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Evaluation from the Perspective of Standardized Tests (Pisa) at the Pre-University Level of the Dominican Republic

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INTRODUCTION

The Dominican Republic faces great challenges in pre-university education and one of them is the evaluation culture. Evaluation as a systemic process is an added value to educational quality to a large extent, to its human capital, and to achieve success in a changing world. Recent studies have shown that achieving better educational outcomes and measurements provides considerable benefits for individuals and for society as a whole (OECD 2010a, 2010c). This ensures the achievement of effective measures of student performance and development and, therefore, educational performance. Reliable and valid measures of school performance can serve as a basis for educational policies and programs and their accountability, school improvement processes, and so that families and society as a whole have more information about the effectiveness of educational systems.

What is PISA and what does it evaluate?

The Program for International Student Assessment (PISA) is a study by the Organization for Economic Cooperation and Development (OECD) with the objective of evaluating the reading, mathematical and scientific skills of 15-year-old students, who are close to completing compulsory education in each of the participating countries. The purpose is to identify whether they have acquired the key knowledge and skills necessary for full participation in modern society. PISA tries to answer the question: what is important for citizens to know how to do? The evaluation has been developed since 2015 and is applied every three years, with emphasis in each round on one of the areas evaluated as can be seen in the following table.

Table 1. Focus on PISA cycles, 2015 – 2022

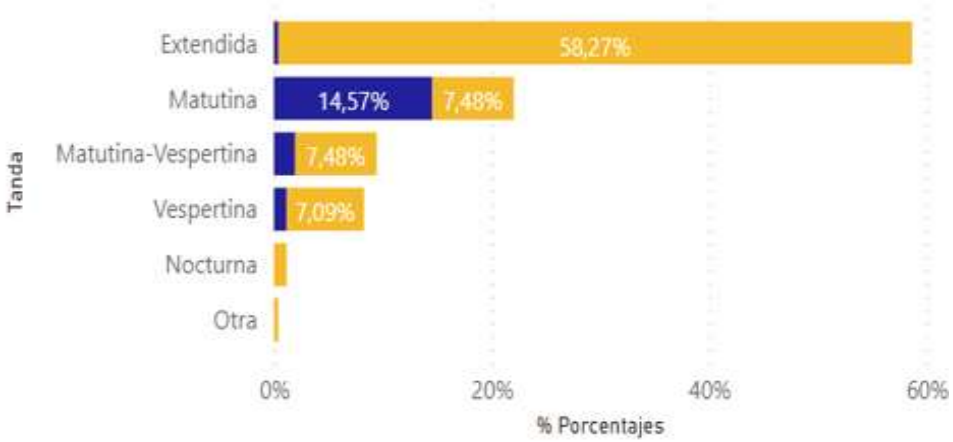
Period	Domain
2015	Sciences
2018	Reading comprehension
2022	Math

Source: Own elaboration with data from the PISA portal, 2022.

For the cycle in PISA 2022, the main domain and focus is Mathematics.

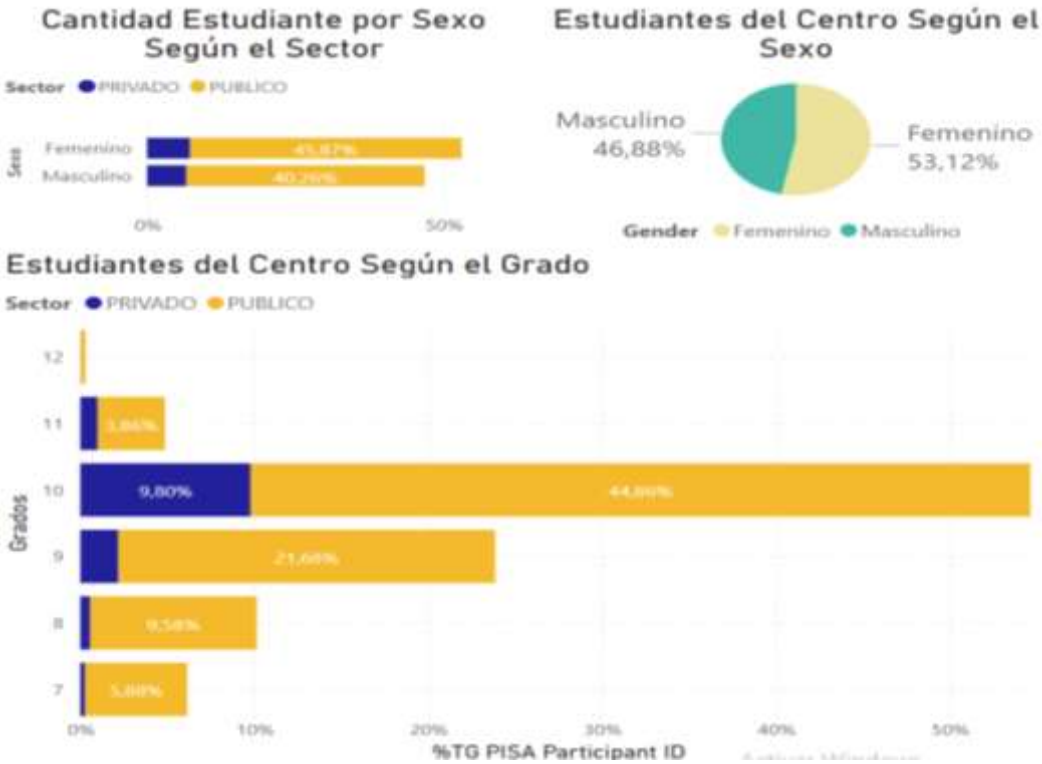
Approximately 82% of the educational centers included in the sample for PISA 2022 correspond to the public sector.

Illustration 2. Dashboard educational centers by PISA 2022 batch



Source: PISA 2022 Dashboard, Department of Evaluation.

Illustration 3. PISA 2022 general information dashboard



Source: PISA 2022 Dashboard, Department of Evaluation.

Illustration 4. Dashboard of students by sex PISA 2022

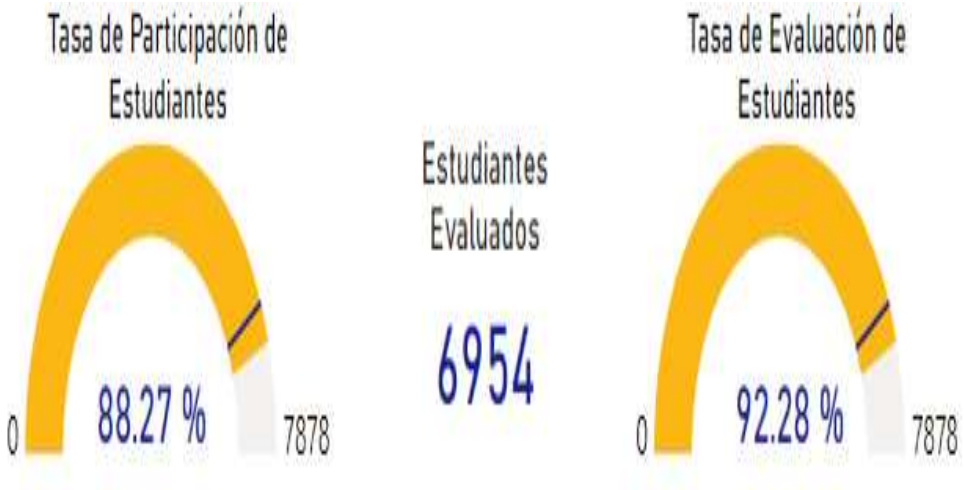
Source: PISA 2022 Dashboard, Department of Evaluation.

Illustration 5. Student participation trend

Source: PISA 2022 Dashboard, Department of Evaluation.

The participation trend of the students participating in the pilot study of the PISA 2022 Test maintains an upward trend in a positive sense.

Illustration 6. Student participation rate



Source: PISA 2022 Dashboard, Department of Evaluation.

Thus, in this cycle, the number of questions that are evaluated in that area allow not only to measure the domain of the area in general, but also to measure the students' abilities in different competencies within said domain. Additionally, the different questionnaires of associated factors (e.g., students) include questions that seek to inquire more about the context of the teaching of the emphasis area in said year. It is a uniform demonstration organized by the Organization for Economic Cooperation and Development (OECD) made up of associated and non-associated countries of this institution.

The PISA assessment program was promoted around 1997 and 1999 with the participation of 28 OECD member nations, plus four non-member countries. This program is not a tool to evaluate the trajectory of nations that have been exported to others, but rather it has been developed in cooperation with the same countries where they should be applied, contributing to universal attention to the approaches of testing and cultural appropriateness of the examples used in such interventions.

The evaluations were applied in various cycles: 2000 and 2002 were the first cycle with the integration of 43 countries; In 2003, the second cycle covered 41 countries. Finally, in 2006, 57 countries were included for the third cycle and the following ones were carried out from 2009 onwards. (ODCE, sf: 4-5)

Overview of previous cycles

Our country participates for the third time in this type of study. In this PISA 2022 cycle, Creative Thinking is added as an innovative component and is defined as ***"the competence to generate, evaluate and improve ideas in a productive way, which can generate original and effective solutions, new knowledge and a striking use of the imagination."*** Creative thinking can positively influence students' academic interests and achievements, identity, and social-emotional development by supporting the interpretation of experiences, actions, and events in novel and meaningful ways. Beyond the classroom, creative thinking can help students adapt to a constantly and rapidly changing world. Supporting students' creative thinking can help them contribute to the development of the society in which they live, today and as future workers: organizations and societies around the world increasingly rely on innovation and knowledge creation to address challenges emerging and complex, giving urgency to innovation and creative thinking as collective enterprises (OECD, sf). Creativity is not something that should be present in the school curriculum only when it comes to drama, music, art and other creative subjects, but creative thinking should encompass all of school life, infusing the way in which they learn the human and natural sciences (The Guardian, 2019) . Periodically every three years, it becomes one of the most severe and prestigious in the world. These estimates are made for high school students aged approximately 15 and 16, who are in the fourth grade of high school. They correspond to the student delegation that is contemplated in public and private educational centers throughout the national territory. (IDEICE, 2020:2)

The PISA test examines three specialties of interest: reading comprehension, mathematics and science

Eventually, the investigations implemented in the PISA Test information sent by the OECD carry out their models taking into account only one year and one country due to the difficulties in managing the database, because it has a hundred qualitative and quantitative variables. . Therefore, a brief review will be made of the evolution of the PISA test in the periods that have been carried out until the preparation of this research.

Around the year 2000, the analysis began with assessments of reading, mathematics and science skills. Starting with 32 member countries of the Organization for Economic Cooperation and Development (OECD), the vast majority. These areas were defined in accordance with the: content or structure of the knowledge that students need to achieve in each of the areas (become familiar with scientific concepts or various texts); the transformations that must be implemented (obtaining written information from a text); and the scenarios where knowledge and skills are applied (decision making related to the circumstances of each individual's personal life or the understanding of world events) (Cruz, 2020:25-26)

was carried out, where the way in which the exams were graded was presented in detail , since PISA presents an average score scale of 500 and a standard deviation of 100 in the three areas mentioned for the evaluation. For these reasons, scientific competence has a special relevance, because it is evaluated through units composed of a stimulus that pursue the tasks associated with them. From this point of view, students have a certain amount of time to understand the assigned materials being used for the evaluation of various aspects of their academic performance.

Table 2. Mathematics students learning time (hour per week). PISA 2018.

Hours	*Fi*	*%*
0 - 5	976	74.50%
6 - 10	272	20.76%
11 - 15	38	2.90%
16 - 20	16	1.22%
21 - 25	4	0.31%
26 - 30	2	0.15%
31 - 35	1	0.08%
36 - 40	1	0.08%
Total	1310	100%

Source: Own elaboration with PISA 2018 database.

According to estimates, the majority of Dominican students dedicate less than 5 hours a week to the study of Mathematical Sciences.

For the year 2009, the readings were analyzed, showing improvements thanks to the increase in educational levels in the distribution of performance. This means that in a period of nine years the gaps in inequalities in knowledge were closed. In this stage, reading skills, reading knowledge, attitudes and reading learning plans were evaluated.

By 2012, results showed that nations improved their performance, regardless of their status or culture. This is because they were directed to countries that had inadequate performance and that, in turn, obtained a high percentage of students in mathematics. For these reasons, the countries decreased in persistence in the periods analyzed. (Cruz, 2020:25-26)

Finally, in 2018 the center of appreciation was reading comprehension, the objective of which was to evaluate to what extent students can locate, select, interpret, integrate and evaluate data from various texts that manifest situations that go beyond the classroom of the study center. The PISA assessment includes different optional tools for countries, such as financial education.

Domains and skills evaluated in PISA

Rivera Machado (2018) comments that the PISA tests are not only evaluations for specific knowledge in each educational center, but for the measurement of the skills that young people should have for their age, associating the failures of everyday problems. For these purposes, three subjects were selected: mathematics, reading and natural sciences, which bring together people's aptitudes.

Regarding reading, it is not necessarily necessary to understand whether people can read or not in a technical sense. It is based on whether students can elaborate, expand and reflect on the connotation of what they read through a wide range of texts associated with various internal and external situations in the school environment. Reading is not only considered a skill acquired since childhood, but is observed as the sum of strategies, knowledge and skills built by people throughout their lives in various scenarios in interaction with others.

In the domain of mathematics, students' abilities are evaluated to take advantage of mathematical skills and confront future adversities. They are based on reasoning, analyzing and communicating ideas effectively through approaches, formulations and resolutions of mathematical problems in a variety of conceptualizations and situations. For the Organization for Economic Cooperation and Development (OECD), the talent of people in identifying and understanding their role in the world consists of well-formed mathematical points of view and united with current and future needs, forming a curious entity.

One of the skills that young people must obtain is the deduction of accurate and cautious conclusions from the evidence and data presented, examining arguments from the facts written by others and differentiating opinions from hypotheses supported by evidence. Science has a role, because it provides rationality in the verification of ideas and theories against real evidence. With such statements, we do not want to notify that science excludes creativity and imagination. (Cruz, 2020:57-58)

Several countries such as Chile, Peru and Argentina have taken charge of the changes in their educational policies, facing new perspectives on the issues of Educational Quality Evaluation, because educational centers have acquired a certain independence for the preparation of its Institutional Educational Project, which contemplates the real needs of the students in the family environment, the level of schooling of their parents, their income, the social context, the infrastructure of the educational institutions that play a vital role importance, resources, among others. On the other hand, the curricula, the pedagogical methodologies and the supervised evaluation of a defined educational policy. (Rivera Machado, 2018:975-976)

Those who participate

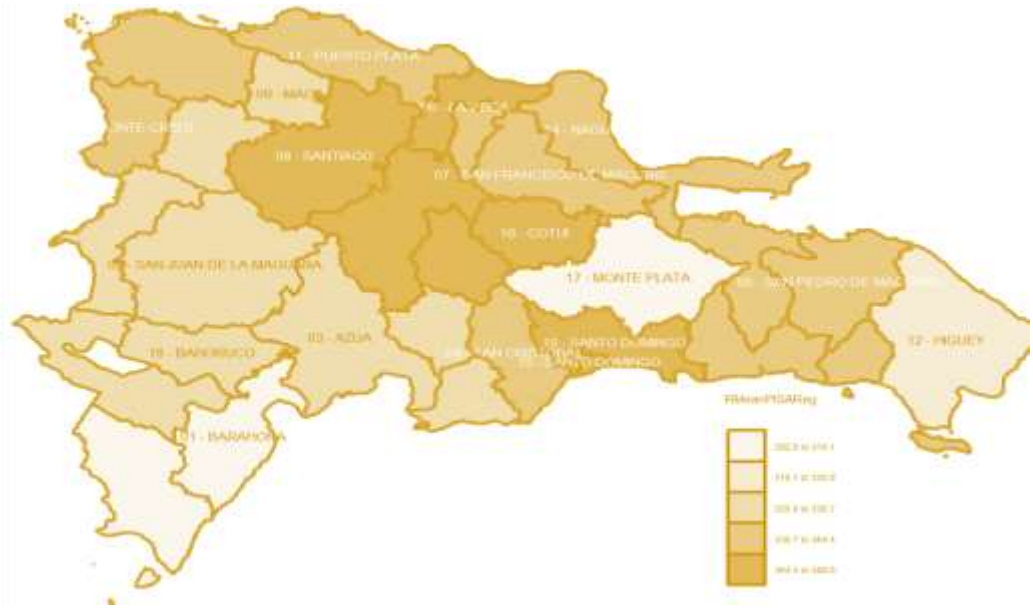
Borrero Forero (2020) believes that according to the Organization for Economic Cooperation and Development (OECD), 74 of the 80 countries that signed up for students to be fruitful, the PISA test provides higher education for free. The State plays an important role in providing this service, since education is considered a vital resource in the formation of capital and growth in the economy. When considering that human capital generates growth based on the production of countries, instruments are sought to measure the levels of knowledge that individuals have.

In order to compare the results between countries, PISA must examine that the populations are similar, but disagreements in variables such as their nature and duration in educational levels, among other additional variables, prevent international similarity. To achieve this goal, specific ages have been established between 15 and 16 years apart from the type of institution to which they belong, the degree they attend totally or partially, excluding those who are not registered in educational institutions. This type of test arises with the purpose of seeking the creation of appropriate educational policies to create and improve the quality of learning and to serve as input for progress in different educational systems throughout the world.

The PISA test assesses students who have completed approximately 10 years of compulsory schooling, measuring academic performance over the years. Also, monitor students' overall productivity to see if they have been improving in their performance, persevering, or slowing down over time. On the other hand, progress towards educational objectives is reflected, increasing achievements and reducing inequalities. (Cruz, 2020:8-9). The PISA tests involve partner nations and the collection of students to show a random verification for public and private study centers. Its purpose is to analyze the educational quality offered to

students, addressing various results that have been obtained from these arguments from 2012 onwards and the consequences that these results have included and their impact on educational institutions, as well as public policies. deployed by the government. (Borrero Forero, 2020:6)

In the Program for International Student Assessment (PISA), the group under study are students aged 15 to 16 who are enrolled in educational centers, whether public or private, at educational levels of 8th grade or higher. elevated (2nd, 3rd and 4th). Educational institutions are classified by a national list of eligible establishments through systematic sampling, with probabilities of being selected proportional to the size of the school. In the first instance, schools are divided into mutually exclusive groups, with homogeneous characteristics. (INEE, 2020).



Graph 1. General PISA 2018 Test Score by Dominican Educational Regional.
Source: Own elaboration with PISA 2018 database.

Who selects the sample of schools

The population under study in the PISA tests are students who range between the ages of 15 and 16 at the time of starting the testing period and who are attending study centers located in the country who are in the 7th grade or at higher levels. On the other hand, public and private educational centers participate. These are applied to a maximum of 35 students of the established ages and who are studying these levels. They can be at various levels from the first grade of secondary school (formerly 7th grade) to the sixth grade. On the other hand, in the Dominican Republic, students should be studying the fourth grade of secondary school, which is considered within the modal grade.

To select the sample it is carried out in two stages:

1º The option of educational centers is concentrated by implementing the methodology of probability sampling proportional to the size of the school (enrollment of 15-year-olds of school age).

2º A maximum of 35 students who meet the eligibility criteria are selected in each center.

These students in the samples receive a final weight that notifies the amount of the population they represent and incorporates the school weight (the inverse of the probability of school selection) as the weight of the student within the study center (the opposite of the probability of student selection). (IDEICE, 2020:8-9)

As in previous cycles in the Dominican Republic, in PISA 2018 the sample was selected using a random statistical method by sectoral strata (public, private and/or semi-official) and batches (morning, extended, night and/or evening). In the 2018 cycle, PISA evaluates 242 educational centers and 5,699 Dominican students.

The processes for the application and implementation of PISA are carried out through work stages, which include tasks such as sample selection, design, planning, storage, requesting technological resources for application, coding, among others .

Illustration 1. National Team

Source: Own elaboration, 2022.

Descriptive analysis of Mathematics items in PISA 2018

For the 2018 cycle, we worked with 40 items released for Mathematics. They involve open and closed responses regarding general mathematical knowledge, interpretation of results, use of concepts, facts, procedures and mathematical reasoning.

Table 3. Frequency of items released in PISA 2018: Mathematics (Score answer)

	Tags	Fi	Percentage
	Total Coded	32,732	14.42
Lost	Not reached	2,989	1.54
	Does not apply	7	0.00
	Unanswered	2,029	1.04
	Losses through the system	189,252	97.41
	Total NA	194,277	85.60
	Total	**226,960**	**100**

Source: Own elaboration with PISA 2018 data Database .

Of the total number of items applied to the 5,699 Dominican students, approximately 2,029 presented empty values (1% of the Total NA). The majority of the responses (85.6%) are categorized as NA or *Missing Values responses* , while the total number of satisfactorily coded items represents 14.42% of the total items implemented in the 2018 PISA cycle for the Mathematics domain.

How parents get involved

The involvement of parents in the educational training of their descendants has a certain impact on the improvement of their learning. By getting them involved most of the time, communicative links could be created between members, strengthening the education of their sons and daughters. Aguirre Huamán (2018), This is why in PISA the occupations of the parents of the participating students are correlated through a context questionnaire, allowing a better construct to be equated.

Parent involvement

Echevarría Fernández (2020) refers to the fact that parental participation is essential for the growth of students, because they are the ones who will build the foundations for maintaining the stability of their descendants and for them to have better development in their educational training. Parental cooperation is an uncertain expression, because it addresses teaching and education at home to their commitment to school activities. Therefore, the upbringing and development of the child includes aspects of its performance in a specific relationship, as well as other generic practices (feeding, care, and so on). Among the activities are sports competitions, conducting parent-teacher interviews and attending continuing training courses.

Parental involvement has become a determining factor that is reflected in the cognitive development and academic success of the student, influencing the instruction of positive behavior, instilling values at school, improving self-esteem and raising the educational aspirations. Such participation is inseparable at any stage of people's growth, due to cultural and societal variations. On the other hand, they are the authors in the lives of their offspring, because from the moment they begin their life cycle, their presence is essential for their growth, development and formation.(Echevarría Fernández, 2020)

Ventocilla-Aquino (2019) reports that, according to the United Nations Educational, Scientific and Cultural Organization (UNESCO), parents should be actively included in the formation of their children's learning. Also, they generate agreements with study centers to provide continuity and strengthening of what has been learned. (p.131)

Parental support is a process of accompaniment and complicity of parents with their children regarding their school activities and providing socio-emotional resources related to the student's self-direction processes. In other words, it allows them to obtain the satisfaction of their emotional and affective needs and engage in their school activities on their own. Being able to feel part of the school community and enjoy healthy relationships with their parents and teachers, having better chances of having adequate academic performance and being satisfied with their life. (Ventocilla - Aquino, 2019:131)

Ventocilla – Aquino (2019) defines parental involvement as a *"process of accompaniment and involvement with their children regarding their school activities"* (p.132). It is characterized by establishing the appreciation that children have of the protection received from their parents. For the study, it is a discrete quantitative variable with a ratio scale, presenting the following dimensions: paternal support for autonomy, maternal support for autonomy, paternal involvement and maternal involvement. This range of values is assumed by the variables from 1 to 4, since a higher score will indicate a higher level of support for the autonomy and involvement of parents.

This type of support is related to academic performance. In other words, by getting involved, parents promote the independence of their children's school activities, positively reflecting productivity in the study. Therefore, the student will develop personal means such as self-direction, demonstrating initiative in their academic tasks, waiting for them to be applied in any situation that may arise throughout the process of their life, both work and sentimental. (Ventocilla - Aquino, 2019:135)

The concept of family involvement in upper secondary education

Infante Blanco & Padilla González (2019) argue that the academic fruits of students are produced by various processes and institutions, where individual characteristics, family and school interactions and their relationship between one and the other, united to obtain materialized learning. for educational success. In other words, the complicity of the family is one of the factors associated with learning, which is why it is not limited to thinking that it is only exclusive to the support of the family, without taking into account the remaining actors and elements. (p.3)

A brotherhood has been established between family intervention and academic results, considering that these lead to having positive effects to achieve the expected learning, because it positively influences the improvement of other points of view of educational centers and in the growth of students and communities. On the other hand, it is considered multidimensional, which includes various actions that can be understood as the same concept. Also, inconsistency is generated because the actions are aimed at improving the teaching of students or managing the resources of educational centers.

In high school, parental involvement decreases for the following reasons:

1º They assume that as children grow, they need more freedom and less guidance from them, reducing their participation.

2º They consider that they do not excel in the content, they do not intervene in their children's schoolwork.

In high school, the thought predominates that the family is more involved, there is a probability that they will be supportive for the educational training of the students and not everyone has the notion of what they should do to support them. Only a differentiation is perceived between family participation in the activities organized by the educational center (family-school relationship) and involvement in the acts that enable the learning and development of students in high school.

Infante Blanco & Padilla González (2019) point out that the literature has focused its attention on the involvement of fathers, mothers and guardians for school success, giving rise to the conceptualization of **Parent Involvement** . The studies are focused on basic education, where they have greater participation. On the other hand, at higher levels, apart from parents, siblings, grandparents, uncles, cousins, among others, they are integrated into the students' school processes, providing training in family involvement.

The research that has been carried out on family involvement and academic achievement by students arises from the benefits of social disciplines by observing the structure and functioning of families in relation to the scores obtained by the students of educational centers. With the participation of parents, it has become an important sector in educational research, associating family presence as factors of success in schools, transforming the way of seeing them and confirming that they are active entities for the proper functioning of the school. (Infante Blanco & Padilla González, 2019:4)

Family practices that contribute to the academic achievement of high school graduates

Infante Blanco & Padilla González (2019) establish that family involvement occurs in two important conditions:

1st Interest of schools in working together with families.

2º Value of schooling by families. (p.9)

These provisions can motivate harmony between families and schools, to obtain the results expected by school communities. They would be ideal for a family – school relationship. However, it must be taken into account that they do not occur with the opportunities, frequencies and intensity that are required for such purposes, giving rise to various levels of affinity between family members and educational centers, especially in Latin American countries or in developing countries . of development, where there are great inequalities in society.

Researchers study family interventions through approaches, difficulties in determining generalized practices that intervene in academic achievement. Also, they agree with the involvement in the period of adolescents who constantly change in the need to evolve and reaffirm their autonomy, the parents' beliefs about the form of education, and the conditions established by the high school to relate them with their families. . On the other hand, those who attend basic education are more influenced by family values in their first years of life, unlike those who are in higher grades, convinced of their strengths and weaknesses in the educational field. Therefore, family intervention in high school is of certain importance to achieve the established academic objectives, although practices are exchanged to give way to the development of freedoms for adolescents.

The transformations in learning, educational success operates as an indicator that visualizes the levels of learning in the student, covering various subjects, its meaning depends on the indications by which they are arranged, focused on the training processes, in the curriculum and translate into declared learning, grades, standardized test scores, school permanence and completion of educational degrees. These criteria have something in common, which is academic achievement, such as the effort and cognitive capacity of the students. It is appreciated that, in family involvement, academic achievement shows that the student is increasing his potential, supported by family conditions, which in turn provide ideal recreation for such purposes. (Infante Blanco & Padilla González, 2019:9)

Associated factors

The factors detected by PISA that have been considered important with the expected results, such as economic, social and cultural factors. Also, allied to the characteristics of the schools, the students, and the social, economic and cultural environment.

Socio-economic and Cultural Status Index in PISA (ISEC)

To establish points of view about the social and family beginnings of the students, a social, economic and cultural classification (ISEC) is built, reflecting the professional activity and educational level of the parents and the resources available at home.

Influence of the Social Economic and Cultural Index on the results

The impact that the social, economic and cultural index can have on students' compliance can be established. Those of nations in which the increase in the ISEC causes fewer variations in the results are considered equitable systems, since a system is considered equitable if its effect is presented on a smaller scale.

There are cases where nations with a reduced ISEC achieve results close to half of the European Union and the OECD, such as Spain, Portugal, Poland and Latvia. Also, there are extreme cases where the correlation between results and ISEC is not executed, such as in Iceland, which, being one of the nations with the best ISEC, obtains results lower than expected.

Factors explaining the use

Pinkasz (2021) mentions that the study begins with the assumption of the existence of a set of factors that imply the use or not of the evaluation results. It is based on a generalized synopsis that identifies the institutional, technical, political and communication factors according to an original ordinance established by several regional studies. (p.94)

Institutional factors are understood as the qualities of the institutional design and organizational dynamics that expose the use of the results of the evaluations that have been used. The weight of the trajectory of the institutionalization of evaluation devices and the weight of the coordination modalities have been identified, together with the organizational argumentation that makes it up.

The technical factors are the adequacy of the use of the technical characteristics of the evaluations, because any application is valid for some evaluation, the availability of human and technical resources to process the evaluations and their use, the coupling between the cycle of the usefulness of the information and the cycle of use of the results.

Regarding political factors, the most relevant is the set of pressures exerted by the various actors in the educational system to inform about the functions of evaluation around the uses of training uses. Said entertainment is a conflict to order a model of governance over the system, articulating ideological factors, confrontations over the legitimacy of the uses of the results, in their execution, as well as the modalities of communication.

The communication factors are perceived according to the capacity of user construction and the interpretive needs and the use of the data obtained by the representatives. (Pinkasz, 2021:94-95)

Adaptive software How does it work?

Diverse positions have been found, since some resort to the use of computers for the development of large-scale evaluations, to benefit from the virtues offered by this variant. It presents certain advantages, among which are identified the standardization of applications, efficiency in data processing, feasibility of coding responses in an automated manner and creating adaptive tests. Also, they facilitate the coding of the respondents' responses and the reduction of errors in the process, promoting interactivity and inclusion of items. From the other point of view of the student, it allows for quick results , a reduction in the stress factor and is more consistent in terms of internal and external validity.

The facilities allowed by the CBA and the INEE position are guided by three aspects:

1º Evaluation through computers, favoring the evaluation of skills, such as collaboration and problem solving. This type of position is compatible with those who study the phenomenon of the outcome and solution of collaborative problems.

2º The use of pencil - paper is exceeded by not allowing the measurement of authentic tasks, being a rigorous assertion, because it calls into question the validity of the results of previous cycles assuming that only the CBA allows a true evaluation contradicting the reports published by the INEE.

3º Computer evaluation allows the interactive adaptation of young people, who agree with the previously mentioned positions. (Jiménez Moreno, 2018:723-724)

How does it apply?

The PISA tests have been administered triennially (every three years) since 1998, selecting a sample of around 4,500 and 10,000 students per country who are completing their secondary studies, with an approximate age of 15 and 17 years. It lasts two hours and only test booklets, pencil and paper are needed.

How is the test given?

The tests are given by the Dominican Institute for Evaluation and Research of Educational Quality (IDEICE), who is the body in charge of applying the evaluations, and has the responsibility of setting up a mobile laboratory with Laptops with software containing the tests established for the students. .

Open question coding process

What type of questions are used in the PISA test and why?

The PISA tests use multiple choice questions that are the distinctive features of their evaluations, since they are effective, reliable and based on solid and scientific analysis. On the other hand, it gives value to the questions because they have a variety of formats, including the highlighting of a word in a text, data relations and making various selections in the drop-down menus, and where a third of the questions are open.

Students take the situation test that provides data about themselves, their dispositions in learning, and at home. Also, school directors are assigned a form from their educational centers. In turn, nations can choose from a variety of optional questionnaires from the PISA tests (computer familiarity, career, and parental education questionnaires). Also, they decide to gather as much information as possible through national tests. With these data, the connections between student productivity in PISA and its causes (migration, gender, socioeconomic context) are explored, as well as students' positions regarding school and their points of view regarding learning.

Students also answer a background questionnaire, which provides information about themselves, their attitudes toward learning, and their homes. Likewise, educational center directors are given a questionnaire about their centers. Countries and economies can also choose to administer several optional PISA questionnaires: the Computer Familiarity Questionnaire, the Careers Questionnaire, and the Parental Education Questionnaire. The PISA 2018 questionnaires can be consulted here. Likewise, many countries and economies choose to collect more information through national questionnaires. The information collected helps countries explore the connections between student performance in PISA and factors such as migration, gender, and students' socioeconomic background, as well as students' attitudes about school and their approaches to school. learning. (FP Education, 2019:10)

Who prepares the test questions?

The questions are prepared by the participating countries, who present their packages that are added to the points developed by the experts and contractors of the Organization for Economic Cooperation and Development (OECD). Subsequently, they are reviewed and verified internationally to prevent cultural and translation biases. Only the questions that are used by PISA. On the other hand, a pilot test is carried out in all participating countries. If it is proven that they are easy or difficult, they are eliminated. (FP Education, 2019:10)

Challenges

For the year 2020, the COVID-19 pandemic caused the closure of educational institutions globally, forcing teachers and students to adapt to online teaching and learning, which became a challenge for educational authorities. education in all nations. This situation created great inequalities due to the technological availability in schools and the capacity of teachers to efficiently use these tools in information and communication. (OECD, 2020)

In the publications Effective Policies, Successful Schools, the results of the most recent tests are compared, with the collaboration of 600,000 15-year-old students in 79 countries. By 2018, there was around one computer in schools, which reported that they did not have the necessary power in terms of capacity, massively affecting students globally. For these reasons, inequalities and deficiencies prevail in educational systems throughout the world and especially in developing countries. This situation affects abandoned youth, where nations should guarantee that educational centers have the resources so that their students have the opportunity to learn and achieve success . Teachers have certain capabilities for using technology, since they have the technical and pedagogical skills to incorporate digital devices into their subjects.

In the PISA report they are related to other political aspects and school equalities, where the disparities between favored and disadvantaged schools linked to the limitation of teaching staff and material resources, which include digital ones, are exposed. For these purposes, it must be ensured that all schools establish adequate and quality resources, as well as ideal support for students so that they have equitable opportunities to learn and succeed at the school, professional and personal level. (OECD, 2020)

Jiménez Moreno (2018) stipulates that the use of a computer for each student represents a challenge at the level of logistics and infrastructure, because to administer the tests it is necessary to install around 21 computers outside the educational centers. due to the low probability of functional computers in the classrooms or that the components had the specifications established for the software in the execution of the tests. (p.718)

Another of the challenges and additional challenges to the repercussions of information, infrastructure and economic issues, aspects related to the methods implemented for this type of tests are contemplated. One of the issues of greatest interest is the development of adaptive evaluations to have certain influences on the performance of those who support them. This is because it leads to analyzing the way in which the tests are applied. In other words, the aim is to investigate whether the application using a computer or pencil and paper generates an impact on the results. (Jiménez Moreno, 2018:722)

CONCLUSIONS

The PISA program represents great challenges for Dominican education. It is the very characteristic of the application of the program that maintains a unique prestige in the participating countries. Adaptive and computer-based tests are one of the great tools provided by the international PISA study for the evaluation of students' competencies. The Dominican Republic has adopted the role of education based on quality and social development by participating in said study. For the purposes of meeting the objectives, educational policies must be promoted by the relevant government entities to guarantee young Dominicans an education forged in key skills for full participation in modern society.

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