Knowledge hub
-
Collection of best practices

Summary of the best practice

1. Title of the best practice (e.g. name of policy, programme, project, etc.) *

   Geographic Information System (GIS) data for more equitable teacher allocation

2. Country or countries where the practice is implemented *

   Sierra Leone

3. Please select the **most relevant** Action Track(s) the best practice applies to *

   ☐ Action Track 1. Inclusive, equitable, safe, and healthy schools

   ☐ Action Track 2. Learning and skills for life, work, and sustainable development

   ☑ Action Track 3. Teachers, teaching and the teaching profession

   ☐ Action Track 4. Digital learning and transformation

   ☐ Action Track 5. Financing of education

4. Implementation lead/partner organization(s) *

   Education Workforce Initiative and Teaching Service Commission, Sierra Leone

5. Key words (5-15 words): Please add key descriptive words around aims, modalities, target groups etc. *

   GIS data and analysis
   equitable teacher allocation
   shortage of teacher subject specialists

6. What makes it a best practice? *

   More efficient use of existing teachers for the most marginalized students

Description of the best practice

7. Introduction (350-400 words)
   This section should ideally provide the context of, and justification for, the practice and address the following issues:
   i) Which population was affected?
   ii) What was the problem that needed to be addressed?
   iii) Which approach was taken and what objectives were achieved? *

   i) junior and senior secondary schools
   ii) shortage of subject specialists in some schools while others have subject specialists without full schedules
   iii) using GIS data to identify which subject specialists could be shared with neighboring schools

8. Implementation (350-450 words)
   Please describe the implementation modalities or processes, where possible in relation to:
   i) What are the main activities carried out?
   ii) When and where the activities were carried out (including the start date and whether it is ongoing)?
   iii) Who were the key implementation actors and collaborators? (civil society organizations, private sector, foundations, coalitions, networks etc.)?
   iv) What were the resources needed (budget and sources) for the implementation?
   *

   i) We used spatial analysis to identify situations where subject specialists are being under-used in one school, while a neighbouring school is lacking the same specialist skills. We focus on the key subjects of English, Maths and Science at the junior and senior secondary levels and exclude private schools. Across the country, the latest school census data shows that 40% of English language classes, 54% of maths classes and 42% of science classes are being taught by teachers that do not claim to be specialised or would not be acknowledged as specialised. Moreover, there are 557 junior and senior secondary schools without an English specialist, 817 without amaths specialist, and 789 without a science specialist. The logical question then is: for these schools, is there a school nearby with sufficient capacity to help?We do this by identifying, for each school type:•the closest school by distance; •the 'hours taught' per teacher, (we classify a teacher as having capacity if they teach 20 hours or less); •a reasonable distance to travel between schools (we set at 5km assuming one hour walking is a natural barrier). Using GIS data we found that at least one-quarter of schools that lack key subject specialists could be covered by the sharing of specialist teachers.
   ii) Sierra Leone 2020
   iii) Teaching Service Commission Sierra Leone & the Education Commission's Education Workforce Initiative

9. Results – outputs and outcomes (250-350 words)
   To the extent possible, please reply to the questions below:
   i) How was the practice identified as transformative? (e.g., impact on policies, impact on management processes, impact on delivery arrangements or education monitoring, impact on teachers, learners and beneficiary communities etc.);
   ii) What were the concrete results achieved with regard to outputs and outcomes?
   iii) Has an assessment of the practice been carried out? If yes, what were the results? *

   Using GIS data we found that at least one-quarter of schools that lack key subject specialists could be covered by the sharing of specialist teachers.

10. Lessons learnt (300 words)
    To the extent possible, please reply to the following questions:
    i) What were the key triggers for transformation?
    ii) What worked really well – what facilitated this?
    iii) What did not work – why did it not work? *

    Using existing data in a novel way to address a long-standing challenge related to teacher shortages

11. Conclusions (250 words)
    Please describe why may this intervention be considered a "best practice". What recommendations can be made for those intending to adopt the documented "best practice" or how can it help people working on the same issue(s)? *

    Using existing data in a novel way to address a long-standing challenge related to teacher shortages

12. Further reading
    Please provide a list and URLs of key reference documents for additional information on the "best practice" for those who may be interested in knowing how the results benefited the beneficiary group/s. *

    https://educationcommission.org/wp-content/uploads/2020/12/2-EW-Spatial-Analysis-Paper.pdf