, with a sample of 15 infants 3, 4 and 5 years old. The collection technique used was the Abbreviated Scale.

**Results:** Regarding the areas evaluated for the maturational age, it was found that the weighting of motor skills and praxis found a correlation coefficient of 0.601 (moderate) and in the sample of the execution skills of 3-year-old children with gestational zika a correlation of 0.853 (strong) was obtained.

**Conclusions:** There is a correlation between infants with gestational zika and strong affectation in the actions or behaviors that a patient has to move and physically interact with activities, and objects and thus perform a learned motor activity.

**Keywords:** Zika virus; Gestational; Skills, Infant Development.

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### **1. Introduction**

Zika virus is a Flavivirus belonging to the Family Flaviviridae and was discovered in monkeys in 1947 in Uganda [1,2] and later in humans in 1952 in Uganda and the United Republic of Tanzania. Also, flaviviridae are positive-stranded RNA viruses that include human pathogens such as West Nile virus, yellow fever virus, mosquito-borne dengue virus, Japanese encephalitis virus, and tick-borne encephalitis virus.

This arthropod-borne virus (arbovirus) has its vector in the *Aedes aegypti* mosquito; that is, it is transmitted by the bite of infected mosquitoes, but can also occur through intrauterine infection. Congenital or intrauterine transmission of Zika virus occurs when a woman becomes infected with Zika virus during her pregnancy, but before delivery, and the virus passes to the fetus.

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In this regard, Foy et al. [3] state that “circumstantial evidence suggests direct person-to-person, possibly sexual, the transmission of the virus,” although they do not rule out other possibilities such as the exchange of other body fluids, including saliva. But to date, no reliable evidence of Zika transmission through kissing has been found. Similarly, it should be noted that Zika virus (ZIKV) infection is asymptomatic in about 80% of cases [4,5]. On the other hand, although Zika virus (ZIKV) has been isolated for decades, it is not known whether Zika virus (ZIKV) is asymptomatic or not:

It began to change in 2013 when the landing of ZIKV in French Polynesia was associated with higher rates of Guillain-Barré syndrome, an autoimmune condition that affects the peripheral nervous system and can be triggered by infections. In 2015, just two years after the Polynesian outbreak, an unprecedented epidemic was reported in Brazil. There, ZIKV became an extraordinary health burden due to a new correlation between ZIKV and severe brain malformations in newborns [6, p. 1].

An important change in the behavior of the infection is clear, evidenced by a greater severity in the clinical presentation and associated complications such as alterations in fetal brain development (causing microcephaly) and Guillain-Barré syndrome. On the other hand, Zika epidemics outside the African continent (appearance of the Asian lineage), occur after 2007 and it is especially in 2015 when it enters America [7,8].

In this regard, Gomes et al. [9] revealed that “upon its entry into America, this new pathogen generated, only in Brazil, the report of 440,000 to 1,300,000 suspected cases and more than 4,000 cases of possibly associated microcephaly, between September 2015 and February 2016”. According to Galán et al. [10], there are “six countries, territories and areas reporting cases of microcephaly potentially associated with Zika virus infection. These are Brazil, Cape Verde, Colombia, French Polynesia, Martinique, and Panama.” Therefore, the acquisition of infection during pregnancy has become an important risk of fetal malformation, and therefore, strategies to control its transmission should be prioritized.

The Pan American Health Organization/World Health Organization [11], shows that in Colombia five departments concentrated 58% of suspected cases and 53% of confirmed cases in the period from 32 weeks of 2015 to 52 weeks of 2016: Norte de Santander, Valle del Cauca, Santander, Tolima and Huila, placing Norte de Santander in first place nationally [12].

With the aggravating factor of an incidence rate three times higher than the national rate (277.29 cases/100,000 inhabitants), in the period between weeks 1-21 of 2016, 765.72 cases/100,000 inhabitants. The Department Norte de Santander continued to register cases, with 1 of the 3 cases reported from January 01 to June 03, 2017, (along with Tolima and Risaralda) [13].

Similarly, concerning pregnant women (population susceptible to a complication), 16,323 cases were recorded, of which 5,420 were laboratory-confirmed (33.2%), as a consequence of the epidemic in Colombia. Within the latter group, 1,203 (19%) were from Norte de Santander, with an associated fetal and perinatal mortality of 5.96% of all completed pregnancies, with a predominance of abortion (68.3%) due to infection during the first trimester.

Therefore, this research offers a scientific advance on the Zika virus, since this virus could compromise the nervous system, both centrally (brain) and peripherally (nerves). Studies mention that a low percentage of infected people develop neurological complications as mentioned in previous sections. Therefore, Zika related to cases of pregnant women, one (1) to 13% may present neurological alterations in the fetus, therefore, this research adds a differential with other explorations, which had as main challenge the diagnostic confirmation and study of the immunological mechanisms that lead to Guillain-Barré.

On the practical side, to investigate the Zika virus during gestation and the affectation of the execution skills and the maturational age of children of a pregnant mother whose pregnancy developed

between 2015 and 2016 during the epidemic phase of the Zika Virus, attended at the Erasmo Meoz University Hospital in the city of Cúcuta and considered as a case of gestational Zika.

The problematic situations indicated above, as well as their respective justification, allow formulating the following research questions: Is the history of Zika virus infection identified, both individual and maternal, during gestation through the review of medical records in the program Valientes del Futuro? Is the maturity age and execution skills of the children prioritized in the program Valientes del Futuro and the control population determined through the Abbreviated Development Scale and checklist?

These minor questions may provide an answer to a major one: can the level of impairment in performance skills and maturational age of children in the Courageous of the Future Program with neonatal Zika virus infection be described?

## 1.1 Zika virus during gestation. Impairment of performance skills and maturational age in children.

### 1.1.1 Gestation and Zika

For Bolaños [14] pregnancy or gestation:

...is the physiological state of the woman by which, over an average of 281 days, a new human being develops in her womb... Pregnancy is considered an anabolic stage, in which the creation of new tissues leads to a progressive weight gain (10 kg on average). This weight gain is conditioned by: fetus (3,400 grams [g]), placenta (650 g), amniotic fluid (800 g), extracellular fluid (1,680 g), other tissues and fat reserve to ensure lactation (3,345 g), uterus and breasts (1,375 g) and blood (1,250 g) (page 1197).

Likewise, Lugones and Ramírez [15] define pregnancy:

The period that elapses between implantation in the uterus of the fertilized ovum and the moment of delivery. It includes all the physiological processes of growth and development of the fetus inside the maternal uterus, as well as the significant physiological, metabolic and even morphological changes that occur in the woman to protect, nourish and allow the development of the fetus.

As a result, almost all limbs and systems of the pregnant woman experience anatomical and physical alterations that are reversed in the puerperium. However, certain neonates are born with complications of infection in pregnancy. Belfort et al. [16] report that Zika virus infection has been associated with the appearance of neurological alterations in newborns due to the special neurotropism of the virus. On the other hand, regarding diagnosis, according to Gourinat et al. [17], ZIKV can be detected in whole blood, plasma, serum, urine, cerebrospinal and amniotic fluids, semen and saliva. It can be detected longer term in semen and urine than even in the blood.

Therefore, the Spanish Society of Gynecology and the Spanish Society of Pediatric Infectious Diseases (SEGO-SEIP) warn that “the risk that Zika virus infection in a pregnant woman can cause disorders in the development of the neurological system of the fetus” [18]. Also, these authors point out that the diagnosis of congenital Zika virus infection, epidemiological, clinical and laboratory criteria are established. Where the epidemiological criterion for diagnosing whether the newborn fetus of a mother with a history of Zika virus infection is whether it has been infected by Zika virus; as well as having traveled or resided in an area of virus transmission during pregnancy or having had unprotected sex with men diagnosed with Zika virus infection.

While the clinical criteria refer to whether the fetus or newborn has microcephaly, neuroimaging abnormalities, neurological abnormalities, ocular involvement, intrauterine growth retardation or other findings: Clubfeet, arthrogryposis secondary to neurological damage of central origin.

Laboratory criteria, meanwhile, refer to cases with nucleic acid detection by PCR in a clinical specimen (serum, urine, CSF or amniotic fluid); positive IgM confirmed with positive neutralizing antibodies in serum; persistence of positive IgG for Zika beyond 18 months of life. The presence of IgM antibodies, not confirmed by neutralization in a serum sample, and, IgG persistence between 6 and 18 months of age (at least two samples with similar IgG concentration).

Similarly, the Spanish Society of Gynecology and Spanish Society of Pediatric Infectious Diseases (SEGO-SEIP), mentions that:

A scientific publication analyzing a cohort of 1,850 pregnant women infected with Zika virus in Colombia, concluded that more than 90% of the women who had been infected during the third trimester of pregnancy had given birth to newborns that did not present any abnormalities, including microcephaly. However, in Brazil, the appearance of a rash in the pregnant woman during the third trimester was associated with brain alterations even though the newborns had normal cranial perimeters (50); 4 cases of microcephaly were also identified in children of asymptomatic women (51,52) [18].

Based on the studies there is scientific consensus to affirm that Zika virus infection is a cause of microcephaly and other neurological alterations in newborns, as well as, Guillain Barré syndrome [19]. In this regard, Arroyo argues "...that this arboviral infection is associated with an increased incidence of microcephaly in fetuses and children born to infected mothers. The risk of fetal microcephaly is higher for infections occurring in the first trimester" [20].

The latter author argues that children with microcephaly may have different problems such as intellectual disability, developmental delay, epilepsy, cerebral palsy, as well as ophthalmologic and hearing disorders. He also indicated that in a study of 680 children he reported that 65% of the children with microcephaly had an intellectual disability, 43% epilepsy, and 30% ophthalmologic conditions. Familial idiopathic isolated microcephaly has not been associated with decreased developmental outcomes or IQ scores in children without other notable deficits.

On the other hand, the Ministry of Health of Argentina points out that "various infections, produced by arboviruses, that could affect the performance skills and the maturational age of children" [21], and, therefore, the progressive acquisition of skills is the primary task of the nervous system and it is the reflection of this maturation that is called development.

### 1.1.2 Maturation development

Child development is linked to growth. Growth begins at the moment of conception of the human being and continues through gestation, infancy, childhood and adolescence. Therefore, growth is inherent to development. Now, development involves maturity and refers to the acquisition of skills and abilities at various stages of life. Thus, maturation emphasizes the importance of nature or genetics in human development, as opposed to nurture or the environment.

Maturation development occurs in fixed sequences or stages that are governed by genes. This "genetic blueprint" for development determines the sequence, timing, and form of emergent patterns of action [22]. For this, it is necessary to have adequate knowledge of the normality characteristics. Iceta and Yoldi [23], mention that normal development is due to the acquisition of certain skills, among them are Gross motor skills, so that the voluntary motor act evolves normally requires, on the one hand, a progressive differentiation of broad and undifferentiated acts to other precise and specific ones, that there is a cephalo-caudal projection and that it also happens from axial to distal.

On the other hand, Escudero points out that "the child is a subject that follows a highly complex development process. On the one hand, it is necessary to consider the evolutionary development of the

acquisition of adaptive and instrumental functions. This development is organized into four main areas: psychomotor, intelligence, language and socialization” [24].

In this regard, the Pan American Health Organization cited by the Ministry of Health of Argentina [21] states that the developmental stages of maturation refer to the following areas: motor, coordination, language and social, namely:

- **Motor area:** Motor development are cephalo-caudal, proximal-distal and specific global activities, that is, it is related to the principles of movements, which in the first months of birth are abrupt, broad and uncoordinated, although later these movements will appear slow, limited and coordinated, which gives control to gross motor skills, which are the movements that comprise large areas of the body (sitting, walking, running) and then the control of fine motor skills will be acquired (kicking a ball, drawing, writing, and thus developing the capacity for autonomy and independence). In fine motor skills, the development of the hand is seen from about 4 months and ends with the achievement of the manual tripod (posture adopted by the thumb, index and middle fingers to hold the pencil) back between 4 and 6 years. It is necessary for the disappearance of the tonic flexor reflexes of the hand and the asymmetric cervical tonic reaction and to achieve coordination with the sight so that the manipulation begins. Thus, he will initially hold an object placed in his hand, and then he will be able to reach for it and reach for it.
- **Coordination area:** Refers to the integration of sensory-motor functions before objects and situations, i.e., audiovisual and hand-eye coordination. The first one allows looking for sound sources with the eyes. The second allows the development of pressure processes before objects that are within reach. Later, complex manual skills are acquired (inserting small objects into jars or bottles), opening or closing doors, turning pages of a book, dressing and undressing, among others, when wrist flexion and forearm rotation begin to develop.
- **Social Area:** Refers to the child's reactions to the environment in which he/she lives, as well as the relationship with the mother and other people. The ability to integrate and adapt to the environment (playing, feeding and dressing), interaction behaviors, the process of socialization, individualization, autonomy and independence. Therefore, in social development, the child will acquire behavioral patterns that will serve for its interaction with the environment, because by nature it is a social being.
- **Language Area:** The use of language is a communication channel exclusive to the human species that starts in the first year of life. The infant has many forms of preverbal communication: laughing, screaming and tantrums; stretching out his arms to be picked up, closing his mouth when offered food. Therefore, this area refers to all forms of audible or visible communication (looks, gestures, sound perceptions and verbal expressions), whether postural movements, vocalizations, words or sentences. It includes imitation, comprehension and articulated language.

All of the above induces that the maturational development of the newborn with Zika infection will depend on the affectation found in the execution skills of infants. Because the maturation and growth of the individual go hand in hand with the cognitive, social, affective, and language, acquiring these skills according to their age, since each child is a different world, where the Abbreviated Developmental Scale could be a tool for early identification of motor, language, social and coordination anomalies.

### 1.1.3 Abbreviated Developmental Scale – EAD

For Alarcón and Trujillo [25], children have physical, psychological and social capacities as the basis for their processes of interaction with themselves, with the world and with others. Therefore,

development during childhood is a complex process of permanent change, which happens differently for each child, taking into account the particularities of the child and his or her context. On the other hand, developmental failure is a concept that is used to evaluate a child who does not reach the expected developmental milestones for his or her age, even after considering the wide variation of normality.

From this perspective, for Ortiz, the EAD “is an instrument designed to perform a global and general assessment of certain areas or processes of development” [26] that makes it possible to detect alterations or problems in children. The purpose of this scale is to identify early the risk of developmental delays in Colombian and Spanish-speaking children up to 5 years of age.

It is applied from the age range, the item or question on the area in question: a) gross motor skills; b) fine-adaptive motor skills, c) hearing-language and; d) personal-social. In this way, the age in months is requested for each evaluation. These provide normative parameters for the evaluation of the development of children under 60 months of age, to refer the infant to a medical evaluation.

Paraphrasing Ortiz [26] on developmental areas. The gross motor area refers to neurological maturation, tone and posture control, and motor coordination of the head, limbs, and trunk. While the fine-adaptive motor area refers to the ability to coordinate specific movements, intersensory coordination: eye-hand, control and precision for the solution of problems involving fine apprehension, calculation of distances and visual tracking.

Meanwhile, the auditory-language area involves the evolution and improvement of speech and language: auditory orientation, communicative intention, vocalization and articulation of phonemes, word formation, vocabulary comprehension, use of simple and complex sentences, naming, and understanding of instructions, spontaneous expression. And, the personal-social area refers to the processes of initiation and response to social interaction, dependence-independence, expression of feelings and emotions, learning behavioral patterns related to self-care.

In this way, it uses basic materials for the administration of this scale and which should be simple for the cognitive age of the infants, such as Red and black pencils or pens; a medium-sized rubber ball, approximately 15cms in diameter; a medium-sized mirror, small box of wooden cubes of approximately 2cms. Sideways (preferably 3 red, 3 blue and 4 yellow); small blunt-tipped scissors, plastic cup and saucer set, among other materials.

As well as forms for observation and recording information on the following areas: gross motor, fine motor-adaptive, hearing and language, and personal-social to evaluate performance skills, which are the performance skills that occupational therapists work on.

#### 1.1.4 Execution skills

According to the American Occupational Therapy Association [27], multiple adjustments have been used to catalog and qualify the adaptations from the occupational therapy approach to the explorations and practices regarding the ability of skills in the effective performance of infants. For Ares “skills and abilities are elements that constitute the activities of daily living in their family, social and work aspects” [28, p. 2].

According to the aforementioned, Occupational Therapy professionals emphasize checking and investigating each one of the execution skills to know all those aspects that appear and support or limit the performance at the moment of demonstrating one of the activities of daily living. In this regard, Anderson and Prada [29] mention that in the framework for Occupational Therapy Practice, performance skills or abilities are defined as:

Observable, concrete and goal-directed actions are used by the person to participate in activities of daily living. They can be observed while the person performs meaningful tasks in a specific



environment, bringing into play and combining different body functions and structures. Performance skills are classified into motor skills, processing skills, and interaction and communication skills [29].

Thus, the performance skills that are demonstrable activities, where their categories are interrelated and include:

**Motor skills and praxis:** motor skills are actions that a client uses to move, including planning, sequencing and executing new movements. While praxis are skillful intentional movements, it is the ability to perform a learned motor activity. **Sensory-perceptual skills:** the actions or behaviors a client uses to locate, identify and respond to sensations and to select, interpret, associate, organize and recall sensory events based on discrimination of experiences. **Emotional regulation skills:** actions a client uses to identify, manage and express feelings while participating in activities or interacting with others. **Cognitive skills:** actions a client uses to plan and manage the performance of an activity. **Communication and social skills:** actions a client uses to communicate and interact with others in an interactive environment [30]

Consequently, it follows that the execution skills are actions, and movements that are assimilated and accommodated over time and located in certain environments. In the particular case of children aged 3 to 5 years, who have been infected by Zika since gestation, the actions or movements are related to carrying out the execution of a skill when they perform it, according to the context and the demands of the activity in the performance of the occupation. For all the above-mentioned reasons, this work aimed to describe the level of affectation in execution skills and maturational age of children of the Valientes del Futuro program with neonatal Zika virus infection, to evaluate these skills according to performance practices according to cognitive age from occupational therapy.

## 2. Materials and Methods

### 2.1 Method

The present research is framed within analytical research with a quantitative approach of correlational type. According to Hernández et al. [31], the quantitative approach “uses data collection to test hypotheses based on the numerical measurement and statistical analysis, to establish patterns of behavior and test theories” [31]. On the other hand, for Bernal, correlational research “has the purpose of showing or examining the relationship between variables or results of variables” [32]. That is, “to know the relationship or degree of association that exists between two or more concepts, categories or variables in a particular sample or context” [31].

The research in turn fell within the type of field study, since “the data of interest are collected directly from reality” [33], which in our case are the children born to mothers who were or were not affected by Zika during their pregnancy.

Thus, it is expected to perform a complete characterization of the population under study to identify the possible relationship between the affectation of Zika on the mother in her pregnancy process and the presence of some affectations in the performance of their children in the Valientes del Futuro program in the city of Cúcuta.

### 2.2 Study design

This research could be defined as non-experimental design research because “it is conducted without deliberate manipulation of variables and only observing the phenomena in their natural environment to analyze them” [31]. In which we sought to describe relationships between two or more categories, concepts

or variables at a given time, which in our case are the children born to mothers who were or were not affected by Zika during their pregnancy.

### 2.3 Operating assumptions

According to Hernández et al. [31], correlational hypotheses specify the relationships between two or more variables. Therefore, the following assumptions are made:

- Null Hypothesis (H0): Zika virus infection in children, acquired during gestation, limits maturational age-specific performance skills.
- Alternative Hypothesis (H1): Zika virus infection in children, acquired during gestation, does not limit maturational age-specific performance skills.
- Research hypothesis of relationship: The variables, Zika virus infection in children, acquired during gestation, and maturational age-specific performance skills.

### 2.4 Sample

The type of sample is non-probabilistic, given that the choice of the elements does not depend on probability but on causes related to the characteristics of the research. Regarding the population under study, it is worth clarifying that to assess the infant it is necessary to have the informed consent of the parents, given their condition of being minors and in special conditions, and they were included with the following selection criteria:

#### a) Inclusion (study cohort)

The child of a pregnant mother whose pregnancy developed between 2015 and 2016 during the epidemic phase of the Zika virus, attended the Erasmo Meoz University Hospital in the city of Cúcuta and was considered as a case of gestational Zika.

Child between 3 and 5 years of age belonging to the Valientes del Futuro program, with the aforementioned maternal history.

3. Child is considered as a case of congenital Zika, according to clinical history.

#### b) Inclusion (control cohort)

Boys or girls, schoolchildren aged 3 to 5 years belonging to the Jaime Prieto Amaya School with no immunological history of Zika virus infection, nor the history of diagnosed congenital or acquired pathology.

### 2.5 Data Collection Techniques

According to Arias, a research technique is understood as “the procedure or particular way of obtaining data or information” [34]. Consequently, the Abbreviated Developmental Scale (EAD-1), a test designed by the Colombian Ministry of Health and sponsored by UNICEF, was used for the present study.

It is composed of 120 dichotomous response items distributed in four groups of 30 items to assess gross motor, fine motor, language and social personality [26]. It uses the following normative parameters for the evaluation of the development of children under 108 months of age (Table 1).

**Table 1.** Normative parameters for developmental assessment of children under 108 months of age.

Age in Months	Gross Motor Skills (A)				Fine Motor Skills (B)				Hearing and Speech (C)				Social Personnel (D)				Total			
	Alert	Medium	High	High	Alert	Medium	High	High	Alert	Medium	High	High	Alert	Medium	High	High	Alert	Medium	High	High
1-3	0-1	2-3	4-5	6+	0-1	2-3	4-5	6+	0-1	2-3	4-5	6+	0-1	2-3	4-5	6+	0-6	7-13	14-22	23
4-6	0-4	5-6	7-9	10+	0-4	5-6	7-9	10+	0-4	5-6	7-9	10+	0-4	5-6	7-9	10+	0-18	19-26	27-34	35
7-9	0-7	8-9	10-12	13+	0-7	8-9	10-12	13+	0-7	8-9	10-12	13+	0-7	8-9	10-12	13+	0-30	31-38	39-46	47
10-12	0-10	11-12	12-15	16+	0-10	11-12	12-15	16+	0-10	11-12	12-15	16+	0-10	11-12	12-15	16+	0-42	43-50	51-58	59
13-18	0-13	14-15	16-18	19+	0-13	14-15	16-18	19+	0-13	14-15	16-18	19+	0-13	14-15	16-18	19+	0-54	55-62	63-70	71
19-24	0-16	17-18	19-21	22+	0-16	17-18	19-21	22+	0-16	17-18	19-21	22+	0-16	17-18	19-21	22+	0-66	67-74	75-82	83
25-36	0-19	20-21	22-24	25+	0-19	20-21	22-24	25+	0-19	20-21	22-24	25+	0-19	20-21	22-24	25+	0-78	79-86	87-94	95
37-48	0-22	23-24	25-27	28+	0-22	23-24	25-27	28+	0-22	23-24	25-27	28+	0-22	23-24	25-27	28+	0-90	91-98	99-106	107
49-60	0-25	26-27	28-30	31+	0-25	26-27	28-30	31+	0-25	26-27	28-30	31+	0-25	26-27	28-30	31+	0-102	103-110	111-118	119
61-72	0-28	29-30	31-33	34+	0-28	29-30	31-33	34+	0-28	29-30	31-33	34+	0-28	29-30	31-33	34+	0-114	115-122	123-130	131
74-84	0-31	32-33	34-36	37+	0-31	32-33	34-36	37+	0-31	32-33	34-36	37+	0-31	32-33	34-36	37+	0-126	127-134	135-142	143
85-96	0-34	35-36	37-39	38+	0-34	35-36	37-39	38+	0-34	35-36	37-39	38+	0-34	35-36	37-39	38+	0-138	139-146	147-154	155
96-108	0-37	38-39	40+	0-37	38-39	40+	0-37	38-39	0-37	38-39	40+	0-37	38-39	40+	0-150	152-158				

Similarly, an observation sheet was used for the evaluation of performance skills in the areas of motor skills and praxis, sensory-perceptual skills, cognitive skills, emotional regulation skills, communication and social skills. It consists of 23 items for children 3 years old, as well as the observation sheet for 4 years old reflects 36 items and, finally, the observation sheet for 5 years old is composed of 37 items, all with dichotomous answers.

Thus, after confirming the history of Zika virus both individual and maternal (in the study court), according to the clinical history (as specified), and the absence of a history of infection by this agent in the control cohort, we proceeded to the assessment of performance skills using the checklist by age of 3, 4 and 5 and the Abbreviated Developmental Scale. For which the maturational age of each participant was determined based on the findings of the previous activity. Finally, the database was filled out with the information obtained for statistical analysis.

#### 4. Results

In the instruments applied, the following findings were obtained related to the history of Zika virus infection, both individual and maternal during gestation, as well as the maturity age and execution skills, in which it was found that 60.0% of the infants belong to the female sex and 40.0% to the male sex, of which 66.7% (10 infants) have a chronological age of 3 years, 13.3% (2 children) are between 4 years old and the rest 20.0% (3 children) are 5 years old. It was also shown that 40.0% of the mothers of the infants belonged to a special care group (displaced).

Concerning zika virus infection during gestation, it was established that the infants born were especially related to the antecedent, that all of these infants had sequelae of gestational zika infection and showed a diagnosis in thirteen of them (86.7%) of microcephaly, along with other diagnoses such as developmental delay (40.0%), Steven Johnson Syndrome (13.3%), epilepsy (33.3%) and cerebral palsy (33.3%).

As this is the starting point to relate whether the Zika virus by generating associated congenital defects could have an effect on the client's performance and with it, the skills, characteristics or beliefs that reside in the client according to their maturity age (Table 2).

**Table 2.** Maturational age of infants with Gestational Zika

Chronological age	Months	Age range in months (EAD)	Location in the (EAD)	Part A - gross motor skills	Part B - fine motor skills	Part C - hearing and language	Part D - social	Total
3 years 6m	42	37 - 48	22-23-24	11	11	13	17	52
3 years	36	25 - 36	19-20-21	7	4	7	5	23
3 years and 9m	45	37 - 48	22-23-24	6	4	7	6	23
3 years	36	25 - 36	19-20-21	9	0	0	0	9
3 years and y 2m	38	37 - 48	22-23-24	6	4	7	7	24
5 years 4m	64	61 - 72	28-29-30	8	9	9	9	35
3 years and 7m	43	37 - 48	22-23-24	9	4	7	10	30

3 years and 6m	42	37 - 48	22-23-24	7	9	7	10	33
3 years and 8m	44	37 - 48	22-23-24	9	6	9	10	34
3 years	36	25 - 36	19-20-21	5	6	9	9	29
3 years and 6m	66	61 - 72	28-29-30	4	4	10	4	22
5 years	60	49 - 60	25-26-27	9	6	9	9	33
4 years and 2m	50	49 - 60	25-26-27	11	11	13	17	52
4 years	48	37 - 48	22-23-24	10	11	13	17	51
5 years and 2m	62	61 - 72	28-29-30	9	6	9	9	33
		Min.	months item	4 months	0 months	0 months	0 months	
		Max.	months item	11 months	11 months	13 months	17 months	
		Mode		9 months	4 months	7 months	9 months	

On the other hand, an excellent trend was found in the evaluated areas of development through the Abbreviated Developmental Scale and the execution skills in infants with gestational Zika aged 3, 4 and 5 years, Table 3 shows the weights of the scales in each area, as well as their average means, standard deviations, minimum and maximum maturational age items. Likewise, the asymmetry is given to know the distribution of the values, whether positive or negative concerning the mean, as well as the amount of data that is concentrated in the mean (kurtosis).

**Table 3.** Measure of central tendency and dispersion for the assessed areas of development by EAD and performance skills for infants with gestational zika aged 3, 4 and 5 years.

Children 3 years of age with gestational zika	Abbreviated Development Scale (EAD)		Execution skills						
	Gross motor skills	Fine motor skills	Hearing and language	Social skills	Motor skills and praxis	Sensory perceptual skills	Cognitive skills	Emotional regulation skills	Communication and social skills
4	0	0	0	0	0	0	0	0	0
5	4	7	4	0	1	0	0	0	0
6	4	7	5	0	1	0	0	0	0
6	4	7	6	0	2	0	0	0	0
7	4	7	7	0	2	0	0	0	0
7	4	7	9	0	2	0	1	0	0

	9	6	9	10	0	2	0	1	0
	9	6	9	10	0	2	0	1	0
	9	9	10	10	0	2	0	1	0
	11	11	13	17	2	4	2	0	0
Summation	73	52	76	78	2	18	2	4	0
N	10	10	10	10	10	10	10	10	10
Mean	7,30	5,20	7,60	7,80	0,20	1,80	0,20	0,40	0,00
Dev. typ.	2,16	3,05	3,31	4,57	0,63	1,03	0,63	0,52	0,00
Median	7,00	4,00	7,00	8,00	0,00	2,00	0,00	0,00	0,00
Minimum Item:	4,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Maximum Item:	11,00	11,00	13,00	17,00	2,00	4,00	2,00	1,00	0,00
Pearson's skewness	0,42	1,18	0,54	-0,13	0,95	-0,58	0,95	2,32	-
Kurtosis	0,24	0,13	0,09	0,17	0,00	0,14	0,00	5,00	-
Quartile 1	2,75	5,75	4	7	4,75	0	1	0	0
Quartile 3	8,25	9	6,75	9,25	10	0	2	0	1
10th percentile	1,1	4,1	0,4	0,7	0,4	0	0,1	0	0
90th percentile	9,9	10,8	10,8	12,7	16,3	1,8	3,8	1,8	0,1
Children 4 years of age with gestational zika	Part a - gross motor skills	Part b - fine motor skills	Part c - hearing and language	Part d - personal social	Motor skills and praxis	Sensory perceptual skills	Cognitive skills	Emotional regulation skills	Communication and social skills
	10	11	13	17	0	1	0	0	0
	11	11	13	17	0	1	0	0	0
Sum	21	22	26	34	0	2	0	0	0
N	2	2	2	2	2	2	2	2	2
Mean	10,50	11,00	13,00	17,00	0,00	0,20	0,00	0,00	0,00
Tip deviation	0,71	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Children 5 years of age with gestational zika	Parte a - motricidad gruesa	Parte b - motricidad fina	Parte c - audición y lenguajes	Parte d - personal social	Destrezas motoras y praxis	Destrezas sensoriales y perceptuales	Destrezas cognitivas	Destrezas regulacion emocional	Destrezas comunicativas y sociales
	8	6	9	9	0	1	0	0	0
	9	6	9	9	0	1	0	0	0
	9	9	9	9	0	1	0	0	0
Sum	26	21	27	27	0	3	0	0	0

N	3	3	3	3	3	3	3	3	3
Mean	8,67	7,00	9,00	9,00	0,00	0,30	0,00	0,00	0,00
Tip deviation	0,58	1,73	0,00	0,00	0,00	0,00	0,00	0,00	0,00

According to the criteria evaluated for 3-year-old infants with gestational Zika, it is observed that the values of gross motor skills, fine motor skills, hearing and language, as well as motor skills and praxis, cognitive skills, emotional regulation skills, communication and social skills are skewed to the right and are concentrated far from the mean, except for the personal and social area and sensory-perceptual skills, where the distribution is approximately skewed and their values are far from the mean.

That is, the kurtosis and skewness values for each area evaluated with the EAD and performance skills, allow us to conclude that the scores have an asymmetric distribution to the right and leptokurtic, except for the personal and social part which is asymmetric to the left and leptokurtic. While perceptual sensory skills indicate that there is a presence of the minority of data on the left side of the mean, a trend of kurtosis shows a slight or weak concentration of data around the mean. On the other hand, for children 4 and 5, the data were not representative, although they follow the same trend as for the 3-year-old infants with gestational Zika and their correlation of the areas evaluated concerning the maturational age shown in [Tables 4 and 5](#).

**Table 4.** Correlation of Gross Motor vs Motor Skills and Praxis along with Correlation of Overall Totals Execution Skills vs Overall Totals EAD la for 3-year-old infants with gestational zika.

<b>Motor skills and praxis</b>		
For n=10	R	P
Gross motor skills	0,601	0,066
<b>Total Global EAD</b>		
For n=10	R	P
Overall totals Execution Skills	0,853	0,002

In Table 4, the weighting of motor skills and praxis found a correlation coefficient of 0.601 (moderate) and in the same the performance skills of 3 year old children with gestational zika obtained a correlation of 0.853 (strong).



**Figure 1.** Scatterplot of Performance Skills and overall, EAD totals of 3-year-old infants with Gestational Zika.

## 5. Discussion

The research allows to see the results found that children born with Zika virus infection during gestation are related to other diagnoses and pathologies that have a level of affection on the maturational age and performance skills in these infants. Thus, the results are consistent with the approach of Arroyo [20] who points out that the Zika virus spectrum includes congenital defects associated with microcephaly (hearing loss and ophthalmologic defects), as well as epilepsy, intellectual disability, among others, as shown in Table 2.

Table 2 shows that the maturational age of infants with gestational Zika shows an age range on the abbreviated developmental scale (EAD) that is very different from the chronological age. Since these children should have a maturational age of 37 to 48 months (53.3%). While 20.0% are at a maturational age of 25 to 36 months. The rest of the infants are between 49 to 60 months (13.3%) and the others are between 61 to 72 months (13.3%).

However, in the same Table 2, it was shown in the evaluation that gross motor skills are between the minimum item of 4 months and the maximum item of 11 months, with a trend of greater frequency in the data distributions of the 9-month-old infants (age range 7 to 9 months according to EAD), in which these children barely hold themselves seated with help, as well as crawl in the prone position and sit up on their own. Regarding fine motor skills, the results found are between zero (0) and 11 months, with a mode of greater frequency of data of 4 months, that is, a range of maturity age from 4 to 6 according to EAD, in which infants can grasp objects voluntarily, hold an object in each hand and pass objects from one hand to another.

Regarding hearing and language, it was clarified that the findings found a range from zero (0) to 13 months, with a frequency mode of 7 months. This indicates that most of the infants are with a maturational age of 7 to 9 months according to EAD, in which infants can pronounce 3 or more syllables, ring the bell and say a clear word. Meanwhile, concerning the evaluation of the personal and social part, it was found that the minimum item is zero and the maximum item is 17 months, with a frequency mode of 9 months.



This indicates that most infants with gestational Zika are located in this area with a maturational age of 7 to 9 months according to EAD, where they can help hold a cup to drink, react to their image in the mirror and imitate clapping.

Thus, the Abbreviated Developmental Scale (EAD) is a tool to pre-screen for global and general abnormalities in motor, language, social and coordination areas. Because the more distant the maturational age is from the chronological age, the greater the degree of affectation that the child has in his development. In addition, the data revealed in Table 2 shows that the development in chronological age is not under the life stages of infants infected with gestational Zika, in the maturity of skills and abilities.

This coincides with the statement of the Ministry of Health of Argentina [20] that various arbovirus infections can affect the maturational age of children and, thus, executive skills, as evidenced by the findings in Table 3 where the measures of central tendency and dispersion for the evaluated areas of development through EAD and executive skills for infants aged 3, 4 and 5 years were reported, It was found that in gross motor skills for 3-year-old infants, the mean value was 7.30 with a standard deviation of 2.16 points, a median of 7 months and the minimum and maximum value of 4 and 11 months, respectively.

For fine motor skills, the mean value found was 5.20 and a standard deviation of 3.05 points, with a median of 4 months and a minimum value of 0 and a maximum of 11 months. For hearing and language, the mean value was 7.60 with a standard deviation of 3.31, a median of 7 months and the minimum and maximum values between 0 and 13 months, respectively. Regarding the personal and social area, a mean of 7.80 and a standard deviation of 4.57 points was found. With a median of 8 months and a minimum value in months of zero (0) and a maximum of 17.

As can be seen, the areas of least progression are fine motor and gross motor, while the personal and social areas present a better evolutionary ascent. This is related to the execution skills since the sensory-perceptual skills achieved a low mean value of 1.8 and a standard deviation of 1.03. Followed by motor skills and praxis with a mean of 2.0 and a standard deviation of 0.63 points that present a lower progression in executive skills to perform actions or behaviors used by the infant to locate, identify and respond to visual and tactile sensations to move and physically interact with objects.

The other executive skills acquired for cognitive skills (mean of 2.0 and standard deviation of 0.63 points) and emotional regulation skills (mean of 4.0 points and standard deviation of 0.52 points). The communicative and social skills obtained a mean value and standard deviation of zero (0).

The latter skills are consistent with the findings found in Table 2, where it was shown that in hearing and language the highest maturation item was 13 months and a frequency mode of 7 months, for this reason, the communicative and social skills are delayed in development due to various affectations (microcephaly, developmental delay, cerebral palsy, epilepsy, among others) that seem to be unable to perform the tasks typical of their chronological age. This coincides with Escudero [24] who maintains that maturation and growth go hand in hand with cognitive, social, affective and language development.

All of the above implies that infants with gestational Zika may develop very few cognitive, communication, emotional regulation, motor (gross and fine), sensory and perceptual skills that allow them to perform the demands of an activity involving things and mechanical actions of the body, as well as social requests to carry out the activity, and the functions and structures of the body used during the performance of the activity for chronologically healthy infants of 3 years of age. This is in agreement with the Spanish Society of Gynecology and the Spanish Society of Pediatric Infectious Diseases [17] who argue that infants infected by the Zika virus produce developmental disorders of the neurological system.

The above shows that gross motor skills of 3-year-old infants with gestational Zika correlate positively with their motor skills and praxis (see Table 4), where the p-statistic value ( $p = 0.066 < 0.05$ ) is

above 0.05 and the correlation coefficient ( $r$ ) for gross motor skills and motor skills and praxis is 0.601, which shows a statistically moderate correlation between these two areas. Hence, the moderate correlation between children with gestational Zika virus infection and maturational age-appropriate skills, little or no development of gross motor skills because these involve results in the actions and behavior of motor skills and praxis.

Thus, the performance skills are positively correlated with the results obtained from the EAD of 3-year-old infants with gestational Zika, ( $p < 0.05$ ). In that sense, the statistical value ( $p = 0.002$ ) is below 0.05 and the correlation coefficient ( $r$ ) for these two variables is 0.853 as shown in (Table 5) indicating a statistically strong correlation between them.

Therefore, it is demonstrated that there is a strong correlation between the variables of Zika virus infection in boys and girls, acquired during gestation and the execution skills of the maturational age. This indicates that performance skills involve maturational age outcomes in the actions and behaviors of infants with gestational Zika.

Finally, taking into account the research hypothesis proposed, the null hypothesis is accepted, since it has been found that Zika virus infection in children, acquired during gestation, strongly limits the performance skills characteristic of the maturational age in this population. This provided an answer to the third objective since it was determined that there is a relationship between gestational Zika virus infection and execution skills, which allows describing and appreciating the adjustments from the occupational therapy approach to the inquiries and practices about the ability of skills in the effective performance of infants with gestational Zika.

In the development of this research, there were some limitations associated with the various phases of the process, for example, in the phase of identification of informants, problems arose in accessing the medical records of mothers in which it is identified that during their gestation process they had been affected by Zika, which is complemented with the screening that was performed to infants at birth to verify the presence of the genotype of this pathology.

When the infants were evaluated, it was necessary to guarantee the resources to travel to the university, since this activity could not be carried out at the hospital. Finally, another limitation was being able to consolidate a relatively large sample size that met the criteria for inclusion in the research. It is recommended for future research the development of rehabilitation processes aimed at improving the conditions of these affected infants, as a complement to this work.

## 6. Conclusions

With this research, not only is it possible to recognize the EAD as a useful instrument to evaluate children born with Gestational Zika, but also the correlation between the skills and abilities that infants show in the actions or behaviors they carry out in their execution and their maturational development.

The deductions found here contribute to the follow-up of the maturational age and development of infants with Gestational Zika, to the disposition and suggestion of therapists and parents, by being able to evaluate if the motor skills and praxis advance, as well as the perceptual sensorial skills, emotional regulation, cognitive, communication and social skills in their different evolutionary moments, according to what is expected for their chronological age in their different areas of fine gross motor skills, language and the personal-social area and for their condition of human development in all its dimensions and basic social and cultural process.

Thus, there is a correlation for infants with Gestational Zika to have a strong affectation in the actions or behaviors that the person has to move and interact physically with activities, and objects and

therefore perform a learned motor activity. It could be that these actions or behaviors were affected to locate, identify, select, associate, organize or remember sensory events or other skills that include cognitive, communication or social skills.

This is the effect of this future research; to determine the maturational age and performance skills of the prioritized children of the Brave for the Future Program and the control population by employing the Abbreviated Development Scale and checklist, as well as to describe the level of affectation in these performance skills and maturational age that are associated with the evolutionary process of the children of the Brave for the Future Program with neonatal Zika virus infection, especially in the aforementioned area and skills associated with the future evolutionary development of these children in habits, routines and specific and automatic behaviors that may be useful or detrimental that may serve the occupational therapy profession to positively influence the client's life.

## References

1. **Heinz F, Stiasny K.** The Antigenic Structure of Zika Virus and Its Relation to Other Flaviviruses: Implications for Infection and Immunoprophylaxis. *Microbiol Mol Biol Rev.* 2017; 81(1):1-27. <https://doi.org/10.1128/MMBR.00055-16>
2. **Song BH, Yun SI, Woolley M, Lee YM.** Zika virus: History, epidemiology, transmission, and clinical presentation. *J Neuroimmunol.* 2017; 308:50-64. <https://doi.org/10.1016/j.jneuroim.2017.03.001>
3. **Foy BD, Kobylinski KC, Foy JL, Blitvich BJ, Travassos A, Haddow AD, et al.** Probable Non-Vector-borne Transmission of Zika Virus, Colorado, USA. *Emerg Infect Dis.* 2011; 17(5):880-882. <https://dx.doi.org/10.3201/eid1705.101939>
4. **Duffy M, Thane W, Kool J, Marfel M, Dubray C, Bel M, et al.** Zika virus outbreak on Yap Island, federated states of Micronesia. *N Engl J Med.* 2009; 360(24):2536-2543. <https://www.nejm.org/doi/full/10.1056/NEJMoa0805715>
5. **Kantor IN.** Dengue, zika y chikungunya. *Medicina (B Aires).* 2016; 76(2). <http://www.medicinabuenosaires.com/wp-content/uploads/2016/02/Med76-2-6504-Dengue-A-1.pdf>
6. **Barbeito-Andrés J, Schuler-Faccini L, Garcez PP.** Why is congenital Zika syndrome asymmetrically distributed among human populations? *PLoS Biol.* 2018; 16(8): e2006592. <https://doi.org/10.1371/journal.pbio.2006592>
7. **Kindhauser MK, Allen T, Frank V, Shankar R, Dye, C.** Zika: the origin and spread of a mosquito-borne virus. *Bull World Health Organ.* 2016; 94:675-686. <http://dx.doi.org/10.2471/BLT.16.171082>
8. **Weaver SC, Costa F, Garcia-Blanco M, Ko AI, Ribeiro GS, Saade G, et al.** Zika virus: History, emergence, biology, and prospects for control. *Antiviral Res.* 2016; 130:69-80. <https://doi.org/10.1016/j.antiviral.2016.03.010>
9. **Gomes C, Schuler-Faccini L, Matijasevich A, Ribeiro E, Pessoa A, Celso F.** Microcephaly in Brazil: how to interpret reported numbers? *The Lancet.* 2016; 387(10019):621-624. [https://dx.doi.org/10.1016/S0140-6736\(16\)00273-7](https://dx.doi.org/10.1016/S0140-6736(16)00273-7)
10. **Galán-Huerta K, Rivas-Estilla A, Martínez-Landeros EA, Arellanos-Soto D, Ramos-Jiménez J.** The Zika virus disease: An overview. *Revista Medicina Universitaria.* 2016; 18(71):115-124. <http://dx.doi.org/10.1016/j.rmu.2016.05.003>

11. **Organización Panamericana de la Salud/Organización Mundial de la Salud.** Actualización Epidemiológica Regional de la OPS (Américas). [Internet]. [consultado en 2016 Oct 20]. Disponible en: <https://www.paho.org/es/documentos/20-octubre-2016-zika-actualizacion-epidemiologica>
12. **Instituto Nacional de Salud.** Boletín Epidemiológico semanal. 2016. [citado 29 de marzo de 2019]. Recuperado a partir de <https://www.valledelcauca.gov.co/loader.php?lServicio=Tools2&lTipo=viewpdf&id=411>
13. **Instituto Nacional de Salud.** Boletín Epidemiológico semanal. [Internet]. 2017 [consultado en 2019 Mar 29]. Disponible en: <https://www.ins.gov.co/buscador-eventos/BoletinEpidemiologico/2017%20Bolet%20C3%ADn%20epidemiol%20C3%B3gico%20semana%202022%20NUEVO.pdf>
14. **Bolaños P.** La importancia de la alimentación en el embarazo. Su significado en trastornos de la conducta alimentaria. *Trastornos de la Conducta Alimentaria*. 2010; (11):1196-1230. <https://dialnet.unirioja.es/servlet/articulo?codigo=3734361>
15. **Lugones M, Ramírez M.** Curioso origen y significado de la palabra embarazada. *Rev Cubana Obstet Ginecol*. 2015; 41(1). [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S0138-600X2015000100011](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0138-600X2015000100011)
16. **Belfort R, De Paula B, De Oliveira, JR.** Zika Virus, Microcephaly, and Ocular Findings—Reply. *JAMA Ophthalmol*, 2016; 134(8):946-947. <http://dx.doi.org/10.1001/jamaophthalmol.2016.1305>
17. **Gourinat AC, O'Connor O, Calvez E, Goarant C, Dupont-Rouzeyrol M.** Detection of Zika virus in urine. *Emerg Infect Dis*. 2015; 21(1):8486. <https://dx.doi.org/10.3201/eid2101.140894>
18. **Sociedad Española de Ginecología y Sociedad Española de Infectología Pediátrica (SEGO, SEIP).** Procedimiento de manejo de la infección por virus zika durante el embarazo y en recién nacidos. [Internet]. 2017 [consultado en 2019 Abr 10]. Disponible en: [https://www.aeped.es/sites/default/files/documentos/procedimiento\\_manejo\\_conjunto\\_zika.pdf](https://www.aeped.es/sites/default/files/documentos/procedimiento_manejo_conjunto_zika.pdf)
19. **Pacheco O, Beltrán M, Nelson CA, Valencia D, Tolosa N, Farr SL, et al.** Zika Virus Disease in Colombia - Preliminary Report. *N Engl J Med*. 2016 Jun. <https://dx.doi.org/10.1056/NEJMoa1604037>
20. **Arroyo HA.** Microcefalia. *Medicina*. 2018; 78(Supl.2):94-100. <https://www.medicinabuenosaires.com/revistas/vol78-18/s2/94-100-S.II-17-Arroyo-Neurologi%CC%81a-D.pdf>
21. **Ministerio de salud.** Guía para la vigilancia integrada de la infección por virus zika y recomendaciones para el equipo de salud. [Internet]. 2017. [consultado 2019 Abr 09]. Disponible en: <https://bancos.salud.gob.ar/sites/default/files/2018-10/0000000933cnt-2017-01-25-zika-guia-para-equipos-de-salud.pdf>
22. **MacDonald PM.** Maturation. In: Editors: Goldstein S., Naglieri J.A. (eds). *Encyclopedia of Child Behavior and Development*. Boston, MA: Springer; 2011. <https://doi.org/10.1007/978-0-387-79061-9>
23. **Iceta A, Yoldi, ME.** Desarrollo psicomotor del niño y su valoración en atención primaria. *ANALES Sis San Navarra*. 2002; 25(2):35-43. <https://doi.org/10.23938/ASSN.0829>
24. **Escudero A.** Las etapas del desarrollo madurativo. *Form Act Pediatr Aten Prim*. 2012; 5(2):65-72. [http://archivos.fapap.es/files/639-779-RUTA/02%20FAPap\\_2\\_2012.pdf](http://archivos.fapap.es/files/639-779-RUTA/02%20FAPap_2_2012.pdf)
25. **Alarcón CL, Trujillo MC.** Estrategia de atención integral a la primera infancia: Un modo de concebir, comprender y actuar. Bogotá, Colombia: Ledfish; 2014.

<http://www.deceroasiempre.gov.co/Prensa/CDocumentacionDocs/Estrategia%20de%20Atenci%C3%B3n%20Integral%20a%20la%20Primera%20Infancia.pdf>

26. **Ortiz N.** Escala Abreviada de Desarrollo. [Internet]. 1999. [consultado 2019 Abr 15]. Disponible en: <https://docenciaeinvestigacionmanuel Sanchezserrano.files.wordpress.com/2014/08/escala-abreviada-de-desarrollo-unicf-colombia.pdf>
27. **American Occupational Therapy Association.** Occupational therapy practice framework: Domain and process. 2nd ed. United States of America: Amer Occupational Therapy Assn. 2008; 62(6):625-683. <https://doi.org/10.5014/ajot.62.6.625>
28. **Ares, L.** Análisis de una actividad ocupacional: marco de trabajo para la práctica de terapia ocupacional de la asociación americana de terapia ocupacional: dominio y proceso. TOG (A Coruña). 2012; 9(15):1-15. <http://www.revistatog.com/num16/pdfs/caso2.pdf>
29. **Anderson M, Prada M.** Estudios interdisciplinarios y nuevos desarrollos. Evaluación de las habilidades motoras y de procesamiento en el desempeño de las actividades de la vida diaria en pacientes con secuela de traumatismo craneoencefálico (TCE) al alta del tratamiento de rehabilitación en internación. En: Memorias III Congreso Internacional de Investigación y Práctica Profesional en Psicología XVIII Jornadas de Investigación Séptimo Encuentro de Investigadores en Psicología del MERCOSUR. Buenos Aires: Universidad de Buenos Aires; 2011. p. 23-27.
30. Occupational Therapy Practice Framework: Domain & Process 2nd Edition. Am J Occup Ther. 2008; 62(6):625-683. <https://doi.org/10.5014/ajot.62.6.625>
31. **Hernández R, Fernández C, Baptista M.** Metodología de la Investigación. 6ª ed. México: McGraw-Hill/Interamericana Editores; 2014.
32. **Bernal C.** Metodología de la Investigación. Para administración, economía, humanidades y ciencias sociales. 3ª ed. México: Pearson Educación; 2010.
33. **Universidad Pedagógica Experimental Libertador (UPEL).** Manual de Trabajos de Grado de Especialización y Maestría y Tesis Doctorales. 5ª ed. Caracas: FEDUPEL; 2016.
34. **Arias, F.** El Proyecto de Investigación Introducción a la metodología científica. 6ª ed. Caracas: Editorial EPISTEME; 2012.



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# Economic Reactivation And Social Regulation From The Perspective Of Children: A Challenge During The Implementation Of The Peace Agreement In The Catatumbo Region

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### ABSTRACT

The results of a research developed through a hermeneutic analysis of drawings and narratives of children, adolescents and young people from the municipalities prioritized for the implementation of the Peace Agreement in Catatumbo - Norte de Santander, who participated in a training on the peace process in Colombia since the emergence of the guerrilla movements. They contributed to the pillars of the Program for Development with a Territorial Approach (PDTA) and to the vision of the territory from artistic and narrative approaches, drawing and narrating the Catatumbo they dream of and can build. Emphasis is placed on the contributions of the NNAJ to the pillars "Social organization of rural property and land use" and "Economic reactivation and agricultural and livestock production". The analysis allows recognizing the social phenomena typical of post-conflict scenarios and even of permanent armed conflict, which define the condition in which the inhabitants of this territory find themselves, for land use and economic reactivation, where the presence of illegal armed groups persists and restricts legal economic alternatives to illicit crops, all this in a scenario of transitional justice and the implementation of the peace agreements between the FARC and the Colombian State.

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### INTRODUCTION

This article presents the results of the research entitled "The Catatumbo we dream of "1, focusing on the categories of analysis of the pillars of the Development Program with a Territorial Approach (PDTA),

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in particular, "Social organization of rural property and land use" and "Economic reactivation and agricultural production".

In this regard, it is important to mention that the research participants were Children, Adolescents and Youth (NNAJ) from the municipalities prioritized for the implementation of the Peace Agreement in Norte de Santander, Catatumbo region, who through a pedagogical exercise learned about the history of the Colombian conflict, the peace process between the national government and the FARC-EP, and point 1 of the Final Agreement for the termination of the conflict and the construction of a stable and lasting peace signed between both parties.

The study was motivated by the recognition of the main conflicts in Catatumbo which, despite its extensive natural wealth and diversity of soils and lands, is the area of greatest armed violence in the department due to the presence and actions of illegal armed groups that increase social, political and economic inequalities in the region (Jaimes et al., 2019; Jaimes et al., 2019; Oliveras et al., 2018). Likewise, the exploitation of the soil through illicit crops such as coca, and the expansion of monocultures such as palm, oil or coal extraction are factors that increase the exclusion and marginalization of the inhabitants of the Catatumbo region (United Nations Development Program -UNDP, 2014).

Therefore, it is important to mention elements of the context that evidence how this region has historically been highly affected by the armed conflict for decades, being the scene of various victimizing events and conflicts, among which stand out the tenure, use and ownership of land, illegal economies, insecurity for social leaders, multiple and systematic human rights violations, among other situations that afflict the population.

According to the Consultancy for Human Rights and Displacement (CODHES, 2006) the department of Norte de Santander has historically been permeated by realities such as the abandonment of the State in many rural sectors, which added to its geographical location on the border with Venezuela, which implies great human mobility and illegal trafficking; and the fading of its economy that has been transformed into a series of illegal economies and parallel political institutionalism, which constitute factors that originate conflicts and humanitarian emergencies.

All this set of situations associated with the armed conflict has made the territory a priority for the implementation of the peace agreement. This article shares the analysis of two of the eight pillars of the PDTA, which are respectively the "Social regulation of rural property and land use" and "Economic reactivation and agricultural production", and therefore, it explores issues related to these pillars such as the situation of victims of the armed conflict, illicit crop substitution, security guarantees, early warnings, and forced recruitment. Other factors of the implementation process of the peace agreement will be further elaborated in subsequent articles whose analysis focuses on other pillars of this Development Program with a Territorial Approach PDTA.

Thus, about the situation of victims, it is clear that one of the main problems affecting the territory is the armed conflict, with the consequent violation of civil society rights, generating high rates of victims (Forero-Salcedo, 2019), which, according to the Unit for the Attention and Integral Reparation of Victims (UARIV, 2022), currently total 9,310,377 people in the country recognized as victims and included in the Single Registry of Victims (RUV, for its acronym in Spanish). A distribution by life cycle identifies the number of people between the age ranges of 0 and 5 years: 202,894, between 6 and 11 years: 769,114, between 12 and 17 years: 1,053,501 and between 18 and 28 years: 2,110,761, for a total of 4,136,270 children, adolescents and young people victims of the armed conflict (UARIV, 2022).

In Norte de Santander there are 347,889 victims of the armed conflict, 303,284 of whom are victims of forced displacement, and these, a little more than half, that is, 167,095 people, are victims of forced displacement, according to their life cycle, i.e., more than half of the victims of forced displacement are children, adolescents and young people. This information is consolidated as of June 2022 (UARIV, 2022).

These massive forced displacements are the result of systematic attacks against the civilian population, leaving serious consequences for individuals and their communities. Displacement deprives the victims of housing, food, basic services and productive resources, and can lead to marginalization, extreme poverty and loss of autonomy (United Nations Educational, Scientific and Cultural Organization, UNESCO, 2011).

Thus, this research assumes that a person victim of forced displacement "suffers serious human rights violations that disrupt their daily lives, their economic assets, their moral integrity, their family, their mental health and many other rights, generating irreparable damage" (Corporación AVRE, 2008, p. 19). This information is key for the present study, since it is people from indigenous or Afro-Colombian communities, together with poor peasants, who are mainly affected by displacement. It could then be affirmed that these communities have always been excluded from electoral processes throughout history, which is why they feel invisible within their cultural context. These communities that have been victimized have managed to get ahead by their means, given that they have almost always been ignored by society and even worse, by the Colombian State (Medellín, 2004).

Furthermore, according to the guidelines for the differential care of children and adolescents (NNA) of the Colombian Institute of Family Welfare and the United Nations High Commissioner for Refugees (ICBF and UNHCR, 2010), during forced displacement, children and adolescents suffer the interruption of their harmonious and comprehensive progress, violating a wide range of rights such as protection against abuse, physical or psychological mistreatment, abandonment, kidnapping, exploitation, discrimination or recruitment. For this reason, it is considered that the children and youth should have the possibility to express their points of view and their memory of all these problems, because although some persist in their territories, despite the conflict, and others have managed to return to rural environments, although not specifically to their former homes, it cannot be ignored that rural children in Catatumbo, displaced or not, have grown up during the armed conflict, which has undoubtedly permeated their vision of the world and territory, as well as their views on war and peace.

The armed conflict in Catatumbo has generated social and political affectations, which among countless consequences materialized in millions of people exiled from their lands claiming justice and protection (Colombia Joven, Presidency of the Republic of Colombia, Vice-Presidency of the Republic and UNHCR, 2010).

On the other hand, regarding the substitution of illicit crops, the state created as a strategy the National Integral Program for the Substitution of Illicit Crops (PNIS), which has currently been implemented in two municipalities of Catatumbo: Tibú and Sardinata, with some drawbacks such as the delay in payments to families, and at the beginning of technical assistance, and also in terms of coverage, since in the case of Tibú there are 2,698 families linked to the program, of which only 500 are receiving technical assistance. There is little clarity about the commercialization lines of the productive projects proposed as an alternative to the substitution of illicit crops, and about the families that will finally be able to access this program, taking into account that this is one of the main economic activities in rural areas, which affects both security and the economy. There are key aspects that generate tension in this process, such as security in the face of threats from armed groups that are present in the territory and control this



market, the financing and resources to carry out this program by the state, the fear of forced eradication, the fumigation with glyphosate and the historical distrust of the communities for the state (Fundación Ideas para la Paz, FIP, 2020).

In this line, in terms of security guarantees, the armed confrontation between the ELN and the EPL persists in Catatumbo, adding to the resurgence of the dissidence of the 33rd Front of the FARC, which generates conditions for the increase of coca crops and the strengthening of illegal economies such as smuggling and irregular migration from Venezuela. This painful circle brings with it new displacements and, therefore, a strong humanitarian impact (United Nations Office for the Coordination of Humanitarian Affairs, OCHA, 2020).

In this way, early warnings make it possible to identify an increase in armed conflict and a consequent humanitarian impact. According to the Ombudsman's Office in the first ten months of 2019, there were 58 massive displacements throughout the national territory, and of these, six occurred in Norte de Santander affecting more than 500 families (1,779 people) (El Tiempo, 2019).

Among the municipalities that reported early warnings are four in the Catatumbo region (Abrego, Teorama, El Tarra, La Playa) along with Puerto Santander, which reported increases in the number of clashes between illegal groups, affecting peasant, indigenous and migrant communities (Ombudsman's Office, 2021). This situation directly affects both social organization and land use, as well as economic reactivation, since it is the armed actors who determine the dynamics in the territories, and by positioning illicit crops in the market within the framework of an illegal economy, peasants are left in the middle trying to find new economic alternatives that, in addition to legal resources, allow them to consolidate stable and lasting peace scenarios.

In Catatumbo, homicide rates exceed those registered at the country level (Ministry of Defense, 2022). Starting in 2015 and for four consecutive years, municipalities such as Tibú reported 260 homicides per hundred thousand inhabitants, followed in descending order by municipalities such as Convención, El Tarra and Hacarí with 175, 108 and 82 homicides per hundred thousand inhabitants, respectively. These figures are alarming given that the national average does not exceed 26 homicides per 100,000 inhabitants (FIP, 2020, p. 10).

Finally, the forced recruitment of migrants and NNAJ reappears, which has been expressed by organizations such as Save the Children (2018), who have warned about the recruitment of minors.

In this context, children and youth are a vulnerable population at high risk of recruitment and other forms of use by illegal armed groups, who have been attracted by activities associated with coca leaf production, which generates attractive economic rewards for these children and young people who do not see opportunities in the countryside to build a prosperous future with opportunities. In addition, there are the psychosocial effects of living in such a complex context that triggers situations where children and youth run the risk of becoming victims or perpetrators in their territory.

This project emphasizes the differential approach to recover the voices of children and youth, who besides being one of the most significant victims of the armed conflict in terms of numbers, are usually not heard or taken into account as key actors in the formulation of public policies in their territories, ignoring that they are responsible for materializing the territorial peace bets in each context. This project aims to make visible the devastating effects that the conflict experienced in Catatumbo has caused on their lives, dignity and physical, moral and psychological integrity (ICBF-ACNUR, 2010), and how from their experiences the NNAJ made a reading of their reality and at the same time proposed alternatives for the future based on narratives and drawings.

The human rights of children and adolescents are inalienable, therefore they are considered subjects and holders of rights. Several norms protect them, including the International Convention on the Rights of the Child, the Colombian Political Constitution and Law 1098 (2006) (Childhood and Adolescence Code), which recognize and establish this condition. These recognize the prevalence that the rights of children and adolescents have over the rights of others, enshrining the principle of "best interests" as a legal tool to be guaranteed in all decisions (UARIV, 2015).

Consequently, the participation of children and adolescents in the implementation of the peace agreement and, in particular, in the construction process of the PDTA Catatumbo became an essential task for their vision of the future to be included in the public peace policy.

## **MATERIALS AND METHODS**

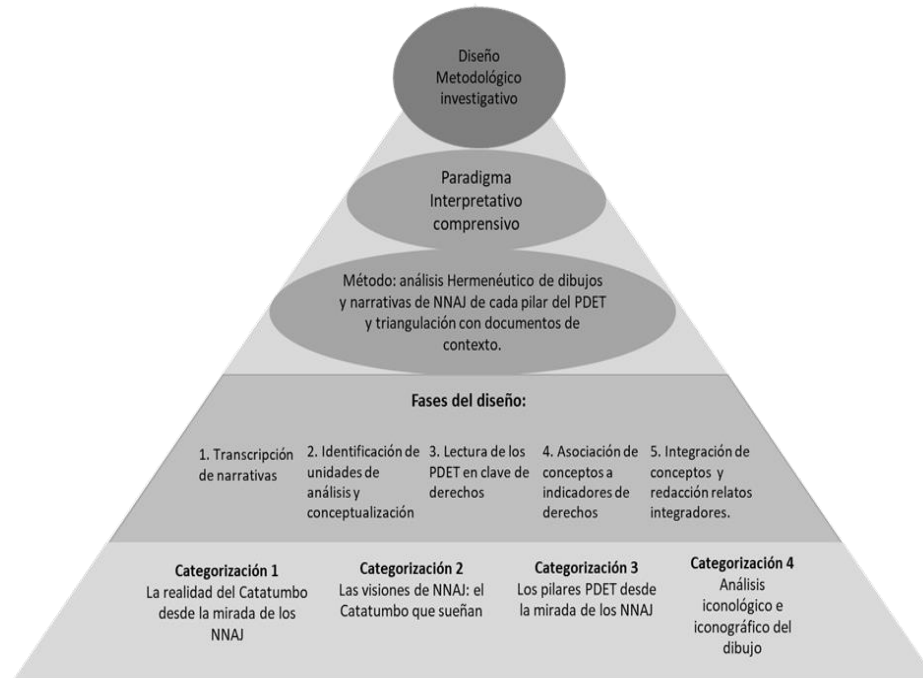
The research responds to a hermeneutic design, so the analysis of the information collected was carried out from the comprehensive interpretative paradigm. For this perspective of analysis, the text is the basis for reconstruction and interpretation. Its particular interest lies in "describing, understanding and interpreting phenomena through the perceptions and meanings produced by the experiences of the participants" (Hernández et al., 2010, p. 11).

In this way and based on a dialectical model, it is considered that knowledge emerges from the dialogue between the research subjects, who are the NNAJ of Catatumbo, and the object of study, which represents both their reality and that of their territory, and the pillars of the PDTA. In addition, within the design, the virtues of hermeneutics are recognized to facilitate the understanding of actions in the context, which is why it is a key tool in the understanding of the artistic manifestations of the NNAJ, through their narratives and drawings, emphasizing the individual, that is, their individual experience, and their subjective and collective experience. In this way, hermeneutics makes it possible to discover meanings through the analysis of oral or written manifestations.

For Ricoeur (1985), the stories of each subject define and differentiate them from each other, so they play a role in the construction of identity, which was significant for the research to understand the view that the children and youth had about their reality, the territory and the pillars of PDTA. For the author, the story leads the subject to choose to assume or ignore his or her position on a particular issue.

Thus, according to Ricoeur (2004) "Hermeneutics is the theory of the operations of understanding related to the interpretation of texts" (p. 71), where discourse is considered a text that can be understood.

The following figure shows the methodological design used in the process:



**Figure 1.** Methodological research design

The methodological route used made it possible to collect the voices of the children and youth through drawings and narratives that tell the stories represented by these drawings. In this sense, a matrix was elaborated that includes 5 major categories of analysis: a) characteristics of the evolutionary development of the drawing, b) iconological and iconographic factors of the drawings, c) perspective of the children and youth about the PDTA pillars, d) the reality of Catatumbo from the perspective of children and youth, and e) visions for the future.

Consequently, the narrative, expression and communication of the drawings were documented to interpret, understand and make visible the reality, emotionality, senses and meaning that the drawings represent from the vision of the children and youth, for which the characteristics of the evolutionary development of drawing were analyzed (Lowenfeld and Lambert, 1980), and the iconological and iconographic factors (Martínez, 2002).

For the analysis of the narratives, the starting point was the understanding of the territory as a socially constructed space, which has representations associated with spaces, relationships, conflicts, needs, actors and possibilities, aspects that were presented in the perspective of change and desired future, mobilizing reflective action from the question of interest: What is the Catatumbo that you dream of about land use, rural property and economic reactivation?

The following is the route that allowed the written objectification of the participants' view of Catatumbo based on the pillars of the PDTA:



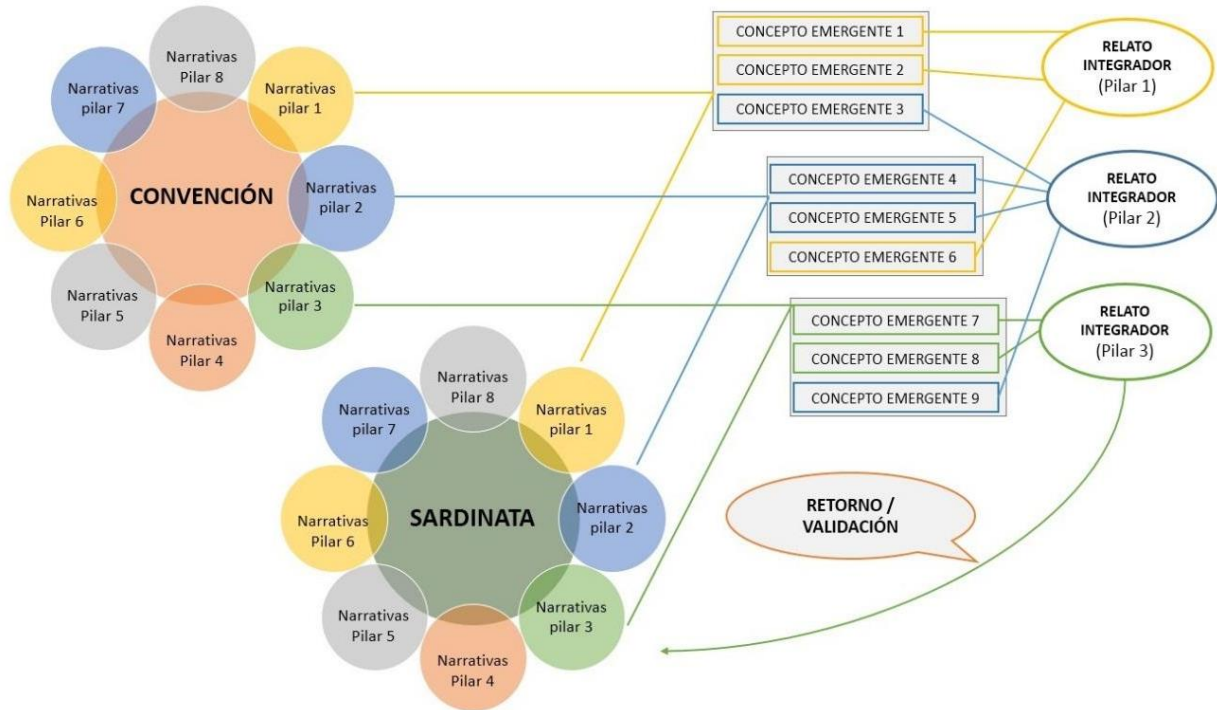
**Figure 2.** PDET objectification pathway

Subsequently, the narratives were analyzed globally, identifying how some aspects interrelate with others, for example, the economic reactivation of the countryside with the need for road infrastructure. This exercise required avoiding information leakage by 1) grouping the narratives by pillars and identifying aspects that could be migrated to another pillar; 2) defining specific frames of reference within each pillar; 3) elaborating new narratives integrating the findings of the analytical exercise.

Subsequently, the findings were triangulated based on a reading in terms of the rights of children and youth (Law 1098, 2006), which were organized for discussion with the PDTA pillars as preliminary categories of analysis. This analysis followed the following path

1. Transcription of the narrative using a word processor: respecting the written code, the grammatical aspects were adapted without losing the essence of the realities and dreams expressed in the stories.
2. Identification of units of analysis and conceptualization: from the live narratives of the participants, units of analysis were identified, or significant fragments of the enunciated voices, which were then associated with integrating concepts that encompass the particularity of the unit.
3. Reading the PDTA pillars in terms of rights: the PDTA pillars were associated with the rights of children and adolescents.
4. Association of concepts to rights indicators: in a matrix of association of the rights of children and adolescents to the PDTA pillars, the concepts were migrated from one pillar to another according to their nature.
5. Integration of the concepts: the concepts were grouped by affinity, generating deductive categories that in turn shape the development of the interpretative narratives expected from the analytical and integrative exercise. It should be clarified that the interest in generating concepts and groupings is not quantitative, but rather a framework of ordering and significance was sought in the various data emerging from the narratives.
6. Elaboration of integrating narratives: narratives were elaborated that integrate the voices of possible incidence in the PDTA, complying with the conditions of conciseness, deductive character, ethnicity, pertinence and integration.

**Figure 3.** Outline of the analysis route of the information collected.



**Participants**

The participants in the study were students from educational institutions and rural schools in the eight PDTA Catatumbo municipalities: Sardinata, Tibú, El Tarra, Convención, Teorama, San Calixto, El Carmen and Hacarí, whose ages ranged from 9 to 20 years, with an average age of 14 years. Young members of the Red Joven Pasa la Paz, and the Red Nacional de Jóvenes Rurales (National Network of Rural Youth) also participated. A total of 192 NNAJ participated, of which 113 were girls and 79 boys.

**RESULTS AND DISCUSSION**

The results presented here for discussion focus on the categories of: a) rural property and land use; and b) economic reactivation and agricultural production, taking into account the relationship between them given the central characteristic of "land".

In this sense, we analyzed the dreams of the children and youth and their perspective on peacebuilding in Catatumbo, which is based on the recognition of the various problems that have arisen in the territory for the presence and actions of illegal armed groups, and in particular, the armed violence suffered daily by the inhabitants of the region.

The findings around these categories put "land ownership" as a central axis, taking into account that historically there has been informality in the legal relationship with the land and the peasants have been limited in their access to land, which is why the children and youths dream that in Catatumbo the farms and plots have property titles that regularize their links and protect their property rights. As expressed by a 15-year-old girl from the municipality of San Calixto, "We all want to have our land, a document that has our

name on it and we can say: This land is mine. To have a better piece of land to cultivate, to separate the zones and also to distribute the animals."

These expressions show the desire for a productive territory, where it is possible to coexist while respecting the peasant, indigenous and natural territory, based on the recognition of peasant reserve zones, forest reserve zones and the territory of indigenous peoples. To this end, state intervention must strengthen the cohesion of the territory and the effective involvement of young people as peacebuilders.

Giving a social order to rural property is "a restructured and organized change supported by all as a path to progress and development" (15-year-old youth, El Carmen municipality), that is, the transformation of the countryside implies putting industry and its infrastructure at the service of the peasant, allowing rural development not to affect the environment and making it possible to reactivate an economy based on a culture of legality.

In this sense, a more urgent action for the reduction of violence in the territory is the substitution of illicit crops, allowing to promote the agricultural vocation of the soil of the region and the traditional crops of each municipality. Here, academia plays an important role, since its research centers can make relevant contributions from studies of soil type and its vocation to optimize planting and reduce the risks of crop loss, making it possible for the peasants to "return to productive crops, thus generating wealth for the region and completely eradicating illicit crops, since this only brings violence, poverty and war to the region" (15-year-old young man, municipality of Convención).

Consequently, the children and youth dream of a democratization of access to land in which the distribution of rural property is more equitable and thus effectively enjoy their rights and with guarantees of a stable and lasting peace in which peasants are not forced to abandon their lands or are dispossessed of them. This element is key because it shows that the phenomenon of forced displacement has affected the region for decades, and continues to be a victimizing fact present in the territory that directly affects children and youth, among other aspects, their right to access quality education and access to food security. Let us remember that, as of September 2020, according to the UARIV, there are 167,095 NNAJ victims of forced displacement in Norte de Santander, most of them coming from the municipalities of Catatumbo, where the dynamics of the armed conflict persist.

These reflections are presented hand in hand with the dreams of the NNAJ for the economic reactivation of the countryside, which necessarily requires the intervention of the government at the local, departmental and national levels, guaranteeing the means for the development of their work in a demined countryside and without the presence of illegal armed groups, so that it is possible to cultivate agricultural products that allow the peasants to include their crops in the commercialization chain in the regional market.

Regarding the commercialization process, there is a need to manage direct sales agreements, avoiding intermediaries that monopolize the largest percentage of profits, with the peasants having the lowest sales income. Evidently, for this to be possible, state investment must be present from the creation of seed banks, storage, conservation, transportation for marketing, points of sale and promotion of consumption of products at the regional and national level, prevailing over imports.

The element of the illegal economy around illicit crops appears again as a limiting factor for the productivity of the field since it is a factor of great incidence for the children and adolescents to relegate their school activities seduced by the economic income from coca leaves, "because where I live the children do not study because they go to scrape coca, they leave school because they say that they earn money working and everybody knows that" (Adolescent, 14 years old, municipality of Tibú).

This reality expressed by the children and youth is associated with the deep desire to improve the family income and living conditions of their loved ones, affirming that the peasants of Catatumbo lack recognition for their valuable work, "I want to say to them that I congratulate them, they are people who deserve applause from everyone because they work hard together" (11 years old, municipality of Hacarí).

In this order of ideas, the NNAJ make a clear distinction between urban and rural areas, giving relevance to the countryside as the articulating axis of the cities given that it can supply food, and yet there are still wide gaps and social imbalances between the two.

Moving forward in the requirements to make possible the economic and productive reactivation, it is evident in the stories that the "road infrastructure" is an indispensable component so that the products of the Catatumbo region can be competitive in the market, with sufficient retribution to improve the living conditions of the peasantry, in the words of the children they dream that "the farmers can sell the harvested products of their work, but for this, there must be good roads to carry the products" (Girl 12 years old, municipality Teorama).

A relevant aspect found in the stories of the NNAJ is the need for investment in training centers for the technification and instruction of farmers with emphasis on land and product management and associativity to be generators of decent jobs in the region.

The drawing presented below is the representation of the prosperous countryside dreamed of by the children and youth of Catatumbo, in which the farmer is related to the ecological factors of the context represented in the drawing such as grass, trees, fruits, soil, crops, reflecting expressions of hope, patience and longing, also the vision of peaceful countryside, with the right to cultivate, to healthy food and a farmer with guarantees.

**Figure 4.** Drawing Pilar 6, municipality of Tibú, teenager 14 years old



#### FINAL NOTES

- 1 Project institutionally endorsed by the Universidad Francisco de Paula Santander and funded in 2018 by the Colombia Transforma program, code NDS153.

## CONCLUSIONS

This research shows the importance of giving a voice to children, adolescents and young people, to bring their vision of the territory to a scenario of public policy advocacy, and with greater emphasis in a region that has historically provided them with an environment of war to which they have had to adapt as if it were a survival instinct in the face of the aberrant forms of violence of which the inhabitants of Catatumbo have been victims. Consequently, the inclusion of the perspective of children and youth in the PDTA implies the conceptualization of peace as a human right.

Likewise, in methodological terms, creative tools are required that adapt to the particularities of the participating population, in this case, being the artistic-narrative component of the articulating axis of the information gathering process and for the citizen appropriation of the participation spaces.

The research findings show that, concerning rural property, land use, economic reactivation and agricultural production, the NNAJ dream of a prosperous, productive and safe Catatumbo, with formalization and ownership of land and investment in infrastructure to enhance the marketing and transportation chain of products. It is evident that currently there have been stumbling blocks for the implementation of programs such as the PNIS, due to the growing distrust of the communities towards the government for the different attempts of forced eradication, which closes the possibilities of dialogue and agreement with the peasantry.

For this, the political will of the government at its different levels is fundamental, which has the mandate to advance the different actions aimed at the implementation of the peace agreement and in particular, the programs oriented to the social and economic transformation of the countryside, the vindication of the rights of peasants, social leaders, human rights defenders, victims of the armed conflict, indigenous peoples, women and youth who have been demanding spaces for dialogue and the joint construction of that dream called "Peace".

The above highlights the need for institutional articulation that allows the advancement of joint actions in terms of territory, particularly from the academy as a key actor to continue the research process aimed at understanding the achievements of the participation of children and youth in public policy, and to continue proposing creative and practical alternatives that bring the academy closer to the community and contribute to the implementation of the peace agreement.

## REFERENCES

Colombia Joven, Presidencia de la República Colombia, Vicepresidencia de la República y el Alto Comisionado de las Naciones Unidas para los Refugiados (2010). Directriz Nacional para la atención integral y diferencial en situación y riesgo de desplazamiento. Bogotá: Organización Internacional para las Migraciones (OIM-Misión Colombia).

Congreso de la República de Colombia. (2006, 08 de noviembre). Ley 1098 de 2006. Por la cual se expide el Código de la Infancia y la Adolescencia. Instituto Colombiano de Bienestar Familiar. <https://www.icbf.gov.co/sites/default/files/codigoinfancialey1098.pdf>



- Consultoría para los Derechos Humanos y el Desplazamiento. (2006). *Desafíos para construir nación: El país ante el desplazamiento, el conflicto armado y la crisis humanitaria 1995-2005*. Bogotá: CODHES.
- Corporación AVRE. (2008). *Víctimas: sujetos(as) de memoria. Atención en salud mental a víctimas de violencia política en el marco del acompañamiento psicosocial*. Bogotá: Corporación AVRE.
- Defensoría del Pueblo. (2021, 22 de octubre). *Alerta Temprana N 025-2021*. <https://alertasstg.blob.core.windows.net/alertas/025-21.pdf>
- En lo que va del año 15.140 personas han sido desplazadas forzosamente. (2019, 09 de octubre). *El Tiempo*. <https://www.eltiempo.com/justicia/conflicto-y-narcotrafico/mas-de-15-000-desplazamientos-forzados-en-colombia-en-2019-421326#:~:text=En%20lo%20que%20va%20del%20a%C3%B1o%2015.140%20personas%20han%20sido%20desplazadas%20forzosamente,-FOTO%3A&text=Defensor%C3%ADa%20dijo%20que%20se%20han,Nari%C3%B1o%20y%20Choc%C3%B3%20encabezan%20lista.&text=09%20de%20octubre%202019%2C%2011%3A22%20A>
- Forero-Salcedo, J. R. (2019). *Derechos humanos, enfoque diferencial y construcción de paz. Breves reflexiones desde una visión constitucional*. *Saber, Ciencia y Libertad*, 14(1), 48-55. <https://doi.org/10.18041/2382-3240/saber.2019v14n1.5204>
- Fundación Ideas para la Paz (2020). *¿En que va la implementación del Acuerdo de Paz en el Catatumbo?* Bogotá: FIP.
- Hernández, R., C. Fernández y P. Baptista (2010). *Metodología de la investigación* (Quinta edición). México: Mc Graw Hill.
- Instituto Colombiano de Bienestar Familiar y Alto Comisionado de Naciones Unidas Para los Refugiados. (2010). *Directriz para la atención diferencial de niños, niñas y adolescentes víctimas de desplazamiento forzado en Colombia*. Bogotá: ICBF-ACNUR.
- Jaimes, M.C., L.N. Galvis y S. Cauca (2019) *Mujeres sobrevivientes del conflicto armado y reconstrucción del tejido social: una mirada desde el enfoque de las capacidades humanas*. *Revista Perspectivas*, 4(1), 32–38. <https://doi.org/10.22463/25909215.1753>
- Jaimes, M.C., L.N. Galvis y M.A. Gûiza (2019) *El dilema de la guerra o la paz: representaciones sociales sobre la paz de jóvenes del colegio San José de Cúcuta*. *Revista Perspectivas*, 4(2), 31–38. <https://doi.org/10.22463/25909215.1968>
- Lowenfeld, V y W. Lambert (1980). *Desarrollo de la capacidad creadora* (Segunda edición). Buenos Aires: Editorial Kapelusz.

- Martínez M. (2002). Indicadores socioculturales en las representaciones gráficas de los niños. *Revista electrónica: Arte, Individuo y Sociedad*, 103-109.
- Medellín, F. (2004). *Desplazamiento forzado. Dinámicas de guerra, exclusión y desarraigo*. Edición, Martha Nubia Bello, Universidad Nacional de Colombia, Sede Bogotá, Oficina del Alto Comisionado para los Refugiados, ACNUR. Bogotá, D.C, Colombia, 2004, 460 Páginas. *Revista Trabajo Social*, (6), 189-191.
- Ministerio de Defensa (2022). Homicidios. <https://www.policia.gov.co/delitos-de-impacto/homicidios>
- Oficina de las Naciones Unidas para la Coordinación de Asuntos Humanitarios. (2020, 21 de febrero). Colombia: Necesidades humanitarias por restricciones a la movilidad y acceso en el Catatumbo (Norte de Santander) - Informe de Situación No. 01. <https://reliefweb.int/report/colombia/colombia-necesidades-humanitarias-por-restricciones-la-movilidad-y-acceso-en-el>
- Oliveras, J., B. Vigo, J. Johnson, D. Rivera y E. Silva (2018). Reflexiones en torno a la investigación sobre la violencia de género desde las narrativas de investigadoras en formación. *Revista Perspectivas*, 3(2), 72–85. <https://doi.org/10.22463/25909215.1591>
- Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (2011). *Una crisis encubierta: conflictos armados y educación*. Francia: UNESCO.
- Programa de las Naciones Unidas para el Desarrollo (2014). *Análisis de conflictividades y construcción de paz*. Bogotá: PNUD. <https://www.undp.org/es/colombia/publications/catatumbo-analisis-de-conflictividades-y-construccion-de-paz>
- Ricoeur, P. (1985). *Temps et récit*. 3 tomes. París: Editions du Seuil.
- Ricoeur, P. ((2004). “Acerca de la interpretación” (ai), “La tarea de la hermenéutica: desde Schleiermacher y desde Dilthey” (th), “La función hermenéutica del distanciamiento” (fh), “¿Qué es un texto?” (qt) y “Explicar y comprender” (ec), “El modelo del texto: la acción significativa como texto”(mt). En *Del texto a la acción. Ensayos de hermenéutica II*. México D.F.: Fondo de Cultura Económica.
- Save the Children. (2018, 27 de marzo). *Crisis en Venezuela: Los niños que huyen hacia Colombia corren el riesgo de ser víctimas de trata o reclutados por grupos armados*. <https://www.savethechildren.es/notasprensa/crisis-envenezuela-los-ninos-que-huyen-hacia-colombia-corren-el-riesgo-de-ser-victimas>

Unidad para la Atención y Reparación Integral a la Víctimas (2015, 11 de noviembre). Niños, Niñas y Adolescentes. <https://www.unidadvictimas.gov.co/es/snariv/ni%C3%B1os-ni%C3%B1as-y-adolescentes/13362>

Unidad para la Atención y Reparación Integral a la Víctimas (2022, 30 de junio). Repoortes Enfoque Diferencial. <https://www.unidadvictimas.gov.co/es/registro-unico-de-victimas-ruv/37394>



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### Subjective Well-Being In Older Adults

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#### Abstract

Subjective well-being constitutes an emerging and attractive element in the knowledge of the situation of older adults for formulating national health policies. The objective of this study is to determine the dimensions of the level of subjective mental well-being in a population of older adults in a Colombian city. The methodology consisted of the application of the PERMA Profile by Butler and Kern (2016), which measures the five pillars of well-being expressed in a questionnaire applied to 421 older adults in a Colombian municipality. The results indicate that there are few differences in the levels of well-being reported by the respondents. It is concluded that gender was not a determining factor in the behavior of the average values assigned by the respondents to questions about their well-being.

**Keywords:** Subjective well-being, older adults, PERMA profile, associations, Colombia.

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#### Resumen

El bienestar subjetivo constituye un elemento emergente y atractivo en el conocimiento de la situación de los adultos mayores para la formulación de políticas de salud de los estados nacionales. El objetivo de este estudio consiste en determinar las dimensiones del nivel de bienestar mental subjetivo en una población de adultos mayores de una ciudad de Colombia. La metodología consistió en la aplicación del Perfil PERMA de Butler y Kern (2016), que mide los cinco pilares del bienestar expresados en un cuestionario aplicado a 421 adultos mayores de un municipio colombiano.

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Los resultados indican que existen pocas diferencias en los niveles de bienestar reportados por los encuestados. Se concluye que el género no resultó determinante en el comportamiento de los valores promedios asignados por los encuestados al bienestar.

**Palabras clave:** Bienestar subjetivo, adultos mayores, Perfil PERMA, asociaciones, Colombia.

## 1. Introduction

Colombia is currently witnessing a demographic phenomenon called population transition, referring to an increase in the long-lived population segment over the young population segment. An analysis of population growth in the period 2005-2017 shows that while the number of young people between 12 and 25 years of age increased by 6.1%, the number of elderly people (aged 60 years or older) presented an increase of 56.5% (DANE, 2018).

The increase in the number of elderly people is a worldwide trend. During the last decades of the last century and in the last two decades, it has been seen how, despite the many factors against (increasing pollution, the hectic pace of life and the stress it brings as a consequence, changes in diet, the use of chemicals for disease control and increased productivity in the cultivation and breeding of plants and animals...), the life expectancy of the world population has increased, and will surely increase even more in the future (WHO, 2016). Because, although there are indeed factors that make life difficult in many places. In parallel, it happens that there is greater awareness and control over the elements that allow for maintaining health and prolonging life for much longer than has ever happened so far in the history of mankind (Malvárez, 2007). The fact is that people are living longer than before (\*) and, with some exceptions, in better health conditions.

At the same time, although demographic statistics vary from country to country and region to region, there has been a global decrease in births (BBC News World, 2020) which, in conjunction with the prolongation of life, results in general aging of the population, which will increase in the following generations. According to Nieto Antolínez and Alonso Palacios (2007: 296), in the 1960s "Colombian women had an average of 6.7 children; today the fertility rate is 2.6 children per woman". In this sense, public policies should be envisaged at the international level (and each country on its own) to face the fact that there is a growing elderly population that will need attention and care from both the health and social perspective.

However, an increase in age does not necessarily imply a proportional decline in health. This is not a mathematical equation. A positive view of old age, considered not from the perspective of the deficit but in a beneficial way, as a stage of life in which important moments of satisfaction can be found, encourages the ability of older people to continue as far as possible an independent life. Consequently, one of the most important goals of a country's health planning should therefore be to increase the age of the disabled. This is primarily a matter of individual and collective satisfaction of the elderly and, in another sense, of cost savings for the national healthcare system.

While it is true that the aging of the population brings with it the possibility of worsening physical and psychological health (and the consequent eventuality of becoming dependent), it is also true that the enhancement of the positive aspects of life has an impact on a sense of well-being that can influence health as a broader construct than the absence of disease. In this sense, factors that enhance well-being and strengthen health among older adults should be identified and promoted.

There is currently a growing interest on the part of various international organizations, such as the OECD and the UN, in generating indicators of progress other than objective measures such as minimum income and GDP. The reason for this interest lies in the fact that quantifiable measures in figures do not always reflect the perception of well-being and happiness expressed by people from different cultures and socioeconomic levels. In this sense, indicators such as subjective well-being (Seligman, 2012), understood as people's evaluation of their own life situation in terms of satisfaction and happiness, constitute an emerging and attractive element for the formulation of State policies related to empowerment, physical, personal, social, cultural and political well-being of citizens. Measures of subjective well-being include aspects such as the perception of happiness, positive affect, quality of life and its relationship with family, economic, labor, social, political and personal factors. This set of factors makes it possible to segment, discriminate and compare human groups and regions. The knowledge derived from these studies, on the other hand, makes it possible to establish levels of well-being and eventually take actions to improve aspects of life conceived as priorities for people, even if they do not necessarily coincide with quantifiable parameters.

In this sense, the research seeks to determine the dimensions of the level of subjective mental well-being in the population of older adults who are members of the associations of the Mayor's Office of the municipality of Los Patios. The municipality of Los Patios hosts the capital city of the Department of Norte de Santander, Cúcuta, an intermediate city<sup>1</sup> in the eastern region of Colombia.

## **2. The social concept of welfare**

The notion of well-being and its study was incorporated late in psychology, associated, moreover, with the measurement of quality of life concerning certain quantifiable variables such as income level, quality of housing, access to public services, educational level, etc. The first studies on well-being were conducted under the label standard of living (Merino et al., 2015; Urzúa and Caqueo, 2012), and the variables that measured it were fundamentally economic. This view of well-being associated with the possession of and access to certain goods and services prevails in many current measurements, especially those used by governments and institutions to determine the quality of life of citizens.

In state censuses, for example, demographic measures occupy a privileged place and projections on people's quality of life are established on the information they reveal. Thus, a significant amount of research has been devoted to establishing demographic correlates and the objective variables that have been linked to human well-being: sex, age, social class, marital status, health, or income level.

Notwithstanding the usefulness of objective indicators for measuring the quality of life (mainly for institutions and governments), such factors are insufficient for establishing people's levels of individual and social satisfaction. The satisfaction of material needs is not always accompanied by well-being (Elizalde, Martí, and Martínez; 2006). In this sense, studies on this concept have expanded, including perceptual and subjective factors about happiness. In this sense, Veenhoven (1994; 2000), refers that quality of life includes two perspectives: the set of conditions necessary for the possession of a good standard of living, on the one hand, and on the other, the capacity to enjoy life. As can be expected, this second dimension includes the subjective assessment of external conditions, i.e., the

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<sup>1</sup> Those with a population between 100,000 and 1,000,000 inhabitants (IDB, 2005).

subject's perception of his or her life and material conditions. Rather than the standard of living, this new orientation refers to well-being, the basis of which is found in the individual's perception of the satisfaction of his or her material, affective and social needs. It is also about self-esteem and psychological levels of satisfaction with oneself.

In this sense, Lawton (1983) proposes the notion of the good life, based on four categories, three of which are psychological: (a) behavioral competence, which refers to functional capacity and the possession of adequate health, good social behavior and preserved mental functions; (b) psychological well-being, which has to do with congruence between desired and achieved goals in life, a good state of mind and an optimal affective level; c) perceived quality of life, associated with the person's satisfaction with himself/herself, with family and friends, with his/her work, and also satisfaction with the activities performed or the place where he/she lives; and d) the objective environment, the characteristics of the physical surroundings where the subject lives (García, 2002).

The result of the change of perspective in the measurement of quality of life has brought as a consequence a gradual substitution of this term, at least in the social sciences, by the construct well-being, later subjective well-being, which refers to the physical conditions of the individual's environment, but mainly to the evaluation in terms of satisfaction with such conditions.

### **3. Measurement of well-being**

As we know, well-being is a subjective concept, which has more to do with the sensation of feeling at ease than with the enjoyment of the objective conditions that in principle produce this effect. One can be more or less well, even if the external conditions are the same. The issue almost always has to do mainly with the subjective point of view.

Therefore, the measurement of well-being, although based on certain material guarantees related to the satisfaction of basic vital needs (such as the preservation of life, physical integrity, sufficient and adequate food, the protection of the body against external inclemencies through appropriate housing and clothing, and health care) depends above all on the attitude assumed towards the coverage of expectations that are considered individually and socially indispensable (Jaramillo, 2016; Carvajal et al., 2021). This explains why the perspectives of well-being are different in different cultures and geographies, and even among people in the same community.

Well-being is not an objectively measurable category but is associated with cultural and individual perspectives. In this sense, Butler and Kern's (2016) PERMA Profile measures positive emotions, engagement, relationships, meaning, and achievement.

From a social perspective, positive attitudes should be developed at any time during the life cycle. In addition to greater possibilities of social integration and individual happiness, there are the repercussions that these states of well-being have on the subjects, individually and from the collective perspective (social, health, economic). Indeed, healthy people (physically and emotionally) contribute to the development of a social emotional balance, to the integration and consideration of the elderly in the social conglomerate, to the improvement of the general perspective of the population about their own better future aging, and even to better use of the material goods available through savings in the health sector. Indeed, healthy people (physically, psychologically, and socially) are more positively integrated into the collective fabric.

Since the well-being of individuals is not a category that can be quantified by external parameters such as income level, home ownership, physical independence or absence of illness, different models have been devised to measure happiness through perceptual parameters. Indeed, the measurement of well-being is rather the measurement of the feeling of being well. And although well-being is, as mentioned above, an elusive category, levels of satisfaction or dissatisfaction with living conditions can be established indirectly.

#### **4. Methodological details of the research**

This field research takes into account the Subjective Well-being of Older Adults according to the PERMA instrument by Butler and Kern (2016), (Positive emotions, Engagement, Positive Relation, Meaning and Accomplishment), which measures positive emotions, engagement, relationships, meaning, and achievement. In addition, it assesses three independent factors, namely health, negative emotions, and loneliness, and thus seeks to analyze without manipulating the information received.

The data was obtained from the older adults belonging to the associations attached to the Mayor's Office of Los Patios. Within the framework of social isolation measures due to Covid-19, it was decided for prevention, that the data collection will be done by telephone, given that the administration of the questionnaire allows it. The database of the population under study was provided by the Coordination of Social Development of the Mayor's Office of Los Patios. The sample was calculated for a population of 1400 older adults belonging to the associations located in the Llanitos and 12 de Octubre neighborhoods of the Municipality of Los Patios with a confidence level of 95% and a margin of error of 4%, resulting in 421 older adults.

The data collection instrument was a questionnaire based on the adapted PERMA Profile model by Butler and Kern (2016), which measures the five pillars of well-being defined by Seligman (2012): Positive Emotions, Engagement, Relationships, Meaning, and Achievement. In addition, it assesses three independent factors, namely: health, negative emotions, and loneliness. It is composed of 23 items, 15 of which assess the five pillars of well-being (three items for each factor) and one item representing 'general well-being, which is listed as a criterion item. Each item is proposed on a Likert scale. Depending on the nature of the statement the scale ranges from 0 (never) to 10 (always) or from 0 (not at all) to 10 (completely). Butler and Kern (2016) suggest in their studies that the English version of this scale is acceptable and reliable.

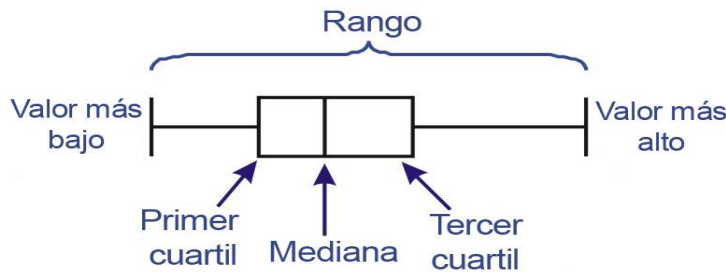
The questionnaire whose function is to determine the Subjective Well-being of Older Adults has been translated into Spanish and validated in the Colombian context as mentioned in the work "Adaptation of the PERMA Profile of subjective well-being for Colombian institutionalized older adults", carried out by Hernandez et al. (2018), where it was validated for the application of the Colombian population by expert judgment, a professional with knowledge of statistics, for the application of reliability and validity of the instrument.

With the advance in technological tools, some statistical resources were created to facilitate the interpretation of data from graphical representations. In 1977, John Wilder Tukey created the box-and-whisker diagram, a graph composed of a rectangle, the box, and two arms, the whiskers. It is used to represent numerical variables (Ritchey, 2001). They are very useful, but to be able to interpret them properly it is necessary to have clarity in their composition. It is a graphical representation that facilitates the visualization and description of a distribution of a set of data, through the quartiles,



how is the distribution, central tendency, dispersion, symmetry, outliers (outliers and extremes), and compare distributions.

A graph of this type consists of a rectangular box, where the longer sides show the interquartile range. This rectangle is divided by a vertical segment that indicates where the median is positioned and therefore its relationship with the first and third quartiles (the second quartile coincides with the median). This box is placed to scale on a segment that has as extremes the minimum and maximum values of the variable.



**Figure 1.** Structure of the box-and-whisker diagram

**Source:** <https://www.ck12.org/book/ck-12-%c3%81lgebra-i-en-espa%c3%b1ol/section/11.8/>

The lines protruding from the box are called whiskers. These whiskers have an extension limit, so that any data that do not fall within this range are individually marked and identified and are called typical (in the box-and-whisker plot they are represented by circles and are values that exceed 1.5 units of the length of the box or interquartile range) or extreme (in the box-and-whisker plot they are represented by stars and are values that exceed 3 units of the length of the box or interquartile range). These values correspond to observations whose values are very different from the other observations in the same data set, i.e. they are too low or too high. They are outliers caused by: a) Procedural errors; b) Extraordinary events; c) Unknown causes.

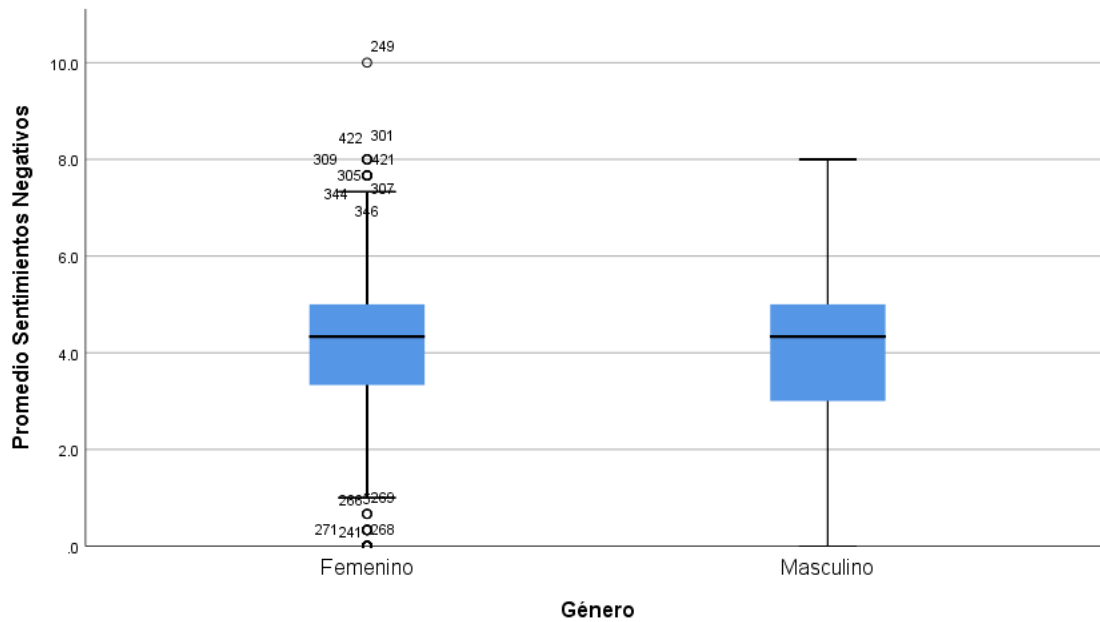
The criterion used to conclude on the existence of possible differences between the average scores of each gender corresponds to verifying whether the diagrams overlap between their whiskers, otherwise, it is affirmed that the differences are significant concerning the variable under study.

## **5. Dimensions of the level of subjective mental well-being in the population of older adults in Colombia.**

The results derived from the research have been organized in such a way that they respond to the determination of the level of well-being of older adults in the city of Cúcuta, Colombia. A sample size of 423 older adults was achieved, of which 313 are women and 110 are men, which is equivalent to saying that for every three women there is one man.

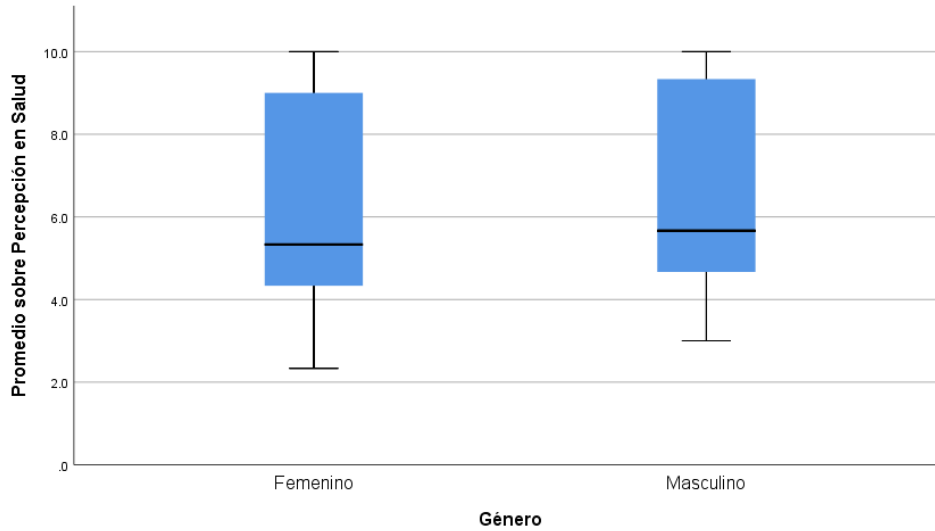
The dimensions that make up the level of subjective well-being are: 1) Negative Feelings; 2) Health Perception; 3) Positive Feelings; 4) Commitment; 5) Relationships; 6) Meaning; and 7) Achievement. The behavior of each dimension of the PERMA Profile is analyzed from the interpretation of box-and-whisker plots looking for possible differences between the average scores of each gender.

In the dimension Negative Feelings, there are no significant differences by gender, but it is observed that in women there are a good number of atypical cases (represented by circles outside the whiskers) at both ends of the rating scale, which allows affirming that in the group of women surveyed three groups can be distinguished: (a) those who live extremely happy lives and never experience negative thoughts, locating themselves at the lower part of the graph; (b) those who lead an emotionally balanced life and are located within the limits of the graph; and (c) those who are extremely negative, living daily seized by feelings of sadness, anger or anguish. This situation does not occur with the group of men, who seem to lead a more emotionally balanced life, as shown in Figure 2.



**Figure 2.** Average of the negative feelings dimension by gender

In the Health Perception dimension, several trends can be observed using the box-and-whisker diagram, as shown in Figure 3.

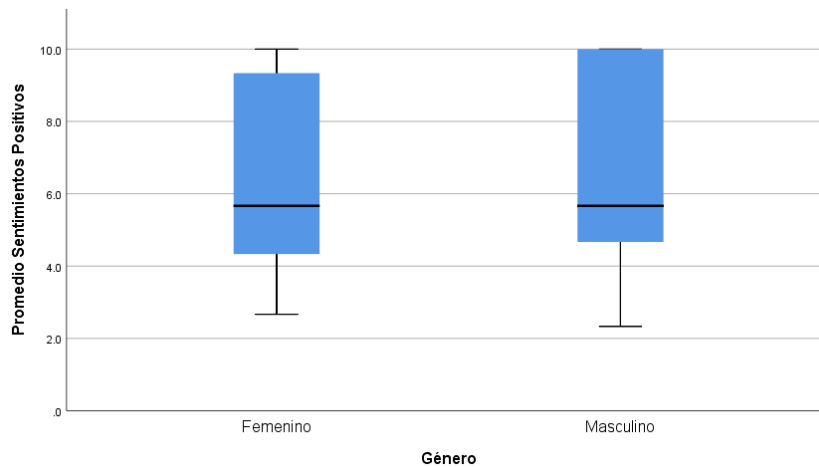


**Figure 3.** Average of the Health Perception dimension by gender

Source: Own elaboration.

There are no significant differences by gender, while in both groups of older adults, the section between the median and the third quartile is longer, which is equivalent to inferring that in the 25% of the highest averages they have greater dispersion, that is, there are older adults who feel in good health and that fills them with happiness because they consider that their current physical condition is more favorable than those of other people of the same age.

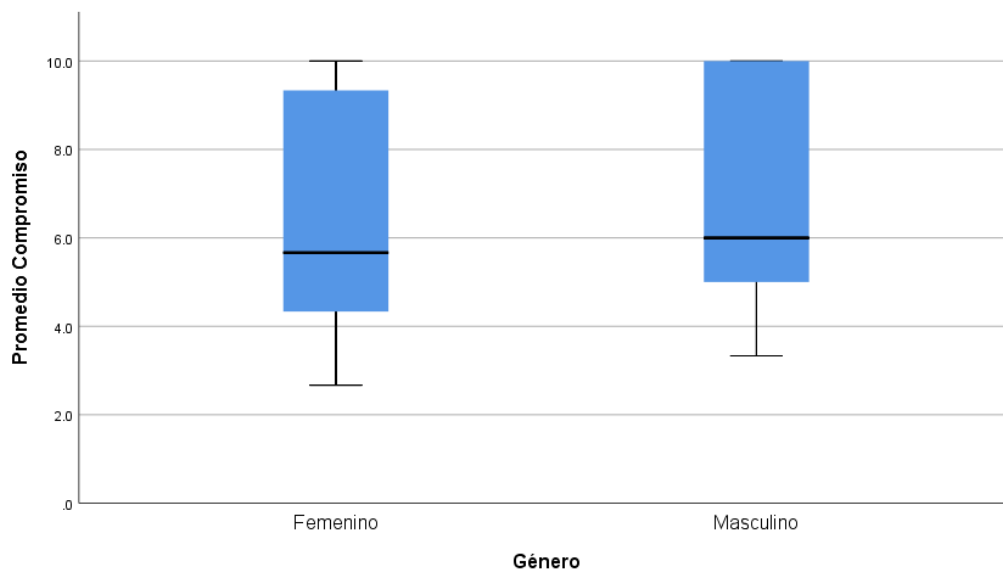
When the behavior of the averages associated with the Positive Feelings dimension is analyzed, it is concluded that there are no significant differences by gender. Although it is observed that in both women and men, it is evident that the section between the median and the third quartile is longer, which is equivalent to inferring, that in the 25% of the highest averages they have greater dispersion, that is, there are older adults who almost always feel happy, optimistic and satisfied with the life they have lived, being slightly more evident in men than in women, as shown in Figure 4.



**Figure 4.** Average of the positive feelings dimension by gender

Source: Own elaboration

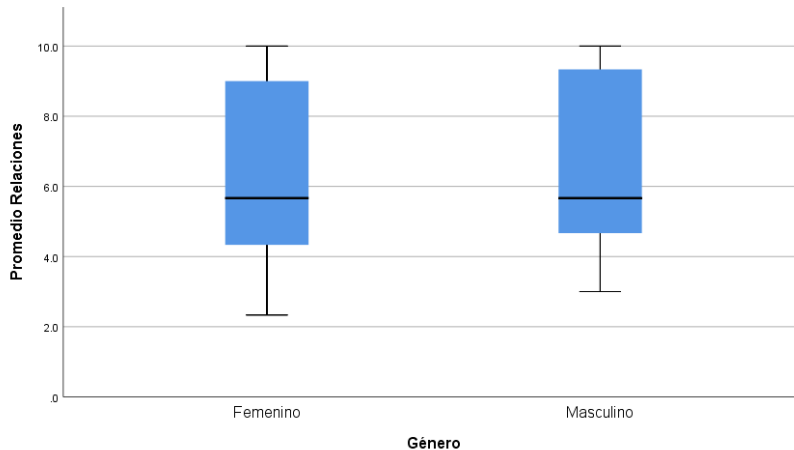
Concerning the commitment dimension, the behavior of the associated averages shows a very similar trend to that observed in the previous dimension, where it stands out that in both genders 25% of the highest averages have a greater dispersion or what is equivalent to mentioning that there are older adults who almost always feel fascinated and enthusiastic about the activities they perform, which produces in them the feeling that time is running fast when they perform these activities, being slightly more evident in men than in women (See Figure 5).



**Figure 5.** Average of the commitment dimension by gender

Source: Own elaboration.

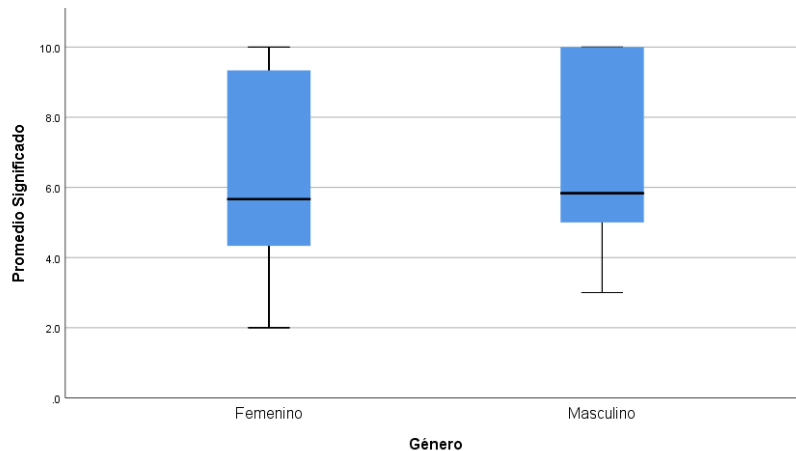
The averages associated with the Relationships dimension show a behavior similar to that observed in the dimensions of positive feelings and commitment. Greater variability continues to be observed in the upper half of the box, which is equivalent to asserting that there is a whole range of positions, but always positive, concerning the quality of the social relationships that the older adults in the sample enjoy daily. Then it is highlighted as a characteristic aspect in this dimension, that regardless of gender, older adults feel loved by other people, based on the social relationships that have been consolidated over time and that is reflected in obtaining support from them when it has been necessary (Figure 6).



**Figure 6.** Relationship dimension average by gender

**Source:** Own elaboration

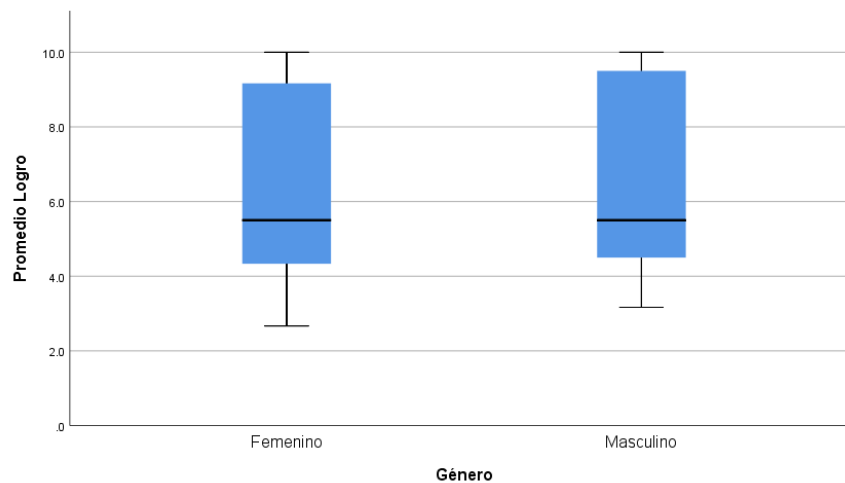
The behavior of the averages associated with the Meaning dimension, what can first be inferred is that there are no significant differences according to gender. However, it is worth noting that in the male older adults in the sample, there is a more positive attitude towards this dimension than that observed in the women. This conclusion is reached by observing that the 25% of the highest averages have a greater dispersion or what is equivalent to mentioning that a wide variety of older adults were found who almost always assure that they are clear about where their lives are going since they have had clear goals and purposes that have generated in them that feeling of social valuation for their performance (See Figure 7).



**Figure 7.** Mean Meaning dimension by gender

**Source:** Own elaboration.

About the behavior of the averages associated with the Achievement dimension, it can be inferred that there are no significant differences according to gender. In the opinion of the older adults, with 25% of the best evaluations in this dimension, there is still a whole range of positive opinions in which they make it clear that in their lives they have set goals, they have made an effort to achieve them, always supported by responsibility as a fundamental principle to reach their objectives (See Figure 8).



**Figure 8.** Average achievement dimension by gender.

**Source:** Own elaboration.

As complementary information, the group of older adults was consulted on some aspects associated with their comfort and well-being based on their daily experience in the municipality of Los Patios.

## 6. Conclusions

The determination of the level of subjective well-being of older adults in this study replicates the tendency of the geographical and social context of Latin American countries in which the subjective values assigned to well-being are relatively high.

Considering the internal dispersion, and the determination of the levels of subjective well-being in Colombian older adults, it is concluded that gender was not a determining factor in the behavior of the average values assigned by the respondents to well-being, which is valid for most of the dimensions of the PERMA profile. The dimension of relationships understood as the social relationships that older adults perceive daily was the one that showed the greatest degrees of internal dispersion, although always maintaining positive evaluations of well-being. The regularity of the phenomenon and the large sample consulted in this study can be a source of contributions to programs for the quality of life of older adults.

### References

- DANE (2018) National Census of Population and Housing - Colombia. <https://www.dane.gov.co/index.php/estadisticas-por-tema/demografia-y-poblacion/censo-nacional-de-poblacion-y-vivenda-2018>
- BBC News World (2020) The dramatic decline in world births (and what the profound consequences will be). BBC. Available at: <https://www.bbc.com/mundo/noticias-53417504>
- Butler, J. and Kern, M. (2016) The perma-profiler: a brief multidimensional measure of flourishing. *International Journal of Wellbeing*. 6(3), 1-48.
- Carvajal, D, Vásquez, A. and Botero, L. (2021) Assessment of subjective workplace well-being of construction workers: A bottom-up approach, *Journal of Building Engineering*, Volume 36, <https://doi.org/10.1016/j.jobe.2021.102154>.
- Elizalde, A. Martí, M. and Martínez, M. (2006) Una revisión crítica del debate sobre las necesidades humanas desde el enfoque centrado en la persona, *Polis*, 15 <http://journals.openedition.org/polis/4887>
- García, M. (2002). Subjective well-being. *Psychology Writings*. 6 (2), 18-39.
- Lawton, M. (1983). Environment and other determinants of well-being in older people. *The Gerontologist*, 23, 349-355.
- Hernández V, Prada R, Hernández C (2018) Adaptation of the PERMA profile of subjective well-being for Colombian institutionalized older adults. *Revista Ciencia y Cuidado* 15(1) 83-97. <https://revistas.ufps.edu.co/index.php/cienciaycuidado/article/view/1235>
- Jaramillo, M. (2016). Subjective and Objective Well-Being Measurements ¿Complement or substitute?. *Acta Sociológica*, 70.
- Malvárez, Silvina (2007). The challenge of caring in a globalized world. *Revista Texto Contexto*, 16 (3), 520-530.

- Merino, M.; Privado, J. and Gracia, Z. (2015) Mexican validation of the Positive Psychological Functioning Scale. Perspectives around the study of well-being and its measurement. *Salud Mental*, 38 (2), 109-115. DOI: 10.17711/SM.0185-3325.2015.015
- Nieto Antolínez, M. and Alonso Palacio, L. (2007). Is our country prepared to assume the challenges posed by population aging? *Salud Uninorte*, 23(2),292-301  
<https://www.redalyc.org/articulo.oa?id=81723214>
- WORLD HEALTH ORGANIZATION. 2017. Available at: <https://www.who.int/features/2017/year-review/es/#event-resumen-del-2017-actualidad-de-la-salud-mundial>
- Ritchey, F. (2001) *Statistics for the Social Sciences. From the statistical imagination*. McGrawHill. Mexico
- Seligman, M. (2012). *Flourish: A visionary new understanding of happiness and well-being*, Free Press. New York.
- Veenhoven, R. (1994). The study of life satisfaction. *Psychosocial Intervention*. 3, 9, 87-116.
- Veewnhoven, R. (2000) The Four Qualities of Life. *Journal Of Happiness Studies*, 1, 1-39.
- Urzúa, A. and Caqueo A. (2012) Quality of life: A theoretical review of the concept. *Terapia Psicológica*, 30 (1), 61-71.
- WHO (2016) Life expectancy has increased by 5 years since 2000, but health inequalities persist. <https://www.who.int/es/news/item/19-05-2016-life-expectancy-increased-by-5-years-since-2000-but-health-inequalities-persist>





## **Perceptions Of University Teachers On Their Human, Professional, And Pedagogical Dimensions**

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### **Abstract**

The objective of this research is to describe the perceptions of university teachers about their human, professional, and pedagogical dimensions. The study was framed in the analytical empirical paradigm based on the positivist vision, the descriptive quantitative approach and the non-experimental-transversal deductive method. The population consisted of 246 teachers from three faculties of a Colombian public university and the sample consisted of 180 individuals, to whom a Likert-type questionnaire was applied with 32 questions related to four variables: sociodemographic characteristics, being personal, being professional, and being pedagogical. The data were analyzed through descriptive statistical procedures. The results show that the participating subjects have developed their personal, professional, and pedagogical dimensions as part of their teaching identity. Although not all university professors have advanced studies in education or pedagogy, the culture of university life with all its logics, allows the socialization and circulation of educational, and pedagogical knowledge/practices -teaching experience/identity- that favor the praxis towards teaching, learning, didactics, and evaluation.

**Keywords:** perceptions; human being dimension; professional dimension; pedagogical dimension; university teacher.

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**Percepciones de docentes universitarios sobre sus dimensiones ser humano, profesional y pedagógico**

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## Resumen

El objetivo de esta investigación fue describir las percepciones de docentes universitarios sobre sus dimensiones ser humano, profesional y pedagógica. El estudio estuvo enmarcado en el paradigma empírico analítico fundamentado en la visión positivista, el enfoque cuantitativo de nivel descriptivo y el método deductivo no experimental-transversal. La población estuvo conformada por 246 docentes de tres facultades de una universidad pública colombiana y la muestra en 180 individuos, a quienes se les aplicó un cuestionario tipo Likert con 32 preguntas relacionadas con cuatro variables: características sociodemográficas, ser personal, ser profesional y ser pedagógico. Los datos se analizaron a través de procedimientos de estadística descriptiva. Los resultados evidencian que los sujetos participantes, en general, han desarrollado sus dimensiones personal, profesional y pedagógica como parte de su identidad docente. Aunque no todos los profesores universitarios han adelantado estudios en educación o pedagogía, la cultura de la vida universitaria con todas sus lógicas, permite la socialización y circulación de saberes/prácticas educacionales y pedagógicos -experiencia / identidad docente- que favorecen la praxis hacia la enseñanza, el aprendizaje, la didáctica y la evaluación.

Palabras clave: percepciones; dimensión ser humano; dimensión profesional; dimensión pedagógica; docente universitario

## INTRODUCTION

Reflection oriented to the exercise of university teaching requires, as a prelude, the conscious exploration of what it is to be a teacher because it is not possible to encompass the teacher's praxis without the recognition of those perceptions, meanings, senses, and symbols that this category contains (Kottler et al., 2005), even more so when its field of action tends to be extended to research, teaching, administration and extension (Ocampo et al., 2021). The first thing to highlight is that the figure of the teacher is founded -and why not, enriched- by at least two tributaries: the teacher as a human being and the teacher as a professional subject (Zabalza, 2009). To reduce being a teacher to the professional spectrum would be a contradiction, since schools and universities are spaces that enclose the complex human interaction for human development. Training other people in institutionalized spaces leads to re-evaluate being a teacher beyond their professionalization to settle in the first scheme of their own existence: their nature as a person (Sarramona et al., 1998; Freire, 2008).

Therefore, the teacher's condition as a social, political, ethical subject with a deep hope in the world and communities should be enhanced. These visions, although they may be influenced by their academic training, depend in a particular way on life experiences, vocation towards others, empathy, tolerance, dedication, and otherness to which they are constantly committed. But also, the teacher is an incomplete subject who recognizes his or her imperfection, with fears, anxieties, frustrations, and periods of exhaustion, produced by the chaos of postmodernity and the normative demands that stress the teacher's duty to be (Cobos et al., 2022; Zabalza, 2009; Ball, 2003). Cuadra et al. (2021) consider that all these elements, subjective and objective, delimit the professional identity of the teacher, which subsumes the personal identity of the teacher (Cobos et al., 2022; Zabalza, 2009).

Freire (2008) in his third letter to those who intend to teach, makes it clear that educational practice should be taken as a very serious matter because through it one participates in the formation of human beings who may be harmed by the negligence of the teacher or benefited by his creative teaching. A reflective reading of the Freirean perspective reveals that the teacher, as a human being, is moved by his or her deep conviction, vocation, hope and responsibility. All these elements are shaped, especially, by the life project of the person who decides to become a teacher, supported by the experiences, expectations and perceptions elaborated about the inhabited world.

The second perspective -being a teacher as a professional subject- is directly related to a set of abilities and skills that are enhanced to effectively practice teaching. To ask oneself about the type of teaching inexorably implies questioning oneself about what one intends to teach. Teaching should be directed towards the full development of the personality in coherence with the various international instruments on human rights. The Universal Declaration of Human Rights (1948) states in Article 26.2 that education shall be directed to the full development of the personality, as does Article 13.1 of the International Covenant on Economic, Social, and Cultural Rights (1966) and Article 5.1 of the Convention against Discrimination in Education (1960).

Although in the Colombian context, the 1991 Political Constitution does not refer to the concept of 'full development of the personality', the internal legal system recognizes 'integral education', which is a justified equivalent of 'full development of the personality'. For example, Law 115 of 1994, which regulates formal education and other types of training, emphasizes in Article 1 that education is a complex process (permanent, personal, social, cultural) based on the "integral conception of the human person, of his dignity [...]". And Article 1 of Law 30 of 1992 projects higher education as a permanent process for "the development of the potentialities of the human being in an integral manner [...]". The full development of the personality is the integral formation itself; therefore, Martínez (2011) argues that the human being is a suprasystem in which various subsystems achieve a wonderful coordination: biological, physical, chemical, cultural, social, ethical, moral, and spiritual, among others. He calls this the personality of the human being.

The type of interpretation that teachers make of teaching and training will have implications for their pedagogical practices. Indeed, the teacher who reduces the human person to the cognitive, will privilege classes full of content (formulas, concepts, and theories). This would be in the presence of the so-called banking education, the donation of the teacher's knowledge without repercussions beyond memory (Freire and Faundez, 2018). On the other hand, the teacher who conceives the human being as a suprasystem -a complex personality-, will promote an integral formation that creatively combines his discourse with the resources and means to strengthen the emotional, affective, cognitive, communicative, ethical, social, and cultural component of each of the students (Morin, 2001), not to turn them into a copy, but into free and autonomous citizens who contribute to their communities with the full development of human capabilities to lead with dignity the life they value (Saito, 2003; Nussbaum, 2005).

To achieve such an integral formation, today's university teacher must have at least five non-fixed and dynamic characteristics. First, he or she must be an interdisciplinary and multidisciplinary professional. This type of teacher has a broad knowledge of the discipline in which he or she has been trained and comprehensively distinguishes the relationships that emerge with other fields of knowledge (Bain, 2004), which allows the configuration of discourses that lead to new rationalities for identifying and addressing onto-epistemic problems of the disciplinary area with different paradigmatic visions (Morin, 1999; Gillis et al., 2017; Park and Son, 2010).

Second, he/she must be a problem-solving teacher. The teacher recognizes the pedagogical potential of the real problems of the context and of situated knowledge. Therefore, he/she promotes tasks aimed at identifying and defining problems that emerge from the environment by linking the cognitive sphere of the subject (disciplinary and multidisciplinary knowledge) with the sociocultural dimension for the development of critical capacity, which leads to greater motivation, interest, participation, and responsibility (Gao et al., 2018; Wan, Harun and Shukor, 2019). Third, and linked to the above, the teacher must show himself as a dialogical and critical subject, which promotes a pedagogy of questioning -and didactics from questioning- to direct the gaze of the subject of training -dialogical principle in teaching-. Thus, the teacher should understand that the intelligent, pertinent, and timely question, becomes an inexhaustible source of stimulus for reflection, democratic participation and awareness of the individual (Herranen & Aksela, 2019; Freire & Faundez, 2018; Lindstrøm, 2021).

Fourthly, the teacher must be a subject that pays tribute to the institutional framework. The teacher's actions, in general, are framed within the institutional framework, that is, the teacher is part of a school, a college, a university institution or other type of organization. Therefore, from his professionalism he must promote a rational action that contributes to the strategic horizon of the institution to which he belongs. Today it is admitted that educational institutions are part of the problem of the educational system, so this vision must be transformed: turning schools and universities into the solution to the problems (Bruner, 2016). The university teacher must be committed to the accreditation and quality processes of the institution and the programs offered, the strategies advanced from various instances and levels, and the events both in planning and in implementation and evaluation.

Fifth, a teacher is sought who is a researcher, close to the scientific activity for the development of ethnoepistememes (Freire and Faundez, 2018). At least, two routes of action must be covered: productive research and formative research (Bain, 2004). The university teacher is called to constantly carry out research relevant and coherent to his or her areas. This leads to several emerging central points that deserve to be stated: 1) strict ethics are required in research; 2) capacities and competences are required in the field of methods, academic writing and communication of results; 3) it is demanded to be part of the academic community from the publication and dissemination; and 4) it is expected that research be real contributions to the solution of social problems. A teacher who meets these demands can favor the formation of other subjects in the field of research.

Finally, it is imperative to point out a third component of being a teacher, in addition to the personal/human and professional/disciplinary: the pedagogical profile/being. The exercise of teaching requires in parallel the pedagogical task, which integrates the areas of knowledge and praxis (Zuluaga, 2021). Pedagogical knowledge is not only theories and pedagogical models that serve in the configuration of the teacher with incidence in teaching and didactics - knowledge -, although its appropriation by teachers is fundamental. It also includes knowledge, which is the vastest space of knowledge translated into institutionalized and non-institutionalized discursive practice. This knowledge is also reflected in pedagogical practices and reflective practices that emerge from experience, daily life and the constant dialogical interaction of social actors.

From the pedagogical component, a complex structure of formal and informal knowledge and practices on education, the teacher: (a) recognizes the learning process of individuals and the factors that make it possible for decision-making on teaching strategies and procedures; (b) reflects on his or her place as a trainer from the society, the institution, the context and the socio-historical moment being lived; c) understands the dynamic role of the student in the disciplinary, ethical, political, and social spheres; d) manifests a deep critical capacity of the current crises and macro-problems faced by society such as injustice, inequity, social vulnerability, poverty, climate change, among others (Wilson et al. , 2019; Arnold and Mundy, 2020; Santos and Soler, 2021).

In addition to the above, in the curricular and evaluative field, the teacher, supported by his knowledge and pedagogical practice, must participate in the reflection and transformation of the curriculum understood as the same socio-political and academic life of the institution. To do so, he/she connects the visions of the micro-social space with the local, regional and national, without losing sight of the trends and germs of change on the international scene (Ennis, 2018). On the other hand, the university teacher is called to abandon the practice of grading to install true formative evaluation processes that are useful for both the student and the teacher. It is not a rigid and static assessment for homogenization based on content, but an assessment that allows from an integral perspective to contribute to the same training. In other words, evaluation is in the same systemic and complex structure of training (Stough et al., 2018).

The pedagogical in the teacher is an urgency because educational policies tend to its elimination and progressive exclusion. Instead, a pseudo-professionalization of the teacher is sought, which is characterized by the increasing reduction of teaching action to technique and results, and less to critical and liberating self-

reflection that allows social and political transformation (Ball, 2003). It is a requirement of utmost importance to return to pedagogy as a central pillar of the teacher's activity. These issues are the focus of this article, whose objective was to describe the perceptions of university teachers on their human, professional and pedagogical dimensions.

## METHODOLOGY

The research is framed in the analytical empirical paradigm based on the positivist vision, the descriptive quantitative approach and the non-experimental-transversal deductive method. The population consisted of 246 teachers in the modalities of staff, part-time, and occasional, and belonging to the Faculties of Business Sciences, Education, Arts and Humanities, and Engineering of a public university in the city of Cúcuta (Colombia). To define the sample, the following statistical formula was applied, used when the universe of individuals, that is, the population universe, is recognized:

$$n = \frac{Zc^2 \times P \times Q \times N}{E^2 \times (N-1) + Zc^2 \times P \times Q} \quad (1)$$

Where:  $Zc = 95\%$  or 1.96 is the level of certainty, under the normal curve;  $P = 0.5$  is the probability of success;  $Q = 0.5$  is the probability of failure;  $E = 5\%$ -0.05 is the level of error; and  $N = 246$  is the population.

The statistical formula resulted in 151 individuals; however, 180 teachers responded to the instrument. For the selection of the sample, the following criteria were considered: to be a teacher hired for the period 2022-1, to belong to one of the faculties described, and to have at least one year of teaching experience within the higher education institution. Teachers with less than one year of experience in university education were excluded from the sample. A Likert-type questionnaire with 32 questions was applied to the teachers, which was structured in four variables of analysis with different dimensions as shown in Table 1:

Table 1: Structure of the questionnaire applied in the research

Variable	Dimensions	Questions
Socio-demographic characteristics	Gender	1-6
	Years of college experience	
	Academic program you are enrolled in	
	Highest level of schooling	
	Professional or postgraduate training in education or pedagogy	
Human being	Social subject	1-8
	Political subject	
	Ethical subject	
	Role of the institution in the recognition and strengthening of the human dimension.	
Being professional	Interdisciplinarity and multidisciplinary	9-19
	Problémic	
	Dialogic	
	Critical	
	Tribute to institutionality	
	Tribute to society	
	Research	
	Extension	
	Role of the institution in the recognition and strengthening of the professional dimension	

Being pedagogical	Knowledge of learning	20-32
	Knowledge of teaching	
	Knowledge of didactics	
	Knowledge of evaluation	
	Praxis - Reflected experience	

Table 1: continued

	Understanding of the dynamic role of the student in the disciplinary, ethical, political and social spheres.	
	Deep critical capacity of the current crises and macro-problems.	
	Role of the institution in the recognition and strengthening of the pedagogical dimension.	

The questionnaire items were constructed as statements, and the participating teachers could respond with only one option: strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree and strongly disagree. The instrument was validated by means of expert judgment, with the participation of four experts in education with experience in research and university teaching. Each of the items was evaluated in the light of five criteria: coherence, consistency, clarity, neutrality and sufficiency. The reliability of the instrument was determined through a pilot test, where the data obtained served to analyze the reliability of the questionnaire based on Cronbach's alpha with a result ( $\alpha = 1.00$ ). The final version of the instrument was uploaded to the Google Forms platform and the link shared to different agencies for dissemination. The data collected were analyzed through descriptive statistics processes with Excel spreadsheets.

## RESULTS

Of the 180 participating individuals, 46.7% of the sample was female and 53.3% was male. None of the individuals were younger than 25 years of age and the majority were between 41 and 60 years of age (80%). Only 15.4% were between 31 and 40 years of age. With respect to university teaching experience, 30% indicated that they had been teaching for 11-20 years. Another 25.5% said they had experience between 21 and 30 years. Most of the teachers surveyed have a master's degree (54.9%), 17.1% reported having a specialization and only 6.3% reported having a doctorate or postdoctoral degree. The survey also inquired about training in the field of education and pedagogy: 50% of the teachers reported having professional or postgraduate training in this field.

Table 2 refers to the human being analysis variable. The data collected and systematized with respect to the 'social subject' dimension show that the teachers interviewed generally try to carry out activities to strengthen social relations with different interest groups (76.7% strongly agree and 18.9% somewhat agree). The same tendency is observed with respect to the development of activities to communicate ideas, thoughts or beliefs among the different stakeholders (61.1% strongly agree and 23.3% somewhat agree). Related to the above, most teachers express that the university facilitates the development of the social dimension of teachers (67.8% strongly agree and 27.8% somewhat agree).

Table 2: Results of the teacher's human being variable

Question	Options	No	%
In my teaching practice I carry out activities to strengthen social relationships with different groups such as classmates, colleagues, students, administrators, and other actors.	Strongly agree	138	76.7%
	Somewhat agree	34	18.9%
	Neither agree nor disagree	4	2.2%
	Somewhat Disagree	2	1.1%
	Strongly Disagree	2	1.1%
In my teaching practice I carry out activities to communicate my ideas, thoughts, beliefs and others	Strongly agree	110	61.1%
	Somewhat agree	42	23.3%

among the different groups and actors of the university context.	Neither agree nor disagree	14	7.8%
	Somewhat Disagree	8	4.4%
	Strongly Disagree	6	3.3%
The institution of higher education to which I belong, facilitates through the university culture, programs, guidelines and spaces, the exercise of the social dimension of the teacher.	Strongly agree	122	67.8%
	Somewhat agree	50	27.8%
	Neither agree nor disagree	6	3.3%
	Somewhat Disagree	2	1.1%
	Strongly Disagree	0	0%
In my teaching practice I carry out activities of a political nature for the organization and self-organization of teachers within the educational institution.	Strongly agree	56	31.1%
	Somewhat agree	40	22.2%
	Neither agree nor disagree	48	26.7%
	Somewhat Disagree	16	8.9%
	Strongly Disagree	20	11.1%
In my teaching practice I carry out activities to strengthen social relationships with different groups such as classmates, colleagues, students, administrators, and other actors.	Strongly agree	92	51.1%
	Somewhat agree	52	28.9%
	Neither agree nor disagree	22	12.2%
	Somewhat Disagree	10	5.6%
	Strongly Disagree	4	2.2%

Table 2: continued

The institution of higher education to which I belong, facilitates through the university culture, programs, guidelines and spaces, the exercise of the political dimension of the teacher.	Strongly agree	100	55.6%
	Somewhat agree	58	32.2%
	Neither agree nor disagree	18	10%
	Somewhat Disagree	0	0%
	Strongly Disagree	4	2.2%
In my teaching practice (teaching, research and extension) I recognize and apply the different ethical principles favoring interpersonal relationships and the fulfillment of the strategic horizon of the institution.	Strongly agree	164	91.1%
	Somewhat agree	14	7.8%
	Neither agree nor disagree	2	1.1%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%
The institution of higher education to which I belong, facilitates through the university culture, programs, guidelines and spaces, the exercise of the ethical dimension of the teacher.	Strongly agree	152	84.4%
	Somewhat agree	24	13.3%
	Neither agree nor disagree	4	2.2%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%

Regarding the dimension 'political subject', the trend observed in 'social subject' is modified. At least 46.7% state that they carry out few or no activities within the framework of the organization and self-organization of teachers at the institutional level, although 80% agree that they participate in institutional spaces of representation and deliberation. In other words, it seems that actions are carried out in established democratic scenarios, but not in independent activities that emerge from the initiative and will of the teachers themselves. This is confirmed in the findings of the following item: the majority of teachers express that the institution facilitates the political exercise of the teacher from the university culture, programs, guidelines and spaces (55.6% strongly agree and 32.2% somewhat agree). Finally, with respect to ethical practice, 98.9% of the professors express that they recognize and apply ethical principles to teaching, research and extension. In the same percentage, teachers indicate that the higher education institution facilitates the exercise of the ethical dimension.

Table 3: Results of the variable "teacher's professional status.

Question	Options	No	%
The knowledge and problems of the science and/or discipline I handle, as well as of the subject(s) I am in charge of, are approached with sufficient depth and from an interdisciplinary perspective.	Strongly agree	156	86.7%
	Somewhat agree	20	11.1%
	Neither agree nor disagree	2	1.1%
	Somewhat Disagree	2	1.1%
	Strongly Disagree	0	0%
The knowledge and problems of the science and/or discipline I handle, as well as of the subject(s) I am in charge of, are approached with sufficient depth and from a multidisciplinary perspective.	Strongly agree	148	82.2%
	Somewhat agree	26	14.4%
	Neither agree nor disagree	2	1.1%
	Somewhat Disagree	4	2.2%
	Strongly Disagree	0	0%
From the subject(s) I am in charge of, I try to approach the most significant problems of the science or discipline I am in charge of and in coherence with the social, political, economic, cultural and environmental contexts of the students.	Strongly agree	158	87.8%
	Somewhat agree	20	11.1%
	Neither agree nor disagree	2	1.1%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%
I try that my classes or training processes start from real problems and from which the knowledge and skills being taught acquire meaning.	Strongly agree	170	94.4%
	Somewhat agree	10	5.6%
	Neither agree nor disagree	0	0%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%
Within the framework of my classes and other training scenarios, I seek permanent and continuous dialogue between the actors (students and teachers), recognizing that these interactions lead to meaningful and creative collective learning.	Strongly agree	166	92.2%
	Somewhat agree	14	7.8%
	Neither agree nor disagree	0	0%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%
I consider that, in the exercise of my teaching, I manifest a critical attitude and posture towards science, knowledge, research and the problems of the context.	Strongly agree	150	83.3%
	Somewhat agree	28	15.6%
	Neither agree nor disagree	2	1.1%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%
I consider that, in the exercise of my teaching, I pay tribute to institutionalism, that is to say, to the mission and support processes, to the strategic direction and to the improvement of the quality of education.	Strongly agree	148	82.2%
	Somewhat agree	32	17.8%
	Neither agree nor disagree	0	0%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%

Table 3: continued

I believe that, in the exercise of my teaching, I pay tribute to society through the formation of critical, committed and creative subjects, and the response to the most urgent problems of the communities.	Strongly agree	144	80%
	Somewhat agree	34	18.9%
	Neither agree nor disagree	2	1.1%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%
I consider that, in the exercise of my teaching, I make significant contributions from scientific research and knowledge production.	Strongly agree	156	67.8%
	Somewhat agree	20	27.8%
	Neither agree nor disagree	2	4.4%
	Somewhat Disagree	2	0%



	Strongly Disagree	0	0%
I consider that, in the exercise of my teaching, I participate in the development of extension projects and activities that contribute to communities and specific groups.	Strongly agree	148	56.7%
	Somewhat agree	26	31.1%
	Neither agree nor disagree	2	10%
	Somewhat Disagree	4	1.1%
	Strongly Disagree	0	1.1%
The institution of higher education to which I belong, facilitates through the university culture, programs, guidelines and spaces, the exercise of the professional dimension of the teacher.	Strongly agree	158	74.4%
	Somewhat agree	20	22.2%
	Neither agree nor disagree	2	2.2%
	Somewhat Disagree	0	1.1%
	Strongly Disagree	0	0%

Table 3 shows the findings of the variable being a teacher's professional being. Regarding this variable, most of the teachers agree that the knowledge and problems of the discipline they address are addressed from the required depth, using the perspectives of interdisciplinarity (86.7% strongly agree 86.7% and 11.1% somewhat agree) and multidisciplinary (82.2% strongly agree and 14.4% somewhat agree). In relation to the problematic dimension, which inquires about the practice of teaching based on contextualized problems and close to the realities, the teachers agree that the knowledge of their subject is taught in coherence with the socio-political, economic, cultural, and environmental reality of the students (87.8% strongly agree and 11.1% somewhat agree), and that it is based on particular problems of the communities and society to favor the meaning and sense of the objects (94.4% strongly agree and 5.6% somewhat agree).

Regarding the 'dialogic' and 'critical' dimensions, the participating teachers perceive that their classes and training processes are characterized by permanent and continuous dialogue with recognition of the benefits that interaction brings in collective learning of a significant and creative type (92.2% strongly agree and 7.8% somewhat agree). In the same trend, the participants indicate that teaching is done from a critical posture and attitude towards science, knowledge, research and the problems of the context (83.3% strongly agree and 15.6% somewhat agree). The findings also show that the respondents perceive that, from the exercise of teaching, they contribute to institutionalism, quality, and strategic direction (82.2% strongly agree and 17.8% somewhat agree), as well as to society with the formation of critical, committed, creative and responsible subjects (80% strongly agree and 18.9% somewhat agree).

Other dimensions related to the variable of being a professional do not show the same trend as the previous results. For example, 56.7% and 31.1% of the teachers strongly agreed and somewhat agreed, respectively, with the statement 'I participate in the development of extension projects and activities that contribute to communities and specific groups'. The same happens with items related to the exercise of research and the significant contribution to the production of knowledge and scientific work. In this regard, 67.8% of the teachers marked very much in agreement and 27.8% somewhat in agreement. Finally, most of the teachers agree that the institution facilitates the development of the professional dimension of the professors from the university culture, programs, guidelines and spaces (74.4% strongly agree and 22.2% somewhat agree).

Table 4 refers to the results of the teacher's pedagogical being variable, which is of special interest to researchers given the elimination or exclusion of this element in educational public policies and governmental guidelines. Regarding the understanding of the learning phenomenon, teachers perceive themselves as having sufficient knowledge that allows them to interpret the cognitive, social, cultural and emotional factors associated with these processes (67.8% strongly agree and 27.8% somewhat agree). Teachers also recognize that they try to reflect individually and with colleagues to broaden their knowledge about student learning, as well as training and education courses (83.3% strongly agree and 16.7% somewhat agree).

With regard to learning, the perception of teaching was inquired: most teachers consider that they have specific knowledge about these processes, which include disciplinary, curricular, and methodological aspects (73.3% strongly agree and 23.3% somewhat agree). Teachers consider that they put the phenomenon of teaching in spaces for critical reflection and personal and collective discussion and that they try to train themselves to improve their practices in this area (81.1% strongly agree and 17.8% somewhat agree). The results regarding the 'didactics' and 'evaluation' dimensions are similar: teachers perceive themselves as possessing didactic knowledge and qualitative-quantitative evaluation (98.9% and 96.6% strongly agree or somewhat agree). They also state that they seek reflection on this type of knowledge and training (above 97% in both cases).

Regarding the dimension 'understanding the dynamic role of the student in the disciplinary, ethical, political and social areas', teachers perceive that from their actions they favor an integral formation for the full development of the personality that includes: disciplinary knowledge (87.8% strongly agree), social and political role (88.9% strongly agree) and ethical behavior (87.8%). Likewise, teachers perceive that from their teaching task they promote exercises for the development of critical capacity based on the current crises and macro-problems of society, and that this, in turn, allows the resignification of the teaching and pedagogical work (81.1% strongly agree). Finally, most of those surveyed consider that the higher education institution facilitates the exercise and strengthening of the pedagogical dimension (80% strongly agree and 20% somewhat agree).

Table 4: Results of the teacher's pedagogical being variable.

Question	Options	No	%
I recognize that I have a broad and sufficient knowledge about students' learning processes, as well as the cognitive, social, cultural and emotional factors associated with it.	Strongly agree	122	67.8%
	Somewhat agree	50	27.8%
	Neither agree nor disagree	8	4.4%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%
From my experience of student learning, I seek critical reflection on these phenomena, discussion among peers / colleagues, and in case of difficulties, I seek to train myself.	Strongly agree	150	83.3%
	Somewhat agree	30	16.7%
	Neither agree nor disagree	0	0%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%
I recognize that I have a broad and sufficient knowledge about teaching processes (disciplinary knowledge, curriculum planning, methodologies, roles of teachers and students, among others).	Strongly agree	132	73.3%
	Somewhat agree	42	23.3%
	Neither agree nor disagree	6	3.3%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%
From my experience in teaching and the integral formation of students, I try to reflect critically on these phenomena, the discussion among peers / colleagues, and in case of difficulties, I try to train myself.	Strongly agree	146	81.1%
	Somewhat agree	32	17.8%
	Neither agree nor disagree	2	1.15%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%
I recognize that I have a broad and sufficient knowledge of the didactics applicable to the area of knowledge and subject I teach (means, resources, methods and methodologies).	Strongly agree	140	77.8%
	Somewhat agree	38	21.1%
	Neither agree nor disagree	2	1.1%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%
From my experience about the didactics(s), I seek	Strongly agree	138	76.7%

critical reflection on these phenomena, discussion among peers / colleagues, and in case of difficulties, I try to train myself.	Somewhat agree	38	21.1%
	Neither agree nor disagree	4	2.2%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%
I recognize that I have a broad and sufficient knowledge of learning assessment processes (qualitative and quantitative), and from this, I favor the integral formation of students.	Strongly agree	134	74.4%
	Somewhat agree	40	22.2%
	Neither agree nor disagree	6	3.3%
	Somewhat Disagree	0	0%
From my experience in learning assessment processes, I seek critical reflection on these phenomena, discussion among peers / colleagues, and in case of difficulties, I try to train myself.	Strongly agree	148	82.2%
	Somewhat agree	28	15.6%
	Neither agree nor disagree	4	2.2%
	Somewhat Disagree	0	0%
From the training processes, I try to understand the role and function of students with respect to disciplinary knowledge, and from there, to promote the full development of the personality.	Strongly agree	158	87.8%
	Somewhat agree	20	11.1%
	Neither agree nor disagree	2	1.1%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%

Tabla 4: continuación

I try to understand the role and the social and political function of the students in the formation processes, and from there, to favor the full development of their personality.	Strongly agree	160	88.9%
	Somewhat agree	20	11.1%
	Neither agree nor disagree	0	0%
	Somewhat Disagree	0	0%
I try, from the training processes, to understand the role and the ethical function of the students, and from there, to favor the full development of the personality.	Strongly Disagree	0	0%
	Strongly agree	158	87.8%
	Somewhat agree	22	12.2%
	Neither agree nor disagree	0	0%
Within the framework of my teaching activity, I try to exercise my critical capacity to recognize and address the current crises and macro-problems of society, re-signifying the teaching and pedagogical work.	Somewhat Disagree	0	0%
	Strongly agree	146	81.1%
	Somewhat agree	34	18.9%
	Neither agree nor disagree	0	0%
The institution of higher education to which I belong, facilitates through the university culture, programs, guidelines and spaces, the exercise of the pedagogical dimension of the teacher.	Strongly Disagree	0	0%
	Strongly agree	144	80%
	Somewhat agree	36	20%
	Neither agree nor disagree	0	0%
	Somewhat Disagree	0	0%
	Strongly Disagree	0	0%

## DISCUSSION

The research findings show that the participants, in general, have developed their personal, professional and pedagogical dimensions as part of their teaching identity. Although only 50% of the university professors have advanced studies in education and/or pedagogy, it seems that the possibility of integrating into a higher education institution and the culture of university life with all its logics, allows the socialization and circulation of educational and pedagogical knowledge/practices that favor the dynamics of teaching,

learning, didactics, and evaluation, and that may have its most solid base in the experience of the teachers (Ocampo et al. 2021), and in the case study, it is observed that at least 55% of the individuals consulted have more than ten years of experience, and that there are spaces for socialization and reflection promoted by the higher education institution.

As suggested by Arnold and Mundy (2020) and Arnold et al. (2012), pedagogical praxis constitutes a complex process where the teachers' experience is captured in order to relegate theory and practice, emphasizing deep experience. To that extent, the teacher's identity depends on collective interaction and exchange, experiences, social, and subjective constructions as suggested by Cuadra et al. (2021). It is, therefore, a complex and articulated system that in its relationships crosses the objective and subjective seeking the harmony of teacher identity (Kottler et al., 2005), and that requires sufficient responsibility, seriousness and depth (Zabalza, 2009; Freire, 2008; Lindstrøm, 2021). Therefore, it can be observed in the results that teachers perceive themselves with strengths in each of the variables analyzed, with a lower degree only in the area of political subject of the personal being and extension activities in the professional being.

## CONCLUSIONS

The university professors in this study show a favorable self-perception of their teaching identity in the personal, professional and pedagogical dimensions. Higher education institutions are gears that produce academic and professional culture, allowing pedagogical praxis to be modified and molded, although not all teachers have pedagogical training. These achievements depend on different objective and objective factors that enrich and enhance the teacher's personality: institutionalism, collective dialogue, individual, and shared reflection, responsibility, vocation, among others. It is important to highlight how efforts are required in the field of political action and extension within the framework of the teaching practice.

## REFERENCES

- Arnold, J., y Mundy, B., Praxis pedagogy in teacher education, <https://doi.org/10.1186/s40561-020-0116-z>, Smart Learn. Environ., 7, 8 (2020)
- Arnold, J., Edwards, T., Hooley, N., y Williams, J., Conceptualising teacher education and research as 'critical praxis', <https://doi.org/10.1080/17508487.2012.703140>, Critical Studies in Education, 53(3), 281-295 (2012)
- Bain, K., What the best college teacher do, 1ª ed., 17-28, Harvard University Press, ISBN: 9780674013254 Cambridge, EEUU (2004)
- Ball, S., Profesionalismo, gerencialismo y performatividad, *Revista Educación y Pedagogía*, ISSN: 0121 7593, 15(37), 85-105 (2003)
- Bruner, J., La importancia de la educación, 1ª ed., 9-16, Paidós, ISBN: 978-950-12-9357-9 Buenos Aires, Argentina (2016)
- Cobos, D., López, F., Gallardo, J.A., y Martín, M.C., Incidencia del agotamiento en los docentes universitarios: estudio de caso en una universidad española, <http://dx.doi.org/10.4067/S0718-50062022000200083>, Formación Universitaria, 15(2), 83-92 (2022)
- Cuadra, D., Castro, P.J., Oyanadel, C., y González, I.N., Identidad profesional docente en la formación universitaria: una revisión sistemática de estudios cualitativos, <http://dx.doi.org/10.4067/S0718-50062021000400079>, Formación Universitaria, 14(4), 79-92 (2021)
- Ennis, R.H., Critical thinking across the curriculum: A vision, <https://doi.org/10.1007/s11245-016-9401-4>, Topoi, 37, 165-184 (2018)

- Freire, P., *Cartas a quien pretende enseñar*, 2ª ed., 60-71, Siglo Veintiuno Editores, ISBN: 978-607-03-0530-6 Buenos Aires, Argentina (2008)
- Freire, P., y Faundez, A., *Por una pedagogía de la pregunta: crítica a una educación basada en respuestas a preguntas inexistentes*, 1ª ed., 69-97, Siglo Veintiuno Editores, ISBN: 978-987-629-327-3 Buenos Aires, Argentina (2018)
- Gao, S., Wang, Y., Jiang, B., y Fu, Y., Application of problem-based learning in instrumental analysis teaching at Northeast Agricultural University, <https://doi.org/10.1007/s00216-018-1025-7>, *Anal Bioanal Chem*, 210, 3621-3627 (2018)
- Gillis, D., Nelson, J., y otros cuatro autores, Interdisciplinary and transdisciplinary research and education in Canada: A review and suggested framework, <https://doi.org/10.22329/celt.v10i0.4745>, *Empowering Learners, Effecting Change, CELT*, 10, 203-222 (2017)
- Herranen, J., y Aksela, M., Student-question-based inquiry in science education, <https://doi.org/10.1080/03057267.2019.1658059>, *Studies in Science Education*, 55(1), 1-36 (2019)
- Kottler, J.A., Zehm, S.J., y Kottler, E., *On being a teacher: The human dimension*, 3ª ed., 1-22, Corwin Press, ISBN: 0-7619-3943-1 Thousand Oaks, EEUU (2005)
- Lindstrøm, C., The pedagogical power of wonder questions, <https://doi.org/10.1119/10.0004156>, *The Physics Teacher*, 59(4), 275-277 (2021)
- Martínez, M., El paradigma sistémico, la complejidad y la transdisciplinariedad como bases epistémicas de la investigación cualitativa, *REDHECS*, ISSN: 1856-9331, 6(11), 6-27 (2011)
- Morin, E., *Seven complex lessons in education for the future*, 2ª ed., 39-50, United Nations Educational, Scientific and Cultural Organization, ISBN : 92-3-103778-1 Paris, Francia (2001)
- Nussbaum, M.C., *Capacidades como titulaciones fundamentales: ser y la justicia social*, 1ª ed., 22-30, Editorial Universidad Externado de Colombia, ISBN: 978-9586169417 Bogotá, Colombia (2005)
- Ocampo, E., Rodríguez, N., y Aguilar, M.F., Tutores sobresalientes y sus prácticas de tutoría académica en una universidad mexicana, <http://dx.doi.org/10.4067/S0718-50062021000400151>, *Formación Universitaria*, 14(4), 151-166 (2021)
- Park, J.Y., y Son, J.B., Transitioning toward transdisciplinary learning in a multidisciplinary environment, <https://doi.org/10.5172/ijpl.6.1.82>, *International Journal of Pedagogies and Learning*, 6(1), 82-93 (2010)
- Saito, M., Amartya Sen's capability approach to education: A critical exploration, <https://doi.org/10.1111/1467-9752.3701002>, *Journal of Philosophy of Education*, 37(1), 17-33 (2003)
- Santos, D., y Soler, S., Pedagogical practice as 'feeling-thinking' praxis in higher education: a case study in Colombia, <https://doi.org/10.1080/13562517.2021.1885021>, *Teaching in Higher Education*, 26(3), 1-15 (2021)
- Sarramona, J., Noguera, J., y Vera Vila, J., ¿Qué es ser profesional docente? <https://doi.org/10.14201/2812>, *Teoría de la Educación*, 10, 95-144 (1998)
- Stough, T., Ceulemans, K., Lambrechts, W., y Cappuyns, V., Assessing sustainability in higher education curricula: A critical reflection on validity issues, <https://doi.org/10.1016/j.jclepro.2017.02.017>, *Journal of Cleaner Production*, 172, 4456-4466 (2018)
- Wan, W.N.T., Harun, J., y Shukor, N.A., Problem based learning to enhance students critical thinking skill via online tolos, <https://doi.org/10.5539/ass.v15n1p14>, *Asian Social Science*, 15(1), 14-23 (2019)
- Wilson, C.M., Hanna, M.O., y Li, M., Imagining and enacting liberatory pedagogical praxis in a politically divisive era, <https://doi.org/10.1080/10665684.2019.1656563>, *Equity & Excellence in Education*, 52(2-3), 343-363 (2019)

Zabalza, M.Á., Ser profesor universitario hoy, *La Cuestión Universitaria*, ISSN: 1988 236X, (5), 68-80 (2009)

Zuluaga, O.L., Foucault y la educación: una lectura desde el saber pedagógico, <https://doi.org/10.26620/uniminuto.praxis.21.28.2021.232-252>, *Praxis Pedagógica*, 21(28), 232–252 (2021)



## **Migratory Reality In The San José De Cúcuta Border Zone**

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### **ABSTRACT**

This research corresponds to an analysis of the current reality of the territory of the Colombian-Venezuelan border of San José de Cúcuta, based on the characterization of migrants who have arrived and settled in the northwestern sector, informal settlement La Fortaleza Comuna No. 8 in the peripheral area of the city, from where an international Venezuelan human mobility was evidenced, which took greater strength in 2015, after the breakdown of relations between the Colombian and Venezuelan State, aggravating the humanitarian crisis, security and stability of the border territory. The methodological framework corresponded to a positivist approach, which allowed the characterization of the population concerning their social and economic environment, as well as the socio-demographic characteristics of the household, access to health services, education, labor and occupational skills, financial inclusion, housing and household characteristics and aspects of migration. As findings and conclusions, it is highlighted that the migratory phenomenon has generated an informal appropriation of the territory in San José de Cúcuta with greater emphasis on the expansion land located in the northwestern side of the city -sector La Fortaleza. This generated a fragmentation of the urban space and spatial isolation that resulted in the disintegration of the social fabric, which in the case of the border city is evidenced by residential segregation, deterioration and difficulties in mobility, problems of access to services and reduced access to opportunities.

**Keywords:** Population Characterization, Border, Migration, Human Mobility, Territory, Territory.

### **1. INTRODUCTION**

The migration phenomenon is nowadays a priority issue in the main work tables worldwide and for the different disciplines that deal with the study of human beings and their relationship with the environment, such as anthropology, sociology, social and human sciences, psychology, social work, architecture and law; among others.

In this sense, for authors such as Aguilar-Barreto et al. (2017), within academic studies, each branch of knowledge presents specific studies and contributions from their work and understanding of the migration phenomenon. An aspect worth highlighting for this phenomenon corresponds to its complexity when taking into account that its characteristics, problems, advantages and disadvantages vary according to the social, economic, political and territorial context in which it develops. In this sense, the States and international and national organizations have been in favor of the generation of regulations that favor the recognition of fundamental rights, access to justice, the strengthening of public policies, and the protection of the human being; thus becoming a challenging element for the governments in terms of generating answers for the productive sectors, the labor market, citizen security; which in this case corresponds to the Colombian-Venezuelan border.

In this sense, the objective of this article consists in the characterization of the Colombian-Venezuelan migratory reality that lives in the northwestern sector of the informal settlement La Fortaleza, commune No. 8 of the territory of San José de Cúcuta, to identify the perspectives,

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challenges and problems of the migratory phenomenon concerning the satisfaction of the basic needs of migrants in aspects such as health, education, housing, economic, social and services, to establish the migratory reality of this population group and its impact on the territory.

## 2. METHODOLOGY

In this research process, the positivist approach was selected because of the development of a systematic process and without influencing the opinion of the informants towards any tendency (Rodríguez, 2003). A questionnaire was designed, which is the tool suggested for the development of this type of study to access a large number of informants (García, 2003). This instrument was composed of three sections, each with a clear intention, starting with the general characteristics of the informant, and then moving on to the identification of various aspects associated with social conditions and access to different services linked to daily life; ending with the identification of housing characteristics. In all the items, closed response options were provided with the selection of a single response to the aspects mentioned.

The instrument was endorsed by the judgment of three experts who worked for more than two years with the migrant population arriving in the city. Once the review was completed, approaches were made to various social leaders of the community under study. In this way, it was possible to guarantee that the informants were committed to providing the required information following a field design, given that the data were collected from the primary source and in their place of residence.

The population of interest corresponded to migrants who arrived and settled in the northwestern sector of the city of San José de Cúcuta, Department of Norte de Santander - Colombia. For the selection of the sample, non-probabilistic sampling was used under the voluntary sampling technique (Martínez, 2012), applied to Comuna 8, La Fortaleza sector, where a door-to-door visit was made to discuss the objective of the research and the use of data under confidentiality criteria, thus achieving a sample size of 90 key informants. The instrument used made it possible to determine the spatial and social segregation of Venezuelan migrants who have arrived in the city, through study dimensions such as: social aspects, socio-demographic characteristics of the household, access to health services, education, labor market, labor and occupational skills, financial inclusion, migration, family reunification and return, discrimination and perception of integration, housing and household characteristics.

Once the sample size was completed, the data were digitized in a data in SPSS software to process them and generate the information, which was organized in frequency tables, reporting absolute frequencies and their equivalent percentage. Due to the treatment given to the data, it is concluded that in this research the problem has been approached at a descriptive level (Arias, 2012).

## 3. MIGRATION ON THE COLOMBIAN-VENEZUELAN BORDER

The Colombian-Venezuelan border is comprised of the municipalities of Carmen, Teorama, San José de Cúcuta, Tibú, Ragonvalia, Toledo, Herrán, Villa del Rosario, Puerto Santander and El Escobal (Colombia, Norte de Santander) as well as San Antonio del Táchira, Rafael Urdaneta, Pedro María Ureña, Ayacucho, Lobatera, García de Hevia and Bolívar (Venezuela, Táchira State). During its history, it has been considered one of the most active land borders in Latin America, taking into account that through it goods, services and people are mobilized with a high focus on commercial exchange and social and cultural relationships (Mazuera et al., 2017). It should be noted that the territorial dynamics of each of the States have configured positive and negative scenarios that have resulted in socio-territorial effects for each of the territories. Thus, the historical development of this border has gone through complex situations in response to governmental events through which its opening or closing has been in constant change (Linares, 2019).

Human mobility or international migration along the Colombian-Venezuelan border is characterized by four types of migration: pendular, when taking into account that the mobilities are carried out employing constant passages between the territories, under the purpose of the supply of basic inputs and family basket; transit, which refers to the human transfer through the territory not with the purpose of settling, but to continue to another country; regular, which corresponds to that which is carried out through the seven migration control points (Simón Bolívar International Bridge, Francisco de Paula Santander Bridge and Puerto Santander in Norte de Santander). It is noteworthy that the period of stay corresponding to this type of migration is 90 days, and irregular, determined by the entry to the territory through unauthorized access (control) or established upon exceeding the 90-day stay (Inter-American Commission on Human Rights [IACHR], 2015, p. 67).

For the Colombian-Venezuelan border, international migration is considered a relevant and high-impact urban fact. This when taking into account that its origin is determined by internal and external factors considered as triggers for human mobilities (Table 1), which for the case of this border meant an increase in the migration rate



from 2015 in response to the worsening of the Venezuelan internal problems and crisis, the breakdown of relations between the Colombian and Venezuelan States and the closure of the border; motivating the transfer of a high percentage of the Venezuelan population to Colombian territory in search of improving their quality of life and the satisfaction of their basic needs (Tolosa, 2018).

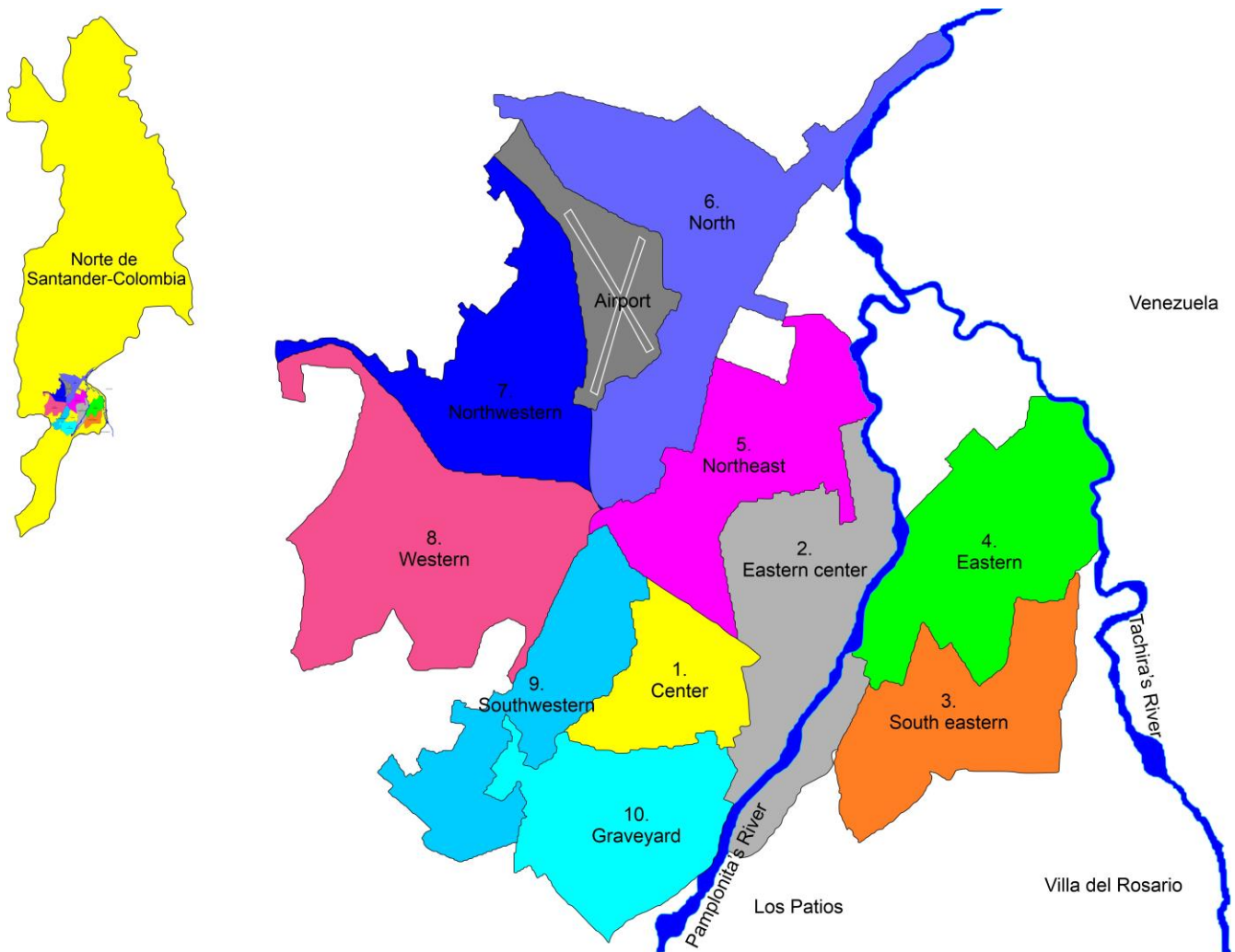
**Table 1** Factors associated with migration

<b>Internal</b>	<b>External</b>
Frustration with life expectations.	Lack of alternatives for occupational attainment
Frustration in personal fulfillment.	Social uncertainty about the economic future.
Generational mandate linked to the family migration chain community.	General insecurity in the face of growing violence.
Access to information about options abroad.	Unmet basic needs.
Conviction of the impossibility of ethical-value fulfillment in the society of origin.	

In response to the above, in the Colombian territory (with special emphasis on the city of San José de Cúcuta as a receiving, transit or host city) the demand for the provision of services such as health, education, housing and infrastructure has increased, resulting in an affectation of the border territory in terms of socio-spatial segregation, promoting inequality, extreme poverty, informality and unemployment, which for the month of June 2022 corresponded to 14.6% according to DANE, ranking fourth nationally. It should be noted that the migratory phenomenon has generated an informal appropriation of the territory with greater emphasis on the expansion land located on the northwestern side of the city, generating a fragmentation of the urban space and spatial isolation that results in social disintegration, which in the case of the aforementioned border city is evidenced in residential segregation, deterioration and difficulties in mobility, problems of access to services, environmental degradation and xenophobia, among others (Sierra et al., 2020).

In this sense, for this research, the sector known as La Fortaleza located in the commune (urban administrative subdivision) number 8 of the city of San José de Cúcuta, Norte de Santander, Colombia, is considered one of the epicenters of reception of Venezuelan migrants under the characterization of informal appropriation of the territory, was taken as a geographical framework (Figure 1).

**Figure 1** Distribution by municipality (urban administrative subdivision) San José de Cúcuta



Source. Own elaboration

**4. RESULTS AND DISCUSSION**

The following is the descriptive report derived from the processing of the data collected from the group of informants, who have been located in the sector called La Fortaleza, in Comuna 8 of the city of San José de Cúcuta, for more than six months. The findings are presented in terms of the three sections that make up the instrument.

**First Section:** Various aspects were explored on general aspects of the group of informants. Table 2 shows that, in the opinion of the respondents, the migration process has a greater flow in the first and fourth quarter of each year, but when observing the migration process as a timeline, it was identified that it began in 2015, a situation that coincides with the unilateral closure by the Venezuelan government of its borders with Colombia (August 19, 2015) and that has been maintained to date, showing that approximately 90% of the respondents have arrived in Colombian territory in the period between 2017 and 2021. Regarding the State from where they come from Venezuela, it could be verified that people have arrived in the city from all the Venezuelan geography, being the states of Zulia, Táchira and Apure (bordering Colombia) the ones that concentrate approximately 68% of the informants. In this regard, the report by Rodríguez & Ito (2016) highlights,

With the closure of the border ordered by the Venezuelan Executive and the establishment of a state of emergency in different municipalities of the four border territorial entities of the neighboring country - Zulia, Táchira, Apure and Amazonas - in August 2015, it became evident that the reading of the problems carried out from the centers of power in Colombia and Venezuela differs significantly (p. 169).

As can be seen, the migratory phenomenon emerged as a response to the measures taken at the executive level in the capitals, each with different motivations, for example, in the first days of August before closing the border, the Venezuelan president ordered the implementation of the so-called Operations for the Liberation and Security of the People (OLP) in the border areas, starting in the State of Táchira, since for them the main problem in the borders with Colombia was the crime caused by the actions of Colombian paramilitaries located in these border areas, a situation that generated violent actions that caused terror in the population forcing them to leave the country to save their lives and those of their families (Rodríguez & Ito, 2016).

**Table 2** Contingency table between the Year vs. the quarter in which the migrant entered Colombia

Year of entry into Colombia
-----------------------------

Quarter of the year	2015	2016	2017	2018	2019	2020	2021	2022	Total
First	1.1%	2.2%	3.3%	8.9%	6.8%	6.6%	3.3%	2.2%	<b>34.5%</b>
Second			2.2%	4.4%	4.4%		1.1%		<b>12.1%</b>
Third	4.5%		1.1%	4.4%	5.6%	3.3%	5.6%		<b>24.5%</b>
Fourth			4.4%	6.7%	4.4%	7.8%	5.6%		<b>28.9%</b>
<b>Total</b>	<b>5.6%</b>	<b>2.2%</b>	<b>11.0%</b>	<b>24.4%</b>	<b>21.2%</b>	<b>17.7%</b>	<b>15.6%</b>	<b>2.2%</b>	<b>100.0%</b>

Regarding the demographic characteristics of the informants, the predominance of women between 18 and 45 years of age was determined, with approximately 79% of the cases (see Table 3), a situation that coincides with Pinzón Briceño (2020), who states that migration from Venezuela has become more feminized. Of this group of women, only 2% were found to be pregnant. As reported by Acosta (2019):

Of the Venezuelans leaving the country, a large number pass through Colombia, either in transit to other countries or to stay in one of its cities. For the city of Cúcuta, this population flow has meant a real tragedy, which has made necessary the presence of national and international organizations in the region to assist migrants and the urgent construction of shelters (p. 87).

The author mentions the demographic characteristics of this migrant population identified as the most vulnerable since they do not have the economic resources to adequately carry out this migratory process, so they make their journeys as walkers.

The phenomenon of walkers became more noticeable in mid-2018. At first, they were exclusively young men, but then women, children, entire families, even pets and people with chronic illnesses and motor disabilities began to join the groups. The volume of walkers was so large that Colombia began to set up hydration points on the Cúcuta-Bogotá Road, restrictions on the passage of pregnant women and children, and vaccination points for children in La Parada, the first town after the Simon Bolivar Bridge; shelters were also created to eat and use sanitary services. Some of these shelters are the result of popular, individual and international organizations' initiatives in the area of La Parada (Acosta, 2019, p. 88).

**Table 3** Contingency Table between Age Range vs. Gender

	Genre		Total	
	Female	Male		
Age range	Between 18 and 30 years old	36.0%	10.1%	<b>46.1%</b>
	Between 31 and 45 years old	23.6%	9.0%	<b>32.6%</b>
	Between 46 and 60 years old	15.7%	5.6%	<b>21.3%</b>
	<b>Total</b>	<b>75.3%</b>	<b>24.7%</b>	<b>100.0%</b>

Regarding the nationality of the informants, it was verified that 90% of them are Venezuelan and the remaining percentage are Colombian returnees. Of this percentage of Venezuelan citizens, 39% have a border permit and only 21% of them have it in force, that is, approximately 69% of those surveyed are irregular migrants in Colombian territory. The migratory flow of these informants was explored and it was possible to identify that only 1% are migrants who consider returning to their country of origin.

The regularization of Venezuelan citizens in Colombia is a rather complex process since there are no real figures on the number of them since many of them have entered the country through paths controlled by illegal groups. To highlight a figure of the conditions of illegality, what is stated by Acosta (2019) is quoted: "Of the 1,447,171 Venezuelans that Migración Colombia estimates have arrived in the country, 699,677 are in an irregular situation, either because they exceeded the legal time of stay or because they entered without authorization through illegal passages or trails" (p. 87).

Second Section: In this second section the instrument is divided into nine dimensions of analysis to perform a complete characterization of various aspects such as the conditions of daily living within their family group or daily cohabitation, along with access to various services such as health or education.

**Dimension I. Social Aspects**

73% of the Venezuelan informants entered Colombia with other family members, that is, the migration process was carried out as a family, an aspect that has been maintained in 69% of the cases after the elapsed time. In contrast to the above, 27% stated that they entered the country alone. A small percentage of informants (4.4%) stated that their relatives have moved to the city of Bucaramanga in search of better living conditions, but that they still reside in San José de Cúcuta.

When asked about the possible effects that they have experienced in their family group as a result of the migration process, three positions were identified: 47% stated that during this time their family unit has been consolidated, in contrast to 39% who stated that they have had many difficulties that have led to family disintegration; finally, the remaining percentage stated that they have not experienced any variation within their family.

When exploring the main need of the informants and their families, it was determined that 57% lack a decent and well-paid job that allows them access to better living conditions, followed by the need for decent housing in 20% of the cases, and the remaining percentage is equally distributed between access to health and education services.

Pinzón (2020) highlights the various family affectations experienced by migrants due to the process of forced displacement that they must undertake on many occasions alone, leaving behind the rest of the people while they find better living conditions that allow them to reunite and coexist as a single family group. For this reason, the separation of family members has a significant psychological impact on the couple and their children.

However, forced movement creates complex situations affecting the processes and patterns of family relationships, since the family and the home are the cornerstones of society; motherhood, childcare, and support for the sick and elderly dependents are among the main functions of the family and the home (...). This is why decisions about migration and other aspects of movement affect the interior of the family, including family composition, marital union, ties with children and the support network of the extended family (p. 9).

## **Dimension II. Socio-demographic characteristics of the household**

Regarding the characteristic aspects of the family group of the informants, it was determined that approximately 73% have only one nationality, being predominantly Venezuelan in 66% of the cases, in contrast with the remaining 27%, who have both nationalities (Colombian and Venezuelan). For the time they have been living in Colombia, 73% have been living in the country for one or more years, and 46% have been living in the country for more than three years.

Since approximately three out of every four respondents have been in Colombia for more than one year, their legal or migratory status was explored, and it was determined that 49% are living irregularly. In addition, they were asked about the highest level of schooling attained by the persons in the family group (over five years), determining that 86% have attended and are currently attending some level of the educational process, from elementary school to higher education. It is worth noting that the remaining percentage stated that they had no schooling at all.

Pinzón (2020) also assures that the migratory flow occurs in three groups according to their characteristics: first, the highly qualified professionals, followed by professionals, technicians and qualified young people, to finish with those people who correspond to the intellectual capital and the labor force. For the above mentioned, the people who are migrating from Venezuela after 2014 correspond to those groups of people with a lower level of academic training, which limits their income and access to better living conditions.

## **Dimension III. Access to Health Services**

As mentioned above, a percentage of the informants affirmed the need for health services in Colombia. In this direction, we inquired about the type of regime to which they were affiliated, determining that 62% do not have access to health services, 36% are affiliated as subsidized to EPS and the remaining percentage is reported as contributors to the system.

When informants were asked about the reasons why they have not had access to the health system in Colombia, it was identified that half of them stated that they do not have the documents (given their irregular status) required by the system to affiliate them, 30% said that their affiliation process is in process and that they are waiting for a visit from officials of the System for the Identification of Potential Beneficiaries of Social Programs - Sisben, while the remaining percentage does not know the process they must go through to access the health system.

In Fernández-Niño et al. (2019), it is stated that "in Colombia, there are currently more than one million Venezuelan migrants, of which about half are irregular or are in the process of regularization, and of them, approximately half are women of reproductive age" (p. 209), the authors continue stating that

In recent years, the country has seen a marked increase in the provision of health services for migrants, which is significantly explained by prenatal care and care for the delivery and puerperium of Venezuelan pregnant women. Thus, in 2018, more than three thousand births of Venezuelan migrants were attended in the country's public hospital network, a fourfold increase over the previous year, which constitutes a financial and management challenge in Public Health for health systems at the national and regional levels (Fernández-Niño et al., 2019, p. 209).

The above shows the demand for health services by the migrant population and, given the predominance of the female gender, it is obvious the increase in the number of deliveries attended, added to the fact that, in many cases, women who are about to give birth arrives at the city's hospital demanding to be attended.

#### **Dimension IV. Education**

Access to education is another service necessary for the process of insertion and social development of migrants arriving in the country. In this regard, approximately 67% of those surveyed stated that within their family nucleus people are attending educational institutions, 52% of them being between one and three students.

The remaining percentage stated that within their family group there are no people in this academic condition for various reasons, among which they highlight that they are not yet of school age or do not have the required documents to complete the academic enrollment process, so they are denied access, or simply, at this time this is not a priority at the family level.

Regarding the academic training of migrants who have arrived in Colombia from Venezuela and their possible educational training needs, authors such as Guataquí et al. (2017) mention that "the migrant population from Venezuela does not have particularly high educational levels (more than 80% have at most secondary education)" (p. 2), which added to the event of migrating as a family with at least two school-age children, highlight the need for support policies that guarantee the academic training of minors and the development of professional skills, for those of working age. In this regard, López et al. (2018) highlight that out of 442,462 people in the Administrative Registry of Venezuelan Migrants in Colombia (RAMV) 118,709 are children and adolescents and of them 33,107 are currently studying, this "poses a major challenge for the government in terms of the care of these children and their subsequent integration into Colombian society" (p. 12).

#### **Dimension V. Labor market**

The working conditions of the informants are an important aspect to consider since it is through it that income is generated that can guarantee decent living conditions. In this regard, it was determined that 18% of those surveyed are currently working, accumulating between 24 or fewer hours per week, so it could be said that they are temporary or informal activities. The rest of the people are unemployed.

They were asked if because of the social isolation derived from Covid-19, their weekly hours have been affected, to which 86% affirmed yes, having a negative effect on their income since it has been ostensibly reduced. Regarding the labor situation of migrants who have arrived in Colombia, it is estimated that the time of their arrival in the country is an influential aspect of their labor condition, for example

the chronology of the migratory event is key: while 67.3% of migrants who arrived in Colombia more than 2 years ago and less than 5 years ago are employed, the employment of those who arrived less than two years ago is lower by 10 percentage points (57.2%) and the percentage of unemployed is greater (15,7% vs. 10%) (Guataquí et al., 2017, p. 2)

#### **Dimension VI. Labor and occupational competencies**

As already mentioned, the working conditions of the informants have been precarious. In this sense, the labor or occupational competencies that people have were explored, identifying that only 11% of them are professionals in the areas of health and engineering, while the remaining percentage in Venezuela were engaged in various activities among which stand out: independent trader, vendors in various commercial sectors such as agricultural products, hardware stores, butcher shops, prepared foods or were engaged in household activities or caring for family members.

Currently, these people in Colombia are engaged in various activities such as informal sales (coffee or food), working in hairdressing, recycling activities, kitchen assistants, domestic workers or independent traders, mainly

carrying products that are scarce in Venezuela and purchased in Colombia. Given the activities carried out by these people, it was determined that 82% consider that they require training in the development of new skills that will allow them to access new and better job opportunities that will guarantee them a better quality of life.

Approximately 23% of the informants surveyed stated that between 2 and 4 people in their households currently work, mainly informally, since only 2% have a formal employment relationship.

Regarding the labor displacement of Colombian citizens by Venezuelan migrants Bahar et al. (2018) mentions that

The economic impact (...) depends largely on whether their skills substitute or complement those of the native population. Academic research based on many different episodes suggests that the flow of migrants and refugees tend to have little impact on the employment rates of locals, suggesting complementarity. However, it would be prudent to take measures to avoid labor displacement of those Colombians whose skills could be, to some extent, substitutes for migrant labor (par. 5).

### **Dimension VII. Financial inclusion**

In the process of characterizing the migrants, their relationship with the financial system was explored, 80% said they did not have any financial product in Colombia, while of the remaining percentage, 4% have a savings account, and 16%, in case of economic emergencies, have resorted to informal credit with high-interest rates, such as drop-by-drop lenders. Concerning the difficulties in accessing national banking services, it was found that 32% do not meet the requirements, 21% have applied for a savings account, but do not have the resources to keep it active, and the remaining percentage is simply not interested.

When asked if, in the last year, any member of the household had sent money to Venezuela, 37% said yes, approximately every four months, using various channels such as Efecty, Western Union, Giros and Finanzas, and in very few cases, through a family member who has traveled to Venezuela.

Regarding the importance of remittances sent by migrants from abroad to their country of origin where they have surely left relatives or assets, this income improves the purchasing power of the households that receive it, so they can have access to more and better life opportunities. In this sense, Castellano and Goncalves (2019) state that

once they migrate, individuals have the possibility of sending money back to the households they came from. The reasons for this are varied (...) they can be summarized as altruism (the inclination to send remittances because the migrant cares about the household he/she left behind), as an informal payment of the money lent by their families to be able to carry out the migration process, to send money to maintain unsold goods (in case the migrant plans to return), or to contribute to maintaining household consumption. But beyond the migrants' reasons for sending remittances, in those households that receive remittances, these become an important part of total income (p. 2).

### **Dimension VIII: Migration, family reunification and return**

When exploring the motivations that informants had for migrating from Venezuela, 80% of the opinions concentrated mainly on the scarcity of goods and services, such as food, medicines, electricity, water or gasoline, and the need to look for better job opportunities. When asked if they would be interested in bringing back to Colombia the relatives who have remained in Venezuela, opinions are divided, 52% said yes in a period of no more than one year, while the remaining 48% stated that they would not do so, because they must take care of the goods they have left in Venezuela, and they also hope that things may change in Venezuela and thus return (a desire present in 12% of the informants). Another reason why family members stayed there is associated with the high costs of the trip, so in search of the economy, they expose themselves to long hours of walking in climatic conditions, in many cases, adverse to the physical integrity of every human being.

Since a few informants expressed their desire to return to their country, we inquired about their main motivation, identifying as the main reason the desire to be united as a family again. They hope that this return process will not take more than two years, but what they do say is that they will not return empty-handed; therefore, they wish to work and save money to take with them.

Regarding the family reunification process, Bonilla (2012) points out that regardless of the migrant's gender, if the migrant is of reproductive age, it may affect population growth in both countries (the country of origin and the receiving country), while at the same time running the risk of disintegration of the family they had in their country of origin

Both female and male migrants of childbearing age alter the rhythm of population growth rates, since their absence from their homes reduces the possibilities of population reproduction, but also has a similar effect in the country of destination, since the arrival of this population component, by establishing new temporary or stable relationships with the native population of the country of arrival, also alters the family composition and the rates of growth and labor reproduction (p. 277).

Table 4 shows that those informants who say that they do not feel discriminated against in Colombia, because they have not been victims of xenophobic situations or that these situations have occurred very rarely, in contrast to those who say that this has been a recurrent situation in social interaction with the inhabitants of the city, have not been victims of xenophobia

**Table 4** Contingency table between whether you have felt discriminated against in Colombia vs. the frequency of occurrence of it

		Have you felt discriminated against or rejected in Colombia?			
		NR	Yes	No	Total
<b>How often have you felt discriminated against?</b>	NR	1.1%	2.2%	37.1%	<b>40.4%</b>
	All the time		1.1%		<b>1.1%</b>
	Several times		15.7%		<b>15.7%</b>
	A lot of the time		11.2%		<b>11.2%</b>
	Few times		10.1%	21.3%	<b>31.5%</b>
	<b>Total</b>	<b>1.1%</b>	<b>40.3%</b>	<b>58.4%</b>	<b>100.0%</b>

**Dimension IX. Discrimination and perception of integration**

The information shown in Table 4 evidences xenophobic attitudes on the part of Colombians, which is corroborated when asked if they consider that in Colombia they have been discriminated against because of their nationality, 58% said yes, a situation that is recurrent when walking down the street or applying for a job opportunity, mainly. In this sense, Perilla's research (2020) assures that the rejection shown in Colombia towards Venezuelan migrants could be encouraged by the economic situation offered by their country, that is, they are not seen as people who contribute to the development of the Colombian economy.

Colombia, a country bordering Venezuela, currently registers the highest rate of arrival of migrants and refugees from that country. Currently, in Colombia, there is a worrying context that shows how recurrent rejection, discrimination, and attacks against refugees have become. These behaviors, which dehumanize and attack dignity, are not common among other foreign citizens (Perilla, 2020, p. 119).

Despite the adverse situations that Venezuelan citizens in Colombia have had to face, 83% stated that they have integrated satisfactorily into the culture of the country or the region. The 11% affirmed that with the arrival of covid-19 in March 2020, situations of rejection increased, because, in Venezuela, the Government always denied the existence of the pandemic and no preventive vaccination actions were carried out, which created the imaginary that they were potential carriers of the virus.

Finally, opinions have been divided among informants when asked about the difficulty in accessing various goods and services in Colombia, with a slight predominance (55.6%) in favor of the fact that the processes have been quite costly for them.

**Third Section: Spatial Aspects - Housing and Household Characteristics**

The last aspect to explore among the informants corresponds to the housing conditions they currently have in the La Fortaleza sector. It was determined that 38% live in a house or apartment, while the remaining percentage live in rooms or spaces shared with other families as neighbors or possible settlements. In terms of access to public services, 28% have access to water supply, while only 5% have sewerage.

Regarding the characteristics of the materials used in the place of residence, 52% mentioned that they were made with block, brick and cement; while the remaining percentage have resorted to lowering quality materials such as zinc, cloth, canvas, cardboard or waste material. Concerning the characteristics of the floor, it was determined that half of them have cement, gravel or tile floors; in contrast to the other half, who has sand, trodden earth or rough wood floors.

Concerning housing tenure, it was identified that 57% live in rented housing, 23% have possession of land, but without title to it, 6% are owners and the rest pay daily for the use of the space. These spaces that they inhabit offer 60% of the informants only one room, 30% have two rooms and the rest have three rooms.

In 58% of the cases the household is made up of two to four people, 30% between five and seven people and the rest live with more than seven people. Concerning the effects on the household, due to the mandatory confinement resulting from Covid-19, 76% stated that they were affected by the deterioration of their income, which in turn led to limitations in access to food and other services, and in some cases they even experienced eviction.

When asked about their current living conditions concerning those experienced during the confinement, 59% stated that they have been improving, compared to the remaining percentage, who stated that with the arrival of the pandemic everything has been detrimental to their living conditions.

Finally, 31% affirmed that with the arrival in Colombia their economic situation has improved concerning what they experienced in Venezuela, but 69% affirmed that they have experienced negative changes since their living conditions have deteriorated. In addition, they were asked if they had been visited by Sisben officials, to which 83% affirmed that they had not.

## 5. CONCLUSIONS

The migratory phenomenon is a historical fact that has accompanied humanity throughout the years. Human mobilities are carried out in the search for a better quality of life and the fulfillment of the exceptions concerning it. The objective of this research corresponded to the characterization of the Venezuelan migrant population that inhabits the Sector de la Fortaleza located in commune number 8, western sector of the city of San José de Cúcuta, an informal settlement that was configured in 2015, a representative date in the increase of Venezuelan international human mobilities, which arrived in the city in response to the aggravation of the Venezuelan internal problem.

Among the most relevant aspects presented in the results of this research, the following are highlighted:

- 1) That 90% of the population increase derived from international Venezuelan migration corresponds to movements of Venezuelan origin, which is one of the main challenges that the city of San José de Cúcuta must face to comply with the provisions of the Sustainable Development Goals agenda in goal 1 of reducing and ending poverty.
- 2) Segregation by residential areas, taking into account that the population under study stated that they did not own the land tenure of the houses settled in the sector of La Fortaleza. In addition, it should be noted that in response to this type of segregation, the migrant population studied presents characteristics associated with inequality and poverty that prevent them from having access to welfare or social advancement. This is also one of the main reasons why this human settlement is located on the periphery of the city.
- 3) Demand for services and infrastructure, which is directly proportional to population growth. In this sense, the health sector becomes one of the aspects of greatest concern, since 62% of the informants stated that they did not have access to health services, while the number of births grew considerably, taking into account the predominance of the female gender in the Venezuelan migrant population. Concerning the Fortaleza sector, it should be noted that due to its informal nature, no health infrastructure can provide the services required by the resident population.
- 4) Unemployment, in this regard, this research suggests the existence of socio-spatial segregation associated with the location and distance of the human settlement concerning the places where there are job offers and employment opportunities. This is reflected in the fact that only 18% of those surveyed are working, and that most of them do so on a temporary and informal basis, a scenario that was even more affected by the social isolation mandated by the Covid - 19. This is even more relevant when taking into account that the informant population (82%) stated that they require training in the development of new competencies to assume new responsibilities.
- 5) Financial inclusion, is presented as a scenario derived from unemployment, informality and non-compliance with the requirements for obtaining financial products (80%). This results in the promotion of informal money lending at high-interest rates, and the migrant population sends foreign currency to their relatives still living in Venezuela to meet their economic needs.
- 6) Family reunification, is presented as one of the main motivations for returning to their country of origin, taking into account that the migration phenomenon triggered a family disintegration, which is expected to be solved in a short time by migrants living in Colombian territory.
- 7) Integration in the host country, the informants mentioned that during the process of residence in the city of San José de Cúcuta they have been able to integrate satisfactorily (83%), however, it is also noted that the population of origin has manifested scenarios of xenophobia and discrimination due to the social imaginary of the Colombian citizens for the economy of the city.



Finally, it can be concluded that the development of this research for the sector of La Fortaleza allowed understanding that Venezuelan migrants present a decrease in opportunities for access to social capital opportunities, as well as social isolation that promotes the development of a marginal subculture, the disintegration of the social fabric and the weakening of the sense of citizenship. It should be noted that the development of this research only presents results of aspects associated with socio-spatial segregation, for this reason, it is encouraged that this topic continues to be developed to deepen aspects related to the migratory phenomenon and its incidence in the host territories.

## REFERENCES

- Acosta, Y. (2019). Escapar por la frontera colombo-venezolana. *Nueva sociedad*, (284), 83-93.
- Aguilar-Barreto, A. J., Jaimes, D. G., & Rodríguez, T. A. (2017). Educar: en el límite de la indiferencia y la desigualdad para humanizar. En M. E. Grately, M. L. Mendoza & J. C. Contreras, *La Base de la Pirámide y la innovación frugal en América Latina* (pp. 248-270). Universidad del Zulia, Maracaibo.
- Arias, F. G. (2012). *El proyecto de investigación. Introducción a la Metodología Científica* (6ª. ed.). Editorial Episteme.
- García, T. (2003). *El cuestionario como instrumento de investigación/evaluación. Etapas del proceso del investigador: instrumentación.* Centro Universitario Santa Ana. [http://www.univsantana.com/sociologia/El\\_Cuestionario.pdf](http://www.univsantana.com/sociologia/El_Cuestionario.pdf)
- Bahar, D., Dooley, M., & Huang, C. (2018, 03 de diciembre). Integración de los venezolanos en el mercado laboral colombiano. Mitigando costos y maximizando beneficios. The Brookings Institution. <https://www.brookings.edu/es/research/integracion-de-los-venezolanos-en-el-mercado-laboral-colombiano/>
- Bonilla, G. (2012). Vínculos parentales y afectivos de familias migrantes del Caribe colombiano a Venezuela. *El Taller de la Historia*, 4(4), 275-292. <https://doi.org/10.32997/2382-4794-vol.4-num.4-2012-697>
- Castellanos, J., & Goncalves, R. (2019). Efectos de las remesas sobre la pobreza en Venezuela para el año 2017 (tesis de pregrado, Universidad Católica Andrés Bello). Repositorio Institucional UCAB. <http://biblioteca2.ucab.edu.ve/anexos/biblioteca/marc/texto/AAU2222.pdf>
- Comisión Interamericana de Derechos Humanos. (2015). *Movilidad Humana. Estándares Interamericanos*. OEA.
- Fernández-Niño, J. A., Rojas-Botero, M. L., Bojorquez-Chapela, I., Giraldo-Gartner, V., Sobczyk, R. A., Acosta-Reyes, J., & Rodríguez, D. A. (2019). Situación de salud de gestantes migrantes venezolanas en el Caribe colombiano: primer reporte para una respuesta rápida en Salud Pública. *Revista de la Universidad Industrial de Santander*. *Revista de la Universidad Industrial de Santander. Salud*, 51(3), 208-219.
- Guataquí, J. C., García-Suaza, A., Ospina, C. V., Londoño, D. I., Rodríguez, P., & Baquero, J. P. (2017). Informe 3: Características de los migrantes de Venezuela a Colombia. Universidad del Rosario. [https://domide.colmex.mx/Archivos/Doc\\_8343.pdf](https://domide.colmex.mx/Archivos/Doc_8343.pdf)
- Linares, R. (2019). Seguridad y política fronteriza: una mirada a la situación de frontera entre Venezuela y Colombia. *Opera*, 24, 135-156. <https://doi.org/10.18601/16578651.n24.08>
- López, S., Rodríguez, C., Aristizábal, L. D., & Barriga, L. C. (2018). Infancias migrantes en Colombia: retos del derecho a la educación. *Revista Hojas y Hablas*, (16), 10-26. <https://doi.org/10.29151/hojasyhablas.n16a1>
- Martínez, C. (2012). *Estadística y muestreo*. Ecoe ediciones.
- Mazuera, R., Albornoz, N. C., Ramírez, C., & Morffe, M. A. (2017). Norte de Santander y Táchira: Más que un límite fronterizo, subjetividades construidas en el territorio. Universidad del Zulia.
- Perilla, M. B. (2020). Migrantes Venezolanos en Colombia, entre la Xenofobia y Aporofobia; una Aproximación al Reforzamiento Mediático del Mensaje de Exclusión. *Latitude*, 2(13), 119-128.
- Pinzón, L. Y. (2020). Fenómeno migratorio: una ventana a las familias transnacionales (tesis de especialización, Universidad Pontificia Bolivariana). Repositorio Institucional UPB. <https://repository.upb.edu.co/handle/20.500.11912/8132>
- Rodríguez, J. A. (2003). Paradigmas, enfoques y métodos en la investigación educativa. *Investigación educativa*, 7(12), 23-40.
- Rodríguez, R. F., & Ito, J. C. (2016). La frontera colombo-venezolana. Dos visiones divergentes. En: A. Molano, *Fronteras en Colombia como zonas estratégicas: análisis y perspectivas* (pp. 165-183). Instituto de Ciencia Política Hernán Echavarría Olózaga.
- Sierra, O. M., Coronel, L. K., & Ayala, E. T. (2020). Perspectiva de género en los fenómenos migratorios: Estudio socio-económico y laboral de la frontera Colombo Venezolana. *Revista Espacios*, 41(47), 198-212. <https://doi.org/10.48082/espacios-a20v41n47p15>
- Tolosa, R. (2018). Cierre de la frontera colombo-venezolana: una aproximación desde la gobernanza y la cooperación transfronteriza (tesis de pregrado, Universidad militar Nueva Granada). Repositorio Institucional Unimilitar. <https://repository.unimilitar.edu.co/handle/10654/35966>



## **Common Apprenticeships: Self-Perception Of Their Development In Undergraduate Business Students**

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### **Abstract**

This research aims to identify the self-perception of university students enrolled in business science training programs to develop common learning. It is a quantitative study based on the positivist empirical-analytical epistemological orientation. The descriptive cross-sectional experimental deductive method was implemented. The population consisted of 4,000 (N) students of a university attached to three undergraduate programs of a public university in Colombia - business administration, public accounting and international commerce. The sample consisted of 369 individuals (n), guaranteeing 95% reliability (Zc) and a 5% error level (E). The data collection instrument was a Likert scale questionnaire composed of 41 items. The dimensions analyzed were sociodemographic factors, metacognitive self-regulation, emotional self-knowledge and social skills. The data collected were analyzed through descriptive statistical procedures. From the results, it is possible to recognize that the university participants of this research generally have a good self-perception regarding the capacities associated with metacognitive self-regulation, emotional self-knowledge and social skills. It is concluded that there is a contribution from higher education in business science programs to comprehensive training, allowing the configuration of more suitable professionals to face the challenges imposed by the changing and dynamic contexts of the labor and social world. However, it is necessary not to ignore the cases of students who evaluate themselves negatively in this skill since it is essential to have complete and holistic professional profiles today.

**Keywords:** perceptions; common learning, university students; business sciences

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**Aprendizajes comunes: autopercepción de su desarrollo en estudiantes universitarios de ciencias empresariales**

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## Resumen

Esta investigación tuvo como objetivo identificar la autopercepción que tienen los estudiantes universitarios adscritos a programas de formación de las ciencias empresariales respecto al desarrollo de aprendizajes comunes. Se trata de un estudio cuantitativo que se fundamenta en la orientación epistemológica empírico-analítica de corriente positivista. Se implementó el método deductivo experimental transversal de tipo descriptivo. La población estuvo conformada por 4.000 (N) estudiantes de una universidad adscritos a tres programas de pregrado de una universidad pública en Colombia -administración de empresas, contaduría pública y comercio internacional. La muestra estuvo integrada por 369 individuos (n) garantizando el 95% de confiabilidad ( $Z_c$ ) y el 5% de nivel de error (E). El instrumento de recolección de información correspondió a un cuestionario con escala Likert compuesto por 41 ítems. Las dimensiones analizadas fueron: factores sociodemográficos, autorregulación metacognitiva, autoconocimiento emocional y habilidades sociales. A través de procedimientos de estadística descriptiva se analizaron los datos recolectados. De los resultados, se logra reconocer que los participantes universitarios de esta investigación, en general, tienen una autopercepción favorable respecto de las capacidades asociadas a la autorregulación metacognitiva, el autoconocimiento emocional y las habilidades sociales. Se concluye que hay una contribución desde la educación superior en los programas de ciencias empresariales a la formación integral, permitiendo la configuración de profesionales más idóneos frente a los retos que imponen los contextos cambiantes y dinámicos del mundo laboral y social. Se hace necesario no desconocer los casos de estudiantes que se autoevalúan de manera negativa en este tipo de capacidades, pues hoy es indispensable perfiles profesionales más completos y holísticos.

**Palabras clave:** percepciones; aprendizajes comunes, estudiantes universitarios; ciencias empresariales

## INTRODUCTION

Integral education is an ideal of education today, both at school and at university. However, it is a commitment formulated more than seventy years ago. It is enough to review the Universal Declaration of Human Rights of 1948 or the International Covenant on Economic, Social and Cultural Rights of 1966: both instruments recognize education as a human right whose ultimate purpose is the full development of the personality. Personality corresponds to the integrality of the human person, that is, its physical, biological, cognitive, intellectual and emotional components, but at the same time, its social, cultural, political, ethical, moral and environmental nature (Martínez, 2016; Rutagwelera, 2021; Guerra, 2019; Jaedi et al., 2022; Graciano et al., 2020).

Training is the most fundamental issue in education; therefore, teaching, learning, curriculum, didactics, evaluation, and other elements that materialize in school-teacher-student relationships, are an integral part of pedagogical knowledge and pedagogical practice (Vargas, 2008; Skidmore, 2006; Zuluaga, 1999; Runge et al., 2018; Runge and Muñoz, 2012; Díaz, 2019). The teacher is a human, professional, and pedagogical being. A triad configures the macrosystem of the teaching experience and praxis, in other words, a complex being that cannot be deciphered in a simple way (Freire, 2005; Freire, 2010). The pedagogue wonders about his epistemological construction, questions his positions and knowledge about teaching, rethinks his ideas linked to the role of students and trainers, and feeds back in a permanent, dialogic and devolutive cycle. Only in this way can it adapt, modify its didactics and redraw the training horizons in coherent response to the multidimensionality of the human condition (Niemelä and Tirri, 2018; Ho and Wai, 2018; König et al., 2020; Supkhonovna, 2021).

And in the framework of this pedagogical teaching task, training stands out as an essential issue of the teacher's work, who must question what each student requires to provide an efficient response in each of the social, cultural, environmental, economic, political, professional and family scenarios of life (Assunção and Gago, 2020; Brennan, King and Travers, 2021; Berryman et al., 2018). Thus, the context with its dynamics

becomes an inexhaustible source of reflection for the teacher who must constantly keep track of the changes, transformations and problems that arise within the territories to adapt their methodologies and teaching purposes with the mission of promoting training that is relevant and consistent with these local emergencies in dialogue with the global requirements imposed through public policies and the characteristics/expectations of students (Mordechay and Alfaro, 2019; Daros et al., 2019).

In defense of an education that must respond to the needs resulting from the context, and therefore, detached from the notion of educational policy with neoliberal rationality, to return to its original nature characterized by interdisciplinarity and multidisciplinary (Aguilar, 2014; Orphan, 2018; Levin, 2002), it becomes peremptory an integral educational policy that promotes the autonomy of schools and universities with their communities so that they can decide on education and training according to the needs and what human groups value attending to the same diversity that characterizes them (OECD, 2016). In addition, of course, without neglecting the needs and urgencies of a global order that today arises for the formation of citizens who develop in environments much broader than the local and national, and for which educational institutions must be prepared.

This would be a comprehensive educational policy because it would affect different existing public policy actions or scenarios of reality that have not yet been considered. For example, it would require a rethinking of the vision of educational quality that would go beyond efficiency, coverage and external test results and that would focus on crucial aspects such as reading and writing, logic, pedagogical praxis and knowledge, sports, humanities, emotional and socio-affective development, technology, the articulation of formal and non-formal - ethnoepistemic, ancestral - knowledge, among others. This would imply changes in training, qualification and updating of teachers, aimed at strengthening the training of graduates and non-graduates who venture into teaching, as well as their working conditions and opportunities for autonomy. A more flexible regulation would also be required to avoid homogenizing what children and young people should know, know how to do, know how to be and feel.

In this order of ideas and under the roof of integral formation, different types of learning should be the object of educational institutions, for example, common and transversal (or global) learning that is oriented more to the holistic character of the human being, overcoming the reductionism of intellectual and disciplinary formation as the sole purpose of teaching practice. Common learning can be interpreted as those capacities, abilities and skills that allow the subject to achieve emotional stability and autonomy, metacognitive regulation, strengthening of communicative processes and interactions, and assertive participation in inclusive and intercultural scenarios, which enjoy scientific and theoretical evidence from the fields of psychology, sociology and cognition (Huerta, 2019; Almonte, 2021).

This type of learning, therefore, is related to the cognitive, emotional and social dimensions, which facilitate knowing how to know and knowing how to be, as essential training purposes to equip students to 1) adapt with flexibility and effectiveness in the face of diverse situations such as changes and difficulties, 2) manage the socio-cultural dynamics that are permanently transformed, 3) maintain their identity and culture, 4) be subjects open to dialogue and work with others from a perspective of respect, collaboration and solidarity. This type of learning is part of the global agenda and is recognized within international educational guidelines as a response to comprehensive training and holistic human development (Salcines et al., 2018; Operti, 2019).

In higher education, common learning becomes necessary, mainly when universities and teachers prioritize hard skills and competencies (Alshare and Sewailem, 2018; Sanchez and Romero, 2022; Aguinaga and Sanchez, 2020). Coherent with what has been indicated and the importance of these skills, abilities and capacities, this research aimed to identify the self-perception that university students attached to training programs in business sciences have regarding the development of common learning. The context corresponded to a higher education institution in Colombia.

## METHODS AND MATERIALS

This is a quantitative study based on the positivist empirical-analytical epistemological orientation. The descriptive cross-sectional experimental deductive method was implemented. The population consisted of 4,000 (N) students of a university attached to three undergraduate programs of a public university in Colombia: business administration, public accounting and international commerce. A statistical formula was applied to estimate the sample, guaranteeing 95% reliability ( $Z_c$ ) and a 5% error level (E). Based on this, the sample was calculated at 352 individuals (n), although 369 university students were able to participate.

The sample was calculated using the following statistical formula, considering a 95% certainty ( $Z_c$ ) and a 5% margin of error (E):

$$n = \frac{Z_c^2 \times P \times Q \times N}{E^2 \times (N-1) + Z_c^2 \times P \times Q} \quad (1)$$

Where:

$Z_c = 95\%$  or 1.96 is the level of certainty, under the normal curve;  $P = 0.5$  is the probability of success;  $Q = 0.5$  is the probability of failure;  $E = 5\%$ -0.05 is the level of error; and  $N = 4,000$  is the population.

The following inclusion criteria were applied to form the sample: 1) belonging to a program of the Faculty of Business Sciences, 2) being an enrolled student, and 3) giving informed consent to fill out the instrument. The information was collected through a Likert scale questionnaire composed of 41 items associated with the dimensions of sociodemographic factors, metacognitive self-regulation, emotional self-knowledge and social skills. Regarding the sociodemographic elements, items such as age, gender, professional program, semester attended, socioeconomic stratum, nature of residence, ethnicity, work, and additional training, among others, were included. On the other hand, the dimensions and aspects analyzed for the common learning variable are shown in Table 1:

Table 1: Structure of the Likert scale questionnaire applied. Dimensions and aspects of the common learning variable

Dimension	Aspects
Metacognitive self-regulation	1. Knowledge of one's learning abilities and difficulties (items 1, 2) 2. Knowledge of processes/strategies to enhance own learning (item 3, 4) 3. Knowledge of one's skills and difficulties in handling situations and solving problems (items 5, 6, 7). 4. The exploitation of cognitive skills in specific situations (item 8)
Emotional self-knowledge	5. Knowledge of one's own emotions (item 9) 6. Knowledge of the reasons for one's own emotions (item 10) 7. Knowledge of processes/strategies to regulate emotions (item 11) 8. Self-management of own emotions in difficult or unconventional situations (items 12, 13, 14) 9. Strategies for professional and personal well-being (items 15, 16)
Social skills	10. Knowledge of one's own abilities and difficulties in the social world (items 17, 18). 11. Handling harmonious interactions with others in different contexts (items 19, 20) 12. Initiation of relationships and interactions with others (items 21, 22) 13. Abilities to communicate with others (items 23, 24)

	14. Participation in inclusive and intercultural settings (items 25, 26, 27)
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For the dimensions listed in Table 1, the questionnaire items were formulated as descriptions of common learning -capabilities, skills, abilities- and three response options were provided: very developed, moderately developed and not very developed. The participant was asked to respond according to his or her self-perception regarding the development and strengthening of such learning. The instrument's validity was achieved through the judgment of four experts in the field of education and with experience in this particular topic. The items were evaluated in terms of coherence, clarity, sufficiency, and neutrality. A pilot test was also applied to a group of students with the same characteristics as the sample to verify its operability. The instrument was provided through the Google Forms application with the support of different teachers, and the data collected were analyzed with descriptive statistical procedures.

## RESULTS

The results of the total sample (n= 369) show that 48.5% of the participants recognize themselves as cisgender women and 25.2% as cisgender men. Other participants recognize themselves under the gender fluid (2.4%) and non-binary (2.2%) options. 6.8% preferred not to respond. The age of the students ranged from 18 to 36 years, with a higher percentage between 18 and 26 years (81.9%). Regarding the socioeconomic level, most participants belonged to the lowest strata 1, 2 and 3 (17.6%, 52.3% and 16.8%, respectively).

According to the professional program in which they are enrolled, the participants were distributed as follows: 20.1% belong to the business administration program, 31.7% to the international commerce program and 48.2% to the public accounting program. According to their level of studies, it was found that 37.4% of the participants are in semesters 1, 2 or 3, 48.8% in semesters 4, 5 or 7, 11.4% in semesters 8 or 9, and 2.4% of the participants in semester 10. On the other hand, in the labor panorama of the participants, it was found that 42.5% are employed and 57.5% are only engaged in their university studies. Likewise, the data indicate that 56.1% have completed at least one technical or technological program.

Metacognitive self-regulation dimension. Table 2 shows the results of the participants' responses associated with the 'metacognitive self-regulation' dimension, which was oriented to the recognition of the capacity to regulate one's learning processes involving knowledge, control and management competencies in the associated processes. The data recorded show that most of the students are located in the options 'moderately developed' and 'very developed for the different statements formulated, which can be interpreted that the participants perceive a favorable capacity to self-regulate / manage the learning processes.

63.1% of the participants recognize their skills within the framework of their learning processes (63.1% moderately developed, 35.8% very developed). This same trend is observed in the ability to effectively recognize the difficulties associated with their learning (60.4% moderately developed, 39.3% very developed). On the other hand, the results show that 98.1% of the participants identified those processes required to achieve and enhance their learning (55.3% moderately developed and 42.8% very developed).

It is observed that the majority of the participants (55.3%) perceive that their ability to guide their learning autonomously and independently has been very developed (40.1%) or moderately developed (55.3%). On the other hand, in the resolution of problems and situations in daily and professional life, the participants indicated that these skills and strengths had been moderately developed (51.5%) or very developed (45.8%), as well as the ability to recognize one's weaknesses and limitations in this field (55.0% moderately developed and 42.8% very developed). Finally, the participants indicate that when faced with new and challenging tasks, their abilities to plan and establish strategies to face them are moderately developed (55.0%) and very developed (41.7%).

Table 2: Metacognitive self-regulation dimension results

Item	Options	No	%
1. I recognize the skills I have within the framework of my learning, that is, I identify them as part of the reflection I make on the performance I have achieved.	Highly developed	132	35.8%
	Moderately developed	233	63.1%
	Underdeveloped	4	1.1%
2. I recognize the difficulties I have within the framework of my learning, that is, I identify them as part of the reflection I make on the performance I have achieved.	Highly developed	145	39.3%
	Moderately developed	223	60.4%
	Underdeveloped	1	0.3%
3. I know the processes I require to achieve and enhance my learning, and I establish strategies that facilitate me to reach the proposed learning achievements.	Highly developed	158	42.8%
	Moderately developed	204	55.3%
	Underdeveloped	7	1.9%
4. I can guide my learning with autonomy and independence, therefore, when faced with new topics that I need to know or apply, I am able to channel my learning, reaching the training goal.	Highly developed	148	40.1%
	Moderately developed	204	55.3%
	Underdeveloped	17	4.6%
5. I recognize the skills and strengths I have to handle situations and solve problems in daily and professional life.	Highly developed	169	45.8%
	Moderately developed	190	51.5%
	Underdeveloped	10	2.7%
6. I recognize my weaknesses or limitations to handle situations and solve problems in my daily and professional life.	Highly developed	158	42.8%
	Moderately developed	203	55.0%
	Underdeveloped	8	2.2%
7. Faced with new or challenging tasks that involve solving a problem, I can plan my actions, establish strategies, monitor the tasks and ensure the outcome.	Highly developed	154	41.7%
	Moderately developed	203	55.0%
	Underdeveloped	12	3.3%
8. By recognizing my learning, coping and problem-solving abilities and strengths, I consciously take advantage of them in different situations or scenarios.	Highly developed	151	40.9%
	Moderately developed	212	57.5%
	Underdeveloped	6	1.6%

Emotional self-knowledge dimension. Table 3 organizes the results related to the variable emotional self-knowledge, data that reflect the participants' self-perception regarding the emotional domain: recognition of emotions in various situations and contexts. It can be noted that, in general, there is a favorable perception of the emotional management of university students.

Most participants easily recognize the emotions they experience in different situations and contexts (59.3% very developed and 36.6% moderately developed). However, it is important to highlight that most students who participated in the study indicate that they recognize emotions that do not favor their well-being (49.1% are very developed and 48.2% moderately developed). Similarly, there is evidence of a good self-perception in applying strategies to regulate emotions (55.6% moderately developed and 37.7% very developed).

A similar finding is observed in the results associated with the regulation of emotions, specifically in the emotions provoked by failures in goals and purposes of the participants, where the majority were located in the very developed option (54.2%) and moderately developed (34.4%). In addition, the participants expressed that when they contradict or disagree with them, they can manage and regulate the emotions experienced (51.8% moderately developed and 43.4% very developed). The same tendency was presented in the item evaluating the recognition and management of emotions when faced with recommendations regarding work and work: 53.1% considered this ability very developed and 45.8% moderately developed.

Finally, in managing professional and personal well-being strategies, most of the responses were very developed and moderately developed, with 54.2% and 39.8%, respectively. The participants also indicated that they maintain a lifestyle that favors emotional regulation, for example, sports, yoga, walking, and reading, among others (49.3% very developed and 48.5% moderately developed).

Table 3: Results of the dimension of emotional self-knowledge

Item	Options	No	%
9. I easily recognize the emotions I experience in different situations and/or contexts.	Highly developed	219	59.3%
	Moderately developed	134	36.3%
	Underdeveloped	16	4.3%
10. I recognize those emotions that do not favor my personal well-being and avoid situations that lead me to experience them.	Highly developed	181	49.1%
	Moderately developed	178	48.2%
	Underdeveloped	10	2.7%
11. I apply strategies to regulate my emotions in different situations and/or contexts.	Highly developed	139	37.7%
	Moderately developed	205	55.6%
	Underdeveloped	25	6.8%
12. When I do not achieve the goals or purposes I have set for myself, I can manage and regulate my emotions.	Highly developed	200	54.2%
	Moderately developed	127	34.4%
	Underdeveloped	42	11.4%
13. I can manage and regulate my emotions when I feel they contradict or disagree with me.	Highly developed	160	43.4%
	Moderately developed	191	51.8%
	Underdeveloped	18	4.9%
14. When I feel that they make recommendations to my work, I can manage and regulate my emotions.	Highly developed	196	53.1%
	Moderately developed	169	45.8%
	Underdeveloped	4	1.1%
15. I recognize that managing my emotions is very important for my personal and professional well-being, so I engage in different activities, such as sports, yoga, walking, reading and others.	Highly developed	200	54.2%
	Moderately developed	147	39.8%
	Underdeveloped	22	6.0%
16. I strive for professional and personal well-being; therefore, I maintain a lifestyle that favors these purposes.	Highly developed	182	49.3%
	Moderately developed	179	48.5%
	Underdeveloped	8	2.2%

Social skills dimension. Table 4 organizes the results related to the variable 'social skills', which seeks to recognize the participants' perception of their capacities and abilities to act in social contexts, establish harmonious interactions with others, initiate and maintain positive relationships, communicate assertively with others, and participate in inclusive and intercultural scenarios. In general, it is observed that most participants perceive that they can recognize those skills that allow them to relate to others (50.4% moderately developed and 44.3% very developed).



On the other hand, and in the same trend, students indicate that they can identify the difficulties they have in relating to others (54.5% moderately developed and 43.1% very developed). Also, most participants affirmed that they have the skills to relate and interact with other people in various contexts (49.3% moderately developed and 46.9% very developed).

Concerning the abilities to initiate new interpersonal relationships, the respondents affirmed that they have these abilities (52.3% perceive them as moderately developed and 36.0% as very developed). Likewise, the skills that allow initiating and maintaining relationships with others, even when the other people have different personal, social and cultural characteristics (51.2% moderately developed and 37.4% very developed).

Concerning the skills to establish communication with others, showing empathy and recognizing the particularities of the interlocutors, the participants consider that they correspond to moderately developed (52.3%) and very developed (39.8%) abilities. Regarding communication by virtual means, the participants' results indicate an increase in the trend compared to the previous item (52.3% moderately developed and 42.5% very developed).

Within the framework of interactions in inclusive and intercultural scenarios, the participants affirmed that they actively participate in spaces characterized by a plurality of thoughts and reflective listening to the positions of others (55.6% moderately developed and 32.3% very developed). Most university students recognize that they have skills to avoid prejudices that may limit opportunities for participation in inclusive scenarios (55.8% moderately developed and 41.2% very developed). A 99.2% of the students understand that cultural, political, ideological and social diversity strengthens personal and professional growth since they contribute knowledge, critical capacity and analysis of realities in the social world.

Table 4: Results of the social skills dimension

Item	Options	No	%
17. I recognize the skills I possess to relate to others; I manage to identify them as part of the reflection I make of my own experience of socialization with others similar and different to my personality.	Highly developed	164	44.4%
	Moderately developed	186	50.4%
	Underdeveloped	19	5.1%
18. I recognize the difficulties I have in relating to others, that is, I manage to identify them as part of the reflection I make of my own experience of socialization with others similar and different to my personality.	Highly developed	159	43.1%
	Moderately developed	201	54.5%
	Underdeveloped	9	2.4%
19. I feel I am able and usually manage to handle interactions with other people in different contexts and situations.	Highly developed	173	46.9%
	Moderately developed	182	49.3%
	Underdeveloped	14	3.8%
20. I feel able and usually manage to handle interactions with other people in different contexts and situations, even if they are difficult.	Highly developed	137	37.1%
	Moderately developed	210	56.9%
	Underdeveloped	22	6.0%
21. I manage to initiate relationships easily with others and am able to maintain these interactive relationships.	Highly developed	133	36.0%
	Moderately developed	193	52.3%
	Underdeveloped	43	11.7%
22. I manage to initiate relationships easily with others and I am able to maintain these interaction	Highly developed	138	37.4%
	Moderately	189	51.2%

relationships, even with people who are different from my personality.	developed		
	Underdeveloped	42	11.4%
23. I find it easier to communicate with others in a personal way, especially because I am empathetic and recognize the particularities of my interlocutors.	Highly developed	147	39.8%
	Moderately developed	193	52.3%
	Underdeveloped	29	7.9%
24. It is easier for me to communicate with others through the various means offered by technology, especially because I am empathetic and recognize the particularities of my interlocutors.	Highly developed	157	42.5%
	Moderately developed	193	52.3%
	Underdeveloped	19	5.1%
25. I actively participate in different scenarios where there is a plurality of opinions, I am able to express my thoughts and I listen with reflection to the positions of others.	Highly developed	119	32.2%
	Moderately developed	205	55.6%
	Underdeveloped	45	12.2%
26. I try not to let my prejudices limit the opportunities that arise to be able to participate in inclusive and intercultural scenarios.	Highly developed	152	41.2%
	Moderately developed	206	55.8%
	Underdeveloped	11	3.0%
27. I understand that cultural, political, ideological and social diversity can favor my personal and professional growth because it enriches my knowledge, critical capacity and way of analyzing realities.	Highly developed	204	55.3%
	Moderately developed	162	43.9%
	Underdeveloped	3	0.8%

## DISCUSSION

From the results, it is possible to recognize that the university participants of this research generally have a good self-perception regarding the abilities associated with metacognitive self-regulation, emotional self-knowledge and social skills. These are skills and competencies that are fundamental for university students who are close to professional practice (Florez et al., 2016; Guillen et al., 2021), and in the case of professionals in the field of business sciences, it becomes urgent for the configuration of more integral and competent subjects (Rebele and Pierre, 2019). Research findings also evidence that today university students are more aware of the usefulness, relevance and importance of common and transversal learning in coherence with the demands of the productive sector (Gruzdev et al., 2018; Succi and Canovi, 2020; Alshare and Sewailem, 2018).

On the other hand, although they corresponded to lower percentages of the sample, it is important to highlight the cases of students who, concerning emotional self-knowledge and social skills, indicated little development of these abilities. For example, in the emotional self-knowledge dimension: 4.3% of the students indicated having difficulties in recognizing the emotions they experience, 6.8% expressed not being able to apply strategies to self-regulate emotions, 11.4% agreed not to be able to apply strategies for managing emotions when proposed goals are not achieved and 4.9% when they feel that someone contradicts them, and 6.0% stated that they do not attach importance to emotions and their regulation within the framework of personal and professional well-being.

Regarding social skills, the following should be recognized: 5.1% of the participants feel that they are unable to perceive the skills oriented to relate with others, 6.0% consider that they cannot establish interactions with other people in different contexts, 11.7% are unable to initiate relationships with others quickly, 7.9% believe that they are unable to be empathetic or recognize the characteristics of their interlocutors and 12.2% are unable to participate actively in plurality contexts where assertive listening is required. These types of

results should be recognized, analyzed and deepened so that the Faculty can advance the design of strategies and actions that allow an adequate response for those students who require support.

## CONCLUSIONS

From the results of the research, it is concluded that the students enrolled in the programs in the field of business sciences, for the most part, have positive self-perceptions about the level of development of common learning related to metacognitive self-regulation, emotional self-knowledge and social skills. This contributes to their integral formation, allowing the configuration of a more suitable professional to face the challenges imposed by the changing and dynamic contexts of the labor and social world. However, it is necessary not to ignore the cases of students who evaluate themselves negatively in this skill, since today, it is essential to have more complete and holistic professional profiles.

## REFERENCES

- Aguilar, L.F., El concepto de política pública, in *Ensayos sobre políticas públicas II* by J.I. Cuervo Restrepo (edit.), 37-85, 1a ed., Universidad Externado de Colombia, ISBN 978-9587722710, Bogotá, Colombia (2014)
- Aguinaga, S., y Sánchez, S., Énfasis en la formación de habilidades blandas en mejora de los aprendizajes, <https://doi.org/10.35383/educare.v8i2.470>, *Educare et Comunicare*, 8(2), 78-87 (2020)
- Almonte, R., *A practical guide to soft skills: communication, psychology, and ethics for your professional life*, 1a ed., Routledge, ISBN 9781003212942, New York, EEUU (2021)
- Alshare, K., y Sewailem, M. F. (2018). A gap analysis of business students' skills in the 21st century: a case study of Qatar, *Academy of Educational Leadership Journal*, ISSN: 1095-6328, 22(1), 1-22.
- Assunção, M., y Gago, M., Teacher education in times of COVID-19 pandemic in Portugal: national, institutional and pedagogical responses, <https://doi.org/10.1080/02607476.2020.1799709>, *Journal of Education for Teaching*, 46(4), 507-516 (2020)
- Berryman, M., Lawrence, D., y Lamont, R., Cultural relationships for responsive pedagogy, <https://doi.org/10.18296/set.0096>, *SET: Research Information for Teachers*, 1, 3-10 (2018)
- Brennan, A., King, F., & Travers, J., Supporting the enactment of inclusive pedagogy in a primary school, <https://doi.org/10.1080/13603116.2019.1625452>, *International Journal of Inclusive Education*, 25(13), 1540-1557 (2021)
- Daros, A.R., Daniel, K.E., Meyer, M.J., Chow, P.I., Barnes, L.E., y Teachman, B.A., Impact of social anxiety and social context on college students' emotion regulation strategy use: An experience sampling study, <https://doi.org/10.1007/s11031-019-09773-x>, *Motivation and Emotion*, 43, 844–855 (2019)
- Díaz, M., ¿Qué es eso que se llama pedagogía? *Pedagogía y Saberes*, ISSN: 0121-2494, (50), 11-28 (2019)
- Flores, E., García, M.L., Calsina, W.C., y Yapuchura, A., Las habilidades sociales y la comunicación interpersonal de los estudiantes de la Universidad Nacional del Altiplano - Puno, *Comuni@cción*, ISSN: 2219-7168, 7(2), 05-14 (2016)
- Freire, P., *Pedagogía del oprimido*, 2a ed., Siglo XXI Editores, ISBN 968-23-2589-7, Ciudad de México, México (2005)
- Freire, P., *Cartas a quien pretende enseñar*, 3a ed., Siglo XXI Editores, ISBN 9786070302435, Buenos Aires, Argentina (2010)
- Graciano, D.R., Zaldívar, A., y Lizárraga, J., Apropriación de aprendizajes significativos en alumnos de segundo grado de educación primaria en la zona rural mexicana,

- [https://doi.org/10.33010/ie\\_rie\\_rediech.v11i0.1038](https://doi.org/10.33010/ie_rie_rediech.v11i0.1038), IE Revista de Investigación Educativa de la REDIECH, 11, e1038 (2020)
- Gruzdev, M.V., Kuznetsova, I.V., Tarkhanova, I.Y., y Kazakova, E.I., University graduates' soft skills: the employers' opinion, <https://doi.org/10.13187/ejced.2018.4.690>, *European Journal of Contemporary Education*, 7(4), 690-698 (2018)
- Guerra, S., A panoramic review of soft skills training in university students, <https://doi.org/10.1590/2175-35392019016464>, *Psicología Escolar e Educativa*, 23, e186464, 1-10 (2019)
- Guillen, S.R., Carcausto, W., Quispe, W.A., Mazzi, V., y Rengifo, R.A., Habilidades comunicativas y la interacción social en estudiantes universitarios de Lima, <https://doi.org/10.20511/pyr2021.v9nSPE1.895>, *Propósitos y Representaciones*, 9, 1-10 (2021)
- Ho, K., y Wai, B., Developing pedagogical content knowledge for teaching a new topic: More than teaching experience and subject matter knowledge, <https://doi.org/10.1007/s11165-016-9567-1>, *Research in Science Education*, 48(2), 233-265 (2018)
- Huerta, M., Evaluación de habilidades socioemocionales y transversales: un estado del arte, 1a ed., DIALOGAS, Adelante, Agcid Chile, MESACTS y CAF, Caracas, Venezuela (2019)
- Jaedi, Anwar, S., Indra, H., y Mansur, A., Boarding School's Integral Education Curriculum In Secondary School, *Journal of Positive School Psychology*, ISSN: 2717-7564, 6(8), 6164-6182 (2022)
- König, J., Bremerich-Vos, A., Buchholtz, C., Fladung, I., y Glutsch, N., Pre-service teachers' generic and subject-specific lesson-planning skills: On learning adaptive teaching during initial teacher education, <https://doi.org/10.1080/02619768.2019.1679115>, *European Journal of Teacher Education*, 43(2), 131-150 (2020)
- Levin, H.M., A comprehensive framework for evaluating educational vouchers, <https://doi.org/10.3102/01623737024003159>, *Educational Evaluation and Policy Analysis*, 24(3), 159-174 (2002)
- Martínez Miguelez, M., El paradigma sistémico, la complejidad y la transdisciplinariedad como bases epistémicas de la investigación cualitativa, *Educación y Comunicación Social*, ISSN-e: 1856-9331, 6(11), 6-27 (2011)
- Mordechay, K., & Alfaro, C., The binational context of the students we share: What educators on both sides of the border need to know, <https://doi.org/10.1080/00228958.2019.1549438>, *Kappa Delta Pi Record*, 55(1), 30-35 (2019)
- Niemelä, M.A., y Tirri, K., Teachers' knowledge of curriculum integration: A current challenge for Finnish subject teachers, in *Contemporary pedagogies in teacher education and development* by Y. Weinberger y Z. Libman (eds.), 119-132, 1a ed., IntechOpen, ISBN 978-1-78923-544-99, Londres, Reino Unido (2018)
- Opertti, R., Convergencia de perspectivas sobre políticas en educación inclusiva, <https://doi.org/10.30827/publicaciones.v49i3.11413>, *Publicaciones*, 49(3), 267-282 (2019)
- Orphan, C.M., Public Purpose under pressure: examining the effects of neoliberal public policy on the missions of regional comprehensive universities, *Journal of Higher Education Outreach and Engagement*, ISSN: 1534-6104, 22(2), 59-101 (2018)
- Organization for Economic Co-operation and Development -OECD-, Colombia y su Sistema educativo, en *Revisión de políticas nacionales de educación. La educación en Colombia* by OCDE, 19-80, ISBN: 9789264250598, OECD, Bogotá, Colombia (2016)

Salcines, I., González, N., Ramírez, A., y Martínez, L., Validación de la escala de autopercepción de competencias transversales y profesionales de estudiantes de educación superior, <https://doi.org/10.30827/publicaciones.v49i3.11413>, *Profesorado*, 22(3), 31-51 (2018)

Rebele, J.E., y Pierre, E.K.S., A commentary on learning objectives for accounting education programs: The importance of soft skills and technical knowledge, <https://doi.org/10.1016/j.jaccedu.2019.07.002>, *Journal of Accounting Education*, 48, 71-79 (2019)

Runge, A., Hincapié, A., Muñoz, D., y Ospina, C., *El campo disciplinar y profesional de la pedagogía en Colombia*, 21a ed., Fondo Editorial Universidad Católica de Oriente, ISBN 978-958-5518-44-5, Rionegro, Colombia (2018)

Runge, A., y Muñoz, D., Pedagogía y praxis (práctica) educativa o educación. De nuevo: una diferencia necesaria, *Revista Latinoamericana de Estudios Educativos*, ISSN: 1900-9895, 8(2), 75-96 (2012)

Rutagwelera, L., Intellectual and moral formation components of integral education: foundations from ancient greek philosophy, *Journal of Education and Development (RUCUJED)*, ISSN: 2820-2724, 1(2), 250-282 (2021)

Sánchez, J., y Romero, G., Desarrollo de habilidades blandas como estrategia para la colocación laboral de los universitarios, <https://doi.org/10.37117/s.v2i1i1.641>, *Revista Científica Sinapsis*, 21(1) (2022)

Skidmore, D., *Pedagogy and dialogue*, <https://doi.org/10.1080/03057640601048407>, *Cambridge Journal of Education*, 36(4), 503-514 (2006)

Supkhonovna, H.N., Technology for the development of the qualities of pedagogical competence in future teachers, <https://doi.org/10.5958/2278-4853.2021.00416.X>, *Asian Journal of Multidimensional Research*, 10(5), 372-382 (2021)

Succi, C., y Canovi, M., Soft skills to enhance graduate employability: comparing students and employers' perceptions, <https://doi.org/10.1080/03075079.2019.1585420>, *Studies in Higher Education*, 45(9), 1834-1847 (2020)

Vargas, G., *La humanización como formación*, 1a ed., Editorial San Pablo, ISBN 958-692-175, Bogotá, Colombia (2008)

Zuluaga, O.L., *Pedagogía e historia. La historicidad de la pedagogía, la enseñanza, un objeto de saber*, 1a ed., Siglo del Hombre Editores - Anthropos - Editorial Universidad de Antioquia, ISBN 958-665-017-0, Bogotá, Colombia (1999)



## **Impacto Of The Manufacturing Sector In The Fase Of The Socioeconomics Crisis : Colombia - Venezuela**

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**Abstract** The objective of the article is to analyze the manufacturing sector of the city of Cúcuta in the face of the socioeconomic crisis in Venezuela and the border context. The research is part of the empirical analytical paradigm and corresponds to a descriptive, non-experimental, transectional quantitative study. A validated questionnaire was used, which was applied to 130 companies. Four variables were analyzed: managerial profile, general characteristics, operating environment and financial management. key words: manufacturing sector, border, trade exchange, socioeconomic crisis.

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### **1. Introduction**

Colombia and Venezuela have always faced ups and downs in their relations as a result of political and diplomatic differences, although these have remained despite their disagreement (Ardila, 2005; Bustamante & Sierra, 2005; González & Galeano, 2014; Polo, Serrano & Triana, 2018). Some studies identify five stages within Venezuelan-Colombian relations, which start from decisions on border boundaries in the early nineteenth century to the political relations woven by former presidents Hugo Chávez and Álvaro Uribe Vélez up to 2010 (González & Galeano, 2014: 93). But since 2015, a new stage is being lived, characterized by the total breakdown of relations. At a political level, the closure of the border and an unprecedented migratory mobilization towards Colombia (Polo, Serrano & Triana, 2018). The migration of Venezuelans to Colombia has allowed new territorial dynamics to be generated.

Despite the political distancing between governments and the abandonment of cooperation and integration projects, relations between populations continue to exist between one country and another,

of course, at a border level. Undoubtedly, the neighbourhood and the shared space, have generated that the department of Norte de Santander and the main cities of Colombia, become receiving territories of the Venezuelan emigrants, which arrive with expectations of labour opportunities and a greater well-being, although others in search of security and protection of their civil and political rights (Fernandez & Orozco, 2018; Heredia & Battistessa, 2019; Bermúdez, Mazuera, Albornoz & Peraza, 2018; Rodríguez & Robayo, 2018).

It is estimated that more than 3.8 million Venezuelans have emigrated, making this phenomenon one of the largest migrations of the 21st century, along with that of Syria, Africa in the Mediterranean and Central America to the United States (García & Restrepo, 2019; Rodríguez & Ramos, 2019). Of this population, 50% of the migratory flow ends in Colombia and another 40% uses the national territory as a transitory passage (Rodríguez & Ramos, 2019). This is only one manifestation of a complex problem that is tending to expand. Indeed, inflation in Venezuela has risen dramatically, unemployment is close to 50%, the gross domestic product has been negative for the last 6 years and the economy has contracted by 50% (Luna, Henry 2020). Without a doubt, the socialist project of Chavism in Venezuela did not manage - or has not managed - to overcome the country's structural problems at both the economic and social levels, and it seems that the crisis will continue to increase and aggravate (López, 2016).

It is logical that economic and social crises in neighboring countries end up affecting or inciting within the border territories in different dimensions and levels, and even more so when their economy has depended on bilateral trade. If we add to this the exodus of thousands of people to the border area as migrants, the impact is greater in all its dimensions. This is the reality of the most representative border between Colombia and Venezuela comprised of Cúcuta - Villa del Rosario and Ureña - San Antonio, and like any border marked by migration, is influenced by relational dynamics arising from human behavior itself, the effects of decisions at a political and institutional level, and many other forces (Peyrony & Denert, 2012; Perkmann & Sum, 2002; Blatter, 2004; Perilla, 2011; Di Brienza, 1997).

The city of Cúcuta has about 850,000 inhabitants, and in addition to these there are about 185,000 immigrants from Venezuela. This is a number of men and women with the potential to influence new realities, for example, changing the urban landscape, efficiency of public resources (Rodríguez & Robayo, 2018), security (Castillo et al., 2018), work and labour relations (Fedesarrollo, 2018); Chamber of Commerce of Cúcuta, 2018), the economy (Pabón, Bastos & Mogrovejo, 2016; Sayago, 2016; Chamber of Commerce of Cúcuta, 2018), culture, social relations, imaginaries and representations (Aliaga, Baracaldo, Pinto & Gissi, 2018), among others.

The first effects of the closure of the Colombian-Venezuelan border are felt on the economy and on most of the companies that depended to a lesser or greater degree on bilateral trade. Three years after the closure, there was still a decline in income for some sectors: information and communications (-41%), manufacturing (-36%), professional activities (-35%), trade (-31%), health (-27%), agriculture and livestock (-24%), hotels and restaurants (-23%), among others (Cúcuta Chamber of Commerce, 2018). Today, the effects of the socio-economic crisis continue to have significant effects, although strategies and actions have been advanced from the institutional and governmental level to promote and strengthen the city's representative economic sectors.

One of these sectors corresponds to manufacturing, which had about 5 thousand companies at the end of 2019, most of them being micro, small and medium enterprises (MSMEs) (Luna, & Riaño, 2019). Of this total, 1,493 belonged to the subsector of clothing and garments, and 1,065 to the subsector of footwear and leather. Considering that the Venezuelan crisis goes beyond the closure of the border, this study seeks to analyze the manufacturing sector of the city of Cúcuta in the face of the socio-economic crisis in Venezuela, and with it, to contribute to the knowledge that has been built around the relations between the Venezuelan socio-economic crisis and the impact on the border.

Enterprises and entrepreneurs in the area of clothing and footwear, must face various challenges and external constraints imposed by constant change and crisis (Burbano, 2017; Cardenas, Cristancho, Sayago & Ureña, 2017; Acevedo and Albornoz, 2019). Some of the main deficiencies are in the area of innovation and adoption of technologies, development of human talent capacities, access to new markets, redefinition of the value chain, among others, which are determining factors in a global market (Romero, Monroy & Ramírez, 2017). Clearly, all this requires new rationalities and a more holistic vision that allows them to adapt and strengthen their productivity, innovation, competitiveness and market penetration

## 2. Methodology

It corresponds to an investigation framed in the empirical-analytical paradigm and the quantitative approach. At the same time, it is a non-experimental-transectional study with a descriptive level, considered that there was no control over the variables under analysis (Hernández, Fernández & Baptista, 2014).

The population was determined by companies in two sub-sectors of the manufacturing industry in the city of Cúcuta in Norte de Santander (Colombia): on one hand, clothing and garments, and on the other, leather and footwear. Of the first group, there are 1637 companies, and of the second, 1420 productive units, for a total of 3057.

The sample -not probabilistic-, and selected through a simple random sampling, was determined from the application of a statistical formula with the following characteristics:

$$n = \frac{N \times Z^2 \times P \times Q}{e^2 \times (N - 1) + Z^2 \times P \times Q}$$

Where:

Probability of success: P=0,85

Probability of failure: Q=0,15

Confidence level, value in the 95% table: Z=1.96

Population size: N=3.057

Error margin: e=0,06

On the basis of the above parameters, the investigation sample corresponded to 147 companies, distributed as follows: 96 companies in the clothing and garments subsector, and 51 companies in the leather and footwear subsector.



A questionnaire was applied to the selected sample, in which the management profile of the company, characteristics of the company, operating environment and financial management were inquired.

The questionnaire, Following Riaño 2022, in his book *Management skills in the hotel industry in Cúcuta*, he points out that "management skills are the skills, abilities, skills and knowledge that managers in the sector must possess in order to carry out the functions inherent to the charge, execute the processes of planning, organization, direction and control"

### 3. Results

As indicated in the methodology, a multiple-choice questionnaire was applied to a total of 147 companies in the manufacturing sector in the city of Cúcuta, 96 in the clothing and garments subsector, and 51 in the footwear and leather subsector. The findings are presented considering the four variables analyzed: management profile, company characteristics, operating environment and financial management.

**Table 1. Management profile of the company. Distribution by gender**

Analysis Dimension	Options	Women percentage	Men percentage	Total (%)
Sector	Leather and footwear	19.1	22.7	41.8
	Clothing and garments	23.1	25.1	48.2
	<b>Subtotal</b>	<b>42.2</b>	<b>47.8</b>	<b>100</b>
City of origin	Cúcuta	45.3	33.2	88.5
	Other city	6.5	5	11.5
	<b>Subtotal</b>	<b>51.8</b>	<b>48.2</b>	<b>100</b>
Manager's age	15-25 years	3.6	1.0	4.6
	26-35 years	20.3	7.4	27.7
	36-45 years	18.5	13.0	31.5
	46-55 years	5.4	20.0	25.4
	More than 55 years	1.4	9.4	10.8
	<b>Subtotal</b>	<b>49.2</b>	<b>50.8</b>	<b>100</b>
Academic training of the manager	Elementary	6	12	18
	High school	35.3	32	67.3
	Technological	7	7.7	14.7
	<b>Subtotal</b>	<b>48.3</b>	<b>51.7</b>	<b>100</b>

According to Table 1, there is no gender predominance for each of the subsectors analysed. Similarly, there is no evidence of gender predominance by origin of the entrepreneurs, age and level of training. It should be noted that 88.5 per cent of managers are from the city of Cúcuta. About 62% of the

entrepreneurs are between 26 and 45 years old, which is young entrepreneurs who enter the manufacturing sector. Similarly, it is relevant that 61.7% only have secondary and middle school education, and that more than 95% of managers have no university education.

### 3.2. Characteristics

of enterprises in the manufacturing sector Below are some correlations between different dimensions analysed such as type of company, company activity, number of workers, length of service and effects due to the border situation

**Table 2. Company activity according to type of company**

Activity	Type of company					Total (%)
	Sole proprietorship (%)	Simplified joint stock company (%)	Private limited company (%)	Public limited company (%)	Family business (%)	
Manufacturing	8.2	5.3	0.0	0.0	6.6	<b>20.0</b>
Marketing	12.5	0.5	0.0	0.8	11.6	<b>23.4</b>
Manufacturing and Marketing	23.9	2.7	0.8	0.0	27.2	<b>56.6</b>
<b>Total</b>	<b>44.6%</b>	<b>8.5%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>45.4%</b>	<b>100%</b>

Table 2 shows the main activity of the company in correlation with the type of company. 54.6% of companies are dedicated to the manufacture and marketing of products, and the other (45.4%), to one of these two activities. The majority of companies are concentrated in the type of single-person and Family Business. Only 10.1% of the participating companies have opted for a company form, with the Simplified Joint Stock Company being the most widely used. This is because this type of company has flexible requirements within the commercial legislation. This data allows some inferences to be made. Companies that arise from corporate forms have greater investment possibilities because they have partners who are willing to inject capital.

With this, it is possible to advance strategies and plans, innovate the means of production, machines, processes and products, and face, to a better extent, changes and crises. Because most companies are sole proprietorships and family businesses, they do not have the possibilities and advantages of corporate companies, and therefore, emphasis is placed on strategies focused on partnership and alliances with both companies in the same sector and public entities (Cárdenas, Cristancho, Sayago & Ureña, 2017; Romero, Monroy & Ramirez, 2017)

<b>Number of employees in the company</b>	<b>0 – 2 (%)</b>	<b>2 – 4 (%)</b>	<b>4 – 10 (%)</b>	<b>10 – 15 (%)</b>	<b>+ 15 (%)</b>	<b>Total (%)</b>
<b>Number of workers</b>						
1 – 10	17.5	16.7%	23.5%	10.2%	7.5%	<b>75.4%</b>
11 – 50	9.4	8.7%	5.0%	0.0%	0.2%	<b>23.0%</b>
51 – 200	0.0%	0.0%	0.0%	0.8%	0.0%	<b>0.8%</b>
+ 200	0.0%	0.0%	0.0%	0.0%	0.8%	<b>0.8%</b>
<b>Total</b>	<b>26.9%</b>	<b>25.4%</b>	<b>28.5%</b>	<b>10.8%</b>	<b>8.5%</b>	<b>100.0%</b>

According to Table 3, more than 80% of the companies are less than 10 years old and 52.3% are between 0 and 4 years old. These are young companies, many of which have not yet crossed the time line to become stronger, position themselves and access new markets, including international ones. In Colombia, about 57% of SMEs do not survive the first 5 years and only 20% of companies created reach their third year of life (Montoya, 2018; Franco & Pulido, 2010), and thus the future of participating companies with less than 5 years old is uncertain.

In relation to the number of workers, Table 3 indicates that the length of service of manufacturing companies is a variable that can affect the number of workers.

**Table 4. Effects of the border closure and Venezuela's socio-economic crisis**

<b>Effect</b>	<b>Options</b>	<b>Percentage</b>
<b>Decrease in workers</b>	Yes	38.5
	No	61.5
<b>Impact of markets</b>	Yes	40.0
	No	60.0
<b>Sales and Net Profits</b>	Increased sales	23.7
	Decreased sales	33.8
	Increase in net profits	20.0
	Decrease in net profits	22.4

The results in Table 4 show the perceptions of the manufacturing sector entrepreneurs as a result of the closure of the border and the socio-economic crisis of the Venezuelan State. In terms of hiring, only 38.5% of the companies had a decrease in workers or collaborators by an average of 15% of the staff, although the vast majority were not affected in this regard (61.5%). In relation to the markets, half of the businessmen said that they were affected, since one of the traditional destinations of the products of this industry was the Venezuelan market. Similarly, 33.8% report that sales decreased and another 32.4% of the businessmen indicate that net profits decreased. Only 23.7% indicate that sales increased and only 12% show an increase in net profits.

## **Conclusions**

The destination of the products of 91.5% of the participating companies is the city of Cúcuta and its metropolitan area and the national market, especially the Atlantic coast. A lower percentage of manufacturing companies export to international markets (6.2%). For the latter, the main markets are Central America, Ecuador and North America (United States and Canada). Regarding the products of the footwear and leather goods sector, the main product of the companies is in the female line (casual, sports and formal), and only 25.3% corresponds to the male line. And with regard to the products of the clothing and garments subsector, jeans, both in the female and male lines, are the ones with the highest production (63.2%).

As for the female and male clothing lines, there is no trend (51.5% and 38.5%, respectively), and the children's line has an important participation (30.8%). The distribution channels for manufacturing industry products are varied. The main distribution modalities correspond to own points of sale (29.5%), wholesalers (21.4%), e-commerce (20.9%) and direct sales (20.3%). In a few cases, the modality of department stores is used, although it is a good option as is e-commerce

In short, another perspective is needed that leads to more favorable actions for the Colombian State and society, and specifically the North Santander region. Public policy requires a transformation in all spheres, political, economic, financial and ethical, that takes into account changes in virtual interconnection, commercial dependency, technology and innovation, demographic changes, consumption patterns and production, in order to guarantee a better standard of living for the population and ensure permanence in the fully globalized market economy model.

Only through a targeted approach to strategic competitiveness in the economic, educational and research model will the region have a promising future; starting from business development as the basis of social and public development, although none of the other transforming axes should be neglected, it is a new direction for the design of regional development plans and programs for the next period and the following ones, since only with the permanence over time of precise policies, development is maintained as a constant.

## Reference

- Riaño, M & Luna, H., (2020). Productividad del valor agregado y estilos de liderazgo. Sector minero Norte de Santander, Colombia *Revista Boletín Redipe* 10 (13 (2021)), 549-560
- Luna, H., Rueda, G. (2020). G., & Avendaño, W., (2020). IFRS standards as a management tool: perceptions of university students of accounting science and administration programs, *Revista CEA* 7(15), e1864
- Luna, H., Rueda, G. (2020). G., & Avendaño, W., (2020). Competitividad y generación de valor. Un análisis en la mediana empresa de la ciudad de Cúcuta y su área metropolitana, *Mundo FESC* 11 (S1), 135-150
- Riaño, M & Luna, H., (2021). Estudiantes de pregrado frente a la educación mediada por TIC: Percepciones en contextos de pandemia *Revista Boletín Redipe* 10 (8 (2021)),321-339
- Luna, H & Avendaño WR, (2020). Estilos de aprendizaje en educación superior lecturas desde un programa de Ciencias empresariales en una universidad pública, *SABER Ciencia y Libertad* 16 (1 (2021)), 251-263

- Rueda, G., Avendaño, W., & Luna, H., (2021). The Generic Competencies in the Process of Formation of the Public Accounting Program of the Universidad Francisco de Paula Santander-Colombia. Free University Magazine Cartagena Headquarters.
- Luna, H., Avendaño, W., & Prada R., (2020). Characterization of the manufacturing sector of San José de Cúcuta as a result of the Colombian-Venezuelan crisis *Mundo Fesc Magazine* 10 (19), 111-127.
- Hernández Pérez, J. (2010). Perfil del Ejecutivo conforme a sus Competencias Gerenciales y Habilidades Intelectuales [Tesis Doctoral, Universidad Iberoamericana]. <http://ri.ibero.mx/handle/ibero/1150>.
- Hernández Sampieri, R., Fernández Collado, C. y Baptista Lucio, M. P. (2006). Metodología de la investigación. McGraw-Hill.
- Luna, H., Avendaño, W., & Rueda, G., (2021). Entrepreneurial profile of a group of business administration students. *Spaces Magazine* 41 (23), 305-318.
- Moreira, M. (2000) Significant learning: theory and practice. Buenos Aires, Paidós.
- Pizarro, R y Clark, S. (1998) Home curriculum and educational learning. Interaction versus status. *Journal of Psychology of the University of Chile*, 7, Págs. 25-33
- Reyes, Y (2003) Relationship between academic performance, test anxiety, personality traits, self-concept, and assertiveness in first-year psychology students at UNMSM. Bachelor's thesis. Major University of San Marcos. Faculty of Psychology. Lima, Peru.
- Senge, P. (1999) the fifth discipline. Buenos Aires: Granica Publisher.
- Warren A., (1987). Dare to be a leader. Bogota: Norma Editorial Group.



## **Modern Management In The Control Of Resources In The Construction Sector**

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### **Abstract**

The objective of this investigation is establishing the impact of project management in infrastructure works. The methodology used is based on various sources of secondary information through databases in indexed articles, published theses, related to public and private infrastructure projects, In conclusion, it is important to take into account the different methodologies and strategies of project management, which are designed to be fulfilled in a certain period of time, and thus avoid delays in the execution of a project, guaranteeing the quality and standards offered to the client, as well as allowing a constant evaluation of all the counterparts involved in the execution of the project.

**Keywords:** Project management;, Infrastructure; Works; Management system.

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## **1. Introduction**

The progress of society, city or community in particular is reflected in the different public and private projects in infrastructure works for which public-private partnerships are required for its execution to enter service for which project was conceived. Then, productivity and efficiency of infrastructure projects is essential to determine and establish the way in which countries will deal with global trends taking into account the rapid growth of humanity, which generates new requirements in the field of new technology openings and new practices of management to ensure the material and input for projects and logistics with which they are handled. (R S Alonso et al. 2020)

Infrastructure projects are distinguished by their difficulty, even more when talking about large-scale projects, long execution time of various stages, this is comprised from design to delivery, as well as a

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huge mass of resources required for implementation (economic, material and human). (Arrieta, Espejo, and Perez 2013).

On the other hand, it is important to highlight the role of infrastructure investment in economic growth, which has been extensively analyzed in the economic literature, (see below). Economies need well-developed telecommunications, energy or infrastructure networks to expand their domestic markets and be internationally competitive, however, it is not only the quantity of physical infrastructure available that matters, but also its quality, a requirement that extends to the provision of the resulting services. (Bittencourt et al. 2013).

Along the same lines, the most relevant aspect of infrastructure development is its contribution to the amplification of a country's economic structure, which reveals the direct relationship between the territorial design and organization of production and distribution systems, on the one hand, and configuration of infrastructure, on the other. So that, national space, is also an indispensable requirement for the international connectivity of countries and their economies. (Bittencourt et al. 2013).

Therefore, there are three effects on the total return on investment in the infrastructure sector. First, infrastructure as a final product contributes directly to GDP formation through transportation, drinking water supply, electricity production, wastewater and communication services. Second, infrastructure investment creates externalities for production and overall levels of economic investment, which accelerates long-term growth. Third, infrastructure investment indirectly affects other inputs in the production process and the productivity of the firm. (Jhon Arquimides Reynaga Soto 2015)

Investment projects can refer to practically any area of human activity, whether public or private. In public institutions, the project is what makes possible the realization or implementation of a development plan. When referring to the category of projects, it refers to a sector that belongs to socioeconomic activities, and these projects are divided into economic, social and service infrastructure projects. Another way of distinguishing projects is by their nature, which means that they can be used to install or implement an integrated set of operational or production assets, or a combination of the latter. (Monroy Ramírez and Niño Valbuena 2014).

## 2. Method

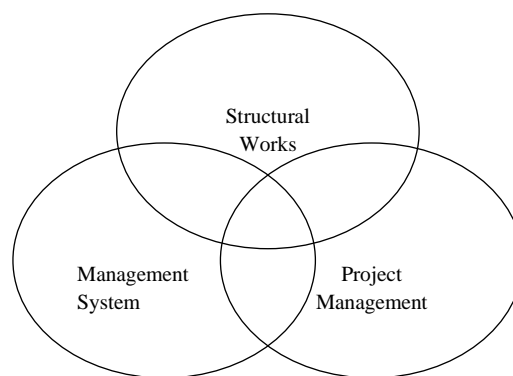
Infrastructure projects are a delicate issue when applying or executing a project, due to the magnitude that can be handled in terms of all kinds of resources, such as human, economic, material and territorial resources. One of the methods that are currently being applied to carry out a good organization are megaprojects of infrastructure, which comprehensively evaluate the performance of the operation and maintenance (O&M).

Mega infrastructure projects are a kind of national strategic projects that have a profound impact on politics, economy, science and technology, society, environment and other fields. In addition, they are basic platform and environmental guarantee for the sustainable socio-economic development of a country, hence, these are divided into two varieties of infrastructure, which are, for example, economic infrastructure (e.g, transportation project, public works, urban utilities project) and social infrastructure (e.g., education, culture and health facilities). So that, infrastructure refers to the system of public utilities established for the purpose of ensuring the normal development of national or regional economic and social activities, improving the living environment of human beings and overcoming natural obstacles. (Chen, Xiang, Jia, et al. 2022) says that China is one of the fastest growing countries in infrastructure, in 2020, China's infrastructure investment exceeded 18.5 trillion yuan, with 139,000 km

of railways, IMPs are characterized by large scale of investment, long construction cycle, complex construction technology and far-reaching impact, then this program should be measured by indicators.

The methods for infrastructure project risk management are diverse, these are necessary to improve implement the project, which propose a risk management framework to control risks. First, a comprehensive risk index system is established using the Delphi method. Second, a three-dimensional model including probability, loss and controllability is employed for risk assessment in which the analytical hierarchy process method is used for weight determination and the gray fuzzy method is employed for evaluation. Finally, the risks are assigned to the different participants and corresponding countermeasures are proposed, Infrastructure, which mainly includes charging stations and charging points, plays an important role in infrastructure projects (Wu et al. 2018),

**Figure 2.** Thematic Density Graph.



To collect information, it was necessary to design search equations, which were constructed by means of the key terms and the main topic of the article. The test equations were used until only four search equations were defined, since these were the ones that provided information for the present review.

### SEARCH EQUATIONS

Ec. Bq<sub>1</sub> = project management + infrastructure Works

Ec. Bq<sub>2</sub> = Infrastructure works + developments

Ec. Bq<sub>3</sub> = management system + infrastructure

Ec. Bq<sub>4</sub> = impact on society + infrastructure

Databases established for the use of the above equations are ScienceDirect and Google Scholar. In these databases, all the bibliography of the present study was collected, in order to contribute with data and knowledge of different authors, in relation to the main topic, once the bibliographic articles were chosen, the documentary matrix was designed, this consists of consolidating all the general information of each of the bibliographic articles that were cited, such as, matrix fulfilled the objective of providing an order for the use of the information, then we proceeded to carry out an analysis of each of the articles, giving usefulness to important information of the bibliographic authors, as well as, giving a sense and structure of this article, based on the information used.

### 3. Results



### 3.1. Projects.

Regarding the definition of a project, (Villalta Paredes 2018) reference the following: According to Baca (2013) a project is the search for multiple solutions in an intelligent way to the approach of a problem, which aims to facilitate and achieve the goals outlined in a more effective way. It should be taken into account that an investment project is exposed to multiple factors of success and failure, which can directly affect the useful good or service that the project will produce for society.

According to the. (Villalta Paredes 2018) "a project is a temporary effort undertaken to create a unique product, service, or result" (p.72)

According to these definitions, projects are the answer to solve, supply, expand, improve, among others, the different social needs that arise day by day as a result of the advances in different fields of knowledge and that require the design and execution of viable and measurable projects in the time horizon, which implies the construction of different types of infrastructure that in turn contribute to improve the productivity of a certain region and therefore, that of a country.

In the same vein, infrastructure productivity is a key factor in determining how countries respond to global trends with increasing rates of urbanization, economic openness, market globalization, and technical innovation in production and logistics. (Arrieta, Espejo, and Perez 2013).

That is, for a given project to be carried out and respond efficiently to the purpose for which it was planned and structured to respond to a specific need of the community and the different social demands that require civil engineering projects among which we can mention, urban planning, roads, health, education, power generation, sports and cultural centers among others that must meet quality parameters in terms of design, materials, environmental impact, costs, These are fundamental aspects in all types of projects so that they fulfill the social function for which they were designed and planned, and that through their execution and start-up in the established times, they begin to function in an effective and efficient manner, in order to avoid the large number of unfinished, poorly planned and structured projects that finally end up in considerable economic losses, environmental degradation and affectation of the community where they are located. (Gonzalo and López n.d.)

As mentioned in the previous paragraphs, according to the different demands that exist in different communities, regions and countries, different types of projects are required and structured, whether public or private, or under the modality of public-private partnerships that allow the realization of civil engineering projects, different methodologies are taken into account according to the particular needs of each project.

According to (Sánchez Serna, A., Martínez, A., Del Río Cortina 2017) In general terms, project management methodologies provide a framework from which to establish a set of aspects that contribute to project success, such as the configuration of goals, the establishment of organizational sequences, the development of control processes and the dynamics of the project within the organization. organizational strategy The development of the decomposition of the inherent activity.

Thus, the PMBOK proposes a methodology applicable to any type of project (Arrieta et al. 2013). It suggests general issues to be addressed according to the characteristics of the type of project and sponsoring organization, focusing on the tripartite limits of scope, schedule and budget, emphasizing project closure based on compliance and commitment to deliverables within a framework of value

creation, in terms agreed in scope, with limited approaches to sustainability and impact parameters. (Monroy Ramírez and Niño Valbuena 2014).

### 3.2. Infrastructure projects

The term must be analysed and formalized, where (Kobylkin et al. 2020) establishes that this a process of execution of a number of engineering activities that are managed for the optimization of resources and time, to create a product, using different factors such as Iot, energy, education, transportation, social environment and security.

Infrastructure projects are executed to achieve a drawn objective and goals organizations, meeting the strategic objectives, execution time and cost, companies are increasingly concerned to reduce the percentage of unfulfilled projects due to improper management, since through this can be obtained various benefits and a broader value of the project (Silvius and Schipper 2016) the strategic value of any project is considered or determined on the basis of various social, ecological and economic dimensions (Control, Performance, and Contexts 2008) benefits, value and value creation may imply different things for the project contractor and for the client, however (Winter and Szczepanek 2008) this can be fulfilled by proper planning of the different phases of the project or product life cycle, which makes or generates that the project contractor and the client can be involved in the project life cycle. (Labuschagne and Brent 2005) The sustainability of a project can be understood from different perspectives, since as it is mentioned (Marcelino-Sádaba, González-Jaen, and Pérez-Ezcurdia 2015) sustainability in the business of projects of any kind refers to the process and delivery time and the quality of the project itself, which has the least number of nonconformities.

### 3.3. Internet of Things (IoT) in infrastructure projects

The global scope of the Internet of Things (IoT) is massive and growing exponentially across different industry sectors, those in the emerging digital world have recently witnessed the proliferation and impact of IoT-enabled devices, according to (Nord, Koohang, and Paliszkiwicz 2019) IoT has provided new opportunities in the technology arena, while raising the level of concern, but in order to talk more about IoT one must know what it means, (Ricardo S. Alonso et al. 2020) defined that the Internet of Things (IoT) refers to the connection of multiple heterogeneous objects such as machines, vehicles or buildings with electronic devices such as sensors and actuators through different communication protocols to collect and extract data, the IoT serves as a basis for research and development of solutions in smart homes, smart cities, Industry 4.0, logistics and transportation , energy efficiency, healthcare or agriculture furthermore (Ray 2017) states that it refers to machine-to-machine (M2M) communications which is a crucial component of the recent growth of the digital market, this complements it (Khanna and Kaur 2019) because it has defined it as the global information infrastructure of society, which provides advanced services through the interconnection of things (physical and virtual) based on existing and evolving information and communication technologies, but what objective or purpose does the IoT have, this explains it (Bittencourt et al. 2018) IoT aim to perform the following tasks: it is to connect and communicate thousands of devices to take full advantage of their applications and transform the collected data into information knowledge. Although a look of new applications is enabled by the IoT, this is also a source of further heterogeneity: different applications also have different requirements, which must be satisfied by the IT system that must meet the IT system that combines IoT devices with their applications as is a clear example (Minoli, Sohraby, and Occhiogrosso 2017) that mentions architectures for intelligent buildings. that offers different opportunities to revolutionize the connectivity in buildings of a large number of devices, which have the ability to face different adversities in the field of intelligent building, since through these applications solutions to problems can be established by

mathematical models through the deterministic variables that can yield the IoT-based systems can support these requirements organically. In particular, power over Ethernet (PoE), as part of an IoT-based solution, can support these requirements in an organic way.

### 3.4. Project Management

A project is usually bounded by several phases and milestones, which structure the project during its life cycle, depending on the phase model, a different number of phases corresponding to different objectives, actions, tasks, and activities may be used. In addition, the name and activities of each phase can be interpreted in multiple ways by different users, project management as a whole has a structure which contains a beginning and an end. During the initiation phase, a situation analysis is performed defining general requirements, objectives, context, scope and risks, several options are proposed and a solution is chosen for the start of any type of project, in this case infrastructure projects are governed by this same way of working, the following stages consist of the implementation of the objectives set, such as project release, phase release and finally the final evaluation of the project. (Croxatto and Greub 2017) It has been widely recognized that the justification for a project should be based on the long-term benefits that will accrue after the project is delivered, and these arguments are often discussed in the context of value. Infrastructure projects can be seen as a class of policy interventions that provide essential services to broad user groups and the public, so the value of infrastructure projects to society is difficult to measure. (Zerjav, McArthur, and Edkins 2021) The Asian Infrastructure Investment Bank (AIIB) is the newest multilateral development bank (MDB) with 83 member countries to date, with a focus on Asian infrastructure development, such as hydropower, road and rail infrastructure, with more than 106 approved projects related to energy, finance, transport and many other projects. (Shao, Tan-Mullins, and Xie 2021).

### 3.5. Project management in infrastructure works

Sustainability is becoming increasingly important in project delivery, Sustainable project management is particularly relevant for infrastructure projects that cause lasting changes in the community and involve multiple stakeholders with different expectations, to perform good project management control, This is where, for example, the terms of performance indicators come in, which can measure by parameters the results of any type of project, in this case, infrastructure projects, which are types of negotiations that usually handle quite large budgets, due to the volume of activities and resources that are handled. (Kivilä, Martinsuo, and Vuorinen 2017)

One of the most important factors in infrastructure systems or projects globally, is without discussion time, Time is an especially critical performance indicator in this context, delays are a critical problem for complex projects, as they lead to both cost overruns and profit shortfalls. Delays will increase both fixed costs (due to extended requirements for equipment, site sheds and cranes) and variable costs, due to increased and prolonged resource requirements, For these reasons, numerous studies have investigated the causes of time overruns on construction projects, Changes have problematic effects, in part because they exacerbate cost increases and profit shortfalls, However, changes are inevitable in construction projects due to a variety of factors that can occur unexpectedly, the previous concept of project management, which mainly involves control-centric practices based on planning, monitoring and exploitation, is no longer as efficient as before, requiring a more flexible definition to accept and manage changes instead of avoiding them. (Eriksson, Larsson, and Pesämaa 2017) The cost of equity is a key data used by regulators to set allowable rates of return and determine regulated tariffs. Regulators around the world typically use a single factor model to estimate the cost of equity, the Capital Asset Pricing Model (CAPM) and the Fama-French three-factor and five-factor models to estimate the cost of

equity for the Indian power and infrastructure sectors, although a study finds that the projected costs are always lower than the reasonable rate of return set by the respective regulator, hence the projections should always be set so that the investment variance parameter is high, but not exceeding what can be economically spent. (Patrucco, Moretto, and Knight 2021) In the case of infrastructure projects, this is a potential key to achieve an optimal financial performance, where the control of resources for materials, labor and others, as well as the management and control of suppliers are another important point to take into account to manage a good management of resources for infrastructure projects, since they are the ones that ultimately provide all the necessary resources for the development of the project, While supplier performance measurement systems (SPMS) provide a key tool for buyers to govern supplier relationships and performance, they can have a detrimental impact on trust and commitment when they are perceived as a simple means of control, in order to assess the impact of a systematic approach to supplier performance measurement on project performance (i.e. cost, time and quality). (Patrucco et al. 2021).

### 3.6. Risk management in infrastructure works

The term infrastructure generally covers all physical assets, such as machinery, equipment, buildings, furniture, vehicles, raw materials, products in process, tools, etc., and other important factors related to the production or growth of a project, and other important factors that are related to the production or growth of a project, therefore the risks in an infrastructure project are high, it is necessary to apply methods to protect the returns on infrastructure investments, since it is expected that by 2040 there will be a need for infrastructure investment of 94 trillion dollars worldwide, Infrastructure projects proved to be very resilient during the recent global financial crisis (GFC) in terms of risk-adjusted returns for investors. However, while this suggests that infrastructure is an attractive asset class for private investors, it does not automatically guarantee return on investment, which is why infrastructure projects are complex endeavors and include specific uncertainties and interdependencies among a large number of stakeholders. (Demirel, Leendertse, and Volker 2022).

In some countries, there are types of risks related to terrorism, which attack infrastructure around the chaos caused by people, whether they are citizen protests or even guerrillas on some occasions, Terrorism has had a substantial impact on both business interests and decisions in Latin America, Western Europe, the Middle East and North Africa, Attacks on infrastructure, in particular, are a major concern of the state and require both government and private sector intervention, this risk factor also affects commercial movement with entities, such as IPP projects are infrastructure developments in which all or part of the capital is provided by private investors. Traditionally, IPP projects have been constrained by national security concerns and the resulting perceived erosion of sovereignty, IPPs are a type of concession-oriented public-private partnership, in which a financially and organizationally independent entity is temporarily created by a consortium of companies, called sponsors, who work closely together to ensure the successful execution and completion of the project. (Jiménez and Lupton 2021) While there are numerous benefits associated with establishing a social risk management system for large infrastructure projects, such as discovering potential risks early, managing social risks innovatively, minimizing the occurrence of social conflicts, ensuring the smooth implementation of large projects and maintaining social stability, to implement such risk management systems in infrastructure activities, it is necessary to use a case study approach through a detailed description and critical analysis of the situation, in order to promote solution objectives. (Shi et al. 2015).

Another of the great risks that have or that are presented in infrastructure projects, are errors or delays in planning, as this leads to more time in development activities and therefore, more expenses, ie, cost

overruns of those already budgeted financially, Infrastructure project systems in themselves can cover very long periods of time from conception to completion, Some of these projects, such as transportation projects, for example, so it is important that the planning issues of a large-scale project be carried out in a precise manner so that these types of problems do not occur when having to extend the schedules of infrastructure projects, which is why it is important that the planning of large-scale projects be carried out in a precise manner so that these types of problems do not occur when having to extend the schedules of infrastructure projects. (Sözüer and Spang 2014) This is why large infrastructure construction projects are prone to risks, due to the complexities and uncertainties that can generate such large infrastructure works that often depend on a variety of factors that ultimately always affect the schedule of activities, these also depend on how the projects are organized, Risk management elements that are common in large infrastructure projects include: Multi-layered relationships, Cost, time and safety, Procurement and contracts, Environmental and social concerns, Construction innovation, Economic return. (Guo et al. 2014).

### 3.7. Infrastructure works

Public infrastructure systems (e.g., energy, water/wastewater, telecommunications, and transportation) function as arteries of modern urban communities, as they provide vital services to meet social and economic needs, the management of such infrastructure projects is perceived as particularly challenging and risky due to their inherently complex interdependence and dynamic nature, In addition to all those aspects that such a subject matter encompasses, such as having a schedule of activities and projected budgets for the completion of the work, they require substantial resources, broad scopes of work and diverse specialized expertise, and must be profitably spread over large land areas, analysis of the socio-economic outcomes that can impact the population and attract large public and private sector participation. (Gondia, Ezzeldin, and El-Dakhakhni 2022a). For this reason, the construction industry is recognized as one of the key drivers of economic growth. Currently, public spending on infrastructure makes up a large proportion of the total GDP expenditure of each country, such as Taiwan, which is currently investing heavily in infrastructure growth and is one of the best growing countries in the world, Even so the investment of this country is not so high compared to other countries, such as the population of China, which invests 13% of the total GDP of the country, I feel that of Taiwan just 4%, infrastructure projects mostly require a fairly high investment, so you need trained and experienced people to lead such activities, this is where associations such as PPP (public-private partnerships) appear. These PPP infrastructure projects attract not only large construction companies, but also lenders and investors, such as financial institutions and sovereign wealth funds, to the project. (Kokkaew et al. 2022) A public-private partnership (PPP) can also be defined as "a long-term contract between a private partner and a government entity for the provision of a public good or service, in which the private partner assumes significant management responsibilities and risks, and remuneration is linked to performance. (Navalersuph and Charoenngam 2021).

### 3.8. Impact of infrastructure development on the population

The impact of technological changes in the state of energy infrastructure and all surrounding infrastructure are fundamental to the economic and social development of the world, Infrastructure has been positioned by the World Bank Group as an essential agent of change and transformation to meet the challenges of achieving sustainable economic development and the Sustainable Development Goals (SDGs), the evolution of technology application in infrastructure, practically starts from the second industrial revolution, where existing energy transportation and sales markets, as well as energy infrastructure, were developed, in the third industrial revolution the energy sector is the most conservative constraint on the national economy and it is currently projected that the globalization of

the world and the launch of large-scale supranational infrastructure and energy projects will lead to a worldwide increase in trade, both in monetary and physical volume. (Shabalov et al. 2021).

Public infrastructure systems (e.g., power, water/wastewater, telecommunications, and transportation) function as arteries of modern urban communities, as they provide vital services to meet social and economic needs. Industry-standard and commercially available software tools widely used for project management and control typically employ the critical path method (CPM) and Monte Carlo analysis. The former is commonly used to plan, schedule and control the duration of project tasks, resource allocation and costs, while the latter is used to enable further probabilistic modeling and risk analysis of early results in order to quantify the reliability levels associated with such results, thus ensuring better control of operational infrastructure in a systematic manner, however it should be noted that when managing very complex infrastructure systems, there are 3 limitations. The first one consists of tools that are not specially designed to visualize and analyze contractor-related interdependencies, the second one is that current tools can reveal duration predictions and project completion budgets only after periodic schedule updates, and the third limitation is that such tools leave managers to rely solely on themselves. (Gondia, Ezzeldin, and El-Dakhakhni 2022b)..

### 3.9. Evolution of construction systems in infrastructure works

Changes in construction projects are inevitable, to minimize the impact of changes in a project, it is imperative to implement change management, which is of great importance and impact in the construction industry or infrastructure works projects, the industry on the subject of infrastructure works is one of the mentors that build greatly to the economy of any country. Changes generally occur at any stage of a project due to various causes from different sources and have considerable impacts, therefore at present, infrastructure systems must adapt to such consequences, as is the fact of applying change management to achieve a good adaptability. (Hwang and Low 2012).

The evolution or changes in infrastructure systems, have also delivered on the theme of agri-food, which have undergone massive transformations worldwide in recent decades. In those long-term transformation processes, they have evolved from socio-technical contexts to new ones, thus improving or achieving economic and market developments, technological advances, environmental impacts, population growth, dietary changes or social demands. STS scholars have also paid attention to how devices, organizations and other tools that function as boundary elements interact and evolve over time. As mentioned above, they inferred that beyond a certain point, boundary elements could expand, envelop the communities they link and become a "boundary infrastructure (Vilas-Boas, Klerkx, and Lie 2022) For the evolution of project management, there are also new ideas on program management, such as Mega-program management to balance multiple objectives, Stakeholder knowledge and integration to create complex projects. Financial planning and structuring as an essential ingredient for the materialization of large projects, extreme project management, contingent risk management, and Contingent risk management (Vilas-Boas et al. 2022).

### 3.10. Anti-corruption in infrastructure works projects

More than half of the world's population lives in urban areas, and this number is expected to increase to around 70 % by 2050, the increase in urban population, automatically forces the infrastructure of the different places that increases the population, also end up increasing and improving, in order to ensure a quality of service to the entire community, the procurement process of such essential services and other infrastructure related projects is susceptible to corrupt practices (Owusu, Chan, and Wang 2021). One of the most influential factors for the achievement of infrastructure projects, without any doubt is

the fact that there are corrupt people who want to take advantage of the high economic resources that move during the execution of large infrastructure projects, regardless of how clean a city may seem, it can be contaminated by hidden forms of corruption, so it is necessary to implement or promote organizations that ensure the economic resources of a country or city, there is the organization ACM (effectiveness of anti-corruption measures), It could be said that the model developed is the first measurement tool to evaluate and predict the effectiveness of ACMs used in the planning, contracting, execution and management of infrastructure projects, MCAs are internal and external tools or strategies stipulated to mitigate (in the short and medium term) and extirpate (in the long term) the incidence and proliferation of corruption. These systems are developed to curb the negative constructs of corruption, which include the causes of corruption and corruption risk indicators. (Owusu, Chan, Yang, et al. 2020) Therefore, the effectiveness of infrastructure projects, which are executed when they are free of corruption, are much more efficient, faster and economically much cheaper, thus obtaining more efficient results from corruption-extinguishing measures (CSMs) in planning, procurement and project management. (Owusu, Chan, and Hosseini 2020)

### 3.11. Innovative infrastructure projects

The development of infrastructure in a city or in a whole country, is a very useful and efficient way to invest the capital of a population structure, as this itself will achieve great things for the quality of life of each of the people who make up the population, the application of infrastructure in a city or country is diverse, ranging from pedestrian walkways, structural development of production for commercial movement or for priority services such as drinking water, One of these is for example the water infrastructure, which is an active element of construction in any place, currently Iraq is constantly in conflict due to the lack of water in most homes, causing rebellions and violent protests, which is why it is essential to maintain a good project management to improve infrastructure, (Mason 2022) For example, one of the best applications of infrastructure for the improvement of water transport, such as river water, linear parks along waterways have been designed to mitigate flooding or to improve the quality of storm water, such projects are used because of the great importance of water today, Because of its excessive consumption and also because climate change and increasing urban density continue to pose serious challenges to the management of valuable water resources, linear parks along waterways have historically been designed to mitigate flooding or improve storm water quality, this aqueduct control system is known as the Torrens River Linear Park (RTLTP). For some time now, watercourses have been reduced to suitable sites for waste discharge, improving the infrastructure system to achieve better stormwater control. (Ibrahim, Bartsch, and Sharifi 2020) Green infrastructure is emerging as a holistic stormwater management strategy that can also deliver multi-sectoral benefits. Urban storm water infrastructure has traditionally been designed to capture and convey rainfall-induced runoff through a network of curbs, gutters, drains and pipes, collectively known as grey infrastructure, One solution gaining momentum worldwide is green infrastructure (GI) (a network of decentralized storm water management practices can capture and infiltrate rainfall where it falls, thereby reducing storm water runoff and improving the health of surrounding waterways), which has the benefit of preserving water for future use. (Gordon et al. 2018).

In terms of land infrastructure, there is for example one of the most efficient projects for population transport, e.g., is the high-speed railroad, of the Milan-Bologna corridor in northern Italy, The results suggest overall positive effects for the NUTS 3 provinces directly exposed to the program (Gordon et al. 2018).

### 3.12. Management system

Project management must treat safety not only as a key performance indicator, but also as an important measure of project success or failure, safety at work that can be encompassed by a management system, is an element that must be taken into account for a successful project management, not only to avoid additional costs generated by the damages caused to human talent and company assets, but also because a deficiency in the industrial safety and occupational health standards in a project can lead to the disqualification of the good name and prestige of a company due to the lack of attention to safety issues. (Nunhes, Ferreira Motta, and de Oliveira 2016) In each ISO standard, it is common for the effective implementation of a management system to follow up on the results, commitments and policies of top management.

Within the different systems that can exist in the industry and project management according to (Heras Saizarbitoria, Bernardo, and Casadesús 2007) the combination of the same in a single one are considered integration as "a process of joining different specific management systems into a single and more effective integrated management system". For (Ruiz Rodríguez, Andrea Integración de los sistemas de gestión de calidad and Batista Pérez 2018). The specific objectives of the research article have been fully developed and form an essential part of this paper, and the literature review covers previous research that can be compared with the case study information, and an analysis of the institutional and theoretical sources that have completed a review as possible.

An integrated management system describes the combination of several management systems to form a single system, such as a quality management system (according to ISO 9001), an environmental management system (according to ISO 14001) and a health and safety management system (according to ISO 14001). According to the current ISO 45001, in short, the adoption of standardized systems has proliferated in these areas and the reference standards used are more compatible with each other. (Cabrera et al. 2015).

In 2011, the integration of management systems was proposed by Fraguela, Carral, Iglesias, Castro and Rodriguez as "the need for a new corporate culture", referring to the global economy, groups of countries and the "European Union".

This paper focuses on the context of public entities of the state order in the financial sector, where three ISO management systems applied separately are identified, the need and opportunity to integrate them, as it is currently generating duplication of work and resistance of staff. mentioned above, its integration of management systems can bring benefits to entities (Fraguela Formoso et al. 2011). in relation to:

[...] Improve the efficiency of internal operations and communications, increase the agility of decision-making processes, improve the quality of goods and services produced or rendered, and increase the reliability of products and processes (p. 1236).

### 3.13. Infrastructure works management system

Works and management systems go hand in hand since, as evidenced in the project called "A methodology to identify sustainability indicators in the management of construction projects applied to infrastructure projects in Spain". (Fernández-Sánchez and Rodríguez-López 2010) through the project called "a methodology to identify sustainability indicators in the management of construction projects applied to infrastructure projects in Spain" determines that in order to carry out any project it is essential to develop a set of sustainability indicators based on the different risk management standards, in order



to find an adequate balance between all the actors involved in the project. (Glasbergen and Driessen 2005). when he mentions that each infrastructure is a cost center that in turn goes hand in hand with a specific administrative and social context, which if not properly managed can have a negative impact on the goals set such as delivery times, unit cost per project, which is why the author emphasizes strategic planning, which goes hand in hand with a substantive and process management, in order to comply with the above mentioned the project applied 3 cases which were as follows. 1) the improvement of the use of existing roads, 2) the adequate selection of material deposits, and 2) the construction of new access roads.

Management systems are developed on an ideal of minimizing costs and obtaining results. (Frangopol and Liu 2007) The author states that maintenance and management are fundamental for a satisfactory performance in a project, however he establishes that it does not guarantee the success of the project since it must be based on other factors such as inspection, audits to have a continuous cycle of improvement, it is for this reason that the author establishes the management planning for civil infrastructure in order to counteract the deterioration, emphasizing optimization tools, through traditional algorithms, including mathematical programming, heuristic algorithms that follow the principle of survival of the fittest, creating a maintenance network focused on bridges and buildings that would allow the preservation of the different infrastructure projects that the company had.

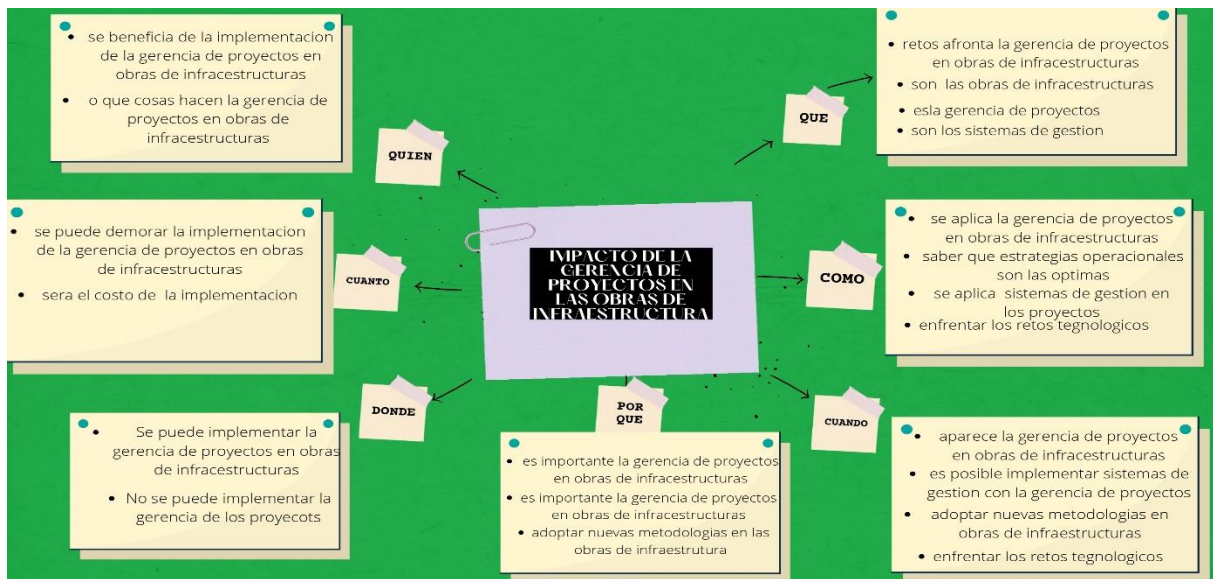
The management of construction and infrastructure projects has encountered a variety of problems such as incompetent contractors with inadequate tools for their work, poor estimates of the sector, changes in the environment and inefficient management, this has caused many companies related to the field of construction and engineering has led them to conduct a thorough analysis of its internal organizational structure and evaluate the various external factors that intervene in the projects to be more competitive and achieve the best results in the projects under implementation.

#### **4. Discussion**

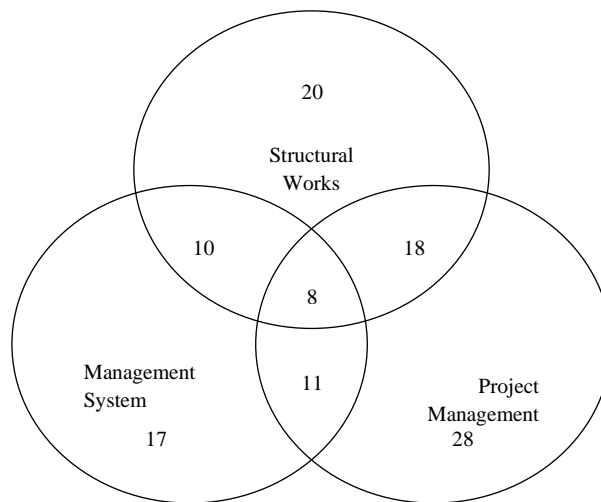
The impact of project management in infrastructure works is enormous because it becomes an essential tool as a solution to multiple problems that may arise in the implementation of the project unlike projects that do not have adequate management, as this may have artificial intelligence either through the internet of things or machine learning that are new trends worldwide, which allows to collect georeferenced data to monitor transport times and compliance of these, plus you can evaluate in a more accurate way the performance that is being presented by cost center (construction project), In addition, based on the information collected, studies can be made to carry out reforms for continuous improvement to obtain better results in contrast to its competitors, it is for this reason that as a team we consider the importance of this topic and the impact it has on the decision making of a project that can indirectly or directly affect the completion of the project, but not only this in itself but also the potential ability to affect external factors to the project such as the environment.

In order to approach the subject in a better way and to understand how the information is derived from the topic, the following mind map was created.

**Figure 3. Mental Map**



**Figure 4. Methodological graph**



Within the thematic density, key sets were established to ensure the direct relationship of the articles with the topic being addressed, this allows the selection and extraction of quality information, since these sets are fundamental pieces for the elaboration of search equations, for example; For example, for the key word Structural works, 20 articles were used, where these define and deepen this topic, and so on with each of the other sets, the number of articles that are related to each of the key sets are as follows; Management system, a total of 17, and finally, there were 28 articles related to the word Project management, giving a total for the database, of 58 articles.

**Table 1. Search Equations**

Search Equations	Quantity	%
Ec. Bq <sub>1</sub> = project management + infrastructure Works	29	50%
Ec. Bq <sub>2</sub> = Infrastructure works + developments	16	28%
Ec. Bq <sub>3</sub> = management system + infrastructure	3	5%
Ec. Bq <sub>4</sub> = impact on society + infrastructure	10	17%

<b>58</b>	<b>100,0%</b>
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The amount of documentation obtained for the preparation of the article was collected through the established search equations, as can be seen in the table, it can be seen that two search equations were a key piece in the research since they allowed the collection of a greater source of quality information that would guarantee the preparation of a product in accordance with a quality article.

Within the research was used in great depth, the ScienceDirect database of free use for any user, this database contributed 84.7% of the total referenced articles, being one of the best databases for research and collection of articles. 7% of the total number of articles referenced, being one of the best databases for research and collection of articles, each of the articles collected from this database, handle the English language, because this language is one of the most used around the world, using the search equations in English, the results within the database were extensive, providing a large number of articles that greatly enrich the research, where the information collected ranges from 2014 to 2021.

**Table 2.** Databases

<b>Data Bases</b>	<b>Quantity</b>	<b>%</b>
Google academic	1	1,72%
ScienceDirect	57	98,28%
	<b>58</b>	<b>100,00%</b>

The collection of information allows for a more detailed analysis to see the growth of publications regarding the topic addressed year after year it can be seen evidenced that the topic on infrastructure systems is a topic that each year is of greater interest, since, in 2022, most of the articles can be largely, as shown in the following table:

**Table 3.** Chronology of publications

<b>Databases</b>	<b>2005</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
ScienceDirect	1	2	2	1	1	1
Google academic	1					
	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>
	<b>2012</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
<b>Databases</b>	1	2	4	5	6	5
ScienceDirect						
Google academic	<b>1</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>5</b>
	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Quantity</b>	<b>%</b>
<b>Databases</b>	4	4	6	12	57	98,28%
ScienceDirect					1	1,72%
Google academic	<b>4</b>	<b>4</b>	<b>6</b>	<b>12</b>	<b>58</b>	<b>100,00%</b>

The research mainly used articles in English since this language is where a greater amount of documentary information on the subject is found, at the time of searching in the different databases, large quantities of results can be obtained, or a variety of articles to obtain information, this because most of the articles are in English, this being the universal language today, therefore, the use of English was essential for the collection of information, below is a table describing the percentage in volume of the articles depending on the language with which they worked:

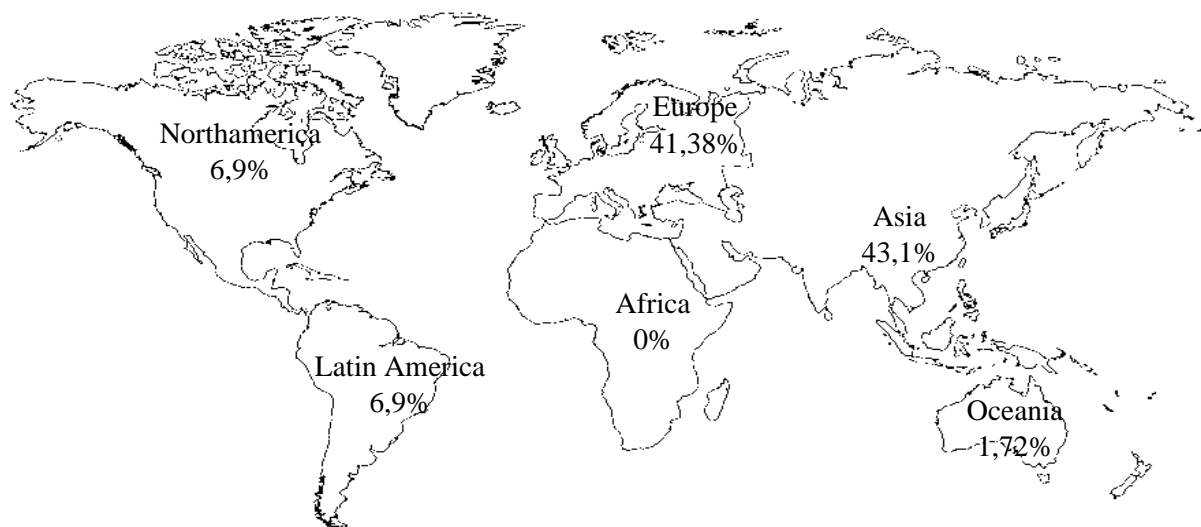
**Table 4.** Language Density

Idiom Criteria	Quantity	%
Spanish	1	1,72%
English	57	98,28%
	<b>58</b>	<b>100,00%</b>

As can be seen in the following table and graph, the regions most interested in the application of project management in infrastructure works are Asia and Europe, this is due to the fact that they are regions that are in search of territorial development in terms of infrastructure, in fact Europe and Asia are the continents with the greatest infrastructural development in the world.

**Table 5.** Geographic density

Region	Quantity	%
Oceania	1	1,72%
Asia	25	43,10%
Europe	24	41,38%
Latin America	4	6,90%
North America	4	6,90%
	<b>58</b>	<b>100,00%</b>

**Figure 4.** Geographic density

## 5. Conclusions

Project management is contributing significantly in the area of construction of modern infrastructure works in favor of real time decision making, which guarantees better results in the projects, compliance with short, medium and long term goals with lower production costs, in addition to producing higher quality products, The application of the different tools analyzed in this article allows to identify the deterministic variables that intervene in the execution of the project, which allows to evaluate and make decisions in a more accurate way that guarantee the fulfillment of goals, based on control and follow-up methods that have the potential capacity to be analyzed and with these results a continuous cycle of improvement can be carried out.

The analysis focuses on the PMBOK guidelines as one of the most widely used tools for the management of development projects at the international level, applying its general approach to the design of buildings and construction projects and the different methodologies used in project management are not widely used in construction and infrastructure sector projects, because it is presented in a general way and does not specify the needs and particularities for projects of this nature, however, if a more thorough analysis is made, good practices for the development of infrastructure projects can be identified.

The specific objectives of the research article have been fully developed and form an essential part of this paper, and the literature review covers previous research that can be compared with the case study information, and an analysis of institutional and theoretical sources that have completed a review.

Project Management can directly influence the improvement of the living conditions of people living in poverty and extreme poverty, and indirectly on the other hand, to achieve the timely delivery of goods/infrastructure to the beneficiary groups, manage the monitoring process, economic dynamization that meets to contribute to the sustainable development of the population, that is, by the state dictating the public value of this segment.

The documentary review that was carried out from the thematic density sets and the four search equations allowed the analysis of 59 documents collected from 4 academic and research databases among which the highest participation was ScintDirect with 98.28% where the predominant language within the different articles used in the research was English with 98%. In addition to this, it can be observed that the region most interested in the topic is Asia since it wants to be at the forefront of the mega construction works with proper project management, but closely followed by Europe, then it is analyzed that in the timeline during the period from 2005 to 2022 the growth in the number of publications of articles was increasing since the topic is becoming of great interest due to the multiple benefits of good management of the different projects on site.

## References

- Alonso, R S, I. Sittón-Candanedo, Ó. García, J. Prieto, and S. Rodríguez-González. 2020. "An intelligent Edge-IoT platform for monitoring livestock and crops in a dairy farming scenario." *Ad Hoc Networks* 98. doi: 10.1016/j.adhoc.2019.102047.
- Alonso, Ricardo S., Inés Sittón-Candanedo, Óscar García, Javier Prieto, and Sara Rodríguez-González. 2020. "An Intelligent Edge-IoT Platform for Monitoring Livestock and Crops in a Dairy Farming Scenario." *Ad Hoc Networks* 98. doi: 10.1016/j.adhoc.2019.102047.
- Arrieta, L., Y. Espejo, and C. Perez. 2013. "Análisis del Impacto Social Proyecto de Infraestructura." *Repository Uniminuto* 53(9):1689–99.
- Arrieta, Lisbeth, Yisel Espejo, and Claudia Perez. 2013. "Análisis Del Impacto Social Proyecto de Infraestructura." *Repository Uniminuto* 53(9):1689–99.
- Bittencourt, L., R. Immich, R. Sakellariou, N. Fonseca, E. Madeira, M. Curado, L. Villas, L. DaSilva, C. Lee, and O. Rana. 2013. "The Internet of Things, Fog and Cloud continuum: Integration and challenges." *Internet of Things (Netherlands)* 3–4:134–55. doi: 10.1016/j.iot.2018.09.005.
- Bittencourt, Luiz, Roger Immich, Rizos Sakellariou, Nelson Fonseca, Edmundo Madeira, Marília Curado, Leandro Villas, Luiz DaSilva, Craig Lee, and Omer Rana. 2018. "The Internet of Things, Fog and Cloud Continuum: Integration and Challenges." *Internet of Things (Netherlands)* 3–4:134–55. doi: 10.1016/j.iot.2018.09.005.

- Cabrera, Henry, Alberto Medina, Jesús Abad, Dianelys Nogueira, and Quirenia Nuñez. 2015. "La Integración de Sistemas de Gestión Empresariales, Conceptos, Enfoques y Tendencias." *Ciencias de La Información* 46(3):3–8.
- Chen, Dan, Pengcheng Xiang, and Fuyuan Jia. 2022. "Performance Measurement of Operation and Maintenance for Infrastructure Mega-Project Based on Entropy Method and D-S Evidence Theory." *Ain Shams Engineering Journal* 13(2):101591. doi: 10.1016/j.asej.2021.09.018.
- Chen, Dan, Pengcheng Xiang, Fuyuan Jia, and Jin Guo. 2022. "A Systematic Review of Current Status and Trends of Mega-Infrastructure Projects." *Ain Shams Engineering Journal* 13(6):101773. doi: 10.1016/j.asej.2022.101773.
- Control, Project Portfolio, Portfolio Management Performance, and Different Contexts. 2008. "Project Portfolio Control and Portfolio." *Project Management Journal* 39(4):28–42. doi: 10.1002/pmj.
- Croxatto, A., and G. Greub. 2017. "Project Management: Importance for Diagnostic Laboratories." *Clinical Microbiology and Infection* 23(7):434–40. doi: 10.1016/j.cmi.2017.04.007.
- Demirel, Hatice Cigdem, Wim Leendertse, and Leentje Volker. 2022. "Mechanisms for Protecting Returns on Private Investments in Public Infrastructure Projects." *International Journal of Project Management* 40(3):155–66. doi: 10.1016/j.ijproman.2021.11.008.
- Eriksson, Per Erik, Johan Larsson, and Ossi Pesämaa. 2017. "Managing Complex Projects in the Infrastructure Sector — A Structural Equation Model for Flexibility-Focused Project Management." *International Journal of Project Management* 35(8):1512–23. doi: 10.1016/j.ijproman.2017.08.015.
- Fernández-Sánchez, Gonzalo, and Fernando Rodríguez-López. 2010. "A Methodology to Identify Sustainability Indicators in Construction Project Management - Application to Infrastructure Projects in Spain." *Ecological Indicators* 10(6):1193–1201. doi: 10.1016/j.ecolind.2010.04.009.
- Fraguela Formoso, J. A., L. Carral Couce, G. Iglesias Rodríguez, A. Castro Ponte, and M. J. Rodríguez Guerreiro. 2011. "Integration of Management Systems. Need for a New Entrepreneurial Culture." *DYNA (Colombia)* 78(167):44–49.
- Frangopol, Dan M., and Min Liu. 2007. "Maintenance and Management of Civil Infrastructure Based on Condition, Safety, Optimization, and Life-Cycle Cost." *Structure and Infrastructure Engineering* 3(1):29–41. doi: 10.1080/15732470500253164.
- Glasbergen, Pieter, and Peter P. J. Driessen. 2005. "Interactive Planning of Infrastructure: The Changing Role of Dutch Project Management." *Environment and Planning C: Government and Policy* 23(2):263–77. doi: 10.1068/c0441.
- Gondia, Ahmed, Mohamed Ezzeldin, and Wael El-Dakhkhni. 2022a. "Dynamic Networks for Resilience-Driven Management of Infrastructure Projects." *Automation in Construction* 136:104149. doi: 10.1016/j.autcon.2022.104149.
- Gondia, Ahmed, Mohamed Ezzeldin, and Wael El-Dakhkhni. 2022b. "Dynamic Networks for Resilience-Driven Management of Infrastructure Projects." *Automation in Construction* 136:104149. doi: 10.1016/j.autcon.2022.104149.
- Gonzalo, I. N. G., and Maldonado López. n.d. "– Sistemas de Control de Proyectos de Infraestructura."
- Gordon, Beatrice L., Kimberly J. Quesnel, Robin Abs, and Newsha K. Ajami. 2018. "A Case-Study Based Framework for Assessing the Multi-Sector Performance of Green Infrastructure." *Journal of Environmental Management* 223(June):371–84. doi: 10.1016/j.jenvman.2018.06.029.
- Guo, Feng, Yan Chang-Richards, Suzanne Wilkinson, and Ti Cun Li. 2014. "Effects of Project Governance Structures on the Management of Risks in Major Infrastructure Projects: A Comparative Analysis." *International Journal of Project Management* 32(5):815–26. doi: 10.1016/j.ijproman.2013.10.001.

- Heras Saizarbitoria, Iñaki, Mercè Bernardo, and Martí Casadesús. 2007. "La Integración De Sistemas De Gestión Basados En Estándares Internacionales." *Revista de Dirección y Administración de Empresas - España* 14:155–74.
- Hwang, Bon Gang, and Lee Kian Low. 2012. "Construction Project Change Management in Singapore: Status, Importance and Impact." *International Journal of Project Management* 30(7):817–26. doi: 10.1016/j.ijproman.2011.11.001.
- Ibrahim, Alhassan, Katharine Bartsch, and Ehsan Sharifi. 2020. "Green Infrastructure Needs Green Governance: Lessons from Australia's Largest Integrated Stormwater Management Project, the River Torrens Linear Park." *Journal of Cleaner Production* 261:121202. doi: 10.1016/j.jclepro.2020.121202.
- Jhon Arquimides Reynaga Soto. 2015. "LA INVERSIÓN PÚBLICA EN INFRAESTRUCTURA DEL FONDO PARA LA INCLUSIÓN ECONÓMICA EN ZONAS RURALES Y SU INCIDENCIA EN LAS CONDICIONES DE VIDA DE LA POBLACION DEL DEPARTAMENTO DE APURIMAC – 2015." *UNIVERSIDAD INCA GARCILASO DE LA VEGA* 224–33.
- Jiménez, Alfredo, and Nathaniel C. Lupton. 2021. "Terrorism Hazard and Infrastructure Projects: The Moderating Role of Home Experience and Institutions." *Journal of Business Research* 135(June):721–30. doi: 10.1016/j.jbusres.2021.07.012.
- Khanna, Abhishek, and Sanmeet Kaur. 2019. "Evolution of Internet of Things (IoT) and Its Significant Impact in the Field of Precision Agriculture." *Computers and Electronics in Agriculture* 157(November 2018):218–31. doi: 10.1016/j.compag.2018.12.039.
- Kivilä, Jesse, Miia Martinsuo, and Lauri Vuorinen. 2017. "Sustainable Project Management through Project Control in Infrastructure Projects." *International Journal of Project Management* 35(6):1167–83. doi: 10.1016/j.ijproman.2017.02.009.
- Kobylkin, Dmytro, Oleh Zachko, Vasyl Popovych, Nazarii Burak, Roman Golovaty, and Carsten Wolff. 2020. "Models for Changes Management in Infrastructure Projects." *CEUR Workshop Proceedings* 2565:106–15.
- Kokkaew, Nakhon, Noppadon Jokkaw, Vachara Peansupap, and Warit Wipulanusat. 2022. "Impacts of Human Resource Management and Knowledge Management on Non-Financial Organizational Performance: Evidence of Thai Infrastructure Construction Firms." *Ain Shams Engineering Journal* 13(6):101750. doi: 10.1016/j.asej.2022.101750.
- Labuschagne, Carin, and Alan C. Brent. 2005. "Sustainable Project Life Cycle Management: The Need to Integrate Life Cycles in the Manufacturing Sector." *International Journal of Project Management* 23(2):159–68. doi: 10.1016/j.ijproman.2004.06.003.
- Marcelino-Sádaba, Sara, Luis Felipe González-Jaen, and Amaya Pérez-Ezcurdia. 2015. "Using Project Management as a Way to Sustainability. from a Comprehensive Review to a Framework Definition." *Journal of Cleaner Production* 99:1–16. doi: 10.1016/j.jclepro.2015.03.020.
- Mason, Michael. 2022. "Infrastructure under Pressure: Water Management and State-Making in Southern Iraq." *Geoforum* 132(February 2021):52–61. doi: 10.1016/j.geoforum.2022.04.006.
- Minoli, Daniel, Kazem Sohraby, and Benedict Occhiogrosso. 2017. "IoT Considerations, Requirements, and Architectures for Smart Buildings-Energy Optimization and Next-Generation Building Management Systems." *IEEE Internet of Things Journal* 4(1):269–83. doi: 10.1109/JIOT.2017.2647881.
- Monroy Ramírez, Juan Manuel, and Hermes Orlando Niño Valbuena. 2014. "Diagnóstico Sobre El Comportamiento De Proyectos De Infraestructura Pública Liquidados Y Contratados Mediante Convenios Interadministrativos Con Municipios Por Parte El Departamento De Boyacá Durante El Periodo (2010-2011) Juan Manuel Monroy Ramírez Herme." 1–62.

- Navalersuph, Nanpaphathr, and Chotchai Charoenngam. 2021. "Governance of Public–Private Partnerships in Transportation Infrastructure Projects Based on Thailand's Experiences." *Case Studies on Transport Policy* 9(3):1211–18. doi: 10.1016/j.cstp.2021.06.008.
- Nord, Jeretta Horn, Alex Koohang, and Joanna Paliszkievicz. 2019. "The Internet of Things: Review and Theoretical Framework." *Expert Systems with Applications* 133:97–108. doi: 10.1016/j.eswa.2019.05.014.
- Nunhes, Thais Vieira, Luis César Ferreira Motta, and Otávio José de Oliveira. 2016. "Evolution of Integrated Management Systems Research on the Journal of Cleaner Production: Identification of Contributions and Gaps in the Literature." *Journal of Cleaner Production* 139:1234–44. doi: 10.1016/j.jclepro.2016.08.159.
- Owusu, Emmanuel Kingsford, Albert P. C. Chan, and M. Reza Hosseini. 2020. "Impacts of Anti-Corruption Barriers on the Efficacy of Anti-Corruption Measures in Infrastructure Projects: Implications for Sustainable Development." *Journal of Cleaner Production* 246:119078. doi: 10.1016/j.jclepro.2019.119078.
- Owusu, Emmanuel Kingsford, Albert P. C. Chan, and Ting Wang. 2021. "Tackling Corruption in Urban Infrastructure Procurement: Dynamic Evaluation of the Critical Constructs and the Anti-Corruption Measures." *Cities* 119(August):103379. doi: 10.1016/j.cities.2021.103379.
- Owusu, Emmanuel Kingsford, Albert P. C. Chan, Jackie Yang, and Erika Pärn. 2020. "Towards Corruption-Free Cities: Measuring the Effectiveness of Anti-Corruption Measures in Infrastructure Project Procurement and Management in Hong Kong." *Cities* 96(August 2019):102435. doi: 10.1016/j.cities.2019.102435.
- Patrucco, Andrea S., Antonella Moretto, and Louise Knight. 2021. "Does Relationship Control Hinder Relationship Commitment? The Role of Supplier Performance Measurement Systems in Construction Infrastructure Projects." *International Journal of Production Economics* 233:108000. doi: 10.1016/j.ijpe.2020.108000.
- Ray, Partha Pratim. 2017. "Internet of Things for Smart Agriculture: Technologies, Practices and Future Direction." *Journal of Ambient Intelligence and Smart Environments* 9(4):395–420. doi: 10.3233/AIS-170440.
- Ruiz Rodríguez, Andrea Integración de los sistemas de gestión de calidad, ambiental y seguridad y salud en el trabajo en una entidad pública del orden nacional del sector hacienda, and Marian Helen Batista Pérez. 2018. "Integración de Los Sistemas de Gestión de Calidad, Ambiental y Seguridad y Salud En El Trabajo En Una Entidad Pública Del Orden Nacional Del Sector Hacienda." *SIGNOS - Investigación En Sistemas de Gestión* 10(2):141–57. doi: 10.15332/s2145-1389.2018.0002.08.
- Sánchez Serna, A., Martínez, A., Del Río Cortina, A. 2017. "Methodological Selection Criteria in Project Management. [Criterios de Selección Metodológica En La Gerencia de Proyectos]." *Espacios* 38(58):2.
- Shabalov, M. Yu, Yu L. Zhukovskiy, A. D. Buldysko, B. Gil, and V. V. Starshaia. 2021. "The Influence of Technological Changes in Energy Efficiency on the Infrastructure Deterioration in the Energy Sector." *Energy Reports* 7:2664–80. doi: 10.1016/j.egyr.2021.05.001.
- Shao, Mengqi, May Tan-Mullins, and Linjun Xie. 2021. "Asian Infrastructure Investment Bank (AIIB)'s Sustainable Safeguard Mechanism on Energy Projects." *Energy Strategy Reviews* 38:100711. doi: 10.1016/j.esr.2021.100711.
- Shi, Qian, Yang Liu, Jian Zuo, Ningxia Pan, and Guofeng Ma. 2015. "On the Management of Social Risks of Hydraulic Infrastructure Projects in China: A Case Study." *International Journal of Project Management* 33(3):483–96. doi: 10.1016/j.ijproman.2014.06.003.



- Silvius, A. J. Gilbert, and Ron P. J. Schipper. 2016. "Sustainability in Project Management : A Literature Review and Impact Analysis Delivered by Ingenta to : Guest User Delivered by Ingenta to : Guest User." *Social Busniess* 4(1):63–96.
- Sözüer, Meltem, and Konrad Spang. 2014. "The Importance of Project Management in the Planning Process of Transport Infrastructure Projects in Germany." *Procedia - Social and Behavioral Sciences* 119(0):601–10. doi: 10.1016/j.sbspro.2014.03.067.
- Vilas-Boas, Jean, Laurens Klerkx, and Rico Lie. 2022. "Connecting Science, Policy, and Practice in Agri-Food System Transformation: The Role of Boundary Infrastructures in the Evolution of Brazilian Pig Production." *Journal of Rural Studies* 89(March 2020):171–85. doi: 10.1016/j.jrurstud.2021.11.025.
- Villalta Paredes, Cesar Oswaldo. 2018. "Gestión de Riesgos En La Ejecución Contractual de Los Proyectos Públicos de Infraestructura Educativa En Colegios Emblemáticos de La Ciudad de Arequipa." *Universidad San Agustín de Arequipa* 1–132.
- Winter, Mark, and Tony Szczepanek. 2008. "Projects and Programmes as Value Creation Processes: A New Perspective and Some Practical Implications." *International Journal of Project Management* 26(1):95–103. doi: 10.1016/j.ijproman.2007.08.015.
- Wu, Yunna, Zixin Song, Lingwenying Li, and Ruhang Xu. 2018. "Risk Management of Public-Private Partnership Charging Infrastructure Projects in China Based on a Three-Dimension Framework." *Energy* 165(2018):1089–1101. doi: 10.1016/j.energy.2018.09.092.
- Zerjav, Vedran, Jenny McArthur, and Andrew Edkins. 2021. "The Multiplicity of Value in the Front-End of Projects: The Case of London Transportation Infrastructure." *International Journal of Project Management* 39(5):507–19. doi: 10.1016/j.ijproman.2021.03.004.

## Title in Turkish

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### Özet

Bu araştırmanın amacı, altyapı çalışmalarında proje yönetiminin etkisini ortaya koymaktır. Kullanılan metodoloji, kamu ve özel altyapı projeleriyle ilgili indeksli makalelerdeki veri tabanları, yayınlanmış tezler aracılığıyla çeşitli ikincil bilgi kaynaklarına dayanmaktadır. Sonuç olarak, belirli bir süre içinde yerine getirilmek üzere tasarlanmış farklı proje yönetimi metodolojilerini ve stratejilerini dikkate almak ve böylece bir projenin yürütülmesinde gecikmeleri önlemek, müşteriye sunulan kalite ve standartları garanti etmek ve projenin yürütülmesinde yer alan tüm meslektaşların sürekli olarak değerlendirilmesine izin vermek önemlidir.

**Anahtar Kelimeler:** Proje yönetimi, Altyapı, İşler, Yönetim sistemi.

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Insert here author biodata.