

# Play Our Part



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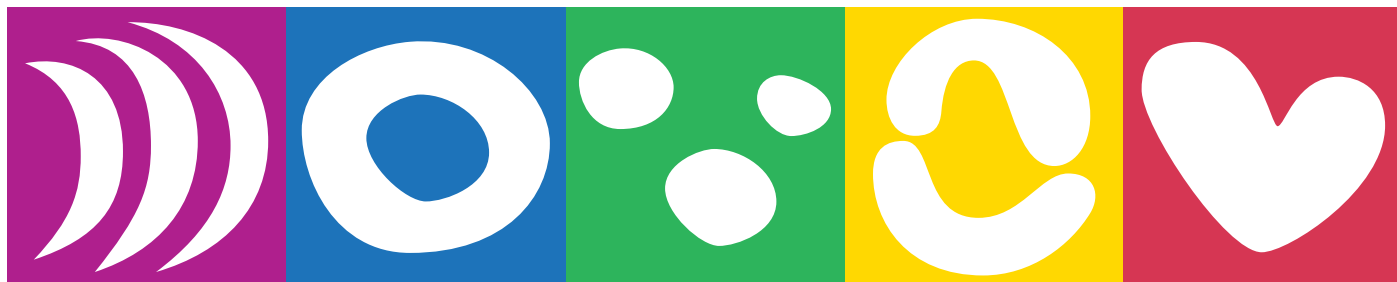


## Pre-Post Training Tests:

A Play Our Part CoP guide on  
designing pre-post tests



# Advancing Learning through Play in Early Childhood Education



## Who are we:

The **LEGO Foundation**-funded **Play Our Part (PoP)** initiative is a community of practice made up of three early childhood education (ECE) implementers - **VVOB - Education for Development, Plan International**, and **Voluntary Service Overseas (VSO)** - working to strengthen Learning through Play (LtP) instruction and holistic learning in schools and centers. The initiative uses a multi-level approach, engaging schools, government institutions, and communities.

## Engage in our Resource Package:

**Innovations for Poverty Action (IPA)**, as PoP's Learning and Design Partner, authored this research package to consolidate implementation findings into credible recommendations and guidance for those implementing—or considering implementing—ECE and LtP programs. PoP implementing partners contributed findings and insights from their programs, with support from the LEGO Foundation. We invite you to explore these resources and join us in bringing the LtP vision to life.

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# What is a pre-post test?

Pre-post tests are short assessments done before and after a training engagement to collect valuable information from participants. This low-cost approach helps quickly gauge participants' knowledge acquisition, how their understanding of a topic has changed, and their perceptions of what they are being asked to do.

Pre-post tests also can serve as a reflective activity during the engagement if participants have a chance to review their results. This can ultimately motivate participants by highlighting progress or identifying areas that need improvement.

## When is a pre-post test the right approach?

Pre-post tests are ideally suited for short-term trainings when the changes measured from pre-test to post-post can be reasonably attributed to the engagement itself. Differences measured *before* and *after* tell us **how the engagement directly changed those responses** and invite interpretation as to **why**. Further insights can be obtained by adding feedback questions to the post-test about the quality of the training activities to help determine whether participants found them to be effective, relevant, or

enjoyable. Pre-post tests are *less* suited for assessing full skill development or longer-term changes, both of which require more comprehensive assessment methods.

We suggest using pre-post tests in a setting where you have full intentions to make changes if needed. You might aim to better align programming to participant needs, adapt experimental training elements, or improve the design and delivery of the training engagement itself.

The following questions give an example of the way a pre-post test might be analyzed for an LtP teacher training, to help action program improvements:

### Analysis questions

What does the pre-test suggest are initial strengths and weaknesses in teacher LtP knowledge?

What does the pre-test suggest are initial teacher perceptions about LtP?

What are the final post-test trends? To what extent did LtP knowledge reach expected levels among teachers? To what extent were perceptions satisfactory?

Based on the changes from pre to post-test, which knowledge and perceptions were positively impacted? Which knowledge and perceptions showed little or negative change?

### Program actions

What training content should be revisited or emphasized in future training?

How should the training content be changed to better meet teachers' needs and promote new desirable behaviors?

How should training methods be changed to more effectively teach the content?



# Designing pre-post tests

Getting started with a pre-post test can be overwhelming, but with these simple steps, you can be sure to make good use of your pre-post tests. Most important is aligning with your program team to clearly define what information the pre-post will deliver, when, and how the information will be used to improve your program. When aligning with your team, the following prompts may be useful to design and improve upon your pre-posts.



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**1.**

Define the purpose and use of data:

Establish clear objectives, such as assessing the quality of a training session, or identifying capacity gaps for future training. Focus on objectives that will directly inform actionable decisions.

**2.**

Create an initial list of questions:

Co-create with your program team a list of questions that harmonize technical training content with the pre-post objectives, to ensure relevant questions are being asked.

**3.**

Prioritize the list based on what will best achieve your objectives:

Focus on questions that gauge knowledge and perceptions that can be answered by what teachers will learn during the training. This should point to ways you would modify the training methods or content based on pre or post-test results. Avoid redundancy in the final list.

**4.**

Keep it short:

Ensure the test is manageable for participants to complete and efficient for you to analyze. If feasible, limit the test length to a maximum of 10 questions. Prioritize multiple-choice or true/false options, while keeping open-response about to a minimum.

**5.**

Aim for comparability:

Ask the same questions at pre and post-testing so you can compare what changed, with the exception of post-test questions that collect feedback on the training itself. Make sure you can tell which copy is the pre-test and which is the post-test, and consider asking for participant names so you can compare changes in their individual scores.

**6.**

Pilot the tests:

Test the questions with real people. Use their responses to reduce test ambiguity, select more appropriate vocabulary, and adjust options so there is one clear correct answer. This may mean avoiding complex concepts that can't be accurately captured in a simple pre-post question, but don't confuse this with making the test 'easy'. Your questions should still test key concepts and present a range of legitimate options, otherwise your data will be unlikely to inform anything about the training effectiveness or future participant needs.

# Tailoring Pre-post tests to LtP and ECE needs

Most importantly, the content of pre-post tests should be defined by your programmatic content. As your program develops, so will your understanding of the key knowledge and attitudes that should be included. After more than 3 years of implementing ECE and LtP specific teacher training engagements, the PoP initiative highlights the following question topics as particularly valuable:

Topic	Example question	Why is this worth asking, according to PoP Programs?
<b>Distinguishing ECE from primary learning</b>	<p>Select whether this is true or false: “According to the Zambian curriculum, the main purpose of early childhood literacy education is to teach children to read and write.”</p> <p>→ Correct = False</p>	<p>A low number of teachers correctly answered this question at pre-test, indicating low familiarity with specific ECE curricular standards. Indeed, many ECE teachers had better exposure to the kind of learning done in primary school, and expected it from pre-primary students.</p> <p>→ Such a question can help assess needs and teacher curricular knowledge as a starting point.</p>
<b>Defining the role of the teacher in play</b>	<p>Select whether this is true or false: “Teachers should leave the classroom in order for children to explore and discover during free play.”</p> <p>→ Correct = False</p>	<p>More teachers got this question wrong at post-test than at pre-test, showing there may have been confusion about what play practically means for teachers in the classroom. The wrong conclusion probably came from interpreting play’s standalone impact on learning as indication that there is little need for direct instruction or supervision of learning.</p> <p>→ Such a questions tests whether you’ve effectively portrayed the role of teachers in playful learning.</p>
<b>Selecting appropriate play activities</b>	<p>“For a session on shapes, which is the best LtP activity for pre-primary teachers to use with children (select one)?</p> <p>a) Copy words of shapes that the teacher writes on the blackboard.</p> <p>b) Read about shapes in a textbook.</p> <p>c) Play with objects and materials, such as boxes and balls and recite their names to a classmate.</p> <p>d) Repeat after the teacher as they recite the names of shapes at the front of the class.”</p> <p>→ Correct = C</p>	<p>This question saw no improvement at post-test, making it a key area for review in future training. This implies adjusting practice for planning LtP activities which feature open-ended tasks and child interaction.</p> <p>→ Such a question tests if the training has helped the teacher apply ECE or LtP concepts to more concrete tasks key to LtP.</p>

Topic	Example question	Why is this worth asking, according to PoP Programs?
Open-ended experiences with play	<p>Pre: Name up to 3 challenges that you experience implementing LtP in the classroom?</p> <p>Post: Have any of the challenges you experienced been reflected upon in this training? Please note any solutions to implementing LtP in the classroom.</p>	<p>Teachers named <b>lesson planning and a diverse knowledge of play activities</b> as the most common post-test solution – nearly double any other response. Linked to lesson planning was <b>having more learning materials for play</b>, the second most named solution, which can support lesson planning by giving teachers the option to do certain activities. This illustrated the centrality of lesson planning to the program team.</p> <p>→ Such questions can be used to collect short responses about how teachers are <b>experiencing</b> play in their own contexts or during the engagement, <b>but</b> be careful to not ask too many open-ended questions because they <u>will</u> take longer to answer and analyze.</p>

## Administering pre-post tests

While each pre-post test scenario is likely to be unique, the following list of best-practices from the PoP initiative might help you to deliver pre-posts in a way that maximizes their value to your program.

### Select the delivery mode carefully based on capacity and context

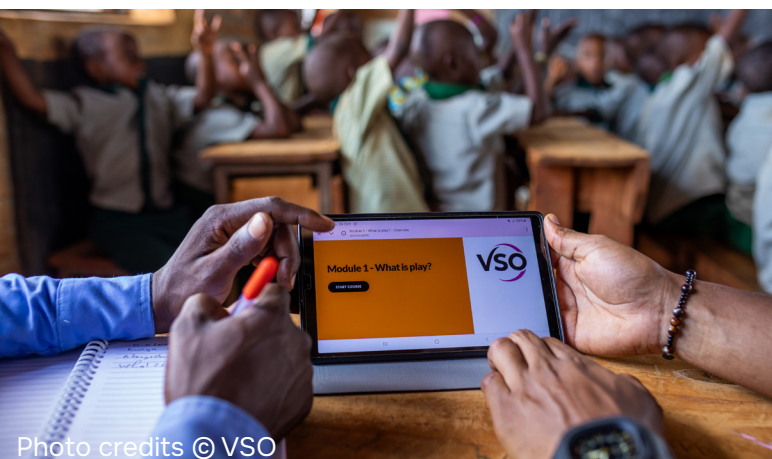
While digitized tests are clearly the best for easy data-analysis and data-use, other constraints (such as the IT skills of participants or low-literacy rates) could render them less effective. Consider three possible ways of conducting the pre-post test:

Pen and Paper	Digitized	Verbal
<ul style="list-style-type: none"> <li>✓ Fewer IT skills needed</li> <li>✓ No connectivity needed</li> <li>✓ Visibly engages and boosts participation rate</li> <li>✓ Allows for large groups without devices</li> <li>✗ Resource heavy with printing and paper</li> <li>✗ Requires data entry</li> <li>✗ May need storage of papers</li> </ul>	<ul style="list-style-type: none"> <li>✓ Few materials needed (assuming device access)</li> <li>✓ No data entry needed</li> <li>✓ Can add dynamic questions</li> <li>✗ Requires more IT skill from your team and participants</li> <li>✗ Less feasible with large groups without personal devices</li> </ul>	<ul style="list-style-type: none"> <li>✓ Can be conducted in a more engaging manner</li> <li>✓ Can be more accessible for diverse groups</li> <li>✗ May need to be conducted in groups due to training size</li> <li>✗ Requires facilitation</li> <li>✗ Needs data entry</li> </ul>



# Boost Pre-post test completion rates by making it easy to participate

The most common challenge across PoP programs was getting large groups to complete the pre-post test. Several strategies should be kept in mind for ensuring a high rate of completion, especially when dealing with large groups:



- Schedule the post-test towards the end of training and ensure enough time is allocated to maintain quality responses, but avoid making it the final activity if there is a risk that participants will leave early
- Limit fatigue by using simple wording, easy-to-read layouts, and a maximum of 10 questions.
- Consider building the pre-post test into a reflection activity, making it valuable to participants
- One PoP program successfully used focus group discussions with a large, diverse group of teachers, focusing on questions that assess group understanding rather than individual knowledge.
- Reduce participation fear by explaining that respondents are not meant to get everything right, and their results will not be shared with the rest of the training cohort.

## Make the pre-post test a team effort

Pre-post tests can be seen as time consuming and their value misunderstood by the staff leading the training and participants. Making pre-post tests into a team effort will foster staff buy-in to the activity, improve data quality, and increase eagerness to learn from the results.



- Ensure your team understands why the pre-post test is important by engaging them together:
  - Design the test with the facilitation team that will be responsible for delivering it at training
  - Show previous data and have the facilitation team help draw implications for training
  - Make an action plan for how a particular result might change training content or procedures
  - Set goals for what would be successful (but reduce motivation to manipulate the final results!)
- Communicate to ensure logistics are in place to do the pre-post test ahead of time, such as 1) Who will lead the activity? 2) What materials are needed? 3) When will it happen?
- Before delivering the test, motivate participants by explaining that the test is meant to assess whether the training was well-administered and not to critique them.



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