## Republic of Cameroon

Ministry of Basic Education

EXECUTIVE SUMMARY
PASEC2019

# QUALITY OFTHE CAMEROONIAN EDUCATION SYSTEM 



Conférence des ministres de l'Éducation des États et gouvernements de la Francophonie

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This report presents the first results of the PASEC 2019 assessment. The report is available for download at www.pasec.confemen. org

# PASEC2019 <br> EDUCATION SYSTEM PERFORMANCE IN CAMEROON ANGLOPHONE 

FOREWORD

## EVALUATION METHODOLOGY

The PASEC2019 evaluation is the second cluster evaluation of the CONFEMEN Education Systems Analysis Program. It consists of data collection in randomly selected schools, from pupils at the beginning and end of primary schooling through tests including contextual questionnaires. Data are also collected from teachers and head teachers through contextual questionnaires related to school management. In addition to the nature of the data collected in the first PASEC grouped evaluation called PASEC2014, the PASEC2019 survey included data collection from teachers to measure their performance in relation to the mastery of content taught in reading comprehension, mathematics and didactics.

At the beginning of primary school, the tests are administered individually to pupils. Thus, 16 pupils are randomly selected from a class and the test is administered by administrators recruited and trained in the survey procedures. The test consists of two parts: a language part lasting about 30 minutes and a mathematics part with a questionnaire on the characteristics of the pupil, his or her family environment and the educational resources available to him or her.

At the end of primary school, 25 pupils are randomly selected from a class and monitored by a recruited and trained administrator. The tests are in the form of multiple-choice questions (MCQs), in a «paper and pencil» format, administered collectively and independently over three days. Each booklet consists of two parts: one part on reading comprehension, another on mathematics, and a final part on a questionnaire on the pupil's characteristics, family environment, educational resources and well-being at school.

As far as teachers are concerned, the survey conducted concerns all teachers in the sampled schools. Each teacher is administered a booklet with five parts: (i) Reading Comprehension, (ii) Didactics of Reading Comprehension, (iii) Mathematics, (iv) Didactics of Mathematics, (v) Background Questionnaire.
The questionnaire for the context covers the individual characteristics of the teacher, his or her professional experience and status, the characteristics of his or her class, information on his or her teaching, pedagogical collaboration and working conditions.

For each school in the sample, a questionnaire is submitted to the head teacher to provide information on: individual characteristics, school characteristics, elements of school inspection, relations with parents and the local community, pedagogical and management aspects, and school life.

All this data is then captured, cleaned and processed to produce indicators useful for educational policies. Thus, through the item response analysis (IRT) method, scores are calculated for pupils and teachers with the definition of competency scales and various indices such as those related to the socio-economic status of the pupil, pedagogical resources, classroom equipment and school infrastructure, etc.
With its particular context and unlike the PASEC2014 report, the Cameroon PASEC2019 report has taken into account the coexistence of the two education sub-systems and their particularity. Thus, two independent reports (one for the Francophone sub-system and the other for the Anglophone sub-system) have been produced.

## I. PUPILS' KNOWLEDGE AND SKILLS IN ENGLISHSPEAKING PRIMARY SCHOOLS

Beyond the overall scores, the description of the levels of performance of the pupils makes it possible to understand the tasks that the pupils are capable of achieving or doing at a given 'level' of the skills scale. Thus, for each subject (reading, mathematics), hierarchical levels of competence have been defined. These levels are thus hierarchically arranged in such a way that a pupil who performs at one level is also capable of performing at the lower levels.

In other words, the lower levels of the scale for a subject require less complex tasks than the higher levels.
Tables I and 2 present, respectively, the PASEC2019 competency scale for early primary schooling in language and mathematics in the Anglophone subsystem in Cameroon.

Table I: PASEC2019 Reading Proficiency Scale - End of School

| Levels | Score | International distribution of pupils in the scale levels (\%) | National distribution of pupils in the scale levels <br> (\%) | Description of skills |
| :---: | :---: | :---: | :---: | :---: |
| Level 4 | $\begin{aligned} & >610 \\ & \text { points } \end{aligned}$ | 23,5\% | 20,0\% | Intermediate reader: towards independent reading to understand sentences and texts. <br> Pupils have reached a level of reading and listening comprehension that enables them to understand explicit information in short sentences and texts. They are able to combine their decoding skills with their command of oral language to reconstruct the literal meaning of a short text. |
| Level 3 | Between 540 and 610 points | 21,0\% | 19,4\% | Learner reader: towards the development of print decoding, listening comprehension and written word comprehension skills <br> Pupils have developed their listening and decoding skills to focus on word comprehension. In listening comprehension, they are able to understand explicit information in a short text with familiar vocabulary. They gradually develop links between oral and written language to improve decoding skills and extend vocabulary. In reading comprehension, pupils are able to identify the meaning of single words. |
| Sufficient' threshold of skills |  |  |  |  |
| Level 2 | Between 469 and 540 points | 28,5\% | 28,1\% | Emergent reader: towards developing reading skills and strengthening listening skills <br> Pupils have improved their level of listening comprehension and are able to identify a lexical field. They develop the first rudimentary links between oral and written language, and are able to carry out basic tasks of deciphering, recognition and graphophonological identification (letter, syllable, grapheme, phoneme). |
| Level I | Between 399 and 469 points | 18,3\% | 20,7\% | Awakening readers: first contacts with oral and written language <br> Pupils are able to understand very short oral messages (isolated words) and familiar objects. <br> They have great difficulty in deciphering the written word and in graphophonological identification (letters, syllables, graphemes and phonemes). |
| Below level I | $\begin{aligned} & <399 \\ & \text { points } \end{aligned}$ | 8,7\% | 11,8\% | Pupils at this level do not sufficiently demonstrate the skills measured by this test in the language of schooling. These pupils have difficulty with the knowledge and skills of level I |

[^0]Table 2: PASEC2019 Mathematics Proficiency Scale - Early Schooling

| Levels | Score | International distribution of pupils in the scale levels (\%) | National distribution of pupils in the scale levels (\%) | Description of skills |
| :---: | :---: | :---: | :---: | :---: |
| Level 3 | > 577 points | 37,5\% | 29,1\% | Pupils master the verbal chain (counting to 60 in two minutes) and are able to read numbers, compare numbers, complete sequences of numbers and carry out operations (addition and subtraction) on numbers above fifty. They can reason about basic problems with numbers below 20. |
| Level 2 | Between 489 and 577 points | 33,7\% | 29,0\% | Pupils are able to read numbers, compare numbers, complete logical sequences and carry out operations (addition and subtraction) on numbers below 50. They manipulate spatial concepts (e.g. in front of, on, etc.). They begin to develop reasoning skills on basic problems with numbers below 20. They also identify most simple geometric shapes. |
| Sufficient' threshold of skills Sufficient' threshold of skills |  |  |  |  |
| Level I | Between 400 and 489 points | 21,5\% | 30,2\% | Pupils gradually develop their knowledge of mathematical language: they begin to read the first numbers (below 10) and master the first notions of quantity (counting, comparison) with numbers below 20. They appreciate the relative size of objects and begin to identify simple geometric shapes. |
| Below level I | $<400$ points | 7,3\% | 1 1,7\% | Pupils at this level do not sufficiently demonstrate the skills measured by this mathematics test. These pupils are struggling with Level I knowledge and skills. |

[^1]Tables 3 and 4 present, respectively, the PASEC2019 end-of-primary-school competency scale in language and mathematics in the Anglophone sub-system in Cameroon.

Table 3: PASEC2019 Reading Proficiency Scale - End of School

| Levels | Score | International distribution of pupils in the scale levels (\%) | National distribution of pupils in the scale levels (\%) | Description of skills |
| :---: | :---: | :---: | :---: | :---: |
| Level 4 | $>595$ points | 26,1\% | 30,2\% | Pupils are able to use comprehensive word processing to draw on narrative, informational and documentary texts. In these materials, they are able to associate and interpret several implicit ideas based on their experiences and knowledge. In reading literary texts, pupils are able to identify the author's intention and determine the implied meaning of a story. In reading informational texts and documents, they link information and compare data in order to use it. |
| Level 3 | Between 518 and 595 points | 21,8\% | 23,4\% | Pupils are able to combine two explicit pieces of information in a document passage or make simple inferences in a narrative or informational text. They can extract implicit information from written material by making sense of implicit connectors, anaphora or referents. Pupils locate explicit information in long texts and documents with discontinuous text. |
| Sufficient' threshold of skills |  |  |  |  |
| Level 2 | Between 441 and 518 points | 25,1\% | 22,2\% | Pupils improve their decoding skills in order to understand single words from everyday life and single sentences. They are also able to locate explicit information in short and medium texts by picking up clues from the text and from questions. Pupils are able to paraphrase explicit information from a text. |
| Level I | Between 365 and 44 l points | 21,1\% | 18\% | Pupils have developed decoding skills and are able to use them to understand single words from their everyday lives or very short isolated sentences, but have difficulty understanding the meaning of short, simple texts. |
| Below level I | $<365$ points | 5,9\% | 6,1\% | Pupils who are at this level do not sufficiently demonstrate the skills measured by this test in the language of instruction. These pupils have difficulty with the knowledge and skills of level I. |

[^2]Table 4: PASEC20I4 Mathematics Competence Scale - End of School

| Levels | Score | International distribution of pupils in the scale levels (\%) | National distribution of pupils in the scale levels (\%) | Description of skills |
| :---: | :---: | :---: | :---: | :---: |
| Level 3 | $\begin{aligned} & >609 \\ & \text { points } \end{aligned}$ | 12,5\% | II, 1 \% | Pupils are able to solve tasks requiring them to analyse situations, usually presented in the form of a short text of 2-3 lines, to identify the procedure(s) to be used. In the area of numbers and operations, they can solve direct proportionality problems and problems involving fractions or decimal numbers. Their understanding of fractions continues to develop (e.g.they understand how to compare fractions or how fractions relate to decimals). In the area of size and measurement, they can solve a variety of problems involving area or perimeter calculations, presented without visual aids and sometimes requiring two stages of reasoning (for example, finding the area of a square when the perimeter is known or making conversions involving data given in ares or hectares). They can also perform calculations and conversions involving hours, minutes and even seconds. |
| Level 2 | Be- <br> tween 521 and 609 points | 25,6 \% | 21,8\% | Pupils are able to answer short questions using the three processes assessed: knowing, applying and problem solving. While most questions require factual knowledge or a specific procedure, others require an analysis of the situation to determine the appropriate approach. <br> In the area of numbers and operations, pupils perform operations with decimal numbers; their understanding of fractions deepens (they identify them in less conventional situations or begin to be able to use them to perform simple operations) and they understand the concept of percentages. They also begin to solve simple problems usually involving a single operation. <br> In the area of magnitude and measurement, pupils are able to tell time and perform unit conversions with or without a conversion table. They are also able to solve simple first problems involving calculations of perimeter and area, usually with visual support. <br> In the area of solids and figures, they can mobilise their background knowledge to solve tasks that require analysis of the situation (e.g. finding $\times$ triangles in a set of figures or identifying parallel lines in a line bundle). |

Sufficient' threshold of skills Sufficient' threshold of skills

| Level I | Be- <br> tween <br> 433 <br> and <br> 521 <br> points | 35,7\% | 36,9 \% | Pupils can answer very short questions that require factual knowledge or a specific procedure. In the area of numbers and operations, they are able to perform the four basic operations with whole numbers that may require a written calculation with a carry. They also begin to develop initial concepts of fractions and can identify them when presented in a conventional way (e.g. a pie divided into $\times$ parts). In the area of magnitude and measurement, they identify common conventional units (e.g. m, $\mathrm{m}^{2}, \mathrm{~m}^{3}$ and kg ). In the area of solids and figures, they have some basic knowledge of various geometric objects (e.g. identify a disc or cylinder, identify a right angle or parallel lines). |
| :---: | :---: | :---: | :---: | :---: |
| Below level I | $\begin{gathered} <433 \\ \text { points } \end{gathered}$ | 26,1\% | 30,1\% | Pupils at this level do not sufficiently demonstrate the skills measured by this test in the language of schooling. These pupils have difficulty with Level I knowledge and skills. |

Source: PASEC 2019

At the beginning of schooling in the English-speaking sub-system, there are still significant challenges in language and learning to be reinforced in mathematics.

Overall in the Anglophone subsystem, $48.7 \%$ of pupils are below the 'sufficient' threshold of expected language skills, with almost $5.6 \%$ of pupils struggling with level I knowledge and skills. In mathematics, $23.5 \%$ of pupils were below the 'sufficient' threshold, with up to $4.8 \%$ of pupils struggling with level I knowledge and skills.

With $31.6 \%$ of pupils below the 'sufficient' threshold of competences, the Center stratum records the lowest proportion in Language at the beginning of schooling. It is followed by the Center stratum (4I.0\%). In contrast, the West stratum (64.0\%) and the Rest of the Anglophone stratum (79.1\%) have the highest proportions of pupils below the "sufficient" threshold of competency.

In mathematics at the beginning of schooling, the Center (86.8\%) and the Littoral (84.3\%) record the highest proportions of pupils at the beginning of the primary cycle above the 'sufficient' threshold of expected competences in mathematics. However, Littoral is the only stratum in the Anglophone sub-system that manages to have more than half of its pupils above the 'sufficient' threshold of level 4 skills. The highest proportion of pupils who do not have the expected skills in this test is in the Rest of Anglophone stratum.

Graph I: Percentage distribution of pupils in the strata of the Anglophone subsystem in Cameroon according to the language proficiency scales - Beginning of schooling


Source: PASEC 2019
Graph 2: Percentage distribution of pupils in the strata of the Anglophone subsystem of Cameroon according to the mathematical competence scales - Beginning of schooling


At the end of schooling in the English-speaking sub-system, performance is still far from meeting expectations, particularly in Reading.

At the end of schooling, 22.3\% of pupils in the Cameroonian Anglophone sub-system are below the "sufficient" threshold of reading skills, with $0.8 \%$ of pupils having great difficulty in reading. In mathematics, this proportion is slightly higher (46.9\%), with II.7\% of pupils having difficulty with level I knowledge and skills.

The Center (86.9\%), places almost all of these pupils above the sufficient threshold of the reading skills of this subsystem, with almost $59 \%$ reaching the top of the scale. It is followed in this ranking by Littoral, which has a proportion of pupils above the sufficient threshold similar to the subsystem as a whole, but with slightly fewer pupils at the top $46.3 \%$ compared to $48.4 \%$. The Remain Anglophone stratum, comprising all the PEZ regions and the South region, has $72 \%$ of its pupils in this category, of whom $41.7 \%$ are at the top of the scale. The West records $61 \%$ of these pupils above the minimum threshold, which is below the overall average proportion for the sub-system.

As in reading, the Center (64.2\%) has the highest proportion of pupils at the end of the primary cycle above the sufficient threshold of expected competences in mathematics. The Littoral performs below the average for the whole sub-system in this subject. Then we have the Rest of the Anglophone stratum which records $48.2 \%$ of pupils above the minimum threshold of expected competences measured by this test. The West region still ranks low with more than the majority ( $63.2 \%$ ) of these pupils below the sufficient threshold. This stratum has the highest percentage of pupils (20.3\%) in the category of those who do not sufficiently demonstrate the skills measured by this test in the language of schooling, pupils who are struggling with Level I knowledge and skills. It is followed by the Rest of Anglophone stratum with $17.2 \%$ in this category.

Graph 3: Percentage distribution of pupils in the strata of the Anglophone subsystem of Cameroon according to the language proficiency scales - End of schooling


Source: PASEC 2019
Graph 4: Percentage distribution of pupils in the strata of the Anglophone subsystem of Cameroon according to the mathematics proficiency scales - End of schooling


## 2. KNOWLEDGE, SKILLS, CHARACTERISTICS AND PERCEPTIONS OF TEACHERS IN THE ENGLISHSPEAKING SUB-SYSTEM

A satisfactory level of mastery of the knowledge and skills of the subjects taught in the English-speaking subsystem, but difficulties for teachers in analyzing pupils' approaches and choosing sufficiently rich situations to promote learning

Table 5: PASEC2019 scale of teachers' Reading Comprehension skills
\(\left.$$
\begin{array}{|c|c|c|c|l|}\hline \text { Levels } & \text { Score } & \begin{array}{c}\text { International distri- } \\
\text { bution of teachers } \\
\text { in the levels of the } \\
\text { scale }\end{array}
$$ \& \begin{array}{c}National distri- <br>
bution of teach- <br>
ers in the levels <br>

of the scale\end{array} \& Description of teachers' skills\end{array}\right]\)| Lever this level, teachers are able to step back and pro- |
| :--- |
| cess all types of texts holistically. They make complex |
| inferences and are able to combine and interpret |
| several implicit ideas based on their experience and |
| knowledge. Teachers are able to detach themselves |
| from the literal meaning of a text to identify the au- |
| thor's intention, to perceive the humorous dimension |
| of a text (even when it is discreet).They can take into |
| account the content of a text to formulate a relevant |
| new idea in relation to the information read. |

Table 6: PASEC2019 scale of teacher competencies in mathematics

| Levels | Score | International distribution of teachers in the levels of the scale | National distribution of teachers in the levels of the scale | Description of teachers' skills |
| :---: | :---: | :---: | :---: | :---: |
| Level 3 | Above 547 | 32,3\% | 37,0\% | Teachers at this level demonstrate the ability to solve complex problems, involving several steps in the solution and requiring reasoning based on a thorough analysis of the situation, which may involve manipulating unknowns (e.g. in unequal shares problems). To solve most tasks at e.g. thinking that area and perimeter vary in the same direction). The expertise characteristic of this level also reflects a deep understanding of concepts (e.g. understanding this level, cognitive vigilance is required to avoid common errors and inhibit misconceptions (the relativity of the whole in relation to the concept of a fraction). |
| Level 2 | Between 456 and 547 | 32,6\% | 36,9\% | Teachers at this level can solve many direct proportionality problems, as well as complex problems involving several steps and requiring a sequentially organized approach. Many tasks at this level involve unit conversions, which may or may not be integrated into problem situations. Some tasks require factual knowledge about a variety of mathematical objects (e.g. formulas for calculating the area of a solid, a property of triangles, or the name of a particular triangle). |
| Level I | Between 365 and 456 | 26,6\% | 22,9\% | Teachers at this level demonstrate factual knowledge and a mastery of basic procedures, which they apply in direct application tasks. Their skills are mainly in the area of numbers (e.g. knowledge of decimal writing, comparing fractions, the notion of percentage, etc.) and operations (ability to solve operations involving whole numbers, decimal numbers and fractions). They also demonstrate some knowledge of solids and figures (e.g. identifying figures or solids, locating a diagonal or an axis of symmetry, etc.) and of magnitude and measurement (e.g. calculating the perimeter of a triangle). Few problem-solving tasks are at this level. |
| below Level I | Lower than 365 | 8,5\% | 3,2\% | Teachers at this level do not sufficiently demonstrate the knowledge and skills measured by this test. These teachers are struggling with level I knowledge and skills. |

Source: PASEC 2019
Overall, teachers in the Anglophone subsystem in Cameroon have achieved a satisfactory level of proficiency in literacy knowledge and skills at the primary level. Indeed, $4.9 \%$ of teachers (those at level I or below) need special attention and refresher courses in reading comprehension. In mathematics, the situation is more alarming, as 45.6\% of teachers need special attention.

Graph 5: Distribution of teachers in the English-speaking subsystem in the different scales of language competence, by stratum


Graph 6: Distribution of teachers in the English-speaking subsystem in the different scales of mathematical competence, by stratum


Source: PASEC 2019
Academic level and professional experience are associated with higher scores in the subject content taught

From the analysis of teachers' characteristics, the most striking results relate to teachers' scores according to their seniority, their level of academic training and their access to in-service training. These results show that in the majority of strata of the evaluation, on the one hand, teachers with a university education have better scores on the survey tests than those with a secondary level of academic training, and on the other hand, teachers who declare having a long teaching experience (between II and 20 years) do better on these tests than their less experienced colleagues (at most 5 years). On the other hand, these results show that, at the national level, teachers who have received in-service training do not score better on the survey tests than those who have not.

Teachers value the school curriculum, as well as relations with the educational community. But they have an unfavorable opinion of their working environment (state of buildings, availability of school supplies, school management, salary income), training opportunities and career advancement

The analysis of teachers' perceptions showed that, with regard to their material and pedagogical conditions, teachers generally expressed satisfaction with the quality of the school curriculum. However, their view of the state of the buildings and the availability of school supplies was less positive in most strata. The analysis also revealed that the majority of Cameroonian teachers expressed an unfavorable opinion of the management of their school. However, teachers claim to have good relations with their colleagues and the community. Also, in all strata, it appears that the vast majority of teachers have an unsatisfactory perception of their salary conditions. Finally, in almost all strata, the majority of teachers expressed dissatisfaction with training and career promotion opportunities.

Teachers' poor didactic knowledge and skills and their low satisfaction with their working conditions are factors likely to affect their motivation and effectiveness.

## 3. FACTORS OF SCHOOL SUCCESS IN THE ENGLISHSPEAKING SUB-SYSTEM

Differences in performance at the beginning and end of primary schooling are generally based on so-cio-economic inequalities and the pupils' educational background.

The school environment is still an important factor in explaining the performance of pupils in the Anglophone sub-system. Cameroon would benefit from strengthening policies aimed at reinforcing infrastructure (classrooms, canteens, latrines) and equipment in schools, as well as a better geographical distribution.

As in 2014, preschooling remains a key determinant of improved pupil performance. Given the low access to pre-schooling in Cameroon, pre-schooling should be a priority for the country's next education and training sector strategy. This will make it possible to achieve objective 4.1 of the 2030 agenda, which is to offer all children a year of compulsory pre-primary education.

The proportions of repeaters remain worrying in the Anglophone sub-system in Cameroon and raise questions about the internal efficiency of the Cameroonian education system. Moreover, repetition does not allow repeaters to catch up with non-repeaters, which raises the question of the follow-up of pupils in difficulty in schools. Therefore, it is important to establish a system for monitoring pupils in difficulty in schools.

The possession of books by pupils should be a major issue for the Cameroonian government. Indeed, the possession of books by pupils at home and at school has been identified as an important determinant of improved pupil performance. The policy of free access to essential reading and mathematics textbooks by pupils should be reinforced.

The education system should take greater account of community involvement in the formulation of education policies with a view to improving pupil performance, particularly in the public sector, in order to ensure quality education at all levels of education.

School characteristics and resources further explain the variation in pupils' academic performance.
The school environment was found to be an important factor in the performance of Cameroonian pupils at the beginning and end of their schooling in both language and mathematics in the Anglophone subsystem.

Indeed, more than $65 \%$ of the variance in reading scores is explained by differences between schools. On the other hand, in mathematics, more than $68 \%$ of the variance in scores at the end of schooling is explained by differences between schools, compared to only $51 \%$ at the beginning of schooling.

Thus, in the Anglophone sub-system in Cameroon in general, both at the beginning and at the end of schooling, the inter-school variance in scores is greater than the intra-school variance. This means that the variation in performance is much more explained by the differences between schools, which stems from the location of schools (urban or rural), the type of schools (public, private), their provision of adequate equipment for learning. The fact that the variance between schools is an observable element at the national level still shows the important problems of equity between the different regions of Cameroon.

## 4. PUPILS' PERFORMANCE IN THE PRIORITY EDUCATION ZONE

A high proportion of pupils from PEZs are at the lower end of the proficiency scale and have difficulties in reading at the beginning of school

Table 7: Distribution of PEZ and Non-PEZ pupils according to the PASEC2019 Language Proficiency Scale - School Start

| Levels | Score | National distribution <br> of pupils in the scale <br> levels (\%) | National distribution <br> of PEZ pupils in the <br> scale levels (\%) | National distribution <br> of Non-PEZ pupils in <br> the scale levels (\%) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Level 4 | Level 3 points | Between 540 and 610 <br> points | $20,0 \%$ | $12,2 \%$ | $28,1 \%$ |

Table 8: Distribution of PEZ and Non-PEZ pupils according to the PASEC2019 Mathematics Competence Scale - School Start

| Levels | Score | National distribution <br> of pupils in the scale <br> levels (\%) | National distribution of <br> PEZ pupils in the scale <br> levels (\%) | National distribution of <br> Non-PEZ pupils in the <br> scale levels (\%) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Level 3 | $>577$ points | $29,1 \%$ | $22,6 \%$ | $33,2 \%$ |  |
| Level 2 | Between 489 and 577 <br> points | $29,0 \%$ | $25,5 \%$ | $32,2 \%$ |  |
| Sufficient' threshold of skills |  |  |  |  |  |
| Level I | Between 400 and 489 <br> points | $30,2 \%$ | $34,2 \%$ | $29,2 \%$ |  |
| Below <br> level I | $<400$ points | $11,7 \%$ | $17,7 \%$ | $5,4 \%$ |  |

The trends at the end of schooling in reading are similar to those observed at the beginning of schooling, but this time the differences in performance between the two groups are more pronounced, especially at the higher level of the skills scale. This is due to the fact that learners continued to evolve with the gaps recorded at the beginning of schooling without any particular attention being paid to this.

In general, therefore, pupils from PEZs perform less well than those from Non-PEZs regardless of language of instruction or mathematics and level of schooling. Non-APE pupils have higher average scores in both subjects and both levels of the assessments than do the PTA pupils. All these differences in average scores between these two groups are highly significant (I\%), and show considerable differences (more than 79 points) except in mathematics at the beginning of schooling, where we find a difference of 44 points and a significance of $5 \%$. This implies that at the beginning of schooling the differences in performance between pupils in PEZ and non-PEZ are already pronounced in language, but not in mathematics. The latter evolve with these huge gaps at the beginning of schooling, which accumulate and have a considerable impact on their performance in these two subjects at the end of primary schooling and in the rest of their curriculum. As a result, when these same differences in scores are observed at the end of schooling, they are slightly more pronounced between these two groups ( 111.4 points in language and 84 in mathematics). This implies that mechanisms for correcting these shortcomings have not been put in place throughout their schooling. There is a need to strengthen the teaching-learning process and remedial tools to improve the learning achievements of learners in PEZs.

Table 9: Distribution of PTA and non-PTA pupils according to the PASEC2019 Language Proficiency Scale - End of schooling

| Levels | Score | National distribution of pupils in the scale levels (\%) | National distribution of PEZ pupils in the scale levels (\%) | National distribution of Non-PEZ pupils in the scale levels (\%) |
| :---: | :---: | :---: | :---: | :---: |
| Level 4 | > 595 points | 30,2\% | 9,7\% | 45, 1\% |
| Level3 | Between 5I8 and 595 points | 23,4\% | 19,1\% | 26,0\% |
| Sufficient' threshold of skills |  |  |  |  |
| Level 2 | Between 44I and 518 points | 22,2\% | 28,6\% | 18,4\% |
| Level I | Between 365 and 44 I points | 18\% | 30,3\% | 8,7\% |
| Below level I | $<365$ points | 6,1\% | 12,2\% | I,8\% |

Table 10: Distribution of PEZ and Non-PEZ pupils according to the PASEC2019 Competence Scale in Mathematics - End of school

| Levels | Score | National distribution of <br> pupils in the scale levels <br> $(\%)$ | National distribution of <br> PEZ pupils in the scale <br> levels (\%) | National distribution of <br> Non-PEZ pupils in the scale <br> levels (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Level 3 | $>609$ points | $11,1 \%$ | $1,2 \%$ | $19,6 \%$ |
| Level 2 | Between 52I and <br> 609 points | $21,8 \%$ | $12,3 \%$ | $26,9 \%$ |
| Seuil « suffisant » de compétences |  |  |  |  |
| Level I | Between 433 and <br> 521 <br> points | National distribution of <br> pupils in the scale levels (\%) | National distribution of PEZ <br> pupils in the scale levels (\%) | National distribution of Non- <br> PEZ pupils in the scale levels <br> $(\%)$ |
| Below <br> level I | $<433$ points | $30,1 \%$ | $48,6 \%$ | $17,2 \%$ |

Differences in performance at the beginning and end of primary schooling in PEZs are generally based on socio-economic inequalities and pupils' educational background (gender, kindergarten attendance,

At the beginning of their schooling, girls from PEZ are better than boys in language, with an average of almost 2 points more. This advantage diminishes considerably throughout their schooling until it reaches a difference of 26 points on average in favor of boys at the end of schooling, which means that these girls lose 28 points on average in language throughout their primary schooling to the benefit of boys. And it is clear that at the beginning of schooling these differences in average between girls and boys in language and mathematics are not significant, but become so at the end of schooling.

In the PEZ at the beginning of schooling, there is a 56 point difference in language and more than 42 points in mathematics in favor of learners who have passed through pre-school, these differences in average performance are significant at least $10 \%$ in both subjects. But at the end of primary school assessment these differences are smaller. They are only 17 points in language and only 2 in mathematics between the two groups, and these differences are not significant.

The use of the language of instruction at home in PEZs significantly improves pupils' school-leaving results

In the PEZ, the differences in averages increase by 12 points in language and 10 points in mathematics between the two groups of pupils in favor of those who use the language of instruction at home, during the school curriculum. Similarly, at the beginning of schooling, although the averages are different between these two groups of pupils, speaking the language of instruction at home does not significantly influence learners' performance. But at the end of schooling the impact of using the language at home is very highly significant.

The level of school infrastructure and classroom equipment is also positively associated with pupil performance in PEZ

In the PEZ, I\% more school infrastructure index improves the performance of a pupil at the beginning of his or her schooling by 5 points in language and mathematics. At the end of schooling, the improvement is 3 points in language and 2 in mathematics.

In terms of equipment, schools located in PEZ areas have an average equipment index of $46 \%$, whereas this index is better when it is higher than $50 \%$. Thus, despite the strong mobilization of resources in favor of the PEZs since their advent in 2000, reading and mathematics textbooks are still not available in sufficient numbers for pupils in these localities, teachers do not have sufficient teaching guides and reading and mathematics programs, schools are not sufficiently equipped with teaching materials and classroom furniture, and the supply of electricity is almost non-existent. In the PEZ, there are many schools "under the tree", schools without any classrooms, blackboards or teaching materials, as these are areas that receive a lot of refugees.

## 5. AVENUES FOR REFLECTION

I. Pursue policies to develop pre-school education

In view of the difficulties experienced by these pupils, measures for better management of learning difficulties must be implemented. Pupils should be given explicit and systematic instruction in the rules governing the written code, i.e. the rules for establishing links between written and oral units. Failure to master the basic processes of reading can lead to school drop-out and illiteracy.

Cameroon should continue to strengthen policies to promote the development of pre-school education, and possibly rely on the recommendations given by CONFEMEN in its Reflection and Orientation document for the 58th ministerial session entitled: " Promoting early childhood development and guaranteeing access to equitable and quality preschool education: a foundation for learning success". Taking account of pre-school in the learning process of pupils at the beginning of their schooling is all the more important as mastery of the language of instruction constitutes the major vector of other school learning, in particular for mathematics at the start of schooling.
2. Strengthen initiatives aimed at articulation between the mother tongue and the language of instruction

At national level, more than $58 \%$ of pupils on average have reached the "sufficient" threshold in mathematics, of whom more than $29 \%$ can recognize numbers up to 100 , complete logical sequences, compare numbers, perform operations (addition and subtraction) on numbers below 50 and reason about basic problems. However, a significant proportion of these pupils (42\%) have difficulty manipulating concepts of spatial location (below/above/next to) and recognizing simple geometric shapes. These pupils are more likely to encounter even greater difficulties later on in their schooling, particularly when reasoning becomes more central to problem solving. It is therefore advisable to identify pupils in this situation at this stage in order to implement follow-up and remedial measures. The difficulties encountered by pupils in basic mathematical exercises raise questions about the teaching practices of quantities and numbers in the first classes of the cycle. These difficulties could be linked to the pupils' level of understanding and oral expression in the language of instruction. The link between the mother tongue and the language of instruction should therefore be examined, as this could be a determining factor in the success of pupils, particularly those at the beginning of primary school.
3. Implement or strengthen special education measures or activities for pupils with learning difficulties, especially those in PEZ

In both subjects, whether at the beginning or end of primary school, pupils below the 'sufficient' thresholds experience multiple difficulties in mastering the skills deemed essential for continuing their education. This observation leads to the suggestion that special education measures or activities be introduced or reinforced to help pupils with learning difficulties to succeed in terms of education, socialization and qualifications. These types of measures are in fact only very rarely present in Cameroon's 2013-2020 Education and Training Sector Strategy Paper. However, the management of pupils in difficulty, which involves various stakeholders (teachers, school directors, psychologists, etc.), is a major challenge, In addition, the involvement of the community (e.g. social workers, parents, community) could contribute to the improvement of the performance of the education system in Cameroon. In addition, as repetition affects more than $45 \%$ of pupils during their school career in Cameroon, it is essential to reiterate the importance of establishing a system for identifying, identifying and managing repetition in order to improve the performance of the education system.

Moreover, as repetition affects more than $45 \%$ of pupils during their primary school career in Cameroon, it seems essential to reiterate the importance of setting up a system for identifying, helping and monitoring pupils with learning difficulties with a view to adapting them to school.
4. Improving the quality, availability and allocation of school facilities and educational resources

According to the results of the PASEC2019 evaluation, disparities are observed between schools in the learning outcomes of pupils. More than $65 \%$ (respectively $51 \%$ ) of the variation in reading (respectively mathematics) scores
is explained by differences between schools. The improvement of the school environment could be used as a lever to act in the framework of educational policies in favor of equity. Thus, the Cameroonian government should strengthen its policy on the allocation of educational resources according to the needs of different localities, schools and specific groups. The deficits in school infrastructure (classrooms, latrines, infirmaries, libraries, canteens, etc.) and in human resources (chalk-in-hand teachers, social workers, psychologists, etc.) should be reduced in quantity and quality. Particular attention should also be paid to improving the governance of the education system. Decentralization measures could, if well designed and implemented in the field of education, favor an efficient management of disparities between schools with a positive impact on pupils' learning.
5. Develop credible national pre-service and in-service training policies and strategies on teacher needs and profiles

In terms of school management, in-service training for head teachers does not seem to benefit all pupils so far, particularly those with learning difficulties. Capacity building measures for head teachers are therefore struggling to achieve their objectives. A review and evaluation of in-service training for head teachers is needed. This involves examining the content and methods of this training (analysis of situations, reflective practices, etc.). Consideration should also be given to the initial training of school headmasters before they take up their duties.

The vast majority of these teachers are less satisfied with their salary situation. The same is true of career promotion opportunities.

These results argue for the implementation of a national strategy for the professionalization of teachers that takes into account an adequate physical working environment, while offering training and career promotion opportunities for all. An improvement of the salary conditions for a greater motivation of teachers and a greater attractiveness of the profession is necessary.

More specifically, an effective national strategy for appropriate in-service training should enable teachers to improve their qualifications, change or extend the scope of their activities, qualify for promotion, and keep abreast of developments in both content and methods in the disciplines and teaching areas.

Improving the status of teachers in line with educational needs and challenges is desirable to maximize the effectiveness of teaching and to enable teachers to devote themselves fully to their professional tasks, provided that their remuneration ensures a reasonable standard of living for themselves and their families.

These different policy options for teachers should help to consolidate the good quality of the school climate, which can already be seen in the positive view that teachers take of school management and the school curriculum, and also to maintain good relations within the teaching profession and between educators and the community.

## 6. Pursue strategies to reduce social inequalities in parallel with the reduction of territorial inequalities

The two cycles (2014 and 2019) of the PASEC survey have made it possible to analyze the evolution of the efficiency and equity of the Cameroonian education system. At least six main findings from the analysis of the evolution of efficiency and equity can be retained. (i) Inequalities of competences in the different strata are located between pupils but much more in the inequalities between schools; (ii) The increase in the number of low-performing and high-performing pupils has been accompanied mainly by an increase in disparities between schools; (iii) the extent of inequalities in performance between pupils varied from one stratum to another; (iv) the improvement in performance was more marked for the best performing pupils; $(v)$ the differences in performance increased between the weakest and the best performing pupils; (vi) the disparities in performance according to gender persisted and changed according to the subject assessed.

Even if the challenges are enormous for the education system in Cameroon, it should be noted that an improvement in the performance of pupils, and in particular that of the weakest, without altering the performance of the best performers, constitutes a major challenge in terms of both the efficiency and the equity of the education system.

These various observations call on the public authorities to reduce certain inequalities, for example those of a territorial nature. Even if social and territorial inequalities can be correlated, the reduction of territorial inequalities is one
of the challenges that the education system has set itself through the implementation of a sectorial education plan.
It is therefore important to question the way in which policies to reduce territorial inequalities are implemented and to continue efforts to reduce these inequalities. To this end, the distribution of resources (material, financial, human, etc.) between schools (regardless of their remoteness) must be based on a logic of equity, with particular attention paid to very remote schools.

The pursuit of strategies to reduce social inequalities in parallel with the reduction of territorial inequalities must be done within a framework that does not further widen the gap between strong and weak pupils. Weak pupils should be supported in a way that avoids a cycle of accumulating underachievers.

With regard to the gender issue, it is necessary to intensify efforts in favor of girls and to motivate them to learn mathematics. To this end, strategies for eliminating gender stereotypes should be questioned and should include the community, teachers and head teachers.



[^0]:    Source: PASEC 2019

[^1]:    Source: PASEC 2019

[^2]:    Source: PASEC 2019

