| RAE Format |  |
| :--- | :--- |
| Analytical Summary in Education - RAE |  |
| 1. General information |  |
| Document type | Degree thesis to obtain the title of Professional in Modern Languages. |
|  | The gap between public and private education according to the score <br> obtained the English area for the ICFES Saber 11 tests over the last 10 <br> years (2010-2020) |
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| Keywords$\quad$Public education, private education, ICFES Saber 11 tests, standardized <br> tests, English, bilingualism, educational quality. |  |
| In this research project, the authors present a degree project entitled The gap between <br> public and private education according to the score obtained the English area for the ICFES <br> Saber 11 tests over the last 10 years (2010-2020), from which a descriptive analysis of the <br> factors and variables that influence the results of the tests, the distinctions of educational <br> quality, and the school efficiency is executed. In the same way, this project highlights the <br> history of education in Colombia, the theoretical concepts of public and private education, <br> and the transformation of standardized tests. Based on this study, the support of qualitative <br> and quantitative analysis helps to detect the shortcomings that influence the development <br> of the test, especially in rural areas. After carrying out the analysis of the results, the most <br> important factors that must be considered in relation to the optimization of the test results <br> of the English area are detected. |  |

## 4. Content

This project is proposed under the documentary review of research related to the educational gap through a reflective perspective. This last contributes to the analysis of the theories, approaches and methodologies linked to this work, so that the progress of education in the ICFES Saber 11 tests of English area is recognized. Therefore, it is important to mention that the following research is structured in four chapters.

The first chapter presents the introduction, the research problem, the research question, the general and specific objectives, and the justification of the study. In the second part, the bibliographic review of the background and the conceptual framework are presented. In relation to the background, concepts related to the differences between the educational levels of private and public institutions, the perspectives of plans, bilingualism and bilingual education policies, and the determinations of the positions of standardized tests are referenced. On the other hand, the theoretical framework discusses the historical trajectory of the educational sectors (public and private) in the determined cities, as well as the transcendence of the standardized tests in the Colombian context, in order to execute a position linked to the object of study.

The third chapter allows an approach to the methodological processes of this monographic study, through which the corresponding phases are developed, with the realization of the work proposal; this, considering the participation of suitable professional profiles in the process of construction and interpretation on the phenomena correlated with educational deficiencies and the characteristics of the approach, design, data collection techniques and interpretation of information. Finally, the fourth section proceeds with the analysis and treatment of the data to formalize the report of the results and the conclusions of the study. Likewise, the citations, the bibliographical references and the annexes of the investigation are presented.

## 5. Methodology

The approach of the exercise is mixed, with a correlational scope, a non-experimental design, and a post-positivist paradigm; this, using specific data collection techniques, such as the review of the main texts, the documentary analysis of the statistical data, and the analysis of the semi-structured interviews. These were used to recognize educational deficiencies and possible strategies to strengthen the educational sectors in the two cities. In the same way, it is important to mention that this project is in the line of research: language, technology and culture, since it promotes the development of communicative and multilingual skills in different educational sectors.

## 6. Conclusions

The present project complied with the analysis of the differences between public and private education based on the score obtained of the English area for the ICFES Saber 11 standardized tests in Bogota and Medellin in the last 10 years (2010-2020). Therefore, through the observations of the aspects of connectivity, locations (rurality, urbanity), gender
and socio-economic strata, it can be corroborated that public education has shortcomings for the preparation and presentation of standardized tests, due to the lack of resources and growth opportunities.
Finally, based on the policies and the National Bilingualism Plan (PNB) 2014-2019, it can be inferred that these programs have proposed different dynamics for the continuous learning and the strengthening of the knowledge over the second language. However, it is important to emphasize the need to analyze other possible perspectives that contribute to the power of accessibility to information in affected areas and the improvement of learning processes through the high quality of technological and innovative resources.

# The gap between public and private education according to the score obtained the English area for the ICFES Saber 11 tests over the last 10 years (2010-2020) 

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November 5 ${ }^{\text {th }}, 2022$

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Monograph submitted in fulfillment of the requirements for the degree of

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November $5^{\text {th }}, 2022$

## Dedication

To my adventure partner, Carlos Quevedo, the person who supported me the most in this process, because he motivated me to follow the spirit of research.

To my grandparents and all my family, for always trusting me; and, finally, to all my colleagues and friends, who made this research happen.

Angie Nicole Gómez Molina

## Dedication

To God, for his blessings and for guiding me along the way.

To my family, especially my parents and siblings, for being the driving force behind my aspirations and for their confidence in my professional and integral formation.

To my colleagues: Luisa, Juan Pablo, Ana, Alejandra, Diana and André, for their unconditional support in those moments when I was about to give up.

To the doctor who saved my life.

To the Rafael Gutiérrez Girardot Study Group, for fostering the revolutionary spirit and believing in the power of higher education.

To a tutor, professor, lawyer and future physicist, who guided me in a difficult situation; his wise words encouraged me to study and finish my degree.

Last but not least, to all the people who accompanied me and made it possible for this work to be carried out successfully.

Laura Mercedes Pérez Sua

## Acknowledgement

As a team, we would like to express our most sincere thanks:

In the first place, we would like to thank to the ECCI University, to the Research Vice-Rectory, to the Modern Languages Program and to the Statistics Program, for the academic opportunity of allowing us to build this research project, and for providing us with the fundamental resources and tools for the progress of this work. We would not have achieved the objectives set if we had not had their constant motivation.

To our professor, especially our tutor, Olga Camila Hernández Morales, for her support, professionalism, dedication, patience, discipline and knowledge, which contributed to the development of each of the phases of the study to achieve the expected results.

To the teachers Fanny Elizabeth Sacristán Bohórquez and Anyela Heredia Borja, for their rigorous insights and kindness in the research processes.

To Professor Héctor Carvajal, for his support, dedication and effort in the most complicated moments of this work.

To our colleagues and friends, for their support and encouragement throughout this process.

To all, thank you very much.

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## Resumen

La brecha entre la educación pública y la educación privada de acuerdo con el puntaje obtenido en el área de inglés de las pruebas ICFES Saber 11 en los últimos 10 años (2010-2020)

La discrepancia educativa entre las instituciones públicas y privadas ha representado una problemática para la formación integral de los países de Latinoamérica, especialmente en Colombia, debido a que la calidad se ve perjudicada a causa de la carencia de capacidades para la optimización de oportunidades académicas, sociales y laborales en zonas rurales y urbanas del territorio. La presente investigación tiene como objetivo analizar la desigualdad de la educación pública y privada, a través de los resultados de los puntajes obtenidos en el área de inglés de las pruebas ICFES Saber 11 de los últimos 10 años (2010-2020), con el propósito de observar los factores de influencia en la preparación y la presentación del examen, por lo cual se emplea el método de investigación mixta.

Principalmente, se ejecuta la descripción de los conceptos de educación pública y privada y las pruebas ICFES; más adelante, se analizan los hallazgos encontrados; y, finalmente, se constituyen las diferencias entre los dos campos desde el enfoque académico, lo que permite establecer planes de mejora en el sistema educativo. A partir de los resultados obtenidos, se identifican las divergencias históricas entre los dos sectores formativos, con lo que se hace énfasis en las deficiencias de conectividad, las limitaciones del crecimiento profesional y el progreso institucional, de manera que se establecen las estrategias que podrían potenciar el nivel de desempeño de la lengua extranjera en zonas rurales o vulnerables.

Palabras clave: educación pública, educación privada, ICFES Saber 11, inglés, bilingüismo, calidad educativa.


#### Abstract

The gap between public and private education according to the score obtained the English area for the


 ICFES Saber 11 tests over the last 10 years (2010-2020)The educational discrepancy between public and private institutions has represented a problem for the comprehensive training of Latin American countries, especially in Colombia, due to the fact that quality performance is impaired because of the lack of capacities to optimize academic, social and labor opportunities in rural and urban areas of the territory. The present research aims to analyze the inequality in public and private education through the results of the scores obtained of the English area for the ICFES Saber 11 tests over the last 10 years (2010-2020), with the purpose to observe the influencing factors in the preparation and presentation of the exam, for which a mixed research method is used.

Mainly, the description of the concepts of public and private education and the ICFES tests is executed; later, the findings are analyzed; and, finally, the differences between the two fields are constituted from the academic approach, which allows to establish improvement plans in the education system. From the results obtained, it is possible to identify the historical divergences between the two training sectors, emphasizing the deficiencies of connectivity, the limitations of professional growth, and the institutional progress in such a way that strategies are established so they can enhance the level of performance for the foreign language in rural or vulnerable areas.

Keywords: public education, private education, ICFES Saber 11, English, bilingualism, educational quality.


#### Abstract

Résumé

L'écart entre l'enseignement public et privé selon le score obtenu dans le domaine de l'anglais aux tests


 ICFES Saber 11 au cours des 10 dernières années (2010-2020)L'écart éducatif entre les institutions publiques et privées représente un problème dans la formation intégrale des pays d'Amérique latine, y compris en Colombie. La performance de qualité est altérée en raison du manque de capacités pour optimiser les opportunités académiques, sociales et de travail dans les zones rurales et urbaines du territoire.

L'objectif de cette recherche est d'étudier les inégalités de l'enseignement public et privé, en examinant les résultats obtenus dans le domaine de l'anglais, aux épreuves ICFES Saber 11, au cours des 10 dernières années (2010-2020). Ceci nous permettra d’observer les facteurs d'influence dans la préparation et la présentation de l'examen.

Nous décrivons les concepts d'enseignement public, d'enseignement privé et les épreuves ICFES. Nous établissons des différences entre les deux domaines à partir de l'approche académique. Nous pourrons alors proposer des plans d'amélioration dans le système éducatif.

Nous avons utilisé une méthode de recherche mixte et nous avons analysé les données. À partir des résultats obtenus, il est possible d'identifier les divergences historiques dans les deux secteurs de formation, en soulignant les carences de connectivité, les limites de la croissance professionnelle et du progrès institutionnel. Ceci nous permet d'établir des stratégies afin d'améliorer le niveau de performance de la langue étrangère dans les zones rurales ou vulnérables.

Mots-clés : enseignement public, enseignement privé, ICFES Saber 11, anglais, bilinguisme, qualité de l'enseignement.

## Zusammenfassung

Die Lücke zwischen öffentlicher und privater Bildung gemäß den ICFES Saber 11 Testergebnissen in Englisch für die letzten 10 Jahre (2010-2020)

Die Bildungsdiskrepanz zwischen öffentlichen und privaten Institutionen stellt für die umfassende Ausbildung lateinamerikanischer Länder, insbesondere in Kolumbien, ein Problem dar, da die Qualität aufgrund mangeInder Kapazitäten für die Optimierung der akademischen, sozialen und beruflichen Möglichkeiten in den ländlichen und städtischen Gebieten des Landes beeinträchtigt wird. Ziel dieser Untersuchung ist es, die Ungleichheit im öffentlichen und privaten Bildungswesen anhand der Ergebnisse zu analysieren, die im Bereich Englisch in den ICFES Saber 11-Tests in den letzten 10 Jahren (2010-2020) erzielt wurden, mit dem Ziel, die Faktoren zu beobachten, die die Vorbereitung und Präsentation der Prüfung beeinflussen.

Hauptsächlich werden die Beschreibung der Konzepte der öffentlichen und privaten Bildung und die ICFES-Tests durchgeführt; später werden die gefundenen Befunde analysiert; und schließlich ergeben sich die Unterschiede zwischen den beiden Bereichen aus dem akademischen Ansatz, der die Erstellung von Verbesserungsplänen im Bildungssystem ermöglicht. Auf der Grundlage der erzielten Ergebnisse werden die historischen Unterschiede zwischen den beiden Bildungssektoren ermittelt, wobei der Schwerpunkt auf Konnektivitätsdefiziten, Beschränkungen der beruflichen Entwicklung und institutionellen Fortschritten liegt, um Strategien festzulegen, die das Niveau der Fremdsprachenleistungen in ländlichen oder gefährdeten Gebieten verbessern könnten.

Schlüsselwörter: öffentliche Bildung, private Bildung, ICFES Saber 11, Englisch, Zweisprachigkeit, Bildungsqualität.

## Introduction

The gap in educational quality between public and private education has been one of the phenomena studied in Colombia; this, taking into account the score obtained in the ICFES Saber 11 tests as one of the main indicators. Likewise, through the analysis of the results of this study, it is possible to detect factors related to school inefficiency: access to education and culture in low-income areas, teacher training, monitoring, student attendance and internet accessibility.

The objective of this research is to analyze the differences between public and private education, considering the score obtained of the English area for the ICFES Saber 11 tests in Bogota and Medellin, based on academic considerations that contribute to aspects that allow to distinguish and establish improvement plans in the rural and urban areas of both cities. Therefore, a mixed research design called concurrent triangulation strategy, based on qualitative and quantitative research techniques, was used to achieve the stated objective.

In relation to the first procedures, these were constituted by semi-structured interviews that were carried out with English teachers of the last academic grades of secondary education (tenth and eleventh) of public and private schools in rural and urban areas of the previously mentioned cities. Regarding the second means, these correspond to the descriptive statistical analysis of the ICFES Saber 11 tests the English area in recent years (2010-2020), and the observation of different variables for the object of study.

Similarly, it is important to highlight the use of secondary sources made up of bibliographies, databases, glossaries, among others that contributed to the construction of the study. On the other hand, this research is relevant both at the university and functional levels, since it implies a tool to detect the strengths and deficiencies in the educational system for both the public and private sectors of the English area; with this, it is possible to find some strategies to reduce the problems of educational inequality.

Also, the document is classified by chapters. The first one presents a generalized description of the differences between educational levels, considering bilingualism plans and policies and standardized tests. Continuously, the second chapter presents the theoretical and conceptual bases of public and private education, recognizing the historical importance in the evolution of standardized tests and modifications for the ICFES Saber 11 tests in the country. Subsequently, the third chapter analyzes the object of study through a statistical and descriptive observation. Afterwards, the fourth chapter presents the deduction of the aspects that influence the gap between public and private education, in relation to the results obtained of the English test. Likewise, some resources to be considered for the optimization of these results in the rural areas of the cities studied are described. Finally, after the development of each section, the conclusions, project recommendations, citations, bibliographical references of the sources consulted and annexes of the investigation are specified.

## Research problem

Education is the basis of formation and development for the acquisition of competences and tools that allow the optimization of knowledge, abilities, ethics and values for their application in real situations. To study this matter, it is necessary to differentiate between private and public education. In the first instance, the private education is the one provided by a particular organization; therefore, not all children can access these institutions, since they are usually very expensive. Generally, only children from higher strata can enter this type of institutions, and these schools have a well-developed infrastructure and spaces such as libraries and laboratories. On the other hand, public institutions are the opposite: since all children have the right to education, whether their families have a lower or a higher income, this kind of education is free, the costs are borne by the state, and refreshments are offered in some schools; nevertheless, they do not have a good infrastructure, and there is no emphasis on teaching English.

The standardized tests are those applied to institutions in order to measure the levels of complexity of competences established year by year. In the same way, these tests contribute to the recognition of strengths and weaknesses in the education system for the analysis of educational improvement in different sectors. Besides, those tests are relevant for the students who are in secondary education, and they consist on the preparation for the university and professional formation. Conferring to the results of the tests, several phenomena can be observed, as the gap between public and private education in relation to the teaching and learning process in foreign languages. According to the aforementioned, this inequality is related to the teaching and learning process in a foreign language applied in standardized tests, which are characterized by technological deficiencies, inclusive education and difficulties in developing strategies to improve special education. Some cases in cities like Bogota and Medellin are used as examples.

According to some indicators from the Organization for Economic Cooperation and Development (OCDE, 2014, p. 1-9), some differences studied in Bogota in recent years are identified and focused on educational quality, since most of the institutions of 14 municipalities have low levels of performance for the ninth grade; and this also happens with the quality of pedagogical and academic performance. Therefore, despite of having the support of the communities or other government organizations, it is still necessary to carry out actions that promote educational balance. On the contrary, Medellin is one of the cities with better results in standardized tests, especially in the area of English: private institutions tend to have a score higher than 0,8 in the area of English, which represents minimal inequalities for the educational training processes (Duarte, 2016, p. 4-22).

Considering this, the importance of this research project allows to recognize the main factors than influence the difference between public and private education in relation to the score obtained in English standardized tests for the last 10 years and their incidence depending on demographic aspects: age, gender, place of residence, socio-economic status, among others implemented in two of the country's territories. With this, observations can be made against other studies to design academic strategies that optimize the results of the test. Accordingly, the development of this project proposes the resolution of the research question: What are the differences between public and private education to the scores obtained the English area for the standardized tests in Bogota and Medellin?

## Research question

What are the differences between public and private education in relation to the scores obtained in the area of English for the standardized tests in Bogota and Medellin?

## Research aim

## General objective

To analyze the differences between public and private education in relation to the scores obtained in the area of English for the standardized tests in Bogota and Medellin in the last 10 years (2010-2020).

## Specific objectives

To identify the degree to which connectivity is related to the results obtained in the Saber 11 English test over the last 10 years in Bogota and Medellin.

To determine the performance of the Saber 11 English test in the last 10 years in rural and urban areas of Bogota and Medellin.

To distinguish if the English test results vary according to gender in relation to the character of the institutions (public and private) in Bogota and Medellin.

To establish the trends of discrepancies between socio-economic strata in the ICFES Saber 11 English test results in Bogota and Medellin.

## Justification

The research is relevant to identify the differences between public and private education according to the score obtained the English area in the standardized tests, taking into account the influential factors applied in two cities of the country. Therefore, this research focuses on the quality measurement and management mechanisms that have been used in standardized tests in recent years, so that the learning evaluations over the foreign language can be established.

Similarly, this research is used to identify the main factors of the educational gaps in the public and private sectors, based on academic findings, school performance, elements of educational plans, and institutional factors immersed in the indicators of the educational quality. Correspondingly, the significance of the progress of this research in the field of modern languages is recognized, taking into account that it contributes to the continuous improvement for the criteria of rigorous content and the validity of the communicative competences evaluated in the test.

Also, as mentioned above, this research is directed towards these two regions, mainly because different aspects have been evidenced. On the one hand, Bogota shows some educational and pedagogical shortcomings in relation to the progress of the articulation of intermediate and higher education, and for the construction of the professional world, due to the repetition in the last academic degrees. Likewise, there is still the need to reinforce the use of information and communication technologies (ICT), in order to reduce the problems of connectivity gaps; the progress in literacy levels; the use of educational tools and software; and the strengthening of practices that allow the development of scientific thinking and knowledge to optimize the communication skills in English as a second language within the student processes.

On the other hand, Medellin has been characterized as one of the cities with the highest investment in educational quality, despite the results of the Medellín Cómo Vamos 2012-2015 report; and this territory continues to stand out among those with the greatest inequality. However, in recent
years, there has been progress in the construction of educational institutions, the optimization of the Saber 11 tests results, and the reinforcement of academic competences that influence and guarantee an excellent educational level.

Likewise, the academic and scientific importance that the development of research would imply should be highlighted. In correlation with the university relevance, research would function as a key pillar within the educational institutions, since it could develop more skills and personal interests on certain topics among students, in order to investigate and solve doubts. Finally, based on scientific development, this research cooperates with the quality of life and comfort of individuals for the formation of new professionals and the development of experts who are heading towards the inquiry from a futuristic perspective.

Previous studies have been developed, different articles related to the analysis of results obtained in standardized tests for the areas of Mathematics and Language have been elaborated, and certain comparisons have been made between public and private education. However, the present research proposes to make observations focused on the English component, aiming to understand the performance and distinctions between these two education sectors.

## Reference framework

## Background research

In this research work, some factors that influence education in Colombia, and the great inequality between students in private and public schools are analyzed. For this, the reader finds articles related to the investigation in order to observe the bilingualism policies and aspects based on the results of the standardized tests. Recognizing the observations made, this study aims to address the main problems of bilingualism in the teaching method between educational differences and the influence on the scores obtained in the performance of the tests; and, thereby, implement improvement strategies to close this great gap.

## Differences between educational levels

Regarding the inequality of opportunities between public and private education, the article by López et al. (2017, p. 174) shows a great comparative analysis of these two institutions. Several tools and data were used and collected from the Saber 11 test, and the results of this investigation demonstrated that private schools offer a better education; therefore, an agreement about the equalization of the educational level was reached, so that students have the same opportunities and benefits in the future. The same is sought in the article by Núñez et al. (2002, p. 59-83), where a study about the in the Saber 11 test results was also carried out, and precise and consistent data were taken into account, specifically in the areas of Mathematics and Spanish; moreover, all these data resulted in students from private institutions having more opportunities than those from public schools.

Hence, concerning the article by Martin (2008, p. 111-132), it shows that the debate regarding the differences between educational levels has been going on for a long time and has become a policy; it is being constantly divided every day, although there has been a great evolution in education. However,
it is still not enough and the difference is wide, and this article shows that it is necessary to take into account several aspects. Among these last, a few were mentioned: investing on infrastructure and good tools, and increasing the number of hours for English classes.

This article goes hand in hand with that of Gómez (2018, p. 87-105), since it seeks to offer educational quality as the pioneering value, given the fact that two educational institutions cannot be compared: the private one has technology, good teachers and adequate classrooms; instead, a public institution does not have good teachers, nor does it emphasize on each subject, since it does not have the necessary resources for a full education. For this reason, improvement strategies must be implemented for public schools, such as investing on English illustrative books for a better learning, adding laboratories, and increasing the hour intensity.

To conclude, these articles show that, between public and private education, there is a great difference: these institutions do not generate the same professional or work opportunities at the time of graduation, so diverse strategies must be implemented to reduce the difference between educational levels. As a first factor, some public schools, with a very weak infrastructure, must be fixed; the quality of life of teachers must be also improved, so that they provide their students really full classes; at the same time, buying different books and building a library can help students do their homework with the tools provided. This, in order to end this large gap between public and private institutions and increase life quality for all students, generating the same opportunities.

## Policies and plans of bilingualism and bilingual education

Mainly, the authors Gómez (2014, p. 139-156) and Mora et al. (2019, p. 57-65) have shown a detailed analysis of the evolution and modifications in the development of bilingualism policies. Among the highlights are the objectives of the PNB (2004-2009), in which the objectives of the development of inclusive education projects to control the teaching of foreign languages, the optimization of
communicative competencies in public and private schools, and the promotion of ICTs in the strengthening of multilingualism models in different ethnic and indigenous groups are identified. In the same way, the most frequent problems and possible proposals to improve the contribution to the development of bilingual plans were defined.

In this order of ideas, the authors Cruz (2012, p. 125-141) and Cárdenas \& Miranda (2014, p. 5167) evidenced the theoretical perspectives of bilingualism applied to bilingual education simultaneously execute a relationship with the aspects of policy design for the scope of the development of linguistic skills. Among these perspectives, the English proficiency standards of students, teachers and professionals in the area; the optimization of performance in learning levels; the adherence to technological tools in the teaching process; and the immersion of social inclusion in educational projects to obtain the results proposed in the PNB through research advances, cultural diversity, recognition of displaced communities, and indigenous languages are distinguished.

On the other hand, Joya \& Cerón (2013, p. 230-240) emphasized the relevance of cultural and technological interconnection when promoting bilingualism in education from social, political and economic perspectives. Additionally, they focused on the components of the Ministry of Education of Colombia to integrate growth opportunities in the models of bilingual and cultural teaching through the use of technological resources to acquire a greater competitive, productive and innovative performance adjusted to the needs of globalization in the market.

In conclusion, the development of these investigations contributed to the recognition of projects and proposals established by the PNB; the educational policies; the integration of new educational, socio-cultural, and economic models; and the progress of initiatives through employment technological and innovative tools to provide compliance with the proposed objectives and guarantee a better inclusive range in public, private, urban and rural institutions in the development of language skills stipulated by the Common European Framework of Reference (CEFR).

## Standardized tests

According to López et al. (2011, p. 77-91) and Rozo (2017, p. 33-68), there are links focused on the analysis of the PNB, that is, the following bilingualism projects: Colombia Bilingüe, which covers the performance and shortcomings of students according to the results of the standardized tests, and the development of plans aligned with the acquisition of competencies and standards of the CEFR applied to the contents and validity of the Saber 11 English test, taking into account family, socio-economic and environmental factors as an influence on the area performance.

Regarding the articles by Rojas (2018, p. 1-14) and Meza (2016, p. 136-145), they carried out a study on two standardized tests that show the skills and abilities of each student in specific areas; this, in order to teach and learn strategies, since there have not been good results in students from public schools in recent years, because the majority of the population that obtains good results are students from private schools, especially in the area of English. Therefore, a plan with different tools and processes would be implemented to obtain better results.

Similarly, the development of these studies allows to recognize the performance of the standardized tests in the area of English of students in the last grade, understanding their strengths: reliability, cognitive processes, content of the test, criteria, constructs, and weaknesses. Also, a specific analysis based on some social and demographic factors, such as the effects of segregation between the north and south of cities like Bogota; parental occupations; level of studies achieved; occupation; monthly income; socio-economic conditions; nature of the school (public or private); institutional factors; and neighborhood levels was performed.

These aspects contribute to the identification of strategies based on the different learning methods (rote, constructivist, behavioral), as well as the completion of questionnaires and simulations to optimize scores in the reading comprehension level (writing, vocabulary, grammar), the organization of study spaces, the creation of connections and analogies in relation to their academic context, and the
preparation for the evaluation over the management of emotions when presenting the tests, which affect the results.

Finally, after observing the research background, it is inferred that there are deficits in the information research when it comes to strategic studies that support statistics and details about the research. In addition, there is no evidence of scientific progress that demonstrates techniques or elements of improvement in the performance of the test in this specific area, nor are studies applied in the mentioned public schools.

Likewise, most of the research focuses on the Mathematics and Language components, which imply postponements for the promotion of bilingualism policies centered on the results of standardized tests. Therefore, the objective of this research focuses on exploring the differences between public and private education in the results obtained by students based on standardized tests in Bogota and Medellin over the last 10 years.

## Theoretical framework

Public and private education in Colombia is very different: public education is free and anyone can access; but, depending on the private education school, they must pay a high value. Therefore, the reader must have some knowledge over both of them and know they work. This chapter mentions the concepts of public and private education, standardized tests from theoretical perspectives, and historical significance in the country.

## Public education

Public education is recognized for being funded and managed by the state, and it can be accessed by anyone regardless of their religion, stratum, sexual orientation or physical capabilities; to sum it up, there is no type of discrimination. This education is offered to all citizens, which allows to
acquire knowledge and shape a university career. Ávalos et al. (2015, p. 1-4) have defined that public education is that controlled by the state, and it seeks a social objective and has a collective interest. It also aims to generate a safe space for citizens, so it offers the required conditions to learn. Finally, since there is a high integration between people, there is diversity.

According to Pérez (2018, parag. 1), public education is a gift, and all boys and girls can access a free education; they can train as professionals and people, and demonstrate their skills and potential. On the other hand, Díez (2016, parag. 11) indicated that public education, although free, is not successful or effective enough for students: since it is managed by the state, it does not invest on tools for everyone's development on academic subjects. This can alter the results of the tests.

With this, it can be concluded that public education shows good and bad aspects, which means that there is great potential to improve the educational system in Colombia, especially in the most affected areas. According to the above, it can be deduced that public education, despite being free and that everyone can access without any kind of discrimination, lacks some quality, spaces and tools to learn; also, there is a great political interest, so it leaves aside the importance of students, and whether they learn or not is not relevant.

## Private education

This section deals with private education, taking into account the perspectives of different authors, and the historical origins in Colombia and its importance for the institutional advancement and improvement of educational quality. In the first instance, private education is recognized for its high standards and academic excellence, achieving the development of competencies to get greater student rigor and school performance. In the same way, the efficiency of advanced level courses has been noted, as well as the probabilities of continuation in the private education sector, and the proportion of better results in standardized tests, surpassing the national average.

For their part, Rodríguez (2010) and Fuentes (2015) cited by Gessaghi (2017, p. 982) confirmed that private education allows to socialize among family members. Considering this, it encourages the relationships and lifestyles that occur between the interactions of members of the institution and the promotion of recreational activities to generate greater knowledge and integration between the communities. Similarly, Sanz (2014) and Balarín et al. (2018) cited by Cuenca et al. (2019, p. 4, 11-12) agreed that intra-family decisions influence the possibilities of accessing educational quality, productivity and performance in disciplinary areas.

On the other hand, Román \& Ramírez (2018) cited by Cuenca et al. (2019, p. 5) have adopted private education from the corporate and heterogeneous character, in the view of the representation of coexistence between high and low-cost private institutions and quality levels. Consequently, this type of education has some possibilities for the academic growth, without recognizing the contributions of the government. According to the above, it can be deduced that, within private education, the elements related to the contribution of academic excellence, superior performance in standardized tests, and the possibilities of personal and social development in relation to the indexes of educational competence stand out.

Based on the historical beginnings of private education in Colombia, the Law of May 15 of 1850 on public instruction is recognized, in which there was a consent of titles; however, the importance of highlighting the relevance of reinforcing the quality of education was not emphasized. In this order of ideas, and in accordance with the reforms presented in 1850, freedom of education was developed; therefore, the rights of educational equity for both the public and private sectors were strengthened. Nevertheless, it was noted that the resources are not enough to obtain a degree to practice professionally and, despite the reinforcements in educational plans, these were ineffective for the scope of the annual increase in enrollment.

During the period of 1854, the educational system was criticized for the lack of learning, instruction and promotion of science in favor of academic quality; and even the lack of courses based on Literature, Mathematics, Philosophy and natural sciences. In contrast, some private schools whose curricula was stipulated by the Organic Decree predominated in the areas of law and medicine were distinguished; among them were San Luis School, Espíritu Santo School, and Escobar e Hijos School.

Similarly, it is important to note that, at the time of freedom of education, the training of women focused on grammar, writing, civility and religion prevented the access to the knowledge of the basic sciences and, therefore, slowed down the processes of admission to the university. Additionally, with the liberal restructuring and the Law of April 17 of 1855 , it was possible to include a study plan developed by Mariano Ospina for the San Bartolome School, which was related to architecture, line drawing, projection, construction, law, economics and political science. It should be added that this institution influenced the promotion of the National University and the intellectual formation.

According to Zuluaga et al. $(2012$, p. 77, 160) in the book Research series: history of education in Bogota, volume I, it is identified that the integrity of the Rosario School and the San Bartolome School allowed the constitution of the central university; likewise, the knowledge over the disciplines of Literature, Philosophy, Physics, Mathematics, among others, was preserved. In 1868, the institution had other programs that strengthened the research culture of Colombian society. However, the modifications of the educational system generated by the Ospina Plan caused difficulties for the instruction and it induced the weakening of private education.

At the same time, and according to Zuluaga et al. (2012, p. 77, 160) in the aforementioned book, due to discussions centered on quality rebellions in educational formation caused by academic recognition and political distinction, public education involved academic plans with subjects defined by requirements and levels, while private education focused on the support of economic resources and judgments. In addition, private schools were distinguished by the composition of Literature along with

Philosophy, and the emphasis of Languages, Mathematics and Science; despite this, the lack of guarantee in the educational level was emphasized.

In relation to the concept of academic freedom, the authors Zuluaga et al. (2012, p. 77, 160) pointed out that Law of February 9 of 1865 empowered the importance of the needs of the elementary school; and, for the private sector, certain institutional establishments were focused on moral and religious formation, but others were directed towards the fields of Geography, design and Geometry. Moreover, the creation of the Normal School contributed to the incorporation of subjects to writing, grammar, chronology, etc.; and, after the diffusion of the Code of 1858, it was added to the teachers training for the Normal School and the monitoring of educational quality.

Finally, it can be concluded that private education is the one directed by private incentives or, in some cases, by family preferences. Likewise, according to the bases studied, it can be considered that the trajectory of private education in Colombia has been significant when adjusting the changes in the educational system and guaranteeing educational quality.

## Standardized tests

This section mentions the definitions focused on standardized tests, the applicability of some theories, and the different types of tests that have been applied in the country, emphasizing their importance in the educational performance from the assessment of foreign language skills. According to the Prueba T (2021, parag. 1-3), standardized tests are an assessment instrument used to measure the strengths and weaknesses of students' learning, which are divided into the qualification designed by the classroom teachers and others made by academics who recognize the advances of the scientific literature to develop them in a certain specific group. Likewise, they have been used for different purposes both when entering higher education schools and measuring the quality of training in the
country. Among the theories of evaluation of the teaching process are the classical test theory, the generalizability theory, and the item response theory.

In this order of ideas, at the beginning of the 20th century, Spearman proposed the classical theory of test. Williams et al. (2003) cited by Cappelleri (2014), through which a scoring model was established from the empirical approach and considering the theoretical assumptions established by this last, the true and error valuations that influence the comparison of statistical or qualitative methods in the students' results were identified. However, this approach has caused inconsistencies in reliability. In contrast to the above, the philosopher Brennan (2001) cited by Solano (2006, p. 15-16) has proposed the generalizability theory that stands out of the measurement of assessment through the principles of variability.

This theory has also managed to implement strategies to overcome the deficiencies described by Charles Spearman in the classical test theory; and Williams et al. (2003) cited by Cappelleri (2014), by modifying the concepts of medication, scoring and reliability. This preposition is used in more complex methodologies for the calculations and considerations of the tests, recognizing the relevance of the psychometric instruments for the decision-making of the different facets of generalization. However, the development of the item response theory based on Rasch (1960) and Birnbaum (1968) allows to obtain information regarding the range of accuracy of precision measurements in relation to different levels.

This doctrine provides a better alternative than the classical test theory, since the "true" score can be identified under the understanding of traits, abilities and aptitudes, and the measurement of the results generated by the probabilistic functions. It should be noted that this effectiveness is observed by its applicability in academic performance and competencies in characteristic areas of knowledge. Finally, the analysis of the theories presented cooperates with the recognition of the tools and instruments of measurement for the evaluations, and contributes to the distinction of elements that have been more
employed during the last years in the evaluation and determination of results among diverse levels of a previously studied population.

In Colombia, standardized tests are an important resource in decision-making, and these are required to be applied by government agencies of the education system, as it happens with the processes of optimization of the educational system to support the continuous improvement of education in such institutions. Through these tests, it is proposed to carry out the evaluation of competencies and performance in the different areas of knowledge that students possess, so that they can be analyzed in order to use methodologies that contribute to the achievement of quality standards.

This section is related to the two concepts previously described, in order to identify the strengths and weaknesses of students; besides, it is an useful instrument for the recognition of the performance of each student, and it also facilitates the differentiation of the progress obtained in the academic levels according to the complexity. Consequently, the application of standardized tests contributes to the measurement of knowledge and skills acquired by students, with the purpose of designing public policies that optimize the quality of education.

Correspondingly, there are different academic standardized tests, such as Saber, which was first implemented in 1991 with certain models; and, ever since 2002, it has been developed in a census form, including the areas of Language, natural sciences, citizenship competencies, and Mathematics (Báez, 2020, p. 4-7). Regarding the ICFES, this test was created in 1968 and it has been implemented annually for more than 50 years. "The National Testing Service (SNP) has tested Mathematics, social studies, Philosophy, Chemistry, Biology and English skills" (Consición, 2018, p. 6).

Also, for the period from 1980 to 1999, the results were delivered by the average of each of the areas and their general total. Likewise, in 2000, there was a transformation in the modality of competencies that implied carrying out another evaluation. Therefore, this exam began to be considered
as a tool for the development of research in different areas, to work as a support for the professional orientation of students, and to be used as a requirement to access higher education.

Furthermore, the Saber Pro tests were promoted around 1990 and, through Decree 1781 of 2003, their annual presentation was regularized. These tests constitute the evaluation of learning and skills acquired by students in the course of their higher education process, with appropriate components of the selected academic program, AdminESE (2021, parag. 1-8). Similarly, with the issuance of Law 1324 of 2009, the framework for the guarantee of inspection, monitoring, quality performance of the evaluation of components, and the contribution of strategies for continuous improvement was determined (Asociación Colombiana de Facultades de Ciencias [Acofacien]. 2016, parag. 1).

As for the Programme for International Student Assessment (PISA) tests, they were designed in 1997 and 1999, and their execution was developed in 2000, with the collaboration of 28 countries for the measurement of knowledge and aptitudes related to reading comprehension, Mathematics, and scientific skills in students with an age range of 15 years old (Organización para la Cooperación y el Desarrollo Económicos [OECD], 2006, p. 4). In addition, this instrument is one of the main indexes that provide the evaluation of the quality, effectiveness and efficiency of education. In the same way, the report of the results elaborated by the OECD and the national report promotes a perspective regarding the adaptation of better educational policies (Báez, 2020, p. 4-7).

Concerning the Regional Comparative-Exploratory Study (ERCE) test, this evaluation comprises the qualification of basic competencies and the skills necessary for areas like Mathematics, reading, and natural sciences; this, with the objective of announcing the instructional achievements of students between third and sixth grade in Latin America and the Caribbean (United Nations Educational, Scientific and Cultural Organization - Unesco, 2019). In Colombia, this test was carried out in six schools of the territory in 2019; and, along with the support of the ICFES institution, the development of studies for the
analysis of learning factors and the progress of the qualified competencies in linkage with social and family environments was determined (Redacción Educación El Tiempo, 2019, parag 1-7).

In conclusion, the previously mentioned standardized academic tests have been carried out in Colombia since different times and through the dynamic applicability of the processes; also, the students' performance in relation to the teaching processes transmitted by teachers has been distinguished, in order to optimize educational quality through the support of improvement plans and public policies. Additionally, the development of the three concepts studied contributed to the deepening of education from the perspectives of the public and private sectors applied in Colombia, as well as their influence on standardized tests and the impact of the results for the scope of continuous improvement in the educational system.

## Methodology

In this chapter, the methodology used for the development of this research is determined. The mixed research is explained, followed by a definition of the type of correlational research. Finally, the relationship between both studies and the progress of the project is presented. In addition, emphasis should be made on the relevance of the procedures of both studies, given the fact that, based on their conceptualization, the statistical analysis of the variables of the current exploration and the observation of the results of a semi-structured interview are carried out, in order to examine the influence and scope regarding the proposed objectives.

## Type of study

## Research approach

The mixed type of research is the one that combines quantitative and qualitative procedures to have the benefits of both and to have more information about the subject investigated. Consequently, with this procedure, a descriptive analysis of a defined phenomenon can be achieved. This form of inquiry is fairly common in social sciences; and, in the same way, it is a procedure widely used in other fields, such as Psychology, Sociology or Economics.

As some authors affirm, this type of research is very appropriate and effective; Salas (2019, parag. 1-13) indicated that, through mixed studies, a broader and deeper perspective of the phenomenon is achieved. At the same time, Tashakkori \& Tedlie (2008) cited by Hernández et al. (2014, p. 538) reported that this research is based on the strengths of each procedure (quantitative and qualitative) and not on its weaknesses; therefore, these authors formulated the statement of the problem with greater clarity, as well as the most appropriate possibilities to know and theorize the drawbacks of the investigation. The aforementioned, in order to generate richer and different data
through the multiplicity of visualizations, due to the fact that different sources and types of data, environments or analysis are considered.

In conclusion, mixed research is a fairly viable way to obtain information for this variable. By combining the positive results of the two procedures, it allows it to be comprehensive and descriptive at the same time, and it also allows to complement the use of the quantitative research as a form of approximation; and the qualitative, as a form of deepening. In this situation, it is possible to make statistical inference, unlike what happened in others, such as the explanatory one. Consequently, there is an opportunity to obtain a sample and extrapolate the results to a population, with a certain degree of reliability. According to Rus (2020, parag. 1-16), the use of a mixed methodology allows for much more efficient forms: on the one hand, with responses based on dichotomous scales; on the other, with open approaches that allow knowing the opinions of the interviewee.

This research about the gap between public and private education is derived from a mixed data collection, where the quantitative and qualitative methods are related. This comes from the collection of data provided by different areas, such as DataICFES, where different data can be collected and provided in an effective way and with efficient results. Additionally, information managed by the Ministry of Information and Communication Technologies (MinTIC) was collected, and these are the bases of the institution. This way, it is possible to analyze and study the results obtained in a quantitative way.

Moreover, this project also has a qualitative approach, since the information is collected through a survey of specialist teachers in the area of English, because they are the most suitable and precise people to provide correct and accurate information; thus, providing quantitative information results that correlate with qualitative data. Finally, it can be deduced that the data collection in a mixedmethodology research stores accounting data that can be qualified to give an effective aspect when performing it, in the same way this type of research becomes an important study with positive results.

## Research paradigm

The research is post-positivist and constructivist, and the triangulation method works as a means for the construction of the research as an epistemological basis. The basis of the selection of the paradigms derives from the adoption of particularities, similar to the development of this project. In relation to the research, the quantitative phase is determined by the post-positive paradigm; according to Guba \& Lincoln (1998), it refers to the network of beliefs of the critical realist, that is, it is recognized that there is a reality, but it cannot be fully apprehended, since it is controlled by natural laws that are understood (Catalán \& Jarillo, 2010, p. 165-178).

Therefore, constructivism is related to the quantitative phase of the project, since this paradigm establishes that knowledge is a cognitive construction, due to the intellectual activities of the individual's learning. With this, the understandings reached through the manifestations that are required to be used are inferred (ABC, 2003, parag. 2). In conclusion, the paradigms and the mixed approach allow to analyze the differences between public and private education in relation to the score obtained of the English area for the ICFES Saber 11 standardized tests in Bogota and Medellin in the last 10 years (2010-2020).

## Research method

Correlational research refers to the method that allows the evaluation of two variables to consider the connections between the changing ones. Likewise, this type of research is characterized by executing previous descriptive analyses that contribute to the exploration of a concept behavior based on the measurement of variables. In the same way, the importance of this research determines the observation and prognosis of events by means of data and knowledge.

Besides, Creswell (2012, p. 60) stated that researchers use correlational research designs in order to analyze and measure the degree of variables in the relationships between the variables studied or establish a possible result. Similarly, the authors Ary et al. (2010, p. 351) determined that this research
allows the analysis of factors, and their importance lies on the development of the theoretical framework models. In this vein, Hernández et al. (2014, p. 1-13) stated that this study cooperates with the quantification and analysis of the variables correlation.

Otherwise, among the notable techniques of correlational research are the natural observation, the application of surveys, and the data archiving. Regarding natural observation, this data collection influences the behavior of study participants for the development of the research conducted by the researcher. Based on the implementation of surveys, this tool contributes to the affinity of the variables' relationship through the generalization of results. About the data archiving, it is necessary to consider the significance of obtaining the information record to get consistent effects.

On the other hand, concerning the application of the correlational study in this research project, the behavior between the two variables is reflected for the qualitative and quantitative stages. The dependent variable in this study was the educational gap; while, for the quantitative phase, independent variables such as study methodology, connectivity status from home and the institution were taken into account. Also, there were aspects like age, gender, socio-economic factor, city, rural or urban location, nature of the school (public or private), influence of bilingualism policies or plans in schools, and educational level acquired by parents.

For the development of this stage, the databases that contributed to the analysis of changes in the dependent variable in connection with the independent ones were considered. It should be added that, in the descriptive development of the qualitative phase, the independent variable was the score obtained the English area tests, with which the modifications in the dependent variable in connection with the independent one was detected. In the same way, the approach considers the most relevant aspects, analyzing the bilingualism plans from the literature review and the answers of the semistructured interviews.

In conclusion, based on the review of the concept and authors studied, it can be inferred that correlational research contributes to find possible interactions between variables to recognize the degree of variation and relationship between them. Additionally, the importance of this observation is identified in the inspection of behavior in relation to the regularities of the phenomenon. Therefore, the present research aims to distinguish the degree of correlation between the two variables mentioned and the trends on the object of study.

## Research instruments

When it comes to the quantitative facet, the observation of data selected from the ICFES and MinTIC sites was taken into account; this, because these platforms have statistical records as foundations that allow running contrasts and confirming references. Likewise, the collection of this information selects the transcendental exploration of the results obtained by the students who have presented this test. Therefore, the sample consisted of 1000000 data, where different variables that allowed the formalization of the model were determined: connectivity, gender, geographic location (rural or urban), socio-economic status of the student, constitution of the school (public, private), the average obtained per test, type of calendar, among others.

Moreover, documentary analysis refers to the collection, comprehension, treatment and synthesis of information, through which a series of processes are carried out and these contribute to the restoration and expansion of the contents. These methods consist of the conversion of primary documents in order to carry out actions for the officialization of a concise and accurate secondary document (Castillo y Cabrerizo, 2005, p. 1-10). On the other hand, the analysis of statistical data establishes a grouping of fundamentals about abstract considerations by means of logical derivation (Sulbarán, 2009, p. 10-20). This analysis was employed in the present study to simplify the information, which contributed to the determination of accurate and reliable conclusions.

In relation to the qualitative phase, a semi-structured interview was conducted to identify different perspectives that would contribute to the analysis of the problems studied. According to Taylor \& Bogdan (1986), the interview can be defined as a set of frequent encounters between the interviewer and the interviewee, oriented towards the understanding of the informants' expectations about their experiences, expectations or circumstances (García et al., 2021, p. 5-7).

Also, it is important to emphasize that, according to Flick (1998), semi-structured interviews are those that provide a greater degree of adaptability, which helps to preserve the equivalent capacity for the development of interpretations in relation to the determinations of the research. In the same way, this type of interview gives an advantage to the expression of different points of view by the interviewees, in comparison with other instruments, like standardized interviews or questionnaires (Díaz et al., 2013, p. 162-167).

In correspondence to the interview carried out, the fundamental elements were previously recognized to provide compliance with the objective and the guidelines of the investigation, for which an attempt was made to establish the collection of data based on public and private education, types of standardized tests, history of education in Colombia, particular characteristics of the best educational levels in schools, and bilingualism policies and plans; the aforementioned, considering the opinions and perspectives of the interviewees.

Given the situation described, the duration of the interview is approximately one hour. This reflects that this type of semi-structured interview helps with the flexibility and organization to obtain detailed information about the topic under discussion; therefore, these questions are planned in advance to optimize the interviewer's analysis, interpretation and response time, and to obtain complete qualitative data in order to understand the object of study. In this same line of thought, this meeting had five questions that were answered by four interviewees.

## Population and sampling

The process of this research, for population in the quantitative phase, was focused on the ICFES results of the English for the last 10 years (2010-2020), in order to obtain more effective results. It should be clarified that this population delimitation occurs between Bogota and Medellin. For this determination, there were some tools used in the machine, since it allows to enter data and generate understandable graphics.

The tool Gradient Boosting Machine (GBM) can host different important research topics, such as the knowledge tests results in the area of English between public and private schools for the last 10 years, and the quality of the connectivity between public and private schools in relation to the Saber tests for the last 10 years. At the same time, it helps to classify the information of private and public schools and, thus, reach the best conclusion.

Another function for this model is the regression characteristic, which means that the program understands what it means to enter data from more than 10 years ago and how the different variables influence the final result. Initially, there was one million data collected, specifically from Bogota and Medellin, and 964000 were used in the descriptive analysis.

These are all reviewed in the main page of the ICFES each year, and this helps to evidence the results through the graphics; therefore, it should be clarified that the application used to attach the database and the coding of information was RBG studio in an R programming recorder, which classifies the filtered information effectively. In this statistical process some variables were eliminated, such as the ID number, the name of the person, and the e-mail; these are important on other occasions, however, for this project, they would not generate an added value for the statistics, so the only data taken into account were those stored in Bogota and Medellin.

As for the population of the qualitative phase of the research, six teachers from urban and rural locations were considered: for urban areas, there was a tenth or eleventh grade English teacher from a
public school in Bogota, a tenth or eleventh grade English teacher from a private school in Bogota, a tenth or eleventh grade English teacher from a public school in Medellin, and a tenth or eleventh grade English teacher from a private school in Antioquia. The aforementioned, given the fact that they allow fostering the full optimization of the development of students' cognitive skills to achieve continuous learning for the service of society and, also, to enhance opportunities for professional and labor growth.

On the other hand, the sample selected for rural areas were: a basic education (tenth and eleventh grades) English teacher from a rural school in Cundinamarca, and a tenth or eleventh grade English teacher from a flexible (virtual) pedagogical model in Antioquia, who attends students in conditions of vulnerability and rurality. This last subject was chosen given that they allow to identify the strengths and weaknesses of the educational system in these regions to understand their relationship and influence on the preparation and presentation of the tests. The type of sampling chosen for this research was purposive or judgmental, which consists of the selection of the sample based on the researcher's criteria and knowledge; therefore, there is a direct contact with the target audience and there are chances to obtain the expected results (QuestionPRO, s.f.).

In this order of ideas, and taking into account the participant selection criteria, six teachers from Bogota and Medellin with about four years of experience in public and/or private institutions and with specialized knowledge in different local areas were considered. In the same way, the experience of discerning bilingualism plans and policies applied to the rural and urban regions of the previously mentioned cities and their transformation within the educational system were examined.

Finally, it is important to mention that the character of the researchers is detailed by their interest on education, the formulation of bilingualism policies and the optimization of new ICTs. In addition, through the research conducted, the authors intensify their expectation about the recognition of factors of educational quality gaps in the public and private sectors; this, through the search for
strategies for the expansion of access to bilingual information, the development of innovative academic systems and the facilitation of learning processes.

## Triangulation of information

According to Ruiz (2007), triangulation is defined as a quality control procedure, a multi-strategic approach that helps the strengthening of findings or culminations of a preliminary investigation. Likewise, this argument coincides with that of Mucchielli (2001), who stated that the triangulation of information is a research strategy through which one proceeds with the conjunction of data collection techniques, aiming to counteract the bias inherent to each of them.

Moreover, Denzin (1970) cited by Rodríguez et al. (2006) described the use and composition of different methodologies for the project in the observation of a similar phenomenon. According to the above, the triangulation of this research is classified as one of the intramethod type, since it enables the use of different subscales in programs to study the same problem, combining multiple types of data analysis (Ocampo, 2019, parag. 1-15). Likewise, this study shares the triangulation of researchers, which consists of specifying the analysis of the circumstances by different individuals, in such a way that the strength of findings is increased and the possible biases of the study are reduced.

## Ethical considerations

The research project called the gap between public and private education regarding the score obtained the English area for the ICFES Saber 11; and it denotes, through its elaboration and study, that it is constituted in an ethically correct way and corroborates, in terms of the necessary information of the main project, that the orientation of the project was dictated from the research area.

In the same way, it should be emphasized that the main project from which this research arises is Diagnostic evaluation of the results of the Saber 11 tests in the area of English and its relationship with
data connectivity in Colombia, which complies with all the requirements set forth by the ethics committee of the ECCI University. On the other hand, in the collection of statistical data, the decision to have free visualization over the results was determined as part of the transparency of the project for greater reliability.

Additionally, in the development of the semi-structured interview, an informed consent was implemented for the participants to be informed about the purposes of the research, the data processing, the purposes and possible reflections on the content provided, and the use in the analysis. Similarly, it should be noted that the research has a citation, referencing and paraphrasing forms according to the APA seventh edition standards. Therefore, this research does not present any case of plagiarism or fraud that violates the author's rights, patrimonial and/or moral rights, or that affects the professionalism and integrity of the researchers. As a final point, it can be stated that this research project, besides having a mixed approach, also shows ethics and a correct process for its total execution, and it protects and stores the data of people involved.

## Data analysis and discussion

In the first instance, this chapter develops the analysis of the data acquired in the quantitative and qualitative phase. Subsequently, the specification of the results is carried out, as well as the discussion to detail the discrepancies and similarities. It should be added that, within the quantitative stage, both the data for Bogota and Medellin were deepened. Therefore, the interpretation of performance in relation to participation, gender, connectivity, stratum, institutional character, location, rural or urban area, among others, is observed; and, likewise, the descriptions of the schemes contribute to the construction and understanding of the study.

Regarding the ICFES Saber 11 test results in public vs. private schools, the first analysis showed an exploration about the global perspective for English scores in Bogota and Medellin in the last 10 years, aiming to examine the results for both territories and to understand the differences. Figure 1 shows that the percentage of participation in the test tends to be higher in public schools than in private schools in the two cities; which can be denoted in the periods 2011-6, 2014-6, 2015-6, 2017-6, in which the intervention rate of official institutions tends to be 66,223\%. Likewise, in the graphic, it is determined that calendar A had a greater participation than calendar B, since it was higher than the amount of 120 000 students. However, it is highlighted that, for the periods 2016-1, 2017-1, 2018-1 and 2020-1, there was only the participation of private institutions. In other words, Figure 2 shows that private schools obtained better results than public ones during the last 10 years, reaching scores close to 78 points in most cases and an outstanding performance level of $B+$, likewise, it is emphasized for specific periods, such as 2016-1, 2017-1, 2018-1 and 2020-1.

## Figure 1

Participation and nature of the schools in Bogota and Medellin over the last 10 years (2010-2020)


Note. Taken from Análisis estadístico del proyecto La brecha de la educación pública y la educación privada con base al puntaje obtenido en las pruebas ICFES Saber 11 en el área de inglés, by Cortés y González, 2022

Figure 2
Average by period and nature of the schools in Bogota and Medellin over the last 10 years (2010-2020)


Note. Taken from Análisis estadístico del proyecto La brecha de la educación pública y la educación privada con base al puntaje obtenido en las pruebas ICFES Saber 11 en el área de inglés, by Cortés y

According to the ICFES Saber 11 test results for public vs. private schools, it was decided to analyze the participation and the averages of calendars $A$ and $B$ for public and private schools in the last 10 years, with the purpose to find differences and to have a better overview of these calendars. Figure 3 shows the participation by period and type of calendar. As it can be observed, in 2010, calendar A and B remained at a very low participation; in 2011, there was an increase in the participation of calendar A, but the $B$ remained in an extremely low participation; in 2012, there was a disaster, and calendar A returned to the participation of 2010, being in the same position as calendar B; from 2014, the calendar increased its participation and remained like that until 2017. Therefore, calendar B did not have a high participation in the last 10 years; and from 2018 to 2020 , calendar A was constantly decreasing, until it got to the same level as calendar $B$.

On the other hand, when the results of the average are observed in Figure 4, the results obtained are surprising, since calendar $A$ has had an average between 50 and 60 out of 100, and has remained so from 2010 to 2020; however, calendar B has had a really high average, which is 80 out of 100, beating the average for calendar A .

## Figure 3

Participation of schools in Bogota and Medellin over the last 10 years according to the academic calendar (2010-2020)


Note. Taken from Análisis estadístico del proyecto La brecha de la educación pública y la educación privada con base al puntaje obtenido en las pruebas ICFES Saber 11 en el área de inglés, by Cortés y González, 2022

Figure 4
Average of schools in Bogota and Medellin over the last 10 years according to the academic calendar (2010-2020)


Note. Taken from Análisis estadístico del proyecto La brecha de la educación pública y la educación privada con base al puntaje obtenido en las pruebas ICFES Saber 11 en el área de inglés, by Cortés y González, 2022

On the other hand, the results of the ICFES Saber 11 tests for schools in urban and rural areas, designated the discrepancy between the scores of both sectors. Additionally, Figure 5 highlights that both official and non-official schools had a greater participation distinction than rural institutions. Likewise, it is observed that the average scores of the non-official institutions in rural areas were higher than the official schools of both cities.

It should be noted that rural private schools present a high level of test results, despite not having a large participation. Similarly, the opposition to public schools does not usually vary. On the other hand, it is stated that, for the periods 2011-6, 2014-6, 2015-6, 2016-6 and 2017-6, the official urban schools had a higher level of participation compared to the non-official urban schools and official and unofficial rural institutions.

Based on Figure 6, it can be inferred that the average of private rural schools maintained a significant efficiency in contrast to public and private urban institutions, which can be denoted in periods such as 2013-1, 2015-1, 2019-1, 2020-1. On the other hand, it is distinguished that 2016-1, 2017-1 and 2018-1 were periods in which rural and urban non-official schools maintained 80 points as average test scores. In addition, it is indicated that, during these 10 years, official urban schools achieved a limited significant difference in their results in contrast to official rural schools.

## Figure 5

Participation by period, area of location and nature of schools (public vs. private) in Bogota and Medellin over the last 10 years (2010-2020)


Note. Taken from Análisis estadístico del proyecto La brecha de la educación pública y la educación privada con base al puntaje obtenido en las pruebas ICFES Saber 11 en el área de inglés, by Cortés y González, 2022

## Figure 6

Average by period, area of location, nature of schools (public vs. private) in Bogota and Medellin over the last 10 years (2010-2020)


Note. Taken from Análisis estadístico del proyecto La brecha de la educación pública y la educación privada con base al puntaje obtenido en las pruebas ICFES Saber 11 en el área de inglés, by Cortés y González, 2022

Regarding gender, Figure 7 shows that female participation is significant in public and private schools, while dissimilarity is observed in male participation in private schools. During periods 2011-6, 2014-6, 2015-6, 2016-6 and 2017-6, it was determined that female participation exceeded 35000 students; and, also, from 2016 to 2020, the differences between female participation in non-official schools and male participation in official schools were demonstrated.

Additionally, Figure 8 analyzes the average of male and female students, and it is denoted that private schools show higher scores compared to public institutions. Furthermore, for periods 2016-1, 2017-1 and 2018-1, it was estimated that the average of both female and male students of non-official schools was approximately 75 points, which showed a significant difference compared to other stages and/or institutional characters.

## Figure 7

Participation by nature of the schools vs. gender in Bogota and Medellin over the last 10 years (20102020)


Note. Taken from Análisis estadístico del proyecto La brecha de la educación pública y la educación privada con base al puntaje obtenido en las pruebas ICFES Saber 11 en el área de inglés, by Cortés y González, 2022

## Figure 8

Average by nature of the schools vs. gender in Bogota and Medellin over the last 10 years (2010-2020)


Note. Taken from Análisis estadístico del proyecto La brecha de la educación pública y la educación privada con base al puntaje obtenido en las pruebas ICFES Saber 11 en el área de inglés, by Cortés y González, 2022

When it comes to internet connection in schools, Figure 9 represents a percentage greater than $50 \%$, and it means that internet connection was successfully validated; thus, providing the necessary information to determine which group dominates the survey. For this reason, in Medellin and Bogota, in relation to the ICFES tests, it was evident that students had a good internet connection; this facilitated the processes at the time of taking the ICFES test. In the same way, it is evident that, although there is a large percentage of students who have a good internet connection, there is a minority that does not have this benefit, which slows down the processes when presenting the ICFES test. However, although it is a small percentage, it should be improved over time to achieve an equitable concept for each corner in Colombia.

Based on Figure 10, it can be seen that the connectivity of public schools in relation to private schools does not reflect a great difference in the last years. However, in 2020-1, there was an increase in families with internet access, which allows to confirm that many families were provided with the service; but, in 2016-1, many relatives also found shortcomings in its use. On the other hand, during the COVID19 situation (2020-1), more people had access to the internet compared to the previous year (2019-2).

## Figure 9

Participation for internet access vs. nature of schools in Bogota and Medellin over the last 10 years (2010-2020)


Note. Taken from Análisis estadístico del proyecto La brecha de la educación pública y la educación privada con base al puntaje obtenido en las pruebas ICFES Saber 11 en el área de inglés, by Cortés y González, 2022

Figure 10
Average for internet access vs. nature of schools in Bogota and Medellin over the last 10 years (20102020)


Note. Taken from Análisis estadístico del proyecto La brecha de la educación pública y la educación privada con base al puntaje obtenido en las pruebas ICFES Saber 11 en el área de inglés, by Cortés y González, 2022

According to stratum in schools and, as it is shown in Figure 11, it is evident that this aspect is very important: over the last 10 years, there were many students from stratum 2 and 3 in public schools, more especially in 2014, 2015, 2016, 2017 and 2020. Additionally, when examining the scores, it was observed that those from stratum 4,5 and 6 had less participation but achieved better scores compared to students belonging to strata 1, 2 and 3. From the development analysis it was inferred that by strata, private schools get a rating equal to or higher than public schools.

As can be seen in Figure 12, it is denoted that during the last ten years, strata 1,2 and 3 of public and private schools have obtained scores between 40 and 55 points, equivalent to an average of $\mathrm{A}-\mathrm{A} 1$ and A2. While, strata 4,5 and 6 have obtained scores that range between 60 and 79 points, equivalent to averages between $\mathrm{A} 2, \mathrm{~B} 1, \mathrm{~B}+$. Emphasizing that most of these belong to private schools and a considerable minority are from public schools. In this same line of work, it is possible to observe the deficiencies of the educational sectors and the impacts on the progress of the formative quality.

Figure 11
Participation per stratum vs. nature of schools in Bogota and Medellin over the last 10 years (2010-2020)


Note. Taken from Análisis estadístico del proyecto La brecha de la educación pública y la educación privada con base al puntaje obtenido en las pruebas ICFES Saber 11 en el área de inglés, by Cortés y González, 2022

## Figure 12

Average per stratum vs. nature of schools in Bogota and Medellin over the last 10 years (2010-2020)

AVERAGE PER STRATUM VS. NATURE OF THE SCHOOL


Note. Taken from Análisis estadístico del proyecto La brecha de la educación pública y la educación privada con base al puntaje obtenido en las pruebas ICFES Saber 11 en el área de inglés, by Cortés y González, 2022

Coinciding with the article by Gómez (2018, p. 87-105), it emphasized that public education cannot be compared with private education, since the latter has greater access to technology and, by analyzing the results, it's possible to find a great disadvantage in terms of technological level in private institutions over public ones, since there is bigger connectivity in private schools and the difference is very noticeable.

The public education is characterized by being free and financed by the state; however, when financed, it does not have the best technological developers, since more economic resources are needed. These cannot be paid by the state, as stated by Meza (2016, p. 136-145); therefore, in terms of connectivity, it favors private institutions, since public institutions do not have good technological development.

Private institutions are the center of family socializations to maintain relationships and lifestyles and, thus, it is possible to have a greater contact with managers and execute different actions within the institution, distinguishing themselves within a social and academic stratum from other people. This is the opposite to what happens in public institutions, where families do not have greater relevance in academic decisions; these last are related to the results found, and private school students, with a higher stratum, obtain better scores than those of public schools, with a low stratum.

Intrafamily decisions have a marked influence on student outcomes, such as the possibility of entering a university with quality education. Also, based on family income, students from high strata have the chance to enter a private university, while students of low strata aspire to enter a public university. Compared to families whose income is not enough, there is a wide difference in the results obtained in the tests according to the socio-economic stratum.

Authors Cruz (2012, p. 124-141) and Cárdenas \& Miranda (2014) stated that theories of bilingualism, in relation to their implementation in education, are recognized by the design of strategies that optimize learning processes, linguistic competences and the management of technological tools.

However, according to the results, it can be inferred that rural private schools obtain a similar score to that of urban public schools.

Likewise, it is important to point out that, based on what was stated by Gómez (2016, p. 138156), bilingualism plans are not inclusive, since not all students have the economic resources to access quality educational services and, therefore, to carry out international tests, aiming to optimize their learning results. In the same way, Roldán \& Peláez (2017) cited by Agudelo (2019, p. 8-13), in the study carried out on bilingual education policies in rural areas, showed that such policies are decontextualized, unrealistic and deviated from populations that are in different socio-economic conditions.

When it comes to gender and the articles studied on previous research on standardized tests, Rojas (2018, p. 1-14) found the need to reform or raise other strategies that contribute with the optimization of the gender participation results in public schools. In addition, Meza (2016, p. 136-145) and Collazos et al. (2021, p. 1-23) established that the differences between genders are distinguished in the areas of Science and Mathematics, where the male gender is predominant; and it should also be added that the full school day influences the results.

Similarly, according to Collazos, Quintero and Trujillo, it is shown that, during the 2015-2019 period, the score discrepancies have remained in the areas of critical reading, social sciences and citizenship skills, and English. However, based on the results of this study, it is established that both male and female students in public and private schools obtain a similar average, but non-official institutions stand out most of the time.

Regarding the ICFES tests, it is proven that private school students have a good internet connection, which makes the ICFES test process easier; and, also, although there is a huge percentage of students who have such access, there is a minority that does not have this benefit, and this influences the digital process when presenting the ICFES test. However, although it is a tiny percentage, it is a factor that should be perfected with the era, in order to make an equitable criterion for each corner of

Colombia. Nevertheless, when analyzing the scores, it is observed that, by strata, private schools have a similar rating than public schools.

In relation to the results of the two cities, it can be inferred that private institutions obtain better scores compared to public schools, due to the influence of the previously mentioned factors: connectivity, socio-economic strata, family income, among others. Likewise, the importance of reinforcing and modifying bilingualism policies should be highlighted, in order to understand the educational differences in several areas of the territory. This would contribute to the development of meaningful and inclusive strategies for continuous effective learning in the most affected communities; and it would be possible to make methodological reflections on the recognition of equal opportunities for the female gender in the ICFES tests in the area of English that have been presented in recent years, as well as the possibilities of accessing higher education.

Regarding the qualitative analysis, the categories that were related to the object of study of the research were defined to carry out the question through the coding of the interviews. In this analysis, the fragments of the six interviews are presented to support the codes for each of the categories and to enhance the extracted content.

Subsequently, after having completed the interviews with the six expert teachers on the educational gap subject, the recordings transcriptions were developed. It should be considered that the interviews and transcripts were conducted in Spanish, since this is the educators' mother language. In the progress of the transcripts, the content of the interviewees was archived, in such a way that elements treated in relation to the subject of study were preserved and examined. To better illustrate, here are two excerpts about discrepancies between the public and private sectors:

Excerpt 1. (Interview 6, semi-structured interview. April 22nd, 2022-May 31st, 2022).

Sí, definitivamente las hay. Definitivamente, las hay y apuntan hacia una mejoría en la educación privada, porque el nivel de lengua extranjera de la educación privada normalmente es más alto
que en la educación pública. Eh, es bastante evidente, es bastante, bastante evidente.

Definitivamente, sí. Ah, no es garantía, pero sí. Sabemos, por ejemplo, que a las instituciones privadas les va mejor en el área que a las instituciones públicas, y es por eso, porque el contexto también ayuda en las instituciones públicas de élite, digamos, los estudiantes tienen la oportunidad constante de interactuar con lengua extranjera.

Similarly, the discrepancies of the two educational settings remain striking in relation to preparation for the ICFES Saber 11 tests, taking into account the influence of the sectors as well as the possibilities for institutional and family progress, as described below:

Excerpt 2. (Interview 2, semi-structured interview. April 19th, 2022).

Mientras que los colegios $A$, por ejemplo, son colegios que están haciendo, generalmente están haciendo transición o se sienten muy cómodos con empezar en enero y febrero, pero pues que, están un poco más cercanos a los colegios públicos, pero igual hay una brecha inmensa. Jumm. Sí, sí, sí hay colegios. ¿Tú saliste de colegio público? ¿Bogotá? Ah, claro. Entonces, mira, y, por ejemplo, allá en Bogotá incluso se ven muchas diferencias en colegios públicos. No es lo mismo que ir a, que tú recibas una instrucción en un colegio de los megacolegios de los hermanos Zubiría, por ejemplo, que quedan, a pesar de que quedan en poblaciones vulnerables tienen un, más oportunidades de entrenamiento que otros colegios públicos en los que son inmensamente grandes, y que hay mucho estudiante, y que di tú que hay 11,10 cursos por el nivel, 10 primeritos o cosas así. Eso es, eso es, la calidad de la educación ahí empieza a verse como sesgada.

After transcribing the interviews, the first one was selected to determine key concepts, which were used in the following lectures. 16 codes were identified in this first exercise, and they were linked to the research study. However, for the process of concept extraction, 16 emerging codes were found; therefore, the integration or elimination of elements that could be considered as redundant or not very
useful for the study was carried out, so that eight emerging codes were determined and, finally, 24 concepts were obtained.

After completing the processes of extraction and integration, the 24 concepts were divided to identify their degree of relationship. Different versions emerged; in the first one, concepts were placed in six categories: representation of the institutional context, assessment of the institution, educational difficulties and alternatives, bilingualism, student evaluation, and characterization of the student and their family nucleus. In the second version, the concepts were adapted into four categories: characterization of the context and institutional assessment; educational difficulties and alternatives; bilingualism; and student evaluation, student factors and their family nucleus. Finally, this process was specified by the second version, so it allowed to incorporate the codes in main classifications, which are shown in the following table.

## Table 1

Code tree

| Characterization of the context and institutional diagnosis | Difficulties and educational alternatives | Bilinguism | Student evaluation, student factors and their family nucleus |
| :---: | :---: | :---: | :---: |
| Location of the school | Constraint and strategies | Hourly intensity | Language proficiency |
| Description of the locality and the Colombian environment | Teacher experience | Internet access and devices | Autonomy and priorities |
| Growth opportunities | Pedagogical and institutional plans, resources and materials | Socio-economic stratum | Socio-economic stratum |
| Internet access and devices | Teacher training |  | Budgetary capacity |
| Socio-economic stratum | Educational shortcomings |  | Rurality |
| Rurality | Growth opportunities |  | Participation by gender |


| Institutional gap | Family and social <br> environment |
| :---: | :---: |
| Performance level | Access to higher education <br> and education abroad |
| Language proficiency | Preparation and knowledge <br> for the ICFES test |
| Budgetary capacity |  |
| Type of calendar |  |
| Access to higher |  |
| education and education |  |
| areproad |  |
| knowledge for the ICFES |  |
| test |  |
| Participation by gender |  |

Note. Taken from The gap between public and private education according to the score obtained the English area for the ICFES Saber 11 tests over the last 10 years (2010-2020), by A. Gómez \& L. Pérez, 2022, ECCI University.

The first category is nominated as characterization of the context and institutional diagnosis.
There are 14 codes, which help to understand and obtain a broader and clearer concept about the institution and everything that composes it. The first code is the location of the school, and it deals with the town and the difficulties that students get to the school. The second is description of the locality and the Colombian environment, and this deals with the characteristics of the place where the school is located; moreover, this code is evidenced in the following:

Excerpt 3. (Interview 1, semi-structured interview. March 7th, 2022).
Sin embargo, de la UPZ, ese es el mejor colegio, en cuanto a prueba de Estado y a nivel de la localidad de Suba, que es una de las localidades que más instituciones educativas tiene del
distrito, en este colegio, el año 2019 y 2020 ocupó el primer puesto y este año 2021 quedamos rankeados en el segundo puesto a nivel de tota la localidad, que si no me equivoco creo que Suba es la localidad que tiene más colegios públicos.

On the other hand, an observation is made about other codes, because of the growth opportunities that students have, their access to higher education and education abroad, the quality of the internet, and the access to technological devices and other tools that optimize their learning. To conclude, this code is really important and it is evidenced in the following excerpt:

Excerpt 4. (Interview 3, semi-structured interview. June 1st, 2022).

Entonces, por ejemplo, de un grupo de 11 que eran 30,35 estudiantes, se conectaban a la clase virtual 7,8 . Entonces, qué tocó hacer, ah, yo ya no daba la clase a un solo 11 , sino citaba a los tres 11, y se conectaban 20,18 . Eh, debido a esta situación, porque había estudiantes que no tenían conectividad en su casa, entonces, obviamente no podían, eh, llegar a una clase virtual. Another code is the socio-economic level of the institution. Therefore, it is essential to be clear about the level of performance for each institution, where the language domain code speaks about the level of English that the institution has. This is explained in the following extract:

Excerpt 5. (Interview 2, semi-structured interview. April 19th, 2022).
Muchos colegios privados apuntamos al C1, ¿Por qué? Porque los B,1 como te digo, por los factores que te mencioné, te he mencionado antes, pues ellos ya un B no es una opción, sino que hay que exigir un poco más. Entonces, se apunta al C .

Another relevant code is the type of calendar, which indicates whether it is calendar A or B. In each classroom, there are groups of women or men, and it is necessary to take into account that, if schools carry out an adequate preparation for the students to pass the ICFES, all these factors facilitate the demonstration of institutional backwardness and the importance of a good education.

As Morales (2020, parag. 5-10) stated, the tests are very important, because it manages to demonstrate and provide educational institutions with information about the abilities of each student, and that the student, when obtaining their results, has a clearer vision of what they want to study when they graduate from high school. This category shows how the characteristics of the school can influence the professional development of students and the results obtained in the Saber 11 test.

In this second category, difficulties and educational alternatives, five codes related to problems in the teaching and learning processes and methodologies to promote critical thinking were highlighted; this, considering the students' observations and the main resources that have been implemented to optimize their second foreign language competences. Within this analysis, the following codes were recognized: restriction and creation of pedagogical and institutional strategies, resources and materials. The first code refers to the methodologies that teachers have used to optimize language skills in relation to the improvement of scores in the ICFES Saber 11 standardized tests, emphasizing in the pandemic and the post-pandemic periods. Meanwhile, the second indicates the didactic and scholastic means that the institutions possess in relation to the attainment of English quality standards and the possibilities of constantly enhancing their learning. This is shown in the following extracts:

Excerpt 6. (Interview 1, semi-structured interview. March 7th, 2022).

Sin embargo en la parte de la conectividad hasta el 2019, no vi ningún problema, sin embargo a final del 2019 e inicios del 2020 que empezamos con el problema de la pandemia, uno de los factores que se idealizó fue un año atípico en cuanto cómo se orientaron los procesos, aprendizaje en casa, cómo abordamos las clases, entonces muchos de ellos se quejaban porque no tenían conectividad. Dentro de eso se hicieron estrategias, como unas guías, entonces, los que no tienen conectividad, se acercan al colegio y recogen las guías. También había otras estrategias como Classroom y la plataforma Teams, porque la Secretaría de Educación desde el 2018 tiene un convenio con Microsoft, entonces manejamos Teams, Office, Outlook; y muchos
de los estudiantes decían que no tenían conectividad, o los recursos, entonces comparándolo con años anteriores donde todos tenían la misma accesibilidad.

In the same way, the multiple resources that private institutions and even rural private schools have against the acquisition of the language from a transversal and realistic methodology are denoted, pointing to the distinction of educational quality.

Excerpt 7. (Interview 4, semi-structured interview. May 3rd, 2022).

Pues, ahí hay varias cosas importantes a resaltar. La primera de ellas es que esos colegios, también por su nivel económico tienen accesibilidad a cantidad de material que a Colombia no llega. Por ejemplo, el Colombo-Canadiense tiene acceso a libros que realmente los chicos en Canadá utilizan, sean de literatura, de literatura infantil, de literatura para jóvenes. Eh, y lo que nos llega aquí es material diseñado para personas que están aprendiendo inglés como segunda lengua. Yo pienso que eso sí hace mucho la diferencia. [...] En cuanto a los libros, eh, la dotación de los colegios se, eh, es lo que tú pidas; o sea, según a necesidad del maestro, en los colegios privados. Mientras que en los colegios públicos es como al presupuesto buenamente pudiera ofrecer a las instituciones públicas. Entonces, eso ya limita mucho el tipo de textos.

According to Suso y Fernández (2001) and Scrivener (2005) cited by Díaz et al. (2010, p. 50-53), the elements that influence the teaching and learning process are the linguistic capacities, the teaching behavior in relation to the planning, the teaching and evaluation of students, the cognitive processes when learning English, and the external factors that mediate the English language learning. This way, a relationship is found with the object of study through each of the components analyzed in the external and internal environments of both the student and the teacher, highlighting the means, capacities and limitations to carry out the foreign language effective teaching.

Similarly, within these approaches, the differences between public education media and private education are denoted, in such a way that deficiencies and opportunities are distinguished in the sectors
in favor of improving the standards of the English level in relation to the CEFR. Likewise, the other code, teacher training and accompaniment by the institution, is fundamental to generate constructive tactics for the presentation of tests. This is evidenced by the contrasts in rural education and private education in the following extracts:

Excerpt 8. (Interview 5, semi-structured interview. May 7th, 2022).
Completamente, completamente, la escuela en la que yo laboro no tiene internet, no tiene internet, entonces, imagínate que en inglés donde el vocabulario, donde se necesita el inglés para mejorarlo, para practicar, allá no hay internet, no tienen internet en la escuela. La vereda tiene internet algunos lugares, entonces no existe esa herramienta, entonces cuál es la herramienta, yo grabar los videos en Bogotá, en la ciudad, llevarlos en una memoria o en un computador, y mostrárselos allá. Pero la conectividad no existe, o sea, el niño, en estos momentos, donde nos estamos conectando a nivel internacional y el inglés es una de las fuentes, de las herramientas, de la conexión y ellos no tienen conexión. Entonces, claro, es una, un niño que, desde primero, desde medio primaria el inglés es muy corto, teniendo en cuenta los pocos recursos que tienen, en las pruebas tiene que verse ese resultado, entonces, la conexión es esencial para obtener buenos resultados y , si no los mejoramos, ahí va girando más la brecha de lo público a lo privado.

Excerpt 9. (Interview 2, semi-structured interview. April 19th, 2022).
Por ejemplo, en un colegio privado, uno tiene muchísimo, como profesor tiene muchísimas oportunidades de capacitarse y de mejorar su perfil en cuanto a su enseñanza de las lenguas. En el sistema privado, en el sistema público, de pronto aquellos docentes que logran vincularse con los programas del Gobierno o que logran acceder a los cursos, pero son más que todo para las ciudades. Un docente que está en un lugar rural, a menos que tenga una súper conexión a internet, no puede acceder a muchas de estas capacitaciones, ¿sí? O los llevan con alguna
regularidad, mientras que un docente con el colegio privado, uff, las tiene a la mano todo el tiempo.

In the same way, as proposed by McDonough et al. (2013), they take into account factors such as usability, generalization, adaptability and flexibility, which are product of a beneficial construction for educational progress, cooperating with the integration of new programs or complementary curricular designs. Moreover, the third category is bilingualism, and it is made up of three codes, which allow a more precise vision of bilingualism policies and the relevance of the second language. Many of the teachers interviewed spoke about bilingualism and how schools have a misconception of what it really is. The above can be evidenced in the following excerpt:

Excerpt 10. (Interview 2, semi-structured interview. April 19th, 2022).

Entonces, dice, bueno, si en su país de verdad fuera bilingüe, pues habría en todo el ambiente, sí, en todo el territorio colombiano, pues una capacitación en inglés, incluso uno podría encontrar en los centros comerciales en inglés y en español las cosas, ¿sí? Porque eso es un real bilingüismo. Eso es lo que intentan hacer muchos colegios privados, crean microespacios o microcomunidades en donde los niños tienen que manejar los dos idiomas en el mismo nivel. Cuando tú ya tienes más inglés y dices que es bilingüe, pues ahí ya no es tan cierto. ¿Sí?" This is related to other codes, such as the hourly intensity and the socio-economic status of the student, since students who have a higher economic income have the opportunity to get a greater bond with a foreign language; for example, they can travel abroad. As mentioned by the interviewed, another important factor is access to the internet and devices, since these are tools that, if used correctly, optimize and help students learn faster and with greater precision, which allows ICFES tests in the area of English get good results. Cárdenas (2018, p. 125-142) mentioned that bilingualism in Colombia has a recent origin, and English as a school subject has been increasing within the Government's interests,
promoting programs and policies. However, it is not enough, the amount of hours for students to have contact with English in order to obtain positive results when taking the ICFES test must be increased. The fourth category, student evaluation, student factors and their family nucleus, has nine codes related to students' interest and preparation for the ICFES Saber 11 tests presentation. For this code, differences in student motivation are shown in the following extracts:

Excerpt 11. (Interview 6, semi-structured interview. April 22nd, 2022-May 31st, 2022). Eh, son estudiantes que regularmente los que he conocido que han sido, que han sido bastantes, son estudiantes que son muy independientes, muy autónomos y siempre, siempre, eh, son autocríticos, y van por el autoaprendizaje, no se quedan solamente con lo que tienen en la escuela, sino que investigan y aprenden más, y encuentran en la educación pública la algunos maestros y [...] algún apoyo en las directivas también para para alcanzar ese objetivo. Sí he visto que la educación pública, por ejemplo, también hay incentivos por parte de las instituciones de los docentes y de los directivos para que esos estudiantes que quieran destacar, puedan lograrlo. This excerpt demonstrates the lack of interest of some students and its consequences for the institutional sphere, and the limitations in their personal or professional training:

Excerpt 12. (Interview 5, semi-structured interview. May 7th, 2022).
Lo que pasa es que algunos estudiantes les restan importancia a las pruebas Saber, les restan importancia, no consideran que es esencial para su vida, porque también hay que entender como proyecto de vida no todos los bachilleres quieren ser profesionales o ingresar a la universidad superior, los que ingresan a la universidad superior serían los que quisieran y eso sería positivo, pero en esta sociedad para ingresar a una a la educación superior son los que mayor tienen poder adquisitivo, los que tienen mayor dinero y los pocos cupos de las de las universidades públicas nos las arañamos entre miles de miles.

Furthermore, according to Usán y Salavera (2018, p. 95-112), emphasis is placed on the importance of motivation in the classroom through strategies that encourage students to improve their academic performance and the acquisition of the second language. In this same line of thought, Brown (2000) cited by Sánchez (2020, p. 27) stated that motivation is not a factor linked to language, but it contributes to its acquisition, in such a way that the formative impulse of the teacher in front of the student promotes an improvement in their academic process and continuous learning.

In addition, elements concerning the family environment, social problems in rural and urban areas, and socio-economic status; and opportunities to acquire educational components, such as books, technological devices, interactions with foreigners, among others, were taken into account. All of these have some influence on the tests performance. There are other aspects that have an impact on the results obtained, such as spirituality, type of family, study and eating habits, and gender; and all of them were pointed out, because they make it possible to improve the level of educational quality and, at the same time, to create possibilities for higher education within or outside the country. The following excerpt allows to delve a little deeper into the influence of the family environment and the relationship with the student's academic progress:

Excerpt 13. (Interview 5, semi-structured interview. June 1st, 2022).
Bueno, mi colegio, es un colegio que normalmente la característica es de que son, uhm, yo creería que un 60 \% son familias mono monoparentales, eh, por ahí un $30 \%$ familias donde conformadas por mamá y papá. Entonces, ah, uno de los uno de lo que uno puede ver mucho, eh, que creería uno que causa un efecto en los resultados es ese ese tipo de familias. Por ejemplo, uno de los chicos que uno puede que tienen, que viven con sus papás, viven bien, son a los que mejores resultados obtienen en las pruebas, por lo general. Porque los que viven, por ejemplo, solo con la abuela o no son muy dedicados al estudio.

Based on the theoretical inspection carried out in the research, it was determined that there has traditionally been an educational gap between the public and private sectors in the country, especially in rural areas, such as the departments of Antioquia and Cundinamarca. In the same way, within the background and conceptual review, certain aspects of private institutions are detailed, such as their timetable intensity, budgetary capacity, updating of books and study materials, access to laboratories, extracurricular activities, or specialized subjects with a bilingual approach. These constitute limitations for public education.

Due to the above, two other aspects stand out: the educational quality and the effects of the pandemic, which have impacted the performance in the ICFES Saber 11 tests in recent years. In the face of this problem, it can be considered that the use of technology would contribute to improve the quality of training and to eradicate corruption. Similarly, different studies have shown that initiatives such as Computers to Educate have helped to increase by $7,5 \%$ the entrance to higher education and, at the same time, it has allowed to reduce the percentages of dropouts and academic repetition (Semana, 2017, parag. 6-12).

To continue optimizing teaching and student quality, the impact of new technologies and teaching materials and the integration of ICTs that strengthen the academic performance of institutions must be taken into account, so that students reach the academic performance levels and educators enhance their motivation and training. In relation to the pandemic, the high levels of student desertion and the shortcomings in the acquisition of knowledge through the virtual model were established, and these consequences had a significant impact on the tests results.

It is also important to note that the PNB continues to be criticized in relation to the reduced number of hours of language teaching, the shortage of teaching materials and the poorly qualified teachers. According to Cárdenas (2006) cited by Fandiño et al. (2012, p. 367), it can be inferred that this plan has taken into account quality models, teaching processes and foreign language qualification.

However, detailed observations about the cultural, social and economic phenomena of the environment have not been demonstrated. Similarly, Sánchez \& Obando (2008) cited by Fandiño et al. (2012, p. 368) have established that the main shortcomings in the fulfillment of the PNB are presented in the need for the optimization of the country's teaching and learning stipulations; therefore, emphasis is placed on the creation of fair and sound educational systems.

To conclude this chapter, the analysis of the two research moments was established based on the relationship between the results obtained. Consequently, it is possible to denote the educational gap between the public and private sectors, with students from the public and rural public sectors being the most affected, highlighting that they have fewer resources, technological means and possibilities of interaction with the second foreign language from an international perspective. This can be evidenced in the socio-economic stratum, and figures in this study have shown that those students belonging to strata 5 or 6 usually obtain greater possibilities of progress in language skills and, at the same time, achieve better results in standardized tests. This allows them to secure a professional future inside or outside the country.

On the other hand, the data from the two phases indicate that the levels of connectivity are one key factor to obtain good results in the ICFES Saber 11 tests. Despite the fact that official and non-official schools have a similar participation, the averages tend to be higher in private institutions. Likewise, there is a lack of access to new innovative technologies, the acquisition of books, the shortcomings in training for teachers, and the lack of government initiatives to improve foreign language skills in rural communities. Consequently, such improvement has been one to two points years after year; meanwhile, in some rural or urban private areas, they have remained in the best rankings or institutional averages. Furthermore, interviews indicate that, despite the presence of urban public schools or rural private bilingual schools in both Bogota and Medellin, "bilingualism" policies have not really been applied and, therefore, some work still needs to be done to develop globalized and competitive education systems
that aim at the social, economic and multilingual progress of the country, significantly reducing the educational gaps.

## Conclusions

This paper analyzed the differences between public and private education in relation to the scores obtained of the English area in the standardized tests in Bogota and Medellin for the last 10 years (2010-2020). The most important aspect of this analysis was to describe the influence in the two training sectors, according to the results of the ICFES Saber 11 tests, because these allowed a deepening in the educational gap based on the academic and socio-economic opportunities that hinder the possibilities to obtain a good performance in tests and to access a higher education. According to the above, what most helped to provide this analysis was the documentary observation of the statistical data, since they granted the veracity of the information and allowed the decision-making to draw accurate conclusions; however, the most difficult part was detecting the viability of the bibliographic sources, since little information was found on this subject.

In the same way, this work identified the degree of relationship of connectivity with the results of the Saber 11 English test in the last 10 years in Bogota and Medellin. The most relevant aspect for the identification of the relationship degree between connectivity and results was to recognize the dominance of the participation and the average of private schools in comparison with public schools, since this contributed to the validation of the particularities linked to school administration, access to didactic study materials, and use of ICTs that affect the achievement of a good score.

Additionally, the analysis of the respondents' answers for the semi-structured interviews were very helpful, because these favored the collection of reliable qualitative data in relation to the experience in the educational sectors and the progress in the adaptation of the technological tools. Likewise, the most difficult part of this identification was to examine the growth of educational inequality, due to the effects of the COVID-19 pandemic, since the information was not enough for educational setbacks in this specific area. Moreover, this study determined the performance of the Saber 11 English test in the last 10 years in rural and urban areas of Bogota and Medellin. In this sense, the
most fundamental aspect for the determination of the test performance was to consider the fluctuations of the average of rural private schools in relation to urban public and private schools, because it favored the exploration of students' family aspects, socio-economic situations and institutional developments in the rural environment.

On the other hand, the literature review cooperated with the determination of the performance in the test, and it enabled the acquisition of new perspectives by the teachers or administrators of the institutions in the face of challenges and the improvement of results in recent years. The most complicated part of determining the performance of the test was the study of modifications and the application of the bilingualism policies in the public and private institutions of Bogota and Medellin; this, because many findings are not detailed through the documentary review.

Similarly, through this research, it was distinguished if the results of the English test varied according to gender in relation to the character of the institutions in Bogota and Medellin. The most important thing about such distinction was the few alterations in the score for male and female subjects, as well as the high participation rates of the female gender in both public and non-public schools in both cities, because this facilitated the verification of the little differentiation between the results and the increase of the female gender in the presentation of the tests.

Correspondingly, what helped the most to distinguish the results of the English test and the variation according to gender was the analysis of statistical data, the interviews and the literature review, since they made it possible to identify additional sources in order to provide complementary information for the study. Furthermore, the most problematic aspect of distinguishing English test scores and gender variation was to discern other aspects that influence the English test scores of both genders, such as age or religion, because the documents studied do not detail these elements either.

On the other hand, this study established the trends of discrepancies between socio-economic strata in the results of the English test and measured their influence on the improvement of the
educational system. Also, the most significant aspect during the establishment of discrepancies between socio-economic strata in the test results was the increase in the scores of the higher strata of private institutions, given that it is inferred that belonging to private schools of higher strata has better results than public schools of lower socio-economic strata. This, due to family income, improvement in internet connectivity, and acquisition of courses or materials for the reinforcement of the second foreign language.

At the same time, what helped the most with the establishment of discrepancies between socioeconomic strata in the results of the test was the observation of foundations for the articles supported by the antecedents of the investigation, considering that some studies of case, monographic works and documentary investigations that detail the reinforcement of the authentic arguments have been sustained around recent decades. Nevertheless, the most difficult part of this process was to specify other elements related to the deficiencies in the progress of public education in comparison with that of private education, since the setbacks in the improvement of educational quality have slowed down the access and execution of social policies that encourage the optimization of scores in the educational processes.

Based on the limitations of the project, the lack of updating on the primary and secondary sources of university repositories and reliable media in relation to the object of study is denoted. Additionally, it does not have sufficient theoretical or conceptual foundation in the area of English; therefore, this work can be considered a pioneer in this aspect of research.

This study considers whether the optimization of socio-economic and institutional factors contribute to the improvement of the results obtained in the area of English in the standardized tests and the strengthening of the educational system in public and rural institutions in Bogota and Medellin. Equivalently, the most important aspect of this consideration was to point out the actions that have been carried out in the institutions under the guidelines of the PNB and the support of ICTs, since they
contribute to the measurement and improvement of the competencies focused on the linguistic standards of the CEFR evaluated in the tests.

In addition to the above, what contributed most to such consideration was the arguments to the answers, since they guaranteed the inspection of some alternatives that certain public institutions have developed in order to improve test results. In contrast, the most complicated aspect of this consideration was to detect the influence of the degree of school readiness in public and rural institutions in both cities, because they hindered the analysis of other external factors for the improvement of the educational system.

Finally, regarding the suggestions of the teachers interviewed, different strategies can be created to end the institutional gap and obtain a better education and a truly bilingual country; for example, schools can increase the hour intensity for the area of English, and adequate classrooms and lounges in the school with English words. Something very important is the way in which English is taught, which is why it is essential to change the methodology and make it more dynamic, encouraging and critical.

## Further research

Before concluding, there are some recommendations that need to be expressed in relation to the results obtained from the study:

In the first instance, the individuals involved in the education process can delve deeper into the student and non-teacher experience to get another perspective on the problem and take a closer look at what influences the test results for students. From another point of view, another branch of the investigation can be created, and it can be investigated whether or not religion affects the test results, since it is not included in this investigation. Another point is to further limit the population to be studied, since having such a large sample can lead to dismiss important details. This way, it could be analyzed if
the same results are found with these changes when doing the research, or if there are other factors that help to close the gap between public and private institutions.

Also, based on the study carried out, emphasis should be placed on the impact of the implementation of actions to strengthen the teaching and learning processes of the second foreign language in rural areas; this, through the application of pedagogical, interactive and innovative tools, in order to promote a solid and effective construction for the achievement of the competences assessed in the ICFES Saber 11 test.

According to the above, teaching systems can also be optimized by promoting interactive activities, creating study groups, and generating new technologies to enhance language proficiency in rural and more vulnerable areas; this, with the objective to reach the standards of quality, competitiveness and globalization evaluated not only in the Saber 11 standardized tests, but also in the performance of the foreign language applied in daily life.

To conclude, the development of case studies and the improvement of data collection and processing from the perspective of other cities or municipalities affected by vulnerability, poverty, social problems or even armed conflict can be considered to future research, given that it would allow to recognize new findings against the weaknesses and strengths of the educational system in the area of English.

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## Annexes

## Annex 1. Semi-structured interview protocol



The present protocol has the purpose of analyzing the factors that are immersed in the educational gap between public institutions and private institutions, taking into account the perspective of teachers in the process of preparing and presenting students before the Saber 11 tests in the English area in the cities of Bogota and Medellin, municipalities in the departments of Cundinamarca and Antioquia. Therefore, questions will be presented that will allow recognizing the influence, the aspects of improvement, key elements that contribute to the identification of the differences between public and private education, as well as possible strategies to optimize the level of learning of the foreign language, generate the scope of bilingual quality standards and enhance the competencies evaluated in this exam. The content provided will be used confidentially, the information will be used in academic terms and the interviewees will be asked to fill out the informed consent.

| Data |  |
| :--- | :--- |
| Participant: |  |
| Date: |  |
| Hour: | Interview |
| Modality: | Semi-structured |
| Technique: | 1 hour |
| Time: | Zoom and Meet |
| Program: |  |


| Descriptors |  |
| :---: | :--- |
| City/Municipality: |  |
| Geographic area: |  |
| Position: |  |
| Seniority in the institution (time of |  |
| experience): |  |

The interview will develop questions related to the discrepancies of public education and private education, as well as other questions pertaining to the issues of bilingualism, educational deficiencies in the area of English and alternatives for improvement according to the test results. The main questions will be presented below:

1. What is your perception of the results obtained in the area of English in the school's Saber 11 standardized tests in the last ten years?
2. Do you perceive that there are differences with the results obtained in the area of English in the standardized tests Saber 11 in the last 10 years, given the public or private character of the school?
3. Do you consider that the connectivity of your institution is related to the results obtained in the area of English in the Saber 11 standardized tests?
4. Do you think there is any relationship between the rural or urban character of your institution and the results in the area of English in the Saber 11 standardized tests?
5. Do you think there is any relationship between gender and English scores on the Saber 11 standardized tests in your school in the last 10 years?

## Annex 2. Informed consent

## Modern Languages

2022

## Informed consent form

This document is the communication and invitation for the undergraduate research project called The gap between public and private education according to the score obtained the English area for the ICFES Saber 11 tests over the last 10 years (2010-2020), belonging to one of the studies of the macroproject Diagnostic evaluation of the results of the Saber 11 tests the English area and its relationship with connectivity data in Colombia, which aims to determine the discrepancies of public education and private education in the cities of Bogota D. C. and Medellin, according to the ICFES standardized test scores the English area, this, through the analysis of factors centered on pedagogy, institutionalism, location, connectivity and family, social and student environments.

It is important to point out that this mixed-correlational study carried out by students Angie Nicole Gómez Molina (angien.gomezm@ecci.edu.co) and Laura Mercedes Pérez Sua (lauram.perez@ecci.edu.co) of the modern languages program, it is under the direction of the teacher Olga Camila Hernández Morales (ohernandezm@ecci.edu.co) and the co-director José Alexander Fuentes Montoya jfuentesm@ecci.edu.co, and is endorsed by the ECCI University.

In accordance with the above, the interviewee understands that a virtual semi-structured interview will be conducted, in which he/she will answer questions concerning the research problem. Likewise, he/she recognizes the possible risks of conscientization; therefore, if there is any uncomfortable question, or it has any undesired effect, he/she will be able to communicate it and not
answer the question. Likewise, he/she knows that the interview will be recorded and that the data provided will be handled and used carefully with the criteria of confidentiality for the support of the academic text. In addition, only the director and the researchers will have this data and will execute the procedure of data anonymization at the stage of research results.

In addition, the participant knows that the information will not be delivered and there will be no economic compensation, since the content provided generates an advantage in the development of the research. In the same way, participation is voluntary and at any time the respondent may withdraw from the process, thus ensuring that no unfavorable repercussions will be manifested against the member. Therefore, the respondent accepts optionally to be part of the study and has been given a copy of this document via e-mail.

| Participant Name: | Name of researcher 1: |
| :--- | :--- |
| Signature: | Signature: |
| Identification card: | Identification card: |
| Interview date: | Interview date: |

Name of researcher 2:
Signature:
Identification card:
Interview date:

In case of having any questions or requests regarding the development of this project, the participant may communicate it to the emails of the director and the researchers of the study.

Best regards,

Annex 3. Graphs quantitative analysis

Graphs quantitative analysis.xls

