

## Analysis of the management, planning and regulations of Peruvian education; versus PISA 2022 results

Manuel Francisco Domínguez Bahamonde<sup>1\*</sup>: <https://orcid.org/0009-0001-3841-7552>

Walter Jorge Mendizabal Anticona<sup>2</sup>: <https://orcid.org/0000-0002-4754-8298>

Romel Luis Ramos Quispe<sup>2</sup>: <https://orcid.org/0000-0002-4319-2351>

<sup>1</sup>Empresa Consultora Sophos SAC. Perú

<sup>2</sup>Universidad Cesar Vallejo, Escuela de Posgrado, Perú

\* Contact for correspondence: [manuelfr.dominguezb@gmail.com](mailto:manuelfr.dominguezb@gmail.com), [certifican@gmail.com](mailto:certifican@gmail.com)

*Received: 10/23/2024*

*Accepted: 11/29/2024*

*Published: 12/23/2024*

**Abstract. Introduction:** Since 2009, academic results in Peruvian basic and non-university education have improved, in accordance with the objectives of the Ministry of Education, due to the better provision of educational services, reflected in the results of the PISA evaluation. **Objective:** To determine the impact of the education budget on academic results. **Methodology:** Analytical-comparative, focused on educational management in the periods (2009-2015 and 2015-2022), comparing policies, investments and results in the PISA evaluation. **Results:** During the period 2009-2015 the improvement was supported by economic growth and increased investments, in the period 2015-2022 there was only an increase in investments; despite the increase in resources, the structural problems of the educational system (inequalities between rural and urban areas, as well as between public and private) persist. **Conclusion:** The budget increase was not sufficient to improve student performance; requiring planning and regulations  
**Keywords:** Management, planning, regulations, education, PISA results

### Análisis de la gestión, planificación y normativa de la educación peruana; versus resultados PISA 2022

**Resumen. Introducción:** Desde el año 2009 mejoraron los resultados académicos en la educación básica y no universitaria peruana, de acuerdo a los objetivos del Ministerio de Educación, debido a la mejor dotación de servicios educativos, reflejada en los resultados en la evaluación PISA. **Objetivo:** Determinar la repercusión del presupuesto en educación en los resultados académicos **Metodología:** Analítica-comparativa, centrada en la gestión educativa en los periodos (2009-2015 y 2015-2022), comparando políticas, inversiones y resultados en la evaluación PISA. **Resultados:** Durante el periodo 2009-2015 la mejoría se sustentó por el crecimiento económico e incremento en las inversiones, en el periodo 2015-2022 sólo hubo incremento de las inversiones; a pesar del incremento en los recursos, los problemas estructurales del sistema educativo (desigualdades entre el espacio rural y el urbano, además entre el público y privado), persisten. **Conclusión:** El incremento presupuestario no fue suficiente para mejorar los desempeños de los estudiantes; requiriéndose de planificación y normativa  
**Palabras clave:** Gestión, planificación, normativa, educación, resultados PISA

### Análise da gestão, planejamento e normativa da educação peruana; versus resultados do PISA 2022

**Resumo. Introdução:** Desde 2009, os resultados acadêmicos na educação básica e não universitária peruana melhoraram, de acordo com os objetivos do Ministério da Educação, devido à melhor oferta de serviços educacionais, refletida nos resultados da avaliação PISA. **Objetivo:** Determinar a repercussão do orçamento na educação nos resultados acadêmicos. **Metodologia:** Analítica-comparativa, centrada na gestão educacional nos períodos (2009-2015 e 2015-2022), comparando políticas, investimentos e resultados na avaliação PISA. **Resultados:** Durante o período de 2009-2015, a melhoria foi sustentada pelo crescimento econômico e aumento nos investimentos. No período de 2015-2022, houve apenas aumento dos investimentos; apesar do aumento nos recursos, os problemas estruturais do sistema educacional (desigualdades entre as áreas rurais e urbanas, além da diferença entre o setor público e privado) persistem. **Conclusão:** O aumento orçamentário não foi suficiente para melhorar o desempenho dos estudantes; é necessária uma maior atenção ao planejamento e à regulamentação.

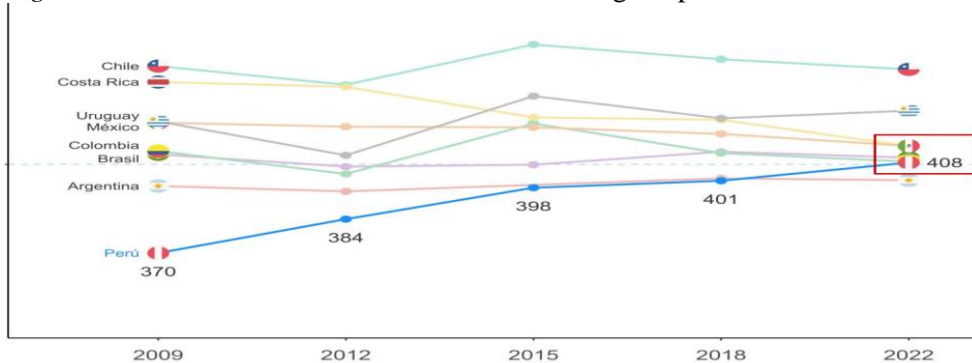
**Palavras-chave:** Gestão, planejamento, normativa, educação, resultados PISA.

## 1. Introduction

In Peru, the planning and regulations of Peruvian education influence the growth of the educational system; thus, the latter was much higher than the observed population growth; while in 1906 it served around 150,000 people, by 2016, it served nearly 9 million; that is, while the population grew 8.8 times, the population benefiting from public education grew 60 times. Although this growth has been proportionally decreasing, the public system and the Peruvian state are committed every year to serving an ever-growing population and allocating more resources.

National education results are improving in quantity and quality: on the one hand, more and more students are participating in the education system and on the other, their performance is improving. Unfortunately, the results seem to be stagnating despite the fact that the budget is increasing considerably; thus, the results for the period 2015 to 2022 are barely higher than those for the period 2009 to 2015.

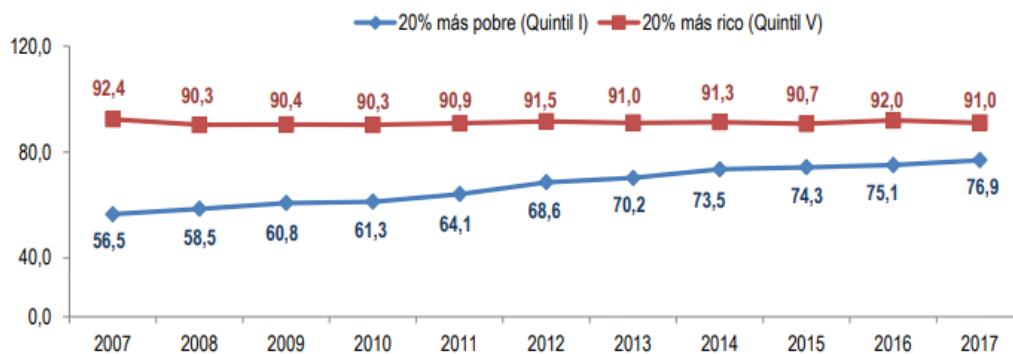
Figure 1. PISA test results for Latin America, during the period 2009-2022



Source: PISA 2022 MINEDU national results

Interpretation of Figure 1. In the decade from 2007 to 2016, the Peruvian state made a sustained increase in investments in education, which directly translated into closing gaps; indirectly, it can be seen that the net enrollment rate for students aged 12 to 16 years increased from 56.5% to 75.1% in the poorest quintile; in contrast, enrollment in the richest quintile remained constant.

Figure 2. Net enrollment rate in Peruvian secondary education of the population aged 12 to 16, according to socioeconomic status, 2007 - 2017



Source: Peru: Education Indicators by Department, 2007 - 2017

Interpretation of Figure 2. While other countries in the region, with a constant level of enrollment throughout the century, have also maintained their results in the PISA assessment, Peru has significantly improved its results by incorporating more than 10% of students into the educational system. Nevertheless, once Peru's gross enrollment levels approach those of the region for 2016, maintaining the improvement in results becomes increasingly difficult.

A parallel factor to consider is the socioeconomic background of the students, as mentioned by Heredia, Y. et. Al., 2018, since the existence of educational facilities is essential for schooling, the academic



results of students are poorly correlated with spending per student or educational materials. It is important to note then that while poverty had a decreasing behavior between 2005 and 2018 (going from 55.6% of total poverty and 15.8% of extreme poverty to 20.5% and 2.8%, in 2019, the trend stagnated and began to reverse (with total poverty increasing to 29% and extreme poverty to 5.7% by 2023). This impoverished environment is a factor to take into consideration in the stagnation of academic performance.

## 2. Methodology

The work described follows a qualitative analytical-comparative approach, focused on educational management in Peru during two specific periods (2009-2015 and 2015-2022), comparing policies, investments and results in the PISA evaluation.

### 2.1. Type of Qualitative Approach

The approach used is a comparative case study, which analyses two periods to identify patterns and changes in educational management. Qualitative information is used to understand educational policies, social and economic conditions, and the effects on PISA results. In addition, it incorporates a content analysis to examine in detail the reforms, the socioeconomic context and the implementation of public policies, comparing their impact on the assessment results.

### 2.2. Processes for Developing the Approach:

**Documentary and Contextual Review:** An analysis of reports on educational investment, enrollment statistics, government policies and PISA results is carried out.

**Comparison of the 2009-2015 and 2015-2022 Periods:** Changes and continuities in investments, reforms and policies are identified, observing how these affected infrastructure and educational resources.

**Analysis of PISA Results:** The PISA results from both periods are compared, analyzing their relationship with investments in education and factors such as poverty and inequality.

**Sociopolitical and Economic Contextualization:** It evaluates how poverty and the COVID-19 health crisis influenced the PISA results and the improvement of the educational system.

**Triangulation of Sources:** Various data sources are integrated (Ministry of Education, PISA reports, national statistics, academic articles) to obtain a more complete view of educational management in Peru.

**Interpreting the Paradox in the Results:** The stagnation of PISA results is reflected upon, despite the increase in investment in education, considering educational quality and social challenges, such as poverty and the health crisis.

**Conclusions and Recommendations:** The findings are related to educational policies, suggesting areas for improvement and the need for a comprehensive approach that addresses educational quality, infrastructure and teacher training.

That is, this work uses a qualitative comparative approach, with elements of case study, content analysis and historical analysis. The processes include the collection of documentary information, the comparison of historical periods and the analysis of educational results, taking into account political, economic and social factors. The objective is to understand how educational policies in Peru affect the results of the PISA evaluation and how these are influenced by socioeconomic contexts.



---

### 3. Results

#### 3.1. Analysis of Educational Management in Peru: 2009-2015 vs. 2015-2022

##### *General Context:*

In the case of Peruvian education, the evolution of the PISA assessment results and the investments made in the education sector between the periods 2009-2015 and 2015-2022 show an interesting paradox. During the first years mentioned (2009-2015), the country achieved significant progress in the results of the PISA test, while in the period 2015-2022, although the investments and budgets allocated to education were greater, the results did not reflect a comparable improvement. The educational management, the investments made and the types of reforms implemented in each period are analyzed below.

#### 3.2. Education Management and Planning 2009-2015

##### **a. Political and Economic Context:**

Between 2009 and 2015, Peru experienced sustained economic growth, which allowed for two distinct and complementary events: on the one hand, the state allocated a greater allocation of resources to the education sector, on the other, families allocated greater resources (which is evidenced by the increase in enrollment in private institutions and correlates with good academic performance in general).

Education has become a priority issue for the government, with the promotion of various reforms and policies aimed at improving educational quality and school infrastructure.

##### **b. Investments and Budget:**

During this period, spending on education increased progressively. According to data from the Ministry of Economy and Finance (MEF), the budget allocated to education grew from 3.5% of GDP in 2009 to around 3.9% in 2015.

##### *2009-2015:*

- The education budget went from S/ 9,056 million in 2009 to S/ 15,000 million in 2015, which represented a significant increase in absolute terms.

- Programs such as the National Educational Infrastructure Program (PRONIED) were implemented, which sought to improve school infrastructure, and the Learning Achievements Program (PLAP), to improve educational results.

##### **c. PISA Assessment Results:**

During this period, Peru experienced a remarkable improvement in the results of the PISA assessment. For example:

- In PISA 2012, Peru showed an improvement of 11 points in reading, 9 points in mathematics and 12 points in science, compared to the 2009 assessment.

- In PISA 2015, Peru continued to show progress, especially in reading skills, with an increase of 8 points, reflecting the impact of educational policies implemented during the period.

##### **d. Sector strategies:**

- During this period, the budget is focused on providing educational services. Although primary education has been compulsory since 1920, the state has great difficulties in expanding coverage for both initial and secondary education. Compulsory education is only gradually extended in 1990, starting with the years closest to primary school. As a consequence, there is a significant gap in facilities and resources to cover.

- The overall coverage also increased during the period: the increase of nearly 20 points in the poorest quintile of students aged 12 to 16 implies large investments focused on closing the gap in services and not in quality. Also during the period there is an increase of up to 1 year of study in those under 25 years of age.

The improvement in quality (for example the improvement found in the results of the PISA evaluation) is explained more by the incorporation of years of study than by the quality of the same.

---

### 3.3. Educational Management 2015-2022

#### a. Political and Economic Context:

Since 2015, the context of educational management in Peru has been affected by political and economic instability, which severely affected families and limited the capacity to implement educational plans and reforms. Although investment in education increased, the results in terms of educational quality were slower than expected.

It is important to note that during this period the COVID-19 health emergency occurred, which affected both families and pedagogical practices and strategies. From the family impact side, total poverty rose to 30.1% and extreme poverty to 5.1%, negatively correlating with school performance; it is also important to note that a change in the distribution of poverty has been evident: urban poverty (where most of the population is concentrated) has increased since 2019.

Since the educational reforms, the Peruvian state was not ready to implement the necessary strategies for either digital education or the return to school. Both phenomena, which continued throughout 2020 and 2021, have hindered learning and widened the gap between students in the private sector (where strategies and resources for digital education were better developed) and the public sector.

#### b. Regulations, Investments and Budget:

The budget allocated to education in this period increased considerably, reaching historic figures. According to the republic's budget, the opening PIA for 2019 was 30.6 MM, it has increased to 31.3 MM in 2020, to 33.1 MM in 2021 and 35.9 MM in 2022; these values are still less than the 5% of GDP recommended by the OECD, but they are by far the first item of state expenditure and are increasing steadily.

##### *Period 2015-2022:*

- The total education budget went from S/ 16,000 million in 2015 to more than S/ 30,000 million in 2022, which represented a considerable increase in absolute terms.
- Programs to improve educational infrastructure continued to be implemented, although with less efficiency in the execution of the projects due to bureaucratic problems and corruption.
- Despite these increases in resources, the impact on improving educational quality was moderate, especially in rural areas and in primary education.

#### c. PISA Assessment Results:

Although investments have increased, Peru's results in the PISA assessments between 2015 and 2022 did not show any notable improvements. In particular:

- In PISA 2018, Peru showed a slight improvement of 4 points in mathematics, but there was no significant progress in reading or science.
- Overall, there is a stagnation in overall performance.
- There is a marked gap in results between students in rural and urban areas, as well as between those in the private and public systems, on average

#### d. Sector strategies:

During this period, the overall strategy changed in the understanding that it was necessary to improve strategies and resources for education. In 2016, the Multiannual Sectoral Strategic Plan for Education 2016 – 2021 was developed, where an exhaustive evaluation of strategic variables was carried out, finding that the educational and sports infrastructure has severe limitations: only 15% of the classrooms are in good condition and only 26% have access to the Internet.

Despite the efforts made in operation and maintenance, the quality of educational facilities has not improved significantly, partly due to the natural ageing of many of the facilities built in the 1980s and 1990s, which are close to the end of their service life.

With enrollment levels close to 100%, the need to improve the quality of the educational offer is identified, as well as generating conditions that guarantee the permanence of students (close to 10% of students drop out of the educational system)

---

### 3.4. Comparison of the Periods 2009-2015 and 2015-2022

#### a. Investments:

- 2009-2015: Progressive increase in the education budget, with an emphasis on school infrastructure and improved teacher training. The percentage of GDP allocated to education rose from 3.5% to 3.9%. These investments meant an increase in total student enrolment.

- 2015-2022: More significant budget increase, reaching 5.1% of GDP in 2022, but with challenges in the efficient use of resources. These investments ensured marginal increases in enrollment.

#### b. PISA results:

- 2009-2015: Continuous improvement in PISA results, especially in reading and science. Peru stood out for its notable growth in results, consolidating advances in educational quality. These results are explained by the increased enrollment of students and correlate positively with the decrease in poverty.

- 2015-2022: PISA results stagnated, with marginal increases in some areas and no significant progress compared to the previous period, despite increased investment. These results are explained by the stagnation in total enrollment and the negative effect of the COVID-19 health epidemic, which affected both families and the educational strategies proposed in the public sector.

## 4. Discussion

In comparison with the assessments presented, in this work:

Sánchez et al. (2022) express the importance of the effectiveness of communications management and user satisfaction; Chávez et al. (2022) also describe the management of recreational activities and job performance of teachers at a health institution; a comparative situation arises, because in both cases, user services are provided from a different perspective.

*In relation to the Perception of Peruvian educational management versus national PISA 2022 results*, the studies mentioned below offer relevant perspectives on how organizational and labor factors impact education in Peru, which is reflected in the PISA results:

Seminario et al. (2022) analyze a Sociocritical Model and the management of physical activity in university students, suggesting that educational management influences the comprehensive development of students. Although the focus is on physical activity, their sociocritical reflection on educational structures can help to understand how adequate educational management could improve academic results, as assessed in PISA.

Furthermore, Espinoza et al. (2022), when studying the organizational climate and user satisfaction in a municipality, highlight the importance of conditions in the public sector, which can be transferred to the educational context. Working conditions in educational institutions influence the perception of the quality of the educational system, a key aspect to understand the PISA results.

Regarding other service activities, such as health, Barreto et al. (2022) address the work overload and living conditions of health personnel, which has parallels with the working conditions of teachers. The quality of teaching depends largely on the well-being and motivation of educational staff, factors that can directly affect the results of tests such as PISA.

Caján Villanueva, M. (2022) focuses on the management of working conditions and motivation as key aspects that influence educational effectiveness. Teachers' motivation and working conditions are essential to improving academic results, which is reflected in students' performance in the PISA tests.

That is, the studies underline the importance of working, organizational and motivational conditions in educational management. These factors are crucial to interpret both the perception of educational management in Peru and the results obtained in PISA 2022.

The analysis of the perception of Peruvian educational management and its relationship with the results obtained in the PISA 2022 test offers a critical and reflective view of the dynamics that affect the country's educational system. This topic has been the subject of in-depth studies, given that the results of the PISA assessment reveal a performance below that expected for Peru, especially when compared to other countries in the Organization for Economic Cooperation and Development (OECD). The data suggest that educational management, although it has evolved in recent years, continues to face numerous structural, administrative and pedagogical challenges that directly affect student performance.

=====

A relevant study by Salazar and Valdivia (2023) Education Policy Analysis Archives highlights that the centralization of the educational system in Peru remains a major barrier to improving student performance. The research underlines that efforts to decentralize educational management have been limited, implying that policies and resources are not adequately adapted to the diverse regional realities. Furthermore, the lack of continuous and specialized training for teachers is another of the critical factors pointed out by the authors. These findings suggest that, despite efforts to improve educational quality, the system remains very rigid and inflexible in responding to the emerging needs of students. Salazar and Valdivia argue that a more flexible, decentralized educational management oriented towards the constant training of teachers could significantly contribute to the improvement of learning outcomes in the country (Salazar & Valdivia, 2023).

On the other hand, López, Martínez, and Pérez (2023) in their article published in Teaching and Teacher Education explore the impact of teacher training on PISA results, specifically in the Peruvian context. In their research, the authors analyze how the quality of teacher training directly influences student learning outcomes. According to their perspective, the negative perception about educational management in Peru is not only due to administrative problems, but also to the lack of innovative and contextualized pedagogical strategies that respond to the needs of Peruvian students, especially those who come from disadvantaged socioeconomic backgrounds. The implementation of inclusive educational policies and the improvement of continuous teacher training are essential to close the inequality gap and guarantee quality education for all students. The authors conclude that a comprehensive reform of teacher training, addressing both technical and pedagogical aspects, is essential to improve educational outcomes in Peru and, therefore, student performance in international tests such as PISA (López, Martínez & Pérez, 2023).

Another key study by García and Silva (2023) in the Journal of Educational Administration addresses the crucial role that educational policies play in improving educational quality. The authors highlight that the lack of coordination between public policies and local pedagogical practices limits the effectiveness of educational reforms. This mismatch between policy decisions and practical implementation in classrooms contributes to Peruvian students not reaching their full potential in international assessments such as PISA. The researchers suggest that greater alignment between national educational policies and management strategies at the local level could result in substantial improvements in learning outcomes (García & Silva, 2023).

In a similar approach, Rodríguez and Vargas (2023) in the Latin American Journal of Educational Policy analyze how socioeconomic barriers impact educational management and, consequently, PISA results. The authors conclude that the socioeconomic inequalities present in Peru directly affect the quality of education that students receive, which is reflected in the low scores obtained in the PISA test. The lack of resources in rural areas and the poor educational infrastructure are determining factors in the low performance of students. Rodríguez and Vargas propose the implementation of targeted educational policies that address social and economic inequalities, in order to improve educational outcomes equitably in all regions of the country (Rodríguez & Vargas, 2023).

In summary, educational management in Peru faces multiple challenges that directly impact the results of the PISA 2022 test. Although perceptions about educational management in the country are mostly negative, the studies reviewed agree that the solutions involve a comprehensive reform of educational management, which not only implies a change in public policies, but also a profound reevaluation of teacher training, decentralization, and equity in access to educational resources. Improving the quality of education in Peru will depend on a combination of administrative, pedagogical, and socioeconomic factors that align to ensure a more promising future for students.

The analysis of the perception of educational management in Peru, especially in relation to the results obtained in the PISA 2022 assessment, continues to be a relevant and fundamental topic in educational

research. In this context, various studies address the complex interactions between educational policies, administrative management and student academic results, pointing out that despite the efforts made, the Peruvian educational system faces significant structural challenges that hinder an improvement in results.

Further studies are included below, in order to broaden the understanding of the challenges facing educational management in Peru and its relationship with the results of international tests such as PISA.

Aguirre and Benavides (2022), in their article published in *Educational Management Administration & Leadership*, compare the results of PISA in several Latin American countries, highlighting that equity in educational management is a key factor in improving results in international tests. In the specific case of Peru, the authors underline that the lack of inclusive educational policies and the scarce investment in the most needy regions contribute to the low results (Aguirre & Benavides, 2022). This study focuses on the need to establish policies that promote quality and accessible education for all students, regardless of their socioeconomic context.

On the other hand, Bermúdez and Cordero (2023), in the *International Journal of Educational Policy*, analyze how the decentralization of educational management can improve PISA results. They argue that educational policies must be adapted to local realities and that greater autonomy in decisions at the regional level can generate a more efficient use of available resources. This decentralized approach would allow a better response to the educational needs of students and improve the implementation of educational reforms (Bermúdez & Cordero, 2023).

In a related study, Chavez and López (2023), in the *Journal of Education and Practice*, address Peru's educational policies in relation to the PISA 2022 results, suggesting that reforms should focus on strengthening educational infrastructure and improving teachers' working conditions. The authors also highlight the need for ongoing evaluation of educational policies to ensure that they are effective in improving academic outcomes (Chavez & López, 2023). De la Cruz and Mendoza (2023), in *Teaching and Teacher Education*, highlight the importance of ongoing teacher training as a key strategy to improve the results of international assessments. They argue that a more focused approach to teachers' professional development would contribute to raising educational levels in the country, which would have a positive impact on the scores obtained in PISA (De la Cruz & Mendoza, 2023).

Taken together, the reviewed studies underline that, in order to improve PISA results, it is essential to transform educational management in Peru. This requires not only an improvement in the training and working conditions of teachers, but also greater equity in access to educational resources, effective decentralization of management, and more inclusive policies that take into account socioeconomic disparities. Undoubtedly, the analysis of these studies offers a clear overview of the challenges facing the Peruvian educational system and provides valuable recommendations for moving towards quality education.

## 5. Conclusion

Throughout the two periods analyzed, Peru made significant progress in improving the academic results of students in basic and non-university higher education, in accordance with the objectives of the Ministry of Education, ensuring a better provision of quality educational services, and reflected in better performance in the PISA evaluation throughout the period of analysis.

Despite the above, between 2009 and 2015, the improvement in results was supported by economic growth and an increase in investments, while between 2015 and 2022, only by the increase in investments. This suggests that, despite the increase in resources, the structural problems of the education system (such as inequalities between rural and urban areas, or between public and private)



persist and the budgetary effort will not be sufficient to improve student performance beyond the current situation.

In addition to the above, given the material impossibility of increasing spending on education much further in the short or medium term, it is interesting to propose strategies that aim to improve education through improved spending efficiency or by supporting the poorest families, especially in rural areas and in families in the last income quintile, which is where targeted investment could have a greater overall impact.

## References

- Aguirre, R., & Benavides, A. (2022). La equidad en la gestión educativa: Análisis comparativo de los resultados PISA en América Latina. *Educational Management Administration & Leadership*, 50(3), 433-452. <https://doi.org/10.1177/17411432221101234>
- Barreto Espinoza, L. A., & Barreto Espinoza, M. E. (2022). Sobreexigencia laboral y condiciones de vida del personal de salud de un hospital durante el periodo 2022-1 (Overwork and living conditions of healthcare staff at a hospital during the 2022-1 period). *GESTIONES*, 2(1), 1–8. Recuperado a partir de <https://gestiones.pe/index.php/revista/article/view/56>
- Bermúdez, M., & Cordero, L. (2023). Descentralización y gestión educativa: Claves para mejorar los resultados en pruebas internacionales. *International Journal of Educational Policy*, 36(4), 215-230. <https://doi.org/10.1016/j.ijep.2023.02.001>
- Caján Villanueva, M. (2022). Gestión de condiciones laborales y motivación de las enfermeras de un hospital a inicios del año 2020 (Management of working conditions and motivation of nurses in a hospital at the beginning of the year 2020). *GESTIONES*, 2(1), 1–8. Recuperado a partir de <https://gestiones.pe/index.php/revista/article/view/59>
- Chavez, D., & López, F. (2023). Políticas educativas y rendimiento académico: Un análisis de los resultados de PISA 2022 en Perú. *Journal of Education and Practice*, 14(2), 58-70. <https://doi.org/10.1007/jep.2023.005678>
- Chávez Taipe, Y. V., Micha Aponte, R. S., & Soto Espichan, A. A. (2022). Gestión de actividades recreativas y desempeño laboral de los docentes de una institución de salud (Management of recreational activities and work performance of teachers in a healthcare institution: 2022-06-12). *GESTIONES*, 2(1), 1–9. Recuperado a partir de <https://gestiones.pe/index.php/revista/article/view/60>
- De la Cruz, J., & Mendoza, H. (2023). Formación docente y resultados en PISA: Perspectivas desde el contexto peruano. *Teaching and Teacher Education*, 96, 103457. <https://doi.org/10.1016/j.tte.2023.103457>
- Espinoza Vásquez, G., & Juárez-Gutierrez, R. E. (2022). El clima organizacional y satisfacción del usuario al recibir atención en una municipalidad (The organizational climate and user satisfaction in a municipality). *GESTIONES*, 2(1), 1–11. Recuperado a partir de <https://gestiones.pe/index.php/revista/article/view/42>
- García, M., & Silva, R. (2023). El papel de las políticas educativas en la mejora de los resultados de PISA: Un análisis del contexto peruano. *Journal of Educational Administration*, 61(2), 214-229. <https://doi.org/10.1108/JEA-08-2022-0194>
- Guadalupe César, et al. (2017). Estado de la educación en el Perú. Ediciones Arteta E.I.R.L.
- Heredia, Y., et al. (2018). Factores que afectan el desempeño académico. Recuperado de [https://www.researchgate.net/publication/281294042\\_Factores\\_que\\_afectan\\_el\\_desempeno\\_academico](https://www.researchgate.net/publication/281294042_Factores_que_afectan_el_desempeno_academico)
- Instituto Nacional de Estadística e Informática. (2018). Perú: Indicadores de educación por departamentos, 2007-2017. Recuperado de [https://www.inei.gob.pe/media/MenuRecursivo/publicaciones\\_digitales/Est/Lib1553/libro.pdf](https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1553/libro.pdf)
- Instituto Nacional de Estadística e Informática. (2020). Perú: Indicadores de educación por departamentos, 2009-2019. Recuperado de [https://www.inei.gob.pe/media/MenuRecursivo/publicaciones\\_digitales/Est/Lib1732/libro.pdf](https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1732/libro.pdf)

- López, A., Martínez, R., & Pérez, L. (2023). La formación docente y su impacto en los resultados PISA: Análisis del contexto peruano. *Teaching and Teacher Education*, 95, 103456. <https://doi.org/10.1016/j.tate.2023.103456>
- Ministerio de Educación. (2016). Plan Estratégico Sectorial Multianual de Educación 2016-2021. Recuperado de <http://www.minedu.gob.pe/normatividad/pesem.php>
- Ministerio de Educación. (2022). Contexto del estudiante y su escuela para el desarrollo de competencias. Recuperado de [http://www.minedu.gob.pe/normatividad/pesem/RM\\_122-2021-MINEDU.pdf](http://www.minedu.gob.pe/normatividad/pesem/RM_122-2021-MINEDU.pdf)
- Ministerio de Educación. (2022). Resultados Censo Educativo 2022. Recuperado de <https://www.gob.pe/institucion/ugelsullana/noticias/688915-censo-educativo-2022>
- Ministerio de Educación. (2022). Boletín estadístico 2022. Recuperado de <https://cdn.www.gob.pe/uploads/document/file/5288712/4749823-17-04-23-boletin-estadistico-2022-ugel-03.pdf>
- Ministerio de Educación. (2022). Resultados nacionales PISA 2022. Recuperado de <http://umc.minedu.gob.pe/wp-content/uploads/2024/01/Presentaci%C3%B3n-de-resultados-PISA-2022-Per%C3%BA.pdf>
- Paola Miranda Cerna. (2023, 28 de febrero). Educación en el Perú: breves apuntes sobre cómo garantizar una educación de calidad. Recuperado de <https://idehpucp.pucp.edu.pe/boletin-eventos/educacion-en-el-peru-breves-apuntes-sobre-como-garantizar-una-educacion-de-calidad-27818/>
- Resultados nacionales PISA 2022 Ministerio de Educación. Recuperado de <http://umc.minedu.gob.pe/wp-content/uploads/2024/01/Presentaci%C3%B3n-de-resultados-PISA-2022-Per%C3%BA.pdf>
- Rodríguez, L., & Vargas, F. (2023). Barreras socioeconómicas y su impacto en la gestión educativa: Perspectiva desde los resultados de PISA en Perú. *Revista Latinoamericana de Política Educativa*, 19(3), 305-322. <https://doi.org/10.1590/1234-5678.1201>
- Salazar, R., & Valdivia, J. (2023). Percepción de la gestión educativa en Perú y su relación con los resultados de la prueba PISA 2022. *Education Policy Analysis Archives*, 31(1), 1-20. <https://doi.org/10.14507/epaa.31.4975>
- Sánchez Sánchez, M., Torres-Flores, Y., & Rodríguez Gil, E. R. (2022). Efectividad de la gestión de las comunicaciones y satisfacción de los usuarios en un hospital (Effectiveness of communications management and user satisfaction in a hospital). *GESTIONES*, 2(1), 1–8. Recuperado de <https://gestiones.pe/index.php/revista/article/view/58>
- Seminario Unzueta, R. J., Pérez García, P. M., Micha Aponte, R. S., & Ayvar Bazán, Z. (2022). Modelo sociocrítico y la gestión de actividad física en estudiantes de educación de una universidad (Socio-critical model and the management of physical activity in education students at a university). *GESTIONES*, 2(1), 1–9. Recuperado de <https://gestiones.pe/index.php/revista/article/view/65>


**Conflict of interest:** The authors declare that they have no conflict of interest.

**Contributions of co-authors:** All co-authors have contributed to this article.

**Research funding:** With their own resources.

**Declaration of interests:** The author declares that he has no conflict of interest that could have influenced the results obtained or the proposed interpretations.

**Declaration of informed consent:** The study was carried out in accordance with the Ethical Code and good editorial practices for publication.

**Usability:** This text is licensed under a Creative Commons Attribution  4.0 International (CC BY 4.0) license. You are free to share, copy and redistribute the material in any medium or format and adapt, remix, transform and build upon the material for any purpose, even commercially, as long as you meet the attribution condition: You must give appropriate credit to a work, provide a link to the license, and indicate if changes were made. You may do so in any reasonable way, but not in any way that suggests that you are endorsed by the licensor or that you receive compensation from its use.