

Performance Report for LENA Home

The LENA Home Performance Report shows Words, Turns, and Snapshot results for the children in your program before, during, and after participating in LENA Home. These aggregated measures provide insight into your impact on caregiver behaviors and child language development.

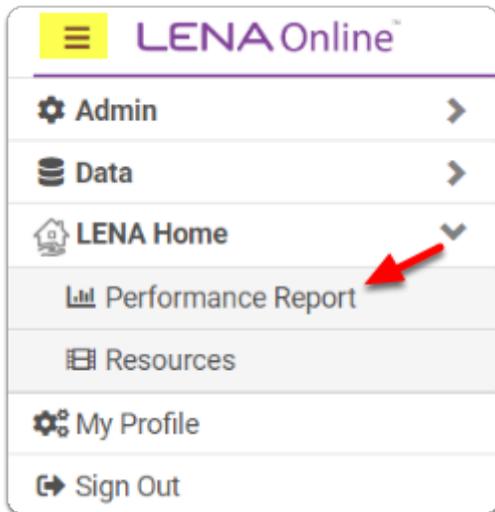
The Performance Report can be used both during and after implementation. It is available as soon as one child has four valid LENA Days. By selecting a specific group or an entire organization and using filters explained below, you can customize the report to show the data that meets your reporting needs.

How to access the Performance Report

Who can access the Performance Report?

All LENA Online users can access the Performance Report for the organizations and/or groups they have permission to view. Child names do not appear on the report. Group names are masked on the printed report accessed by a user without "view child name" permission.

1. In the context menu drop-down, select the organization or group of interest.
2. The Performance Report is located under the LENA Home section of the Main Menu.



💡 When you select an **organization**, the report pulls data from groups in that organization *and* groups in all nested suborganizations below it.

What information is in the Performance Report?



Click each item for more detail on what the report shows.

1. Caregiver change: Words and Turns

Parent change

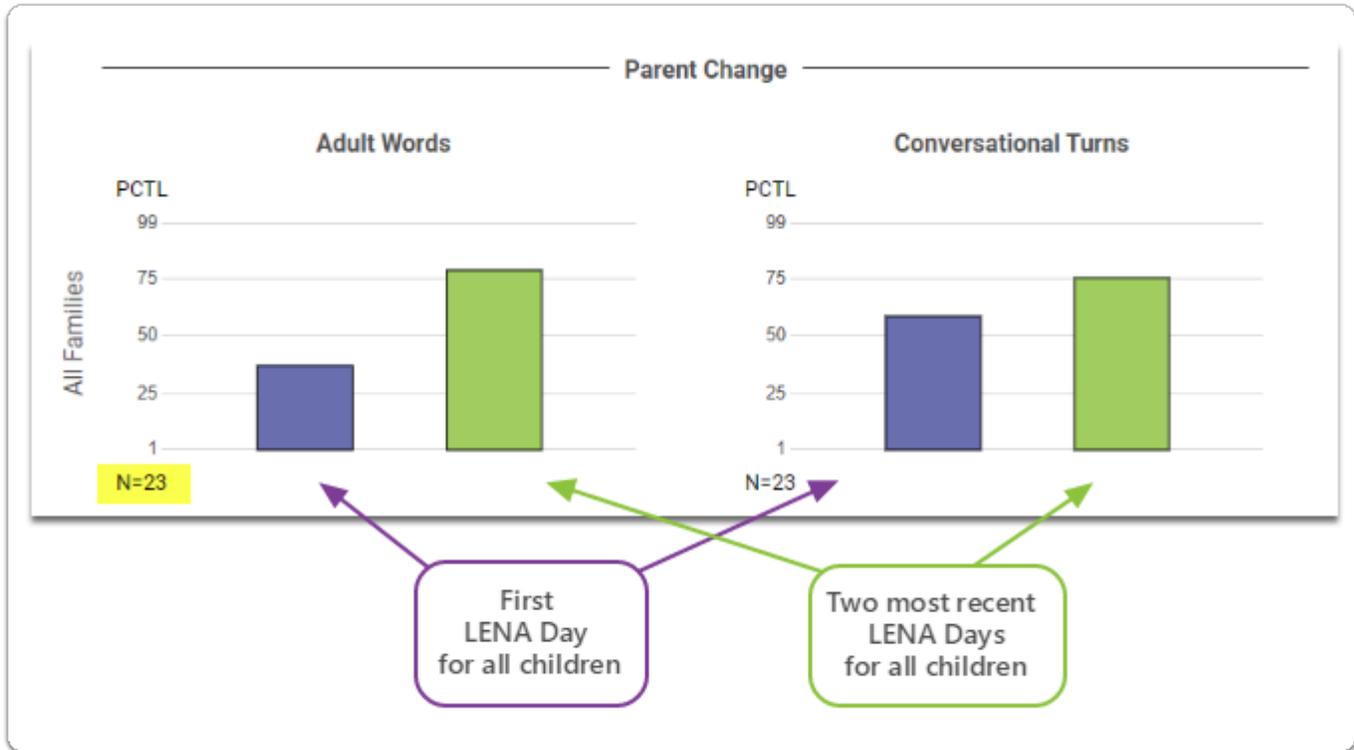
What's being measured?

- **Adult Words** are words spoken by adults to and near the child.
- **Conversational Turns** are pairs of back and forth interactions between the child and an adult.

The N shows the **number of children** whose LENA Days are included in the graph, based on the rules for inclusion that you set in the [Configuration section](#) at the bottom of the screen.

The **purple** bar shows the average* for all first valid, non-hidden LENA Days that meet your filter criteria. This is the **baseline, pre-LENA** measure.

The **green** "Grad" bar shows the average* for the last two LENA Days (valid, not hidden, and meeting your filter criteria) for the same set of children. This may represent **mid-point data or post-LENA data**, depending on your [filter criteria](#).



2. Child impact: Snapshot results

Snapshots

What's being measured?

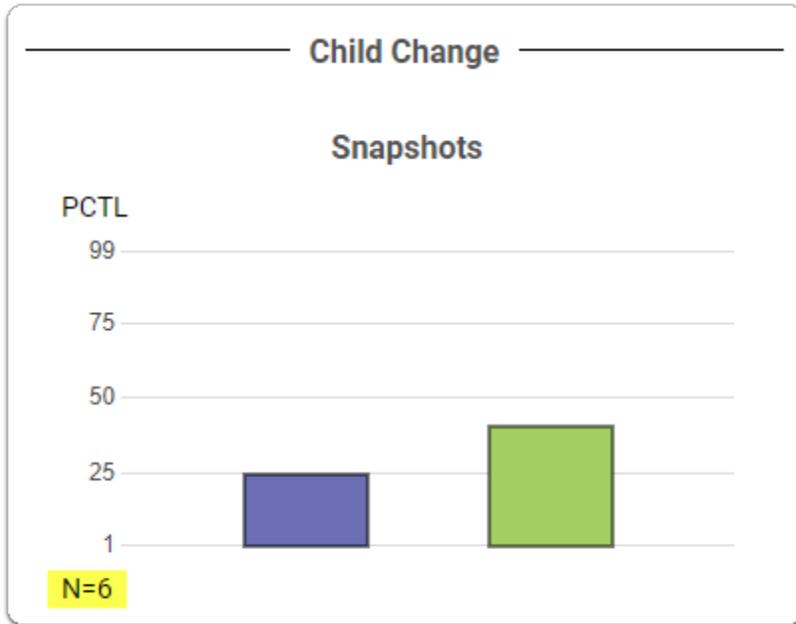
- The **LENA Snapshot** is a 52-item parent questionnaire to assess **language development** in children 2 months to 36 months of age. The Snapshot can be administered monthly.

The N shows the **number of children** represented in the Snapshots graph.

Why is this number smaller than the Words and Turns number? Some children who meet your recording criteria may not meet [LENA criteria for inclusion in the Snapshot graph](#). For example, if a child hasn't yet completed a second Snapshot, or if she turned 3 before completing her final Snapshot, she would not be included in this portion of the report.

The **purple** bar shows the average* from the very **first Snapshot** for all of the included children.

The **green** bar shows the average* from the same children's **most recent Snapshot**.



Note that it may take several months before environmental changes in language experience are reflected in the child’s language skills. Although we have seen significant pre-post elevations immediately after LENA intervention, for some children the effects may not be observable for six months or longer.

3. Focus: Lower talk families

Lower talk families

The LENA Home Performance Report shows data for the subset of families who meet your [filter criteria](#) and had lower levels of talk at the beginning of their participation. These families had **Conversational Turns below the 50th percentile on their first LENA Day**.

The N shows the **number of children** whose families are in the Lower Talk group. (Everyone in the Lower Talk Families group is also in the All Families group.)

The [Words, Turns](#), and [Snapshots](#) data are calculated and displayed in the same way as for the full group.

Why measure these families separately? LENA Home was designed especially for families who have fewer conversational turns because increasing early talk has so many benefits for infants and toddlers. These families often show the greatest growth in words and turns.

Advanced research note: It is not clear that the 50th percentile is the optimal cut point for differentiating high and low talkers. It is entirely possible that parents close to the 50th percentile may be less motivated than those who discover they are below the 25th or perhaps 10th percentile at the first reported recording. More research is needed to determine how numbers can be used efficiently to identify families most likely to respond to the program.

Click below for a deeper dive into the analysis behind the report.

*How are "average percentiles" calculated?

For each measure and each time point, we average the Standard Scores from all children who meet the [filter criteria](#), and then display the corresponding percentile.

Why does this report use Standard Scores when the other reports show counts and percentiles? While Standard Scores don't appear directly on any LENA report, they are the bridge between raw counts and percentiles. Neither raw counts nor percentiles are appropriate for averaging. Raw counts are age-dependent, and percentile ranks fall on an uneven scale - that is, a one percentile point difference at either the high or low end of the scale represents a much bigger "advance" than a one percentile point difference closer to the middle of the scale. Standard Score values have been age-referenced to LENA's normative database, they are generated on a uniform scale suitable for averaging, and each Standard Score corresponds predictably to a percentile ranking.

Detailed rules for inclusion in the Snapshots portion of the Home Performance Report

The **first Snapshot** has to occur within 21 days of the first valid recording (before or after).

The **final Snapshot** is the one that was completed within 21 days of the last valid recording, provided this administration date is at least 28 days after the first Snapshot.

- If two Snapshots meet these criteria, then the one whose completion date is closest to the last recording date is used.
- If the second-to-last snapshot is at least 21 days after the first valid *recording date* and was completed 28 days before the identified final Snapshot, its Standard Score is averaged with that of the final Snapshot for a more robust measure of change. This is rare.

Configuration: Apply filters to show the data that matters

Use the Configuration bar at the bottom of the screen to specify the criteria for inclusion in the Performance Report. By combining these parameters with selection of a specific organization, nested suborganization, or group, you can slice the data in a variety of ways. For example, you may want to examine a specific date range, or only children who have completed the program, or only those whose LENA Day frequency meets your program's standards.

The Configuration section does not print out, but the parameters are stated in text at the bottom of the printout.

This Performance Report includes the first 14 recordings of all participants that have at least 8 recordings. On average, these recordings are 8 days or less apart. The date range is from 01-01-2018 - 12-31-2018 and all first recordings occur within this range.

Configuration

Start Date	End Date	Min # of Recordings	Max # of Recordings	Max Recording Interval	Enrollment Status
01/01/2018	12/31/2018	8	14	8	All

Use this section to apply filters to the data.

The selected parameters are written out at the bottom of the printed report.

Set the parameters for the report you want to see, and then click the purple "refresh" button to see the report.

Each parameter is explained below.

1. Start Date and End Date

Start Date and End Date

Use these fields to specify the date range within which each child made his/her *first* LENA Day (valid and not hidden).

- The report will include LENA Days that were collected after the End Date - as long as the child's *first* valid recording occurred within the range.
- For example, input a range from January 1 to January 30 to capture all children who *began* during that date range, whether they continued through March, May, or beyond.

2. Min # of Recordings

Minimum # of Recordings Required

Specify the minimum number of valid recordings a child must have to be included in the report.

- LENA requires a minimum of 4 valid recordings, but you can set a higher number in order to limit the data to families who met your own minimum requirements - for instance, only those who completed an entire cycle.

3. Max # of Recordings

Maximum # of Recordings to Analyze

This variable controls how many of each child's recordings are used in the analysis.

- It does *not* exclude children who have more recordings...it just excludes the later recordings from the analysis.
- If a child has *more* LENA Days, then only the recordings up to that value are evaluated. Later recordings are ignored. For example, if the parameter is set to 10 and a child has 15 valid recordings, the data contributed to the "post" measure will come from recordings 9 and 10, ignoring 11-15.
- If a child has *fewer* valid recordings than the max, then then analysis uses his or her last two. For example, if the parameter is set to 10 and the child has only 8 valid recordings, then this child's recordings 7 and 8 contribute to the "post" measure.

4. Max Recording Interval

Maximum Average Recording Interval (Days)

Here you are setting the maximum *average* number of days between recordings for a child, not a maximum one-time interval.

- If your program follows a set recording schedule with a set number of recordings, you can use Max Recordings and Max Interval together to quickly see how many families are hitting that schedule, and how their data looks.

5. Enrollment Status

Enrollment Status

Use this filter to limit the data to Enrolled, Completed, or Dropped children. By default it is set to pull data for All enrollment statuses.

Print and save the Performance Report.

The Performance Report changes as children move through your program. You can [print](#) and/or [save a PDF](#) of the report at any point.