

Operational Note 1

Keeping it Simple: Supporting Government to Use Evidence to Understand Problems



What matters in improving the quality of primary education? The government team working to answer this question in Belu, East Nusa Tenggara, thought that they knew how to improve education quality based on national government programming. However, a simple data analysis challenged their beliefs and pushed them to look for new answers and new approaches in improving education in their district. This operational note documents the problem-solving approach applied in Belu and highlights the importance of two factors in successful problem solving: (1) using evidence to understand the root causes of a problem, and (2) supporting government actors to do their own analysis.

This operational notes series aims to share experiences and practical lessons from MELAYANI – Untangling Problems in Improving Basic Services (*Menguraikan Permasalahan Perbaikan Layanan Dasar di Indonesia*).

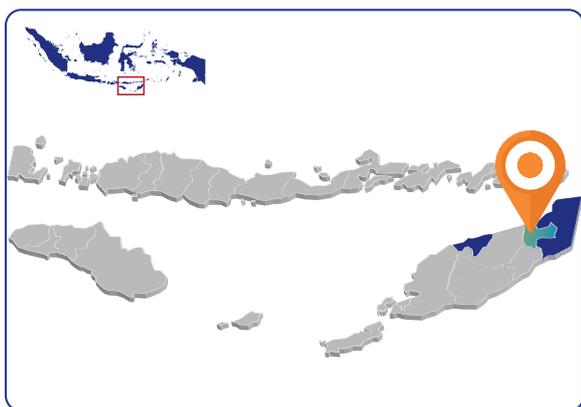
MELAYANI is a program that builds local government capacity to address service delivery problems at the district level. It does so through helping district governments identify meaningful problems, break them down, analyze their parts, and develop and refine solutions. The methodology for problem solving builds on the problem-driven iterative adaptation (PDIA) methodology developed by a team at Harvard University. It focuses on building team ownership of problems and solutions, empowering local staff to innovate and experiment, using data to understand problems and their causes, and iterating to sustainable solutions. The program emphasizes that staff themselves must do the work to understand the problem and identify and implement solutions. MELAYANI provides tools to support the process, which is guided by a trained coach, who is supported by a mentor with expertise in the PDIA methodology.

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Picking a problem that matters

Belu, a poor, largely rural district in East Nusa Tenggara Province on the border with Timor Leste,¹ was one of three districts where the MELAYANI Program supported District staff to identify and solve a service delivery problem. To experiment and learn how to solve problems, the MELAYANI program encouraged districts to select problems that were important to them, provided they were in line with national goals. This allowed districts to think about their priorities as the first step of the approach.



Belu is located in Indonesia's poorer eastern region, on the border with Timor Leste

During initial meetings to determine Belu's focus, the elected head of Belu (Regent or *Bupati*) expressed his desire to work on improving the quality of education. He had long felt strongly about the issue, including it as a key issue during his election campaign. He shared that religious leaders had told him stories of children who could not read or write well enough to prepare for communion, (which is usually held when

they are in fifth or sixth grade) and even in some cases struggled to sign their name on church documents.

Belu's results on the National Exam (*Ujian Nasional*) are consistent with the stories told by local leaders. Only 32.8% of the district's sixth graders were able to pass the test. At the same time, the district has very high rates of graduation, indicating that students are passing without challenge from one year to the next. These numbers are of serious concern to the Belu education department, which sees them as evidence that children are moving through the system without learning.

In addition to the problem of education quality, government leadership, including the vice-regent and heads of key departments, identified high levels of maternal and neo-natal health as an additional challenge in Belu.

To decide the priority issue that the program would work on, MELAYANI proposed a process in which several departments could put forward proposals based on an explanation of the problems that they faced. These would be discussed and ranked in small groups. Both the health and education departments presented problems that they wanted to address. Those presented by health had considerably more data and while education could identify their problem, they struggled to quantify it. In the discussion, some individuals from the health department took this as an indication that education was "not ready" to solve their problem.

¹ Belu has a population of just over 350,000 people, of whom 80% are living in rural areas, based on population projections from 2017. It has a poverty level of 15.7%, based on World Bank staff calculations using BPS data from 2018.

The health department joined the meeting with far more people (they have “representation” in other departments, such as family planning) so were able to out-vote the education proposal. However, the *Bupati* intervened to request a focus on educational quality, since he felt it was more important.

While the approach was designed to force a discussion, it did not take into account the imbalance in numbers of people. Given the strength of the arguments for the education proposal, and clear demand from the *Bupati* (who is critical to the authorizing environment), MELAYANI ultimately supported education.

Defining the problem more carefully

To address the problem of poor quality of education, MELAYANI supported the Belu district government to establish a team to work on the issue. Initially this was composed of a broad selection of staff working on primary education, including school monitors (*pengawas*) employed by the district.² The first question that they were asked by the MELAYANI coach was what exactly they meant by quality of education, and how they might see or measure it.

A facilitated discussion revealed that the team wanted education to deliver the “three Rs”: Reading, (W)riting, and (A)rithmetic (or, more accurately in Indonesian, the “three Ms”: *Membaca, Menulis dan Menghitung*). The team



MELAYANI coach facilitating analysis of obstacles to improving education quality

considered other elements of education, such as community spirit, religion and sport, but decided to stick to the core set of skills as measured by the National Exam.

This decision was driven in part by the data that they had available to them. There is limited data available at district level to measure education quality. They saw the National Exam as comparatively unbiased, and thanks to recent changes in test administration, less prone to cheating. It focuses primarily on core educational outcomes (e.g., the three Ms). The alternative was the yearly tests administered by the school. These provide more information about the students but are considered unreliable; there is both potential and incentives for teachers to manipulate the exam or modify results (as they do not want to have failing students) and there is greater opportunity for children to pass on a single strength (e.g., being good at sport but unable to read).

² District governments are responsible for grades 1-9, covering primary and lower middle schools (*sekolah dasar* (SD) and *sekolah menengah pertama* (SMP), respectively). Based on Law 23/20014, grades 10-12, or upper middle school (*sekolah menengah atas* (SMA)) are the responsibility of the province.

performance with location within the district, the data team also looked at the proportion of teachers in each school with certification.

The findings from the data analysis shocked the Belu education team. To begin with, conventional assumptions about the poorest performance being in remote locations were not borne out. The best-ranked secondary school was in a location far from the city with no electricity, while worst-performing primary school was in the middle of town. The findings also showed that teacher certification and qualification were not correlated to the quality



Raimanuk SMPN in the remote interior of Belu district recorded the highest scores for Grade 9 on the national exam

of student results on the test. In the words of Pak Luhut, who conducted the analysis “the real issue is not access or infrastructure but about the competence of teachers, which is not necessarily related to whether they have S1 (an undergraduate degree).”

The explanatory power of basic analysis: using what is available

There were several genuinely new things about the analysis the Belu education team did as part of their problem-solving process. While the

education department was very focused on its overall district pass percentage on the National Exam, they had never looked at results at the school level in detail before. Since they had not taken the step of ranking individual schools based on performance, they did not know which schools were performing poorly or well. Ranking schools can be politically fraught, particularly when there are recognized challenges with the National Exam (cheating was widespread, but many feel it has been reduced). However, not ranking schools had left the Belu education department management in the dark as to what determines education quality. As a result, they had relied largely on assumptions, for example, that urban schools always perform better—because they have greater access to resources (teachers, money) and because urban-dwelling parents are more likely to be better off.

Beyond just ranking the schools, looking at the correlation between certification and performance took Belu’s analysis of the causes of education quality to the next level. It was not rigorous, relying simply on an examination of the numbers of certified teachers per school in the highest and lowest ranked schools. However, it did make the team seriously re-think how they saw the causes of the problem. While they know that pressure remains to continue certifying teachers, they started looking elsewhere for key drivers of educational quality.

While this analysis was successful, it is important to sound a note of caution. First, the team’s ability to rely on the data is due in part to improvements in quality that have taken place in recent years. While the team is aware that it is still imperfect, it can guide them to outliers. Second, while the team conducted initial analysis largely on their own, both they and the coach

needed some support to find the boundaries of use for their data. Appetites whetted by their initial correlations, they were keen to carry on examining indicators, including some that were only tangentially related to their questions. It was important to help them stay focused on the questions that they wanted to answer.

The next operational note will look at how the team looked deeper into factors driving educational quality in Belu.

What have we learned?

Poor, remote areas of Indonesia are just as capable of generating innovation as richer, more capable locations. It can be easy to stereotype areas like Belu as being low capacity poor performers, but the achievements made by the Belu team demonstrate that with the right motivation they can make substantial progress.

Letting the Belu team do the analysis for themselves was critical for both their acceptance of results and their understanding of the situation in their district. There is already evidence that teacher certification does not work well in general and is particularly ineffective in Indonesia.⁵ However, it was important for the Belu team to discover this on their own, after a careful consideration of what data they would trust. Looking in detail at data about the schools in their district also helped them learn more about their district, breaking down some of the stereotypes that they held about themselves, such as the belief that the children in town were getting a better education than those in more remote areas. This change in perception also

encouraged them to learn more from their own schools.

Simple analysis can be effective in helping to define problems. While the analysis that the Belu team undertook was quite straightforward, it showed that at the very least, they needed more information to understand factors influencing the quality of education. It also showed them that some of their assumptions were incorrect. From an operational perspective, simplicity is important. However, there is a fine line between “good enough” analysis and weak analysis, and oversight may be necessary.

A lack of data is not necessarily a sign that a department is not “ready” to solve problems. Indeed, it may be a sign that they need to turn their attention to identifying information that will help understand problems in a meaningful way.

There are committed individuals in the bureaucracy, and the problem-solving process can help them find a way to work in a more meaningful way. The staff member from the data section who led the data analysis, had previously been a high school teacher, but took a job with the education department in the hopes he could have a broader impact. He had been educated abroad in curriculum development and felt that he had something to offer. He had already been looking through the National Exam data but had not found a way to present this to his superiors without internal demand. The problem-solving process gave him the opportunity to put his skills to work and a place to share results.

⁵ Ibid

Leadership matters in setting priority issues.

MELAYANI designed a more democratic approach to selecting a priority issue. However, the reality was that the chosen issue had to have leadership support. It is important to remember this in program development and balance it with empowerment and engagement of teams who will have to do the work going forward.

Bringing these lessons to scale

The sequence of steps followed by the Belu team could be converted into a tool other districts could use to undertake a similar analysis. The tool would lead the government team through the process of:

1. Defining their quality improvement objective and the indicator(s) to measure it;
2. Using techniques like the fishbone diagram and five whys to unpack root causes of obstacles to improvement;
3. Assessing available data to determine its suitability for enhancing understanding of the chosen problem and its reliability in general;
4. Exploring simple ways to analyze data including ranking and triangulating two data sources to look for correlations;
5. Understanding the difference between correlation and causation (and

recognizing that the value of data may be to rule out expected explanations as to why performance is not improving);

6. Identifying alternative (qualitative) approaches to explore the obstacles to quality improvement, including focus group discussions and interviews with frontline staff.

Central government can support quality improvement by local governments in the following ways:

Central government program managers can support local government staff to explore their own solutions to challenges of service delivery quality. While the national government provides the space for local governments to adapt national programs to local conditions, it is not always clear what that looks like as a process.

Central government program managers can put more emphasis on the collection of data for local management decision-making, as a critical first step in developing a more detailed understanding of local conditions.

Central government can create opportunities for staff from Belu to share their experience with other districts. This might include video interviews that can be shared on YouTube, it might also include national fora where the staff from Belu are given space to present their experience.

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