

What Difference do Schools Make? A Mixed Methods Study in Secondary Schools in Peru

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School effectiveness research

Latin America

- It is not extensive, yet some studies have analyzed effective schools, their distinguishing factors, and the contexts that explain their outcomes (Bellei et al. 2003; Concha 2006; López 2006; Murillo 2007; Figueroa and Montes de Oca 2017; MoE of Argentina 2018).
- At the classroom level, several teaching practices (e.g. intensive use of time to teach, constant feedback to students, etc.) have been highlighted as important factors influencing school effectiveness
- At the school level, the attention has been centered on different features of the schools' leadership, policies and organization (e.g. clear and concrete objectives, permanent training of teachers, clear rules and management of discipline, etc.).

Peru

- It is also scarce, and focus has been on primary schools. Fewer studies on secondary schools and they do not explore in depth the role of educational processes on educational outcomes.
- Cueto et al. (2003): analyzed factors associated with school effectiveness in primary public schools in Lima and Ayacucho. Relevant school processes variables: classroom climate, time of the teacher in the classroom, and feedback to students.
- MINEDU (2006): ethnographic study in 5 primary schools in poor areas of Lima aimed at understanding the processes explaining students' performance in math and reading. Main findings underlined school-level factors regarding school leadership, policies and organization. Regarding teaching practices, study highlighted: i) the promotion of participation with feedback in classes; and ii) highly structured sessions.

Research questions and study design

- *Which variables related to school processes influence student achievement in math and reading comprehension in secondary schools?*
- *In the case of effective secondary schools, what is the importance that principals, teachers, and students place on school processes variables in explaining educational outcomes?*
- To answer these research questions, we used a mixed-methods sequential explanatory design (Creswell 2013).
 - Phase 1: we do a secondary data analysis using the Second School Survey, Young Lives Study. The quantitative analysis give insights about what teacher and school variables are associated with educational outcomes in schools from poor contexts.
 - Phase 2: we use the results from phase 1 to identify and select two effective schools. The qualitative study will help explain more in detail the role of school processes variables on educational results.

Quantitative analysis: Methods

Data

- Second School Survey, Young Lives Study.
 - Level: Secondary
 - Sample: Students who attend urban public schools that were below the mean of school SES.
 - Grade: 3rd, 4th and 5th year of high school
 - Number of students: 3,237
 - Number of schools: 61

Methodology

- A random effect models were used, since students are grouped in schools. Thus, we were able to estimate how much of the variance is due to individual differences and how much is due to school differences. In addition, it allow us to have an adequate estimation of the standard error for school level variables.

Quantitative analysis: Findings

- In terms of school variables, the mean socioeconomic status has a positive effect on math (0.27 SD) and reading comprehension (0.16 SD). Also, an adequate infrastructure has a positive effect on reading comprehension (0.10 SD).
- In terms of teacher and classroom variables, we were able to find that years of experience have a non-linear relationship with achievement (math and reading); while teachers' level of satisfaction of their relationship with several educational actors has a positive effect on reading comprehension (0.12 SD).
- In terms of pedagogical variables, we found that teachers who give feedback to their students about their homework have mixed effects being positive for reading comprehension (0.11 SD) and negative for math (0.06 SD).

Qualitative Case-Study (2019)

- Two HP urban public secondary schools from Lima were intentionally selected following these criteria:
 - having the highest concentration of low-SES students according to the SS
 - being located in a peripheral district of Lima (Ate)
 - and still having the same principal or vice principal who participated in the SS (2017).
- In each school, we conducted in-depth interviews and focus groups with key school actors to gather their perspectives on the role of school's resources and pedagogical processes in explaining students' outcomes.
 - the principal or vice principal
 - teachers from fifth grade of secondary school.
 - students from fifth grade of secondary school (2 FG with high and low-achieving students according to school records).
- Both schools serve low-SES students who are characterized for having single parent families, with parents usually absent from home due to long working hours in blue collar jobs. Most of students' parents come from provinces outside Lima, speak Spanish and an indigenous mother tongue, and have secondary-level education or less. 5th year students characterize for having jobs at night or early morning, besides doing household chores and taking care of younger siblings.

Findings Qualitative Case-Study: *School-level factors*

There is a clear school policy aimed at improving the quality of teaching.

- Vice principals observe each teacher during class three times a year, after which they meet to reflect on teachers' strengths and difficulties. Teachers sign a commitment to work on their weaknesses. Positive perception of monitoring.
- Both schools have a permanent teacher training policy. 3 strategies: Collegiate Work, Interlearning Groups, Micro-workshops. Schools have adopted these strategies as their own. They are highly valued by teachers, who acknowledge vice principals' effective guidance as a result of their leadership and qualifications.

There is a strong school discipline policy that promotes a conducive school learning environment (SLE).

We as teachers -and principals too- are constantly encouraging them [students] to comply [with the norms]. In the case of promoting student learning, for example, arriving early to class allows students to listen to the whole session, to learn. In their education, what happens is that sometimes we focus more on pedagogy and believe that their own developing as persons is not important. (...) But how do we work if a student is disrespectful (...)? How do we work if he is late and interrupts me? How do I work if I observe student's truancy and then his father justifies that? (Interview, School 2 Civics teacher).

Findings Qualitative Case-Study: *Classroom-level factors*

Teachers provide academic support to high and low-achieving students.

If we don't understand, he explains to us again the next day we have class. [Besides grading], he tells us what is wrong [with our work] and explains us why he graded it that way. (Focus group, School 2 low-achieving students)

We don't use the book, he (Math teacher) brings us worksheets [prepared by him].

Because he teaches us more advanced [content]. (...).

Exercises that could help us to get into a university (Focus group, School 1 high-achieving students)

Teachers work hard to create a positive learning environment in the classroom.

[What we like about the Math teacher is that] he is patient. (...).

That he always supports us.

That he is attentive. For example, one group is not making progress and another one is, and he comes, he approaches and helps you.

He is aware.

He stays there the whole time. (Focus group, School 2 low-achieving students)

Integration and final remarks

At the school level:

- Effective schools have policies for monitoring and permanent teacher training that promotes an adequate learning environment.
- Teachers value vice principals' effective guidance and attribute it to her/his leadership.
- Teacher satisfaction with her/his relationship with different educational actors at the school influences reading comprehension.
- Strong school discipline understood as respect for norms of coexistence, also affects discipline inside the classroom. Students appreciate how teachers maintain discipline because it allows them to pay attention and learn.

At the classroom level:

- The provision of feedback to students has been highlighted as an important factor influencing school effectiveness.
- Effective schools have peer-mentoring strategies during student teamwork, and preparation of extra advanced educational materials by teachers for their students.

Policy Recommendations

The study findings allow the following policy recommendations:

- Improve school principal in-service training focusing on the pedagogical leadership.
- Ensure a conducive learning environment for the students both in the classroom and at school.
- It is necessary to assess teachers' pedagogical content knowledge to identify in what discipline content the teachers face difficulties to teach effectively.

THANK YOU GRACIAS

Working paper

León, J.; Guerrero, G.; Cueto, S. & P. Glewwe. What difference do schools make? A mixed methods study in secondary schools in Peru. Lima: GRADE, 2021. (Documentos de Investigación, 114).

Policy brief

León, J.; Guerrero, G.; Cueto, S. & P. Glewwe. ¿Qué diferencia hacen las escuelas? Un estudio de métodos mixtos en colegios secundarios del Perú. Lima: GRADE, Mayo 2021. (Análisis y Propuestas, 59).

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www.younglives.org.uk

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