



VENEZUELA BASIC EDUCATION DIAGNOSTIC EXECUTIVE SUMMARY

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ABSTRACT

This study seeks to provide an updated, complete and technically rigorous diagnosis of Venezuela's education system situation. The diagnosis was based on the deployment of the first National Survey of Educational Establishments (ENEED), a detailed questionnaire to characterize Venezuelan schools, for whose application we selected an intentional, stratified and multi-stage sample with a total of 394 representative schools national (universe of 25,560 schools). Of these, we selected 207 schools to measure 3rd grade students' reading levels using a remote version of the EGRA assessment. We also interviewed 1,843 students and 1,936 teachers. Results show a significant deterioration of the Venezuelan basic education system, characterized by a decrease in students and teachers' enrollment, and significant deficiencies in infrastructure, basic services, and the quality and frequency of the School Feeding Program (PAE). EGRA results corroborate this deterioration. While most students lag behind in the listening and reading comprehension subtasks, 68% of students show a considerable lag in the oral reading fluency subtask. More than 40% of students only read 64 words per minute (ppm) or less, when they should be reading between 85-90 ppm, and consequently, have difficulty reading fluently. During the COVID-19 pandemic, 47% of students declared having learned less with remote schooling, thus widening the achievement gap between students in rural and urban areas. These findings draw a straight line to the need to implement programs that promote reading fluency and invest in school infrastructure, basic services, and nutrition and health programs to increase the quality of education and prevent teacher and student drop-out.

EXECUTIVE SUMMARY

Background

Even before the COVID-19 pandemic, the political, socioeconomic, and institutional environment in Venezuela had been significantly deteriorating. The Venezuelan education sector has not escaped the profound chronic crisis the country is going through. The limited information available prior to this study indicates that in 2019, 70% of 3- to 24-year-olds were enrolled in elementary or secondary school compared to 76% in 2016¹. Data from 2019 also show that 95% of schools had deteriorating infrastructure and lacked dental and student support services.² Currently, official information about the characteristics and performance of the Venezuelan education system is scarce, unsystematic, and inconsistent. Basic education statistics such as enrollment, dropout, repetition, performance, efficiency, sector spending, and state of the school infrastructure, have not been published since 2015. Nor has Venezuela participated in any international or regional educational assessment, or conducted nationally representative learning assessments since 1998, despite important institutional changes and increase in student enrollment. The few alternative sources of information suggest a sharp decline in most education indicators and a significant dropout rate from the school system during 2019 and 2020.

Objectives

This study seeks to provide an updated, complete and technically rigorous diagnosis of Venezuela's education system situation. This study in no way replaces the need for a national census to accurately determine the status and needs of the Venezuelan education sector. Given the scarcity of official figures, we hope this study becomes a useful source of information for education reforms. The study also seeks to facilitate a modernized education management information system to serve as a basis for the design, execution, monitoring and management of policies aimed at the economic, social, and institutional recovery of Venezuela, and their long-term sustainability.

The specific objective of this study is to shed light on: (1) Primary education indicators; (2) the state of school infrastructure and basic services; (3) public safety conditions surrounding schools; (4) the availability of transportation to access schools; (5) plans to reactivate the School Feeding Program (PAE); (6) the potential impacts of the COVID-19 pandemic; (7) teacher and student perceptions on student learning; (8) students' and teachers' nutrition conditions; (9) teacher characteristics and instructional strategies used; (10) school management; and (11) learning outcomes. This study delves into third grade student achievement, using the Early Grade Reading Assessment (EGRA) instrument, to complement the Venezuela Education Diagnostic and provide educational authorities with information to respond to student needs according to their learning level.

¹ Sources: (S/N). (2020). Informe de Educación. (Número 1). Observatorio de Educación de FundaREDES. (2020) Encuesta Nacional de Condiciones de Vida (ENCOVI) 2019-2020. Modulo Educación. UCAB, Instituto de Investigaciones Económicas y Sociales (IIES).

² Sources: (S/N). (2020). Informe de Educación. (Número 1). Observatorio de Educación de FundaREDES. (2020) Encuesta Nacional de Condiciones de Vida (ENCOVI) 2019-2020. Modulo Educación. UCAB, Instituto de Investigaciones Económicas y Sociales (IIES).

Methods

In this baseline study, we observe and collect data through the deployment of the first National Survey of Educational Establishments (ENEED), a detailed questionnaire on the conditions of the Venezuelan educational system with a nationally representative sample of 394 schools. The unit of analysis was the school, both public and private. To answer the research questions, we interviewed 1,843 students and 1,936 teachers, on average, five teachers and five students per school, with a maximum of 12 teachers and 12 students per school. Additionally, we used a territorial-based statistical model, which allowed us to triangulate information about education services' demand and supply.

Most of the research conducted for this study was quantitative in nature. However, we integrated qualitative research to understand enumerators' perceptions of the barriers and opportunities faced during the data collection process. We collected data using the following four measurement indicators: 1. Context, 2. Inputs, 3. Processes, 4. Results. The analysis of indicators one, two and three is part of the so-called "Diagnostic" research component, while indicator four is part of the "EGRA" component. To measure literacy outcomes, we focused on the performance of 1,028 3rd grade students through the application of a remote version of the EGRA.

We drew the school sample from a universe of 25,560 schools nationwide. We then selected 394 schools for the Diagnostic component (indicators 1-3), and from this sample, 207 schools with 1,028 students for the EGRA component were chosen (indicator 4). Both, the samples of schools and students were intentional, stratified, and multi-staged. **Intentional**-- since we used non-probabilistic procedures for selection depending on the real feasibility of accessing schools, and considering variables such as security, willingness to participate in the project, access routes and the distribution of public/private urban/rural school in each Municipality. **Stratified**-- as we employed two stratification variables for school selection: public/private- subsidized and urban/rural. In terms of school ownership and administration: 85% of schools were public and 15% private- subsidized. In terms of geographical location, 53% of the schools were in rural areas and 43% urban areas. The sampling is **multi-staged** given, Stage 1- selection of the state, Stage 2- selection of the municipality and Stage 3- selection of schools. We aimed for a similar distribution in the selection of states and municipalities.

Under normal conditions, the EGRA is carried out in person, considering protocols designed for face-to-face interaction. Given the conditions of social isolation that the world is experiencing due to the COVID-19 pandemic, we adapted the test to a remote digital version, and (with the support from Fundación Carvajal) conducted the assessment using smartphones for video calls. We carried out the data collection for the EGRA in three steps: 1. We reviewed and updated the student database we received from school principals and teachers; 2. We made calls to families to inform them about the study's goals and explain the necessary conditions to carry out the assessment successfully and schedule a time for the test; and 3. We conducted remote testing. Enumerators established communication with families for the second time and initiated the video call sharing the pertinent material and enabling the student to respond to the assessment questions.

We divided our Diagnostic analysis into four areas and developed data collection instruments accordingly: (1) educational environment context (infrastructure, school organization, COVID-19 situation), (2) teacher context, (2) student's perception, and (3) administrative data (student enrollment, teaching staff, etc.). For the EGRA analysis, we focused on the following skills: Alphabetic principle, oral reading fluency, reading comprehension, and listening comprehension. We adapted the EGRA to the Venezuelan context ensuring reading passages were appropriate for Venezuelan third graders.

Key findings

The data collected on the first National Survey of Educational Establishments (ENEED) show a significant deterioration of Venezuela's basic education system, characterized by a decrease in student and teacher enrollment, considerable deficiencies in infrastructure and basic services, and sustained interruptions of school activities due to the COVID-19 pandemic. EGRA results corroborate this deterioration showing reading fluency challenges for most students in the sample. We did not observe significant gender differences in the results obtained from student surveys or from the EGRA. Yet, we observed geographical heterogeneity of results. Schools in rural areas show higher infrastructure deterioration than those in urban areas, and students in rural schools test lower in the EGRA reading fluency subtask than their urban peers. Conversely, teachers in urban areas migrate at higher rates than their peers in rural areas.

Diagnostic

Results show considerable student and teacher attrition from the education system, acute and absolute deficiencies in infrastructure and public services, and high levels of food insecurity for students and teachers. Since 2018, student enrollment decreased by 15.7% and teacher enrollment by 24.9% either due to migration (representing 40% of the total decline) or lack of motivation to attend school. Most of the schools show marked deficiencies in basic services including acute lack of water (56.6%), electricity (69.9%), and internet (85.7%). Schools also presented absolute shortages of water (45.3%), electricity (7%), and internet (68.2%). In other words, while schools have basic services, such as electricity, they are barely functional if at all. Likewise, schools show important infrastructure shortcomings including the absence (of absolute lack) of health services (93%), libraries (48%) and sports facilities (43%), among others.

In terms of food security, 48.8% of students reported that they ate less than three times a day and an estimated 56.9% are food insecure. Likewise, about 50% of teachers reported losing between 13 and 33 pounds in the last two years, and 85.7% reported not having health insurance. Although, 90.2% of schools reported being affiliated with the PAE, 83.6% rate the service as either fair or poor.³ Only 32.27% of the schools receive PAE every school day and 36.67% receive it several times a week.

The effects of distance learning during the pandemic are also worrisome. In remote education offered during the pandemic, 47.54% of the students reported they have learned less, 35.36% reported they have learned the same, and only 17.1% reported learning more. When comparing results by type of school, marked differences are evident. In private-subsidized schools, 35.91% of students reported learning less, compared to 45.33% of public schools in urban areas and 47.29% of public schools in rural areas.

In terms of school transportation, only 2% of schools offer this service to students and only 1% offer transportation to teachers. An estimated 83% of the students walk to school. On average, schools are 0.4 miles away from the nearest public transportation stop.

EGRA⁴

Overall, results show that, on average, third-grade students in the sample responded correctly to 57.3% of the questions in the assessment. Most students (75%) responded correctly to less than 76% of the questions. Students in the sample show proficiency in the listening and reading comprehension subtasks designed for the remote test. That is, they understand the content of the passage when another person reads it aloud, and they understand it when they have enough time to complete the reading. More than

³ In many cases, international organizations provide schools with food supplies.

See <https://www.unicef.org/venezuela/historias/alimentaci%C3%B3n-escolar-m%C3%A1s-all%C3%A1-de-la-escuela>

⁴ EGRA – Early Grade Reading Assessment.

half (52%) of students answered correctly four out of four listening comprehension questions and (62%) answered correctly six out of six reading comprehension questions after reading the passage.

However, we identified important oral reading fluency (ORF) and decoding challenges. Most third-grade students in the sample (68%) show reading delays (low 10%, moderate 17%, and high 41%). More than 40% of students only read 64 words per minute (wpm) or less when they should be reading between 85-90 wpm, and consequently, have difficulty reading fluently. Likewise, most of the third graders in the sample only managed to decode 30 pseudowords or less in a minute of a text containing 50 pseudowords, showing that this subtask raised a high level of difficulty. Note that we did not find significant differences in EGRA scores when disaggregating results by sex. However, we identified important gaps in reading when disaggregating results by geolocation (urban/rural school enrollment).

In principle, these findings seem counterintuitive. If students are having challenges decoding words and reading fluently, one would expect that they would also have challenges understanding what they read. Yet, as shown in this study, this appears not to be necessarily the case. Other studies in the region have shown similar findings (Ecuador- Rodas Flores & Mendoza Portilla, 2017 and Colombia - Fundación Carvajal, 2021), where students who understood the text did not necessarily read fluently or students who read fluently did not necessarily understand what they were reading. Possible explanations to interpret these results include **time allowed to conduct the task, content of the passage, and word familiarity**. When students whose ORF was low were given an additional minute to read the passage, they were able to correctly answer the reading comprehension (RC) questions. Our second hypothesis is based on the literal nature of the questions in the RC subtask. Five of the six RC questions were more literal than interpretive. Therefore, answering comprehension questions could have been a straightforward task for most students regardless of their level of ORF. Another explanation for why students scored lower on decoding nonsense words than on RC is word familiarity. Using visual awareness, it is possible to read known words more easily than to read pseudowords and unknown words that can only be deciphered using phonological awareness (Valle & Cuentos, 1988).

To contextualize our interpretation, we compared our results with EGRA results in El Salvador, Nicaragua, and Honduras for third grade students with a nationally representative sample. In Venezuela, on average a third-grade student can read 72.34 words per minute, while in Nicaragua and El Salvador her peers are able to read 82.67 wpm and 75 wpm respectively. While third grade students in Honduras, on average, read less wpm (63.15) than their peers in Venezuela.

Limitations

The information collected for this study was obtained indirectly through self-reported interviews with qualified informants at each school (e.g., school's principal). The unit of analysis was the school, and the scope of the study was to build a multidimensional school profile using the educational diagnostic questionnaire. Therefore, results from this study should not be considered substitutes for those obtained through a national census or studies with unrestricted access to school administrative data for cross-checking and interviews with all members of the school community (teachers, students, staff, parents, or guardians).

A second limitation is the abridged measurement of student learning. Given the remote nature of our data collection and school and student access challenges, we only focused on EGRA and did not measure other cognitive (e.g., math) or socio-emotional skills to determine student learning levels more holistically.

Several factors that impacted the entire educational ecosystem also resulted in data collection challenges and limitations for this study. Specifically, the COVID-19 global pandemic resulted in school closures or

limited access to teachers and students, the acute socioeconomic and political crisis in Venezuela resulted in enumerators not being able to reach schools and some school staff refusing to provide information, the December 2020 national elections resulted in school closures due to their use as polling stations, and climate and environmental factors resulted in heavy rains and limited access to schools. As one of the enumerators mentions during the interview on his data collection experience:

“Conducting research in this country under current conditions is challenging. But it is a valuable, necessary, and indispensable task. The state of public services, the fuel crisis, the COVID-19 pandemic, and the widespread neglect of teachers and the education sector predisposes school staff, parents, and students to establish contact with others”. Trujillo State Enumerator.

The main data collection limitation for conducting the remote EGRA was lack of online connectivity to reach students. To troubleshoot these challenges, enumerators worked closely with principals, teachers, parents, and guardians. The project that funded the study supported families and students with transportation expenses to mobilize to locations with connectivity. In remote locations, connectivity challenges required higher levels of field coordination to ensure students would be fully prepared to take the EGRA. To maximize student reach, regardless of socio-economic status, and to avoid any bias due to systematic exclusion, the project provided families with data plans to facilitate enumeration of the remote EGRA. Community stakeholders including parents and legal guardians, neighbors, and teachers supported EGRA implementation, in many cases, by providing the technological equipment (smartphones) necessary to carry out this test.

Recommendations

Three general recommendations emerge from this study: (1) There is a need to promote an enabling basic learning environment for students and teachers to attend school and prevent dropout; 2) A greater investment in school infrastructure and maintenance of basic services is required; 3) The Development of strategies is required to help mitigate the learning loss that occurred during remote instruction as a consequence of the pandemic. Specific recommendations based on our findings are mentioned below:

- **Improve teacher retention.** Migration explains approximately 40% of teacher attrition. Abandonment of the teaching profession to possibly identify more lucrative economic activities accounts for the other 60% of attrition. Therefore, economic policies that boost teachers' purchasing power and education policies that promote teachers' professional development through high standard accreditation will potentially contribute to improving retention.
- **Improve school feeding programs.** Our results show that both students and teachers face food insecurity. Greater investment in the School Feeding Program (PAE) to extend coverage to teachers can be a first step in reactivating school attendance, improving learning, and preventing dropouts. A next step could be revamping the program's operation to ensure greater food supply efficiency. In the short term, PAE could be better aligned with the World Food Program- already working in Venezuela feeding over 185 thousand school-aged children- or with NGO programs such as *Alimenta* to better coordinate school meals distribution targeting and prioritizing schools with the greatest food insecurity.
- **Investment in health programs and school health infrastructure** is urgent, given the absolute lack of health services in 93% of schools. In addition, policymakers should consider health programs that offer health insurance to both students and teachers. Since 85.7% of teachers do

not have health insurance, offering these benefits could work as an additional incentive to increase attendance.

- **Investment in school infrastructure and maintenance of basic services.** To ensure an enabling learning environment, revamping and upkeep of basic services in schools is key. Approximately 56.6% of schools report acute water shortages, 69.9% acute electricity shortages, and 85.7% acute internet shortages. New learning accommodations that consider both face-to-face and distance education are needed in Venezuela to avoid further learning loss and continue operations during COVID-19.

Recommendations to address learning outcomes based on our EGRA findings include:

- **Promote evidence-based reading fluency and decoding strategies.** In our sample, 41% of students had difficulties reading fluently and 53% of students had difficulties decoding nonsense words. Decoding words aids in the development of word recognition, which in turn increases reading fluency. Therefore, instructional literacy and reading strategies that promote decoding skills and improve fluency such as Response to Intervention (RTI) should be included in early grade teacher training plans (first to third grade) for timely interventions. While 62% of students seem to understand what they are reading, we also recommend including instructional training strategies that start developing students' inferential and argumentative skills.
- **Implement differentiated remediation measures for rural areas.** Urban students performed better on the EGRA than rural students. Thus, differentiated interventions and teacher training strategies for rural learning should be considered. It is likely that reading differences between urban and rural students in Venezuela can exacerbate if learning needs are left unattended. In addition to continuing monitoring learning through assessments such as EGRA, we see the need for a broader education diagnosis to identify and address regional challenges in terms of reading instruction, teacher training, and the physical and human resources available in rural areas.

Carrying out this study in today's Venezuela represents a significant step forward in the production of new knowledge and reliable information on the state of the basic education system. Future research could delve deeper and shed light on issues highly relevant to inform education policy in Venezuela, yet outside of the scope of this study. Among these: 1) an in-depth international comparison of large-scale EGRA results, either with other Latin American countries or with countries with contexts similar to that of Venezuela; 2) a holistic assessment of learning outcomes to measure other cognitive skills such as mathematics and non-cognitive/socio-emotional skills, particularly during and after the COVID-19 pandemic; 3) a comprehensive assessment of teacher quality including data on in-service teacher certifications, accreditation, and training conducted to teach at the primary and secondary levels and to ensure effective transitions between both levels; 4) an initial financial exercise on the costs of recovering the minimum basic services in schools and maintaining infrastructure necessary for adequate learning; 5) a follow-up deploy of the ENEED to conduct comparisons and measure change over time; and 6) a follow-up deploy of the ENEED with a larger sample to better understand differences in results by gender, inclusion, socio-economic status, geographical area, etc.