TDS has long been a pioneer in the use of data to drive instruction. Before implementation begins in a school, TDS engages with school leadership, staff, parents, and community stakeholders to collect and analyze data pertaining to academic achievement, school climate, attendance, behavior, and other key benchmarks. This information makes it possible to identify strengths and resources as well as areas of need and possible improvement strategies.

During implementation of the school improvement program, TDS helps schools set up an Early Warning Indicator (EWI: attendance, behavior, and course performance) data analysis system that provides regular snapshots of performance indicators and enables teachers and staff to identify immediately students who are off-track or slipping off-track in any of these areas. The TDS School Transformation Facilitator helps to equip school leadership and staff in the use of EWI data, while TDS instructional facilitators in math and English provide professional development on how to use formative as well as summative assessments to improve instruction. Teacher teams meet bi-weekly to analyze students' EWI data within their small learning communities, and adjust instruction, individual interventions, and school climate practices accordingly. In addition, daily meetings of instructional teams facilitate informal review of students' ongoing academic performance and allow teachers to share best practices and suggest ways to improve instructional strategies.

TDS provides quarterly reports to each school summarizing how many students are currently off-track on each indicator and how these numbers compare to prior years. In addition, TDS collects a quarterly Transformation Plan from each school summarizing its current status on essential components within the pillars of change, actions initiated (including timeline) to strengthen that component, and goals and evidence of impact. School climate surveys are collected each spring from teachers, principals, and students; state achievement and diagnostic testing data are also collected. TDS generates an end of year report for each school, summarizing its prevention and recovery rates and goal attainment rates. When reports are released, a series of webinars assists field-based staff and managers to interpret them and make course corrections as indicated.

TDS has effectively used data in its Chicago schools to bring off-track students on track and keep them there. For example, in John Hope College Preparatory Academy in Chicago, as TDS helped school staff to monitor student data and effect appropriate interventions, average daily attendance rose by 6% between 2012 and 2014, from 76.6% to 82.6%; during the same period, the number of freshman on track in the EWI indicators rose from 68.5% to 78.8%. 93% of students off-track in behavior were brought back on track, and 98% of students overall were on track in behavior by the end of the year. Similarly, during the same time period at Gage Park High School, average daily attendance rose from 75.1% to 79.7%, and the four-year graduation rate increased from 41.8% to 56.6%. Chicago Talent Development High School, which Talent Development operated from 2008-2014, used data to drive intervention so effectively that the school an average daily attendance of 89% through 2014. It also had a 90% five year graduation rate, as contrasted to the 85% overall graduation rate for the School District of Chicago.