



Raising student achievement in literacy and numeracy through a teacher coaching programme: A case study from Brunei Darussalam

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Executive summary

This report describes a successful teacher support and development intervention intended to improve the literacy and numeracy outcomes of students in government schools in Brunei Darussalam. Literacy and numeracy matter; they are often described as foundational skills. Without proficiency in these areas, students cannot succeed across the wider curriculum and are unlikely to progress after school into higher education and, ultimately, well-paid professional jobs. The case study from Brunei described here provides a practical example of how learning outcomes can be improved in this important area, through the power of coaching for teachers.

The approach adopted in Brunei was developed by the Ministry of Education with technical assistance from Education Development Trust (EDT, previously called CfBT). The initial phase of the project (2016–19) was known as the Literacy and Numeracy Coaching Programme (LNCP) and embraced a progressive approach to building local capacity through coaching. The design of the intervention was evidence-based: global research suggests that classroom-based coaching is the most reliable means of improving teaching quality (Garet et al. 2001; Kraft, Blazar, & Hogan, 2018). A new position of 'local coach' was established in government schools and, during the first phase of the project, a team of expert international coaches trained and mentored the local coaches.

With the assistance of first international and then local coaches, teachers modified their pedagogical practices in line with evidence-informed best practices. The LNCP promoted the importance of careful lesson planning, with a particular emphasis on so-called 'dialogic teaching'; this refers to teaching which encourages purposeful, on-task classroom talk. Coaches and teachers were encouraged to focus on securing improved learning outcomes through a 'Teaching for Mastery' approach that was supported by subject-specific guidance relating to both literacy and numeracy. Coaches also promoted the careful use by teachers of assessment for learning, so that students knew exactly what they needed to do to take the next steps in developing their literacy and numeracy skills.

The results arising from the LNCP, using a variety of measurement techniques, have been extremely encouraging. Data from formal lesson observation using the Brunei Teacher Performance Appraisal (TPA) framework indicates improvements in the quality of teaching. The results in summative national tests have been on an upward trajectory, and test scores from the Programme for International Student Assessment (PISA) have been impressive. According to the PISA data, between 2018 and 2022 there was a dramatic improvement in the attainment of 15-year-olds in science, mathematics and reading literacy, despite the disruptions to education brought about by the Covid-19 pandemic. The improvement in Brunei's PISA scores in reading literacy between 2018 and 2022 was the largest of all participating countries worldwide.

Introduction to the LNCP in Brunei

Between January 2017 and June 2019, 60 international coaches worked directly with identified teachers in one-to-one coaching sessions and through classroom-based activities. The international coaches were skilled classroom practitioners, either with experience of teaching in Brunei or from high-performing PISA countries. The LNCP identified and supported the development of 80 local coaches who progressed to take on the roles previously performed by the international coaches. The overarching aim was to have a local literacy and numeracy coach in every school in the country, which would bring about continual improvements in teaching, with associated impacts in both the enjoyment of and progress in learning.

The story of the LNCP between 2016 and 2018 shows that a great deal was accomplished in a short amount of time, with professional development programmes developed, training implemented, and transformational change emerging at all levels of the system. The progress described is based on a review of all routine monitoring data (detailed descriptions of which can be found in the LNCP Monitoring Evaluation and Learning Plan) and focus group discussions conducted in August and September 2018. Further data to supplement this was collected in 2019, and new insights 'at a distance' were gathered from semi-structured interviews with international coaches and a local coach in 2024.

The LNCP is now fully embedded in the Ministry of Education, with ministry staff engaging in programme governance and decision making. Today there are over 250 local coaches and 18 senior coaches; the goal for each school to have a coach has nearly been achieved. All international coaches had completed their roles by the end of 2019, as was the intended goal, and by 2020 the programme had achieved its goal of being led by the Government. The local and senior coaches undertake specific one-to-one coaching sessions with learning partners (teachers), lead professional learning, and work with school leaders on school improvement plans. They continue to have a teaching allocation, albeit at a reduced level in most cases.

There was also a concrete improvement in support structures and quality assurance mechanisms, such as the introduction of heads of clusters and the school leaders who play a critical role in supporting teachers to improve. In 2024, the heads of clusters continue to play a crucial role in supporting school leaders and coaches, while providing the necessary support and expertise to enable schools to improve in light of school inspection reports.

Beyond its professional development materials and training programmes, the LNCP has been successful in providing the necessary resources to help make transformational change. The deployment of the international coaches in particular has added substantial value to schools by enhancing their knowledge, skills and resources. In working with beneficiary groups vertically and horizontally across the system, and as a result of the integrated nature of the professional development programmes, the LNCP has increased collaboration within the education ecosystem. It has also generated a high level of commitment to system reform. Stakeholders in different beneficiary groups have commented on the importance of not only what the LNCP endeavoured to achieve, but also the manner in which it was done; some stakeholders even reported that they would continue with the programme independently if it was discontinued.



Impact on teaching standards

The LNCP developed many innovative and context-appropriate professional development programmes and materials for Bruneian government schools. They were acknowledged to be of high quality and were favourably regarded by beneficiaries. The materials proved to be effective, and the professional development programmes resulted in demonstrable change and improvement in teaching and coaching practices. This also highlighted the universality of the training.

Early indications of the relevance of the LNCP were evidenced by the scale-up to other teachers and subject heads, who independently adopted some of the materials (especially the Teaching for Mastery framework) and adapted them to their schools and classrooms. There are Teaching for Mastery documents available for English and mathematics, and a generic Teaching for Mastery framework within the teacher standards documentation.

The introduction of the Teacher Performance Appraisal (TPA) tool, and associated training, focussed teachers' attention on the structure and pedagogy of their lessons. Four key notable areas have been highlighted in the observations of teaching (which occurred over ten periods between 2017 and 2019). Seventeen aspects of each lesson were graded from 1 to 5, with grades 3 to 5 suggesting that the teacher had met (or exceeded) an acceptable level of achievement in that area. Whilst graded lesson observations have been largely rejected in the Anglo-Saxon regions, due to the challenges associated with ownership and autonomy in professional development, the graded lessons served as a consistent tool to measure the progress of a large cohort of teachers across a range of professional standards.

Data from the interviews with local coaches and learning partners in 2019 were triangulated with interviews with international coaches in 2024, which support the initial observations. The four notable areas outlined below were identified as key drivers of change; they also reflect the four domains of the Teaching for Mastery framework:

01 Dialogic teaching: One of the most impactful areas of improvement in classroom practice was seen to be dialogic teaching. This, Alexander (2008) defined as harnessing the 'power of talk to stimulate and extend students' thinking and advance their learning and understanding. It helps the teacher to more precisely diagnose students' needs, frame their learning tasks and assess their progress. It empowers the student for lifelong learning and active citizenship.'

Within this area, teachers' scores rose from a mean score of 1.6 in April 2017 (well below an acceptable standard) to a mean score of 3.7 in May 2019. In 2024, anecdotal evidence suggests that dialogic teaching remains a strong area of teachers' practice:

“There is a definite shift in teachers trying to be more dialogic in their lessons.”

— Local coach (April 2024)

“I am convinced that the LNCP's emphasis on dialogic teaching led to a cultural shift in teaching in Brunei, and that this will continue to have a very strong impact in the future... [the trainers] led us through the whole philosophy of the project and were truly passionate about the concept of a dialogic approach, they shifted my whole perspective on what makes a teacher effective.”

— International coach, now a CfBT teacher (January 2024)

02

Lesson structure: Data arising from lesson observations between January 2018 and May 2019 showed that TPA grades for lesson structure had risen from just above 2 to just above 3. Learning coaches and partners remarked that clear lesson structures were now evident, and that teachers' skills in sequencing and the progression of learning (both within a single lesson and over time) had improved. This is backed up by anecdotal evidence arising from the interviews with local and international coaches in 2019 and 2024:

“When we do the lesson plan, we know what to do now. Before we were struggling with [this], but now it is quite simple. We know now how to sequence this.”

— Local coach (2019)

“Through the LNCP programme, our lesson structures have become more organised and effective. Teachers now plan lessons with clear objectives and a logical flow. Lessons typically start with a review of prior knowledge, introduce new material, and include guided practice. This approach has made lessons smoother and more efficient, helping students understand and retain information better.”

— International coach, now a CfBT teacher (2024)

03

Task design: During the initial research phase, learning partners were assessed through the TPA tool. From a collective total of approximately 500 participants (which includes approximately one quarter local coaches and three quarters learning partners/teachers), the average mean score relating to task design rose from 2.2 in January 2018 to 3.6 in May 2019. This upward trajectory is reflected in the informal observations of an international coach who is now teaching in a Brunei school:

“The LNCP programme has made a big difference in how we design tasks. Teachers now create more challenging and relevant tasks, often using real-world applications. Project-based learning is more common, which helps students develop critical thinking and problem-solving skills while making learning more engaging.”

— International coach, now a CfBT teacher (2024)

04

Assessment for learning: Another area noted by the international coaches in 2024 highlighted the continued focus on assessment for learning and ensuring that assessment was both continual and formative, as well as final and summative. In the short period of time that this was a focus (between October 2018 and May 2019) the scores in this area of the TPA appeared to rise from an average of approximately 2.4 to just under 3 (good).

“Thanks to the LNCP, we’ve really improved our approach to assessment for learning. Teachers now regularly use formative assessments, like quizzes and feedback sessions, to track student progress. This has created a more supportive classroom environment where students know how they’re doing and can make adjustments to improve.”

— International coach, now a CfBT teacher (2024)

The improvement in teachers' practices, and associated gains in student outcomes, were the most important aspects of measuring the success of the LNCP. Across the period of the programme (April 2017 to May 2019), the percentage of teachers achieving a 'good' grade rose from less than 10% to nearly 70%. This is a phenomenal outcome.

In summary of the LNCP programme, one local coach (in April 2024) remarked:

“Teachers across the nation are now well-informed [about] effective teaching strategies such as dialogic questioning, differentiations, AfL vs AoL, etc. Teachers are exposed to try new strategies to improve teaching and learning in the classroom. Some teachers would become better educators from it for sure.”

There was an acknowledgement that it would take longer to translate improved approaches to teaching into student outcomes. One system leader remarked (in 2019), “to actually measure the impact of dialogic teaching in LNCP will take some time... it would be good to evaluate after three years... to see how much progress the children have made.” Indeed, just three years later in 2022, Brunei's 15-year-old children clearly demonstrated how much progress they had made, when the PISA results were published.

PISA results

In 2018, Brunei participated in PISA for the first time and the scores were lower than expected, given the average income level of the country. The PISA mean scores were:

Reading
408

Mathematics
430

Science
431

This placed Brunei in 60th place for reading globally, 51st place for mathematics, and 50th place for science. Within the Southeast Asian region, Brunei scored higher than average for the region and ranked 3rd for all three domains. However, as a consequence of the PISA 2018 results, the Ministry of Education focussed its support for schools and teachers on strengthening students' knowledge and skills (MoE Strategic plan, 2023-2027, p19).

Four years later in 2022, Brunei's [PISA results](#) had greatly improved:

Reading
429
(+21 points)

Mathematics
442
(+12 points)

Science
446
(+15 points)

Significantly, Brunei's mean score for reading was the most improved in the world. Only four countries and economies improved their performance between PISA 2018 and 2022 in all three subjects: Brunei, Cambodia, the Dominican Republic, and Chinese Taipei.

National results

In line with improved performances in international results, national results have also risen progressively. The results of the Penilaian Sekolah Rendah (PSR) for government primary schools, for example, showed that the proportion of students obtaining A-C grades rose from 48.4% in 2012 to 76% in 2021. Over the same period, the number of candidates obtaining five GCE 'O' Levels rose from 32.6% in 2012 to 56.5% in 2021 (Ministry of Education Strategic plan, 2023-2027). In Brunei, school closures for up to a total of 185 school days during the Covid-19 pandemic created gaps in learning, despite best efforts to minimise disruption. This impacted students' performance across the three public examinations (PSR, 'O' levels and 'A' levels) in 2022.

Approach of the programme

As well as understanding how the LNCP impacted teachers' practices, the research in 2019 sought to understand which aspects of the programme's approach had led to these changes. Many respondents felt that the LNCP built on other professional development programmes they had participated in, by including a comprehensive set of built-in follow-up and accountability mechanisms. These included opportunities to apply learning in a practical way in the classroom shortly after training, as well as follow-up sessions with coaches and the need to create portfolios.

In broad terms, the qualitative data collected in 2019 summarised three features of the LNCP that were key to its positive outcomes:

- » **the availability of high-quality training materials and resources**
- » **the continuous nature of highly relevant learning, which could be immediately applied in the classroom or school**
- » **the availability of high-quality international advisors and mentors, which ensured that the programme drew on best practice from a range of contexts.**

The goal of the LNCP was not just to build the capacity of stakeholders, but also to enable wider education system reform. The programme was focussed on Brunei's vision for 2035: that students are highly numerate and literate in English, with high-quality teaching and a system enabled to support that goal. As every context is different, a key element of the LNCP was that it was co-developed and implemented in partnership with the Ministry of Education. This collaboration was fundamental to the success of the programme.



Conclusion

There is much talk worldwide about a learning crisis in schools, and the urgent need to ensure that all students achieve proficiency in the foundational skills of numeracy and literacy. In this context the Brunei LNCP case study is important. LNCP demonstrated how it is possible to improve the quality of teaching and learning through a system of coaching that is embedded into the daily life of a school. Other forms of teacher professional development, such as off-site training courses, are a relatively weak mechanism for change, whereas instructional coaching provides a tried and tested means of enhancing teaching quality.

There are significant lessons in this report for policymakers in many countries. Often school reform initiatives are short-term in nature. In Brunei there has been a sustained commitment to the coaching model since 2017, and the system of local coaches remains in place today.

Of course, it is not enough to take evidence-informed action to make schools better; there is also a need to measure the resulting changes. Using a range of measurement techniques, the changes to teaching quality in Brunei have been systematically tracked. Perhaps the most important measure was the robust comparative data provided by PISA test scores, which indicated that between 2018 and 2022 the impressive improvement in the literacy performance of Brunei's fifteen-year-old students was greater than that of any other country in the world.

In summary, the LNCP's focussed precision approach to teacher improvement has had long-term positive impacts, not just in the standards of teaching, but also in the structures and systems in place across government schools and the Ministry of Education in Brunei.

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