



## COMPARATIVE GROWTH MODEL OVERVIEW: TELPAS

Comparative Growth measures the progress of a teacher's students on a given assessment compared to all other students within the same school district who start at the same test-score level. Comparative Growth relies on the use of standardized assessments in certain grades and subjects, and is computed using two consecutive years of students' scores.

A Comparative Growth Model has been used in HISD starting in 2011–2012 for select grades and subjects where norm-referenced tests (NRTs) and TELPAS assessments were administered. Comparative Growth is applied district-wide and produced by HISD's Department of Research and Accountability. This overview describes the Comparative Growth Model for TELPAS.

**Indicators:** Comparative Growth Teacher Median Percentile and Performance Level. Comparative Growth Median Percentiles and Performance Levels are calculated for grades 3–8 only.

**Summary:** Teacher Median Percentile is calculated by taking the median of all of a teacher's students' Comparative Growth scores (District Percentile Ranks). This final score is used to determine the Comparative Growth Performance Level. To be included in the Comparative Growth analysis, students must have a "regular testing history" (expected grade progression), must have been tested **within the district** in the current and previous year, and must have a minimum of 25 students in their cohort group in order to be used for analysis. Teachers must be linked to these students for at least 20 percent of instruction, have at least seven students with Comparative Growth analysis, and have less than 40 percent of their students identified as special education in order to have Median Percentile and Performance Level generated.

**Method:** Teachers are provided with both a Comparative Growth Teacher Median Percentile and a Comparative Growth Performance Level based on student improvement in TELPAS reading. The following steps describe the Comparative Growth model. These steps are conducted separately for each of the grades for which an analysis is conducted (grades 3–8).

1. Student TELPAS reading scale scores from the current-year grade are collected (Year 2).
2. Student TELPAS reading scale scores from the prior-year grade are collected (Year 1).
3. Students whose prior-year scores are not from the prior-year grade level are excluded (i.e. students who skip a grade or students who repeat a grade).
4. Cohorts of students are created by first ranking all students' Year 1 scores from lowest to highest. Students at the same scale score form a cohort. If this group consists of fewer than 25 students, scores are grouped with the next highest score, and the process is repeated until a minimum of 25 is reached. This process is repeated until the highest scale score is reached. If students from the highest score form a cohort less than 25, they are grouped with the next lowest score until the minimum cohort size is reached.
5. For each cohort of students, the current year scores are rank-ordered within the cohort.
6. Year 2 scores are converted to an HISD Percentile Rank for each cohort, using the Hazen formula to construct percentile ranks. The Hazen formula takes into account extreme differences in the tails when calculating percentile ranks.

11. Students are linked to teachers during the HISD Spring Linkage period. Only students linked to a teacher for at least 20 percent of instruction (cumulative for the school year) in a course identified as “TELPAS” are included. A course identified as “TELPAS” for linkage purposes may also be identified as a Reading or Language Arts course. Thus, a student could be used for more than one teacher’s Comparative Growth Median Percentile and Performance Level.
12. Teachers who do not have at least seven tested students linked for at least 20 percent of instruction in a grade were excluded and will not receive a TELPAS Comparative Growth score for that grade.
13. Teachers who had more than 40 percent of the students used for Comparative Growth analysis identified as special education students are excluded and will not receive a TELPAS Comparative Growth score or report for that grade.
14. Comparative Growth reports are prepared for all subjects and grades for which student-teacher linkages were provided. However, only those subject and grades which were indicated through TADS in the Fall are included in a teacher’s SP rating and TADS appraisal. Inclusion for TADS is indicated at the top of each report a teacher receives.
15. For each grade, all students with a percentile rank (from all cohort groups) who were assigned to a teacher are rank-ordered by percentile, using the Hazen formula to construct percentile ranks. The Median Percentile Ranking among these students for each teacher is calculated and rounded to the nearest whole number. This median serves as the Comparative Growth Teacher Median Percentile for that grade.
16. The Comparative Growth Teacher Median Percentile for each grade taught is converted to a Comparative Growth Performance Level, using the following cut points which were determined using 2017-2018 means and standard deviations by grade level:

Performance Level	TELPAS Teacher Median Percentile Ranges					
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
4 - Highly Effective	>=66.2	>=65.4	>=67.2	>=69.5	>=64.6	>=65.2
3 - Effective	50.2 – 66.1	51.5 – 65.3	52.0 – 67.1	52.1 – 69.4	50.8 – 64.5	49.8 – 65.1
2 - Needs Improvement	34.2 – 50.1	37.6 – 51.4	36.8 – 51.9	34.7 – 52.0	37.0 – 50.7	34.4 – 49.7
1 - Ineffective	<=34.1	<=37.5	<=36.7	<=34.6	<=36.9	<=34.3

**Additional Resources:** The “Growth Data” page on the AIM portal contains several documents that are designed to help educators better understand Comparative Growth.