

Some things I've learnt about RCTs: PEARL trials of community play-based activities in Tonga 2014-2018

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Outline

1. What was trialled in Tonga and why
2. Playgroups (CPBA) - what we monitored
3. Some outcomes
4. What I learnt

Pacific Early Age Readiness and Learning program - PEARL

Problem: children in the Pacific were struggling learning to read.

In Tonga

- *More than half* of both Year 4 and Year 6 students did not meet the regional literacy benchmark (2015 PILNA)
- Reading problems start early – as early as Class 1*

* from Tonga Early Grade Reading Assessment (TEGRA)

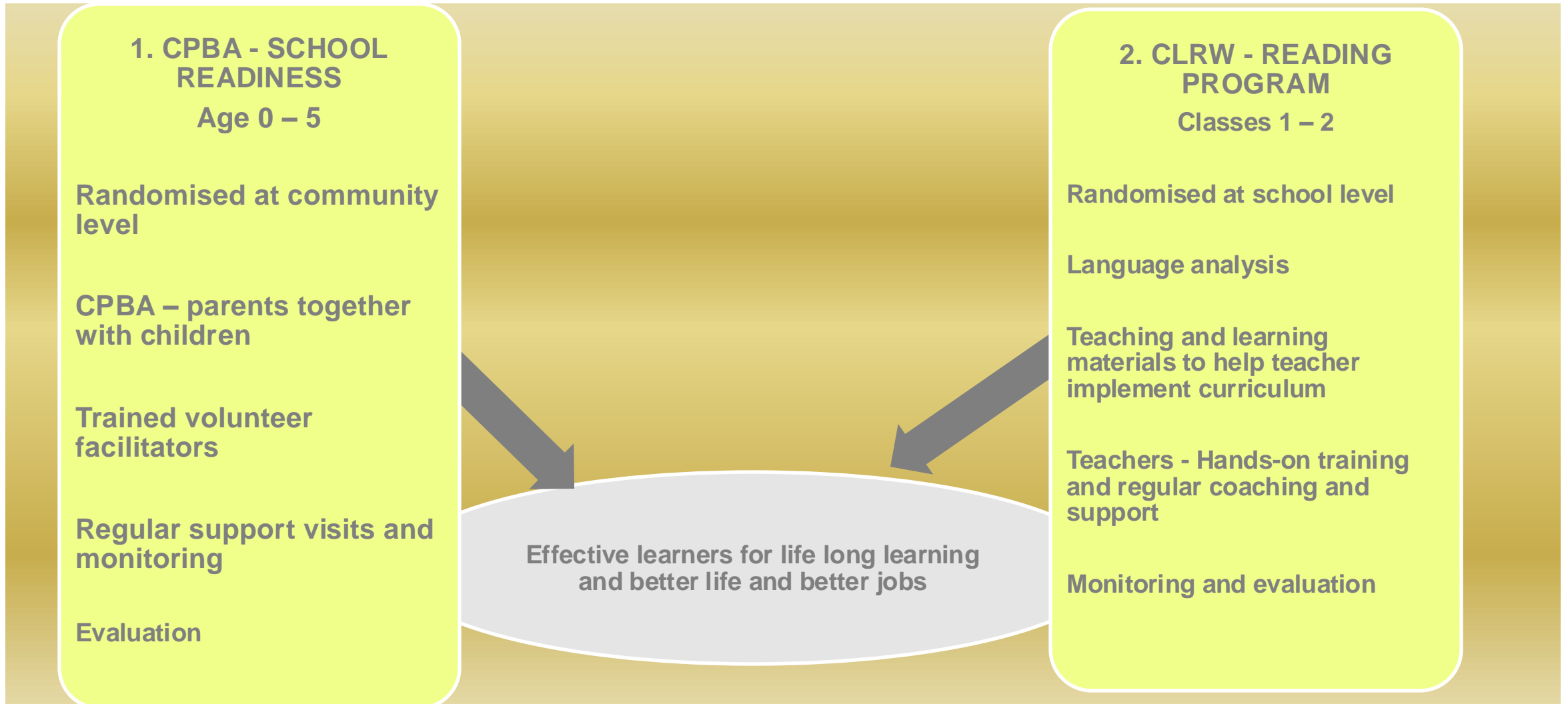
Pacific Early Age Readiness and Learning program - PEARL

The Tongan Ministry of Education (MET) together with the World Bank decided to trial two interventions

- i. community play-based activities or playgroups (CPBA), and
- ii. a new way to teach reading (Come Let's Read and Write - CLRW) in Class 1 and 2.

Funding by the Global Partnership for Education

PEARL in Tonga 2014-2018 - 2 RCTs



Why trial, and why RCTs?

CPBA

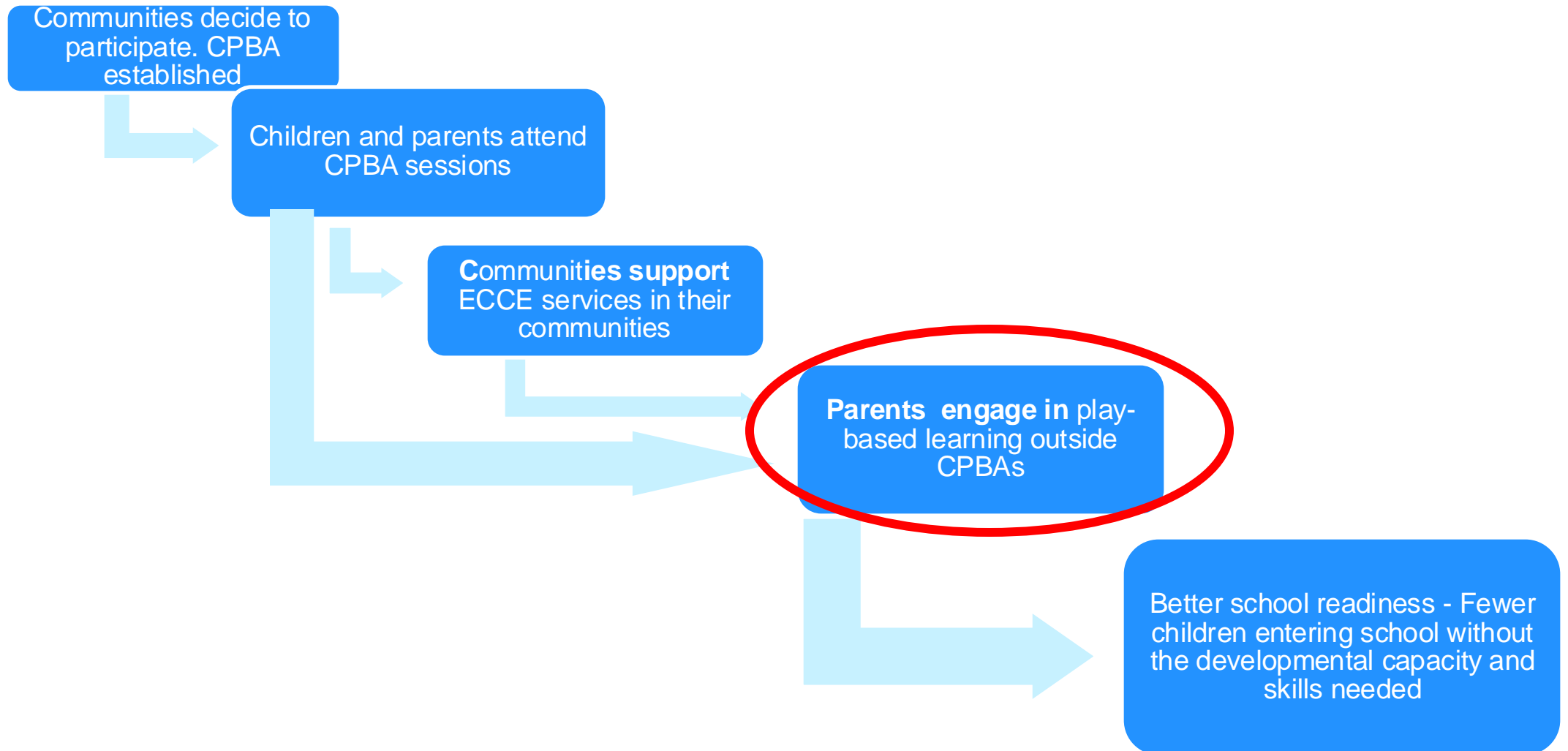
- CPBAs were quite new – hardly any in Tonga
- Could this very simple, low cost intervention, based on community and family strengths, make a difference to children's school readiness?

CLRW was much more structured and expensive

- tightly scripted lessons built around teaching of phonics to classes 1 and 2
- new and untried in the Pacific.

Also - opportunity to compare the impact of CPBA and CLRW.

2. CPBA -How do they impact on children?



PEARL CPBA Tonga

1. Undertook a Baseline – Tonga Early Human Capability Index (TEHCI) 2014.
2. Randomly allocated communities to treatment and comparison (45 in each group initially).
3. Implement program 2015-2017
 - i. **Invite** communities, find locations, train facilitators, give starter packs
 - ii. **Solve problems** – work with town officers, facilitators
 - iii. **Monitor!** Participation in playgroups, parent engagement, parent activities at home. Community interviews.
 - iv. **Facilitator workshops every 6 months.** To reflect, learn from monitoring data, adjust.
4. Evaluation: Endline – Repeat TEHCI mid 2017, TEGRA in Class 1.
PLUS – annual workshops for all PICs to discuss rationale, design, implementation, outcomes.



**2014 Discussing
baseline ECD
data with
communities-
maps!**

**2015 Training
facilitators,
starter kits**



Playgroups run –
1 or 2 a week



Monitoring



3. Outcomes

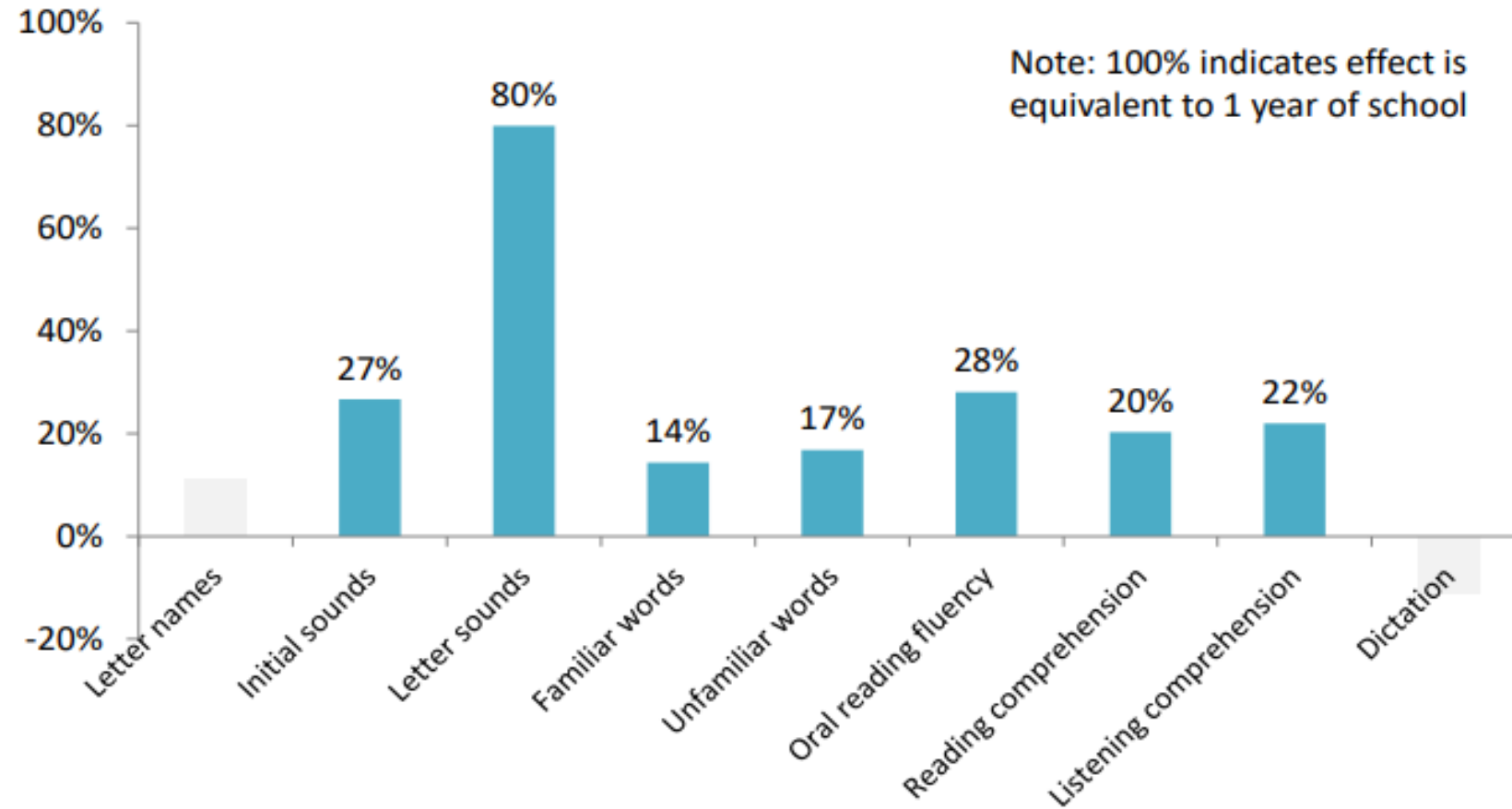
Both showed impact

- CPBA – impact greatest for disadvantaged children in both school readiness and literacy skills when they got to school. Cheap \$12 USD per year per child
- CLRW – bigger impact but more expensive \$63 USD per year per child

Both are worth investing in.

CLRW intervention has large effect on early grade reading skills

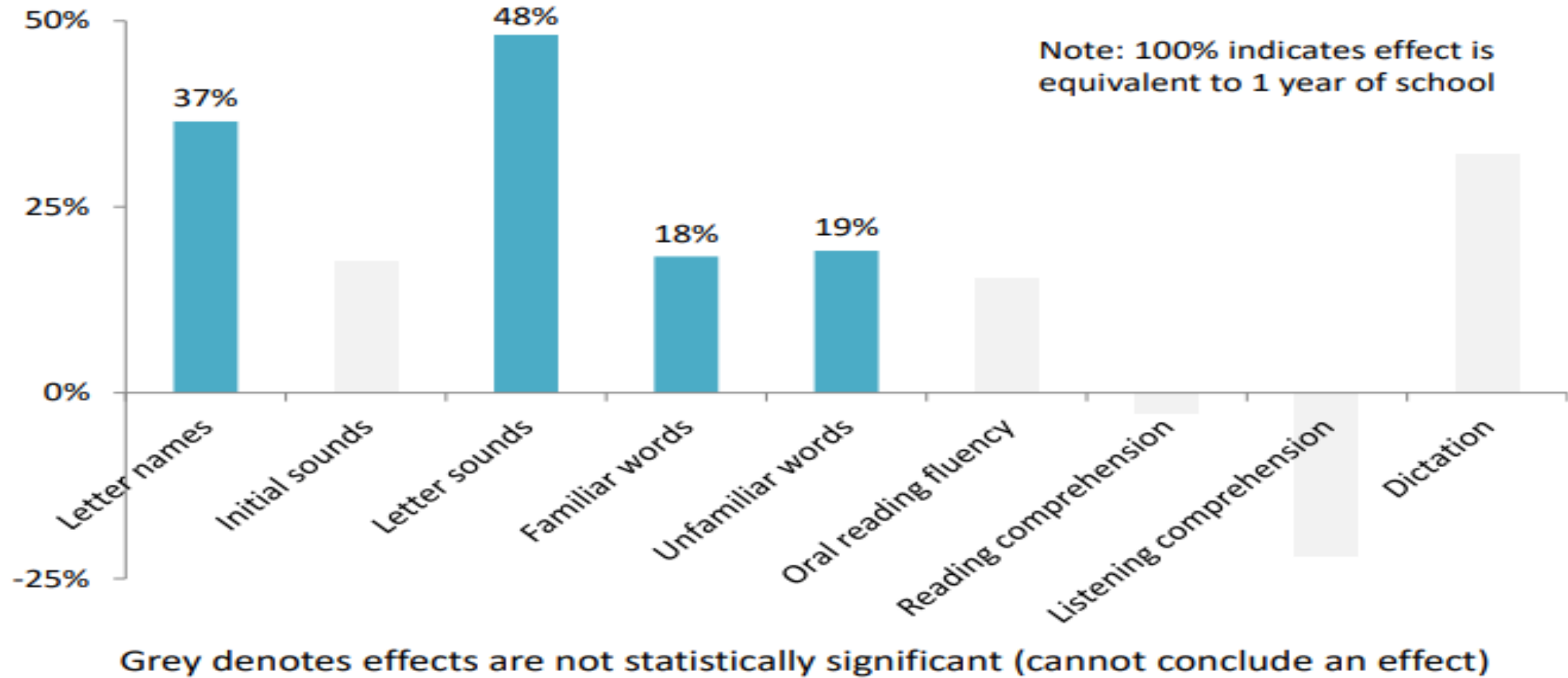
Figure 3. Effect of one year of CLRW on TEGRA domains as a percent of one grade of learning (average of 1st and 2nd year of exposure)



Grey denotes effects are not statistically significant (cannot conclude an effect)

Evidence that the community school readiness intervention also has an impact on early grade reading skills

Figure 4. Effect of community school readiness intervention on 1st grade TEGRA domains as a percent of one grade of learning



4. Some things I learnt

RCTs are good for where there are *genuine uncertainties* in government/ communities about the usefulness of a policy or intervention OR *strong evidence* will be needed for expansion

RCTs aren't that difficult. Yes they need expertise, but most time and energy goes into project management –solving problems, followup, monitoring, data quality checks

RCTs have additional costs, but not as much as I had thought. Yes they cost more than a basic qualitative evaluation, but any impact evaluation will have to do baseline/endline surveys or mine admin data.

RCTs encourage *better monitoring, and better data quality.*

Some things I learnt

Communication/community engagement really matters

- While there was occasionally unease (eg new Minister) most community members, principals, and teachers understood why only some were getting the intervention.
- CPBAs had very significant community support – resources/locations/volunteer facilitators – due to open consultation and information sharing.
- the *annual PEARL workshops* for PICs were probably more influential than the actual results.

The value of using internationally recognised baseline and endline measures, contextualised through engagement with locals. For CPBA we used the ECHI (TECHI) and for CLRW the EGRA (TEGRA).

Some things I learnt

- *Monitoring is essential.* High-quality descriptive work (quant and qual) before, during, and after the intervention to get the design right, monitor what's actually happening vs. the design (fidelity), to make sure comparison communities not being influenced, contextualize the findings – why it did or didn't work etc...
- *RCTs are not enough* - RCTs provide powerful evidence, but it's not enough if you want to influence governments, especially if you are challenging existing beliefs and practices, or require new institutions.
- *RCT results have longevity.* We have been able to follow up - there are long term (6 year) outcomes for CLRW on the secondary entrance exam results!

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References

- Macdonald et al 2018. Intervening at Home and Then at School A Randomized Evaluation of Two Approaches to Improve Early Educational Outcomes in Tonga. World bank working paper 8682.
<http://documents.worldbank.org/curated/en/749601545227173514/pdf/Interveningat-Home-and-Then-at-School-A-Randomized-Evaluation-of-Two-Approaches-toImprove-Early-Educational-Outcomes-in-Tonga.pdf>
- Vu et al 2019. Implementing and Evaluating Interventions to Improve School Readiness and Early Literacy : Experience from the Pacific Early Age Readiness and Learning Program : Operational Guide
<http://documents.worldbank.org/curated/en/981801563250242375/OperationalGuide>

Thanks!

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