

**Educational Quality and Assessment Programme (EQAP)**  
of the  
**Pacific Community (SPC)**

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**PACIFIC HEADS OF EDUCATION SYSTEMS  
(PHES)**

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**Executive Summary on ECE participation and  
quality with later PILNA outcomes**

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# Executive Summary on ECE participation and quality with later PILNA

## outcomes

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### ECE – Short Executive Summary

There is strong evidence supporting early childhood and education (ECE) programs as an effective way to support children to have the best start in life, especially for the most disadvantaged children. When high-quality programs are established – where quality is assured, and barriers to participation eliminated – large positive effects are observed that are sustained into adulthood. Indeed, substantial positive returns on public investment in ECE programs are reported. When low-quality programs are taken to scale in the market, however, smaller effects or no effects are observed. This is attributed to a failure to get quality right. And when quality is too low, children who stand to the benefit most get less or no access at all. This report explores the impact of ECE programs in the Pacific region and presents evidence to inform implementation of the Pacific Regional Education Framework (PacREF), particularly related to the development of monitoring mechanisms for school readiness (PacREF Implementation Rolling Plan, Policy Area 3, OW1.1.1b, p. 12). Recommendations are also made to support progress towards achieving SDG 4.2.1 and 4.1.1.

This report interrogates evidence about effective ECE systems to identify levers to improve *everyday* programs at scale. This evidence is compared with systems-level reporting in the Pacific region – including the UNICEF Status Report on Early Childhood Care and Education in Pacific Island Countries. Then, using the Pacific Islands Literacy and Numeracy Assessment (PILNA), analysis is conducted to explore the strength of association between ECE participation and school-age learning outcomes. The analysis focuses on three countries as an initial deep dive into student achievement and ECE participation using PILNA results: Solomon Islands, Tonga and Vanuatu. Results are then synthesized, and recommendations made.

### ECE systems monitoring in the Pacific

According to the latest data, children in high income countries are four times more likely to be enrolled in pre-primary education than those in low-income countries (UNICEF, 2021a). In the Pacific, the majority of countries offer ECE for two years starting at age 3, with the exception of Tonga and Tuvalu when ECE starts at 4 years. Participation in ECE is high across 9 of the 14 Pacific countries (81-99 percent), with Samoa lagging at 35 percent (UNICEF, 2021b). The evidence available regarding the likely quality, and therefore impact of ECE systems in the Pacific mostly relates to policy and *structural* elements that are easy to measure rather than *process* quality which is more difficult to measure. There is evidence that countries in the Pacific have implemented policies that align with effective ECE systems, including universal access, learning and development frameworks, and quality standards. There is some, but limited evidence of the structural quality of ECE programs, including registration requirements surrounding the physical environment, teacher qualifications and training, and adult-child ratios. There is however, limited continual quality monitoring of these structural aspects and it is unclear what proportion of ECE services continue to meet minimum standards required for registration. There is an absence of measurement of process quality (teaching quality, pedagogical quality etc.) and it is therefore unclear what proportion of services in the region meet minimum levels of quality required to have a positive impact on learning and development.

### Impact of ECE programs on children's learning in the Pacific

An analysis of international and other regional large-scale assessment programs (for example PISA, TIMSS and SEA-PLM) found a small to moderate correlation between ECE participation and school-age learning outcome. In PILNA the observed correlations between ECE participation and grade 4 and grade 6 learning outcomes is less clear. Some countries demonstrate positive correlations, others no

correlation, and some countries a negative correlation. This is an important new finding from the PILNA data and one that provides new information for policy makers. It is essential that policy makers know whether this pattern is due to low quality, or poor access, or a more complex mix of factors as a by-product of taking ECE programs to scale.

In the three case study countries included in the analysis, findings are mixed. Whilst most children attend one or two years of ECE (compared to no ECE attendance), there is a negative effect for ECE in one country, no observed effects in another country, and modest positive effects in the third country. When a set of contextual factors (such as socio-economic status, location, mother's education, home language and home support) are controlled for in a more complex analysis, the magnitude of the positive effects is reduced, such that nearly all positive effects become non-significant. In one country there remains a positive effect for 2 or 3+ years of ECE participation, suggesting a cumulative effect of ECE.

Further analysis shows that there are likely confounding effects at play, relating to the likelihood of more advantaged households accessing ECE programs. This may hint at inconsistencies in the availability and equity of access to ECE programs that explain why the effect of ECE is not as large as expected, and even negative in some cases. Unpacking the quality of ECE in these countries, and equity issues will be key to understanding this pattern.

## Recommendations

Recommendations relating to systems and systems monitoring:

1. Use the findings from this study to open discussions about the aspects of learning and outcomes that should be measured and prioritised in the reform agenda in the Pacific, including the development and implementation of quality standards.
2. Strengthen the UNICEF Status Report as a tool to promote the adoption of policies and system monitoring likely to improve the impact of ECE systems in the Pacific, by explicitly monitoring child-level participation and outcomes, program quality, and contextual information.
3. Strengthen EMIS systems to collect accurate attendance data that quantifies the attendance patterns of individual children that can be linked to learning outcomes, program quality, and contextual information.

Recommendations related to strengthening PILNA:

1. Consider the medium- to long-term expansion of PILNA to include the direct assessment of children's learning at age 4-5 years (before, or early in the first year of school). Ensure the children assessed at age 4-5 are included in later PILNA cycles, when they are in grade 4 and 6 to allow for longitudinal analysis of learning development.
2. Revise PILNA questionnaires to include more items that include a wider range of variables needed to measure ECE outcomes. Consider alternate methods for collecting contextual data that relates to ECE participation and quality.