MEMORANDUM October 30, 2015

TO: Board Members

FROM: Terry B. Grier, Ed.D.
Superintendent of Schools

SUBJECT: **THE EFFECTS OF THE LITERACY BY 3 INITIATIVE ON THE READING ACHIEVEMENT OF HOUSTON INDEPENDENT SCHOOL DISTRICT (HISD) FIRST- TO FIFTH-GRADE STUDENTS, 2014–2015.**

CONTACT: Carla Stevens, 713-556-6700

Literacy By 3 is a comprehensive, literacy initiative implemented in HISD's kindergarten through fifth-grade classrooms during the 2014–2015 school year. Literacy By 3 is a combination of six reading strategies: (1) guided reading, (2) reading to self (independent or silent sustained reading), (3) read to partner, (4) read to class (read-aloud), (5) word work (vocabulary), and (6) writing. The HISD curriculum is the foundation for Literacy By 3, which is based on the Texas Essential Knowledge and Skills (TEKS), College and Career Readiness Standards (CCRS), English Language Proficiency Standards, and the Prekindergarten guidelines (PKG). The purpose of this evaluation was to determine the extent to which proposed Literacy By 3 instructional strategies were adopted and implemented across HISD classrooms. This evaluation also measured Literacy By 3 effects on the reading performances among first- through fifth-grade HISD students during the 2014–2015 school year as well as teacher perceptions and experiences.

Most of the classrooms visited were organized and arranged for Literacy By 3 and followed all six Literacy By 3 instructional strategies. Pre and posttest results showed that third-, fourth-, and fifth-grade students performed better in 2015 than they did in 2014 on the State of Texas Assessments of Academic Readiness (STAAR) reading tests. The results were statistically significant ($p < .0001$). Texas Education Agency (TEA) has determined that for accountability purposes, individual fourth-grade students with a scale score difference of 82, over the same period, would have Met Progress on reading in 2015. The difference for a fifth-grade student would have been 32 scale score points.

Most of the 701 teachers surveyed either agreed or strongly agreed that the initial training, campus leadership support, and follow-up training were effective in the implementation of Literacy By 3, and that their teaching practices were consistent with Literacy By 3 instructional strategies. Implications include additional training in key aspects of Literacy By 3, particularly, use of running records, small group organization, and exposure to best practices and exemplars in Literacy.

HOUSTON INDEPENDENT SCHOOL DISTRICT

RESEARCH

Educational Program Report

THE EFFECTS OF THE LITERACY BY 3 INITIATIVE ON THE READING ACHIEVEMENT OF HOUSTON INDEPENDENT SCHOOL DISTRICT (HISD) FIRST- TO FIFTH-GRADE STUDENTS, 2014-2015

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4400 West 18th StreetHouston, Texas 77092-8501

www.HoustonISD.org

THE EFFECT OF THE LITERACY BY 3 INITIATIVE ON THE READING ACHIEVEMENT OF HOUSTON INDEPENDENT SCHOOL DISTRICT (HISD) FIRST- TO FIFTH-GRADE STUDENTS, 2014–2015

Executive Summary

Literacy By 3 is a comprehensive, literacy initiative implemented in HISD's kindergarten- through fifth-grade classrooms during the 2014–2015 school year. Literacy By 3 is a combination of six reading strategies: (1) guided reading, (2) reading to self (independent or silent sustained reading), (3) read to partner, (4) read to class (read-aloud), (5) word work (vocabulary), and (6) writing. The HISD curriculum is the foundation for Literacy By 3, which is based on the Texas Essential Knowledge and Skills (TEKS), College and Career Readiness Standards (CCRS), English Language Proficiency Standards, and the Prekindergarten guidelines (PKG) (HISD, 2014). The ultimate objective of Literacy By 3 is to have, by 2019, all HISD students reading on grade level by the end of third grade. Much of the focus, therefore, has been on the kindergarten to third grades. This focus was in direct response to the slow growth in the district's reading scores on various standardized assessment, including the State of Texas Assessments of Academic Readiness (STAAR), Stanford 10, and the National Assessment of Educational Progress (NAEP) in 2013–2014. It was due also to the critical role reading by third grade plays in later reading and academic achievement (Annie E. Casey Foundation, 2010). This study was designed to evaluate the effects of the inaugural year of the Literacy By 3 initiative on the reading performances of first- through fifth-grade HISD students.

Highlights

- Paired *t-test* results showed that third- through fifth-grade students in the sample had higher STAAR mean reading scale scores in 2015 compared to 2014.
- The Literacy By 3 initiative resulted in important to substantially important effect sizes (eta-squared statistic between 0.22 to 0.50) in reading, which is equivalent, on average, to two – seven months reading improvement at the third through fifth grades.
- When disaggregated by ethnicity and economic status, the effects on reading were important to substantially important at all three grade levels.
- A higher proportion of students met Level II Satisfactory phase-in 1 in third grade for retained students and in fifth grade and Advanced reading performance standards at all three grade levels on the 2015 STAAR after one year of Literacy By 3 instruction.
- Over 53% of first-grade students scored at or above the 50th NPR on the 2015 Iowa ELA and reading assessments.
- Teacher perceptions and experiences of key aspects of Literacy By 3 were on average rated between 3.52 and 4.18 on a 5-point Likert scale.
- All classrooms observed were organized in accordance with Literacy By 3 specifications. Most teachers tracked students' performance and taught using Literacy By 3 strategies.
- About one-third of schools did not allocate the recommended 135 daily instructional minutes for delivering Literacy By 3.

Recommendations

- Consistent with respondents' recommendations, the district should continue training in small group organization and instruction, guided reading, instructional strategies, and running records for Literacy By 3 in order to improve classroom practices.
- Continued training in the management of small or guided reading groups should focus on how to keep students engaged, how to pace work assignment for students, and exposing teachers to exemplars and Literacy By 3 best practices. The Leveled books and related materials for all, and in particular limited English proficiency (LEP) classrooms, need to be available to support instruction.
- Students should be exposed to the required 135 minutes for Literacy By 3 instruction.

Administrative Response

The Elementary Curriculum and Development Department is very pleased that third-grade STAAR reading served as a bright spot coinciding with the first year of Literacy By 3. HISD saw a two-percentage point increase, which was higher than the state with only a one-percentage point gain demonstrating promise and future impact. Additionally, HISD saw promising results on the Iowa assessment with over 53% of first-grade students scoring at or above the 50th NPR on the 2015 reading assessment.

In response to the overall third- through fifth-grade STAAR reading results, Elementary Curriculum and Development will implement the following actions to support campuses and increase student achievement:

- Continue to provide principal and teacher training to support Literacy By 3 with an emphasis on comprehension of complex text to think deeply and critically aligned to the rigor of the STAAR Reading.
- Evaluate STAAR results and identify elementary campuses with significant gains to determine elements that contributed to their success. There are over two dozen elementary campuses with double-digit increases in STAAR reading this past school year.
- Provide pre-kindergarten (pre-k), fourth- and fifth-grade classroom libraries, and kindergarten through second-grade Spanish language materials along with teacher training to expand the success of Literacy By 3.
- Partner with the Multilingual department to create systems, practices, and supports for students transitioning from Spanish to English
- Partner with Elementary School Offices to create networks in order for principals and teachers to share best practices, look at student work, analyze formative assessment data, plan lessons grounded in the district curriculum, and collaborate with teachers on demonstration campuses.
- Teacher Development Specialists and School Support Officers will leverage school leaders and teacher leaders on demonstration campuses in the following ways:
    - Instructional coaching
    - Peer observation
    - Formative assessment collaboration
    - Data-driven instruction
    - Collaborative lesson planning

Introduction

Literacy By 3 is a comprehensive, literacy initiative implemented in HISD's kindergarten- through fifth-grade classrooms during the 2014–2015 school year. Literacy By 3 is a combination of six reading strategies: (1) guided reading, (2) reading to self (independent or silent sustained reading), (3) read to partner, (4) read to class (read-aloud), (5) word work (vocabulary), and (6) writing. The HISD curriculum is the foundation for Literacy By 3, which is based on the Texas Essential Knowledge and Skills (TEKS), College and Career Readiness Standards (CCRS), English Language Proficiency Standards, and the Prekindergarten guidelines (PKG) (HISD, 2014). The Literacy By 3 initiative is considered a balanced approach to literacy that includes phonics, vocabulary, fluency, and comprehension as recommended in the 2001 National Reading Panel Report (see Moats, 2010). The belief is that reading instruction is connected to writing, listening, and speaking, and that reading is comprised of decoding, fluency, language, and text comprehension (HISD, 2014). It is the belief as well that each reading component must be explicitly taught and practiced to mastery; and that evidence-based practices and established standards must guide reading instruction (HISD, 2014). Literacy By 3 appears to support these beliefs.

The ultimate objective of Literacy By 3 is to have, by 2019, all HISD students reading on grade level by the end of third grade. Much of the focus, therefore, has been on the kindergarten to third grades. This focus was a direct response to the slow growth in the district's reading scores on various standardized assessments, including State of Texas Assessments of Academic Readiness (STAAR), Stanford 10, and the National Assessment of Educational Progress (NAEP) in 2013–2014. It was due also to the critical role reading by third grade plays in later reading and academic achievement (Annie E. Casey Foundation (2010).

The program's implementation included a professional development component delivered through several summer sessions as part of the School Leadership Institute and supported through early-release days and afterschool follow-up sessions. Teachers received campus-based support from literacy managers, teacher specialists, teacher development specialists, and school support officers. This support included classroom visits and walkthroughs with feedback to teachers and school administrators. The initiative also produced "caught-in-the-act" videos of best Literacy By 3 practices as exemplars on the HISD website.

The purpose of this evaluation was to determine the extent to which proposed Literacy By 3 instructional strategies were adopted, implemented, and changed reading instruction across HISD classrooms. This evaluation also measured the Literacy By 3 effect on the reading performance among first- through fifth-grade HISD students during the 2014–2015 school year. Specifically, the evaluation focused on teacher experiences and perceptions, the extent to which proposed Literacy By 3 practices were adopted, and the effect of the initiative on students' reading performance using the STAAR and Iowa Assessments results.

The evaluation answered the following questions:

(1) How were teachers and school leaders prepared for the implementation of Literacy By 3?
(2) To what extent did the walkthrough classrooms reflect Literacy By 3 practices?
(3) What were the experiences and perceptions of teachers who implemented Literacy By 3?
(4) What were the effects of the Literacy By 3 initiative on third- through fifth-grade STAAR?
(5) How did the Literacy By 3 first- through fifth-grade students perform on the Iowa Assessments?

Literature review

Professional Development

In-service teacher professional development associated with specific program implementation has been linked to improvements in student learning outcomes (Yoon, Duncan, Lee, Scarloss, & Shapley, 2009). Teachers who received substantial professional development, 49 hours across nine studies reviewed, boost their students' achievement by 21 percentile points. Studies that had more than 14 hours

of professional development supported by follow-up sessions showed positive and significant effects on student achievement from professional development (Yoon, Duncan, Lee, Scarloss, & Shapley, 2009).

Teachers who participated in an eight-day professional development reading institute and seminar scored higher with effect sizes of 0.37 and 0.38, respectively, on a related teacher knowledge test than did teachers in the control schools (Garet, et al., 2008). In addition, both the institute and seminar teachers used significantly more explicit reading instruction compared to teachers in the control group. However, there were no statistically significant differences between the reading achievement of students whose teachers participated in the institute and seminar, and the control group (Garet, et al., 2008).

Direct Reading Instruction

Direct or explicit reading instruction involves the impartation of new information to students through meaningful teacher interactions and teacher guidance of student learning with the teacher leading the teaching-learning process. It involves explicit explanations, modeling or demonstrating, and guided practice (Rupley, Blair, & Nichols, 2009). Direct or explicit reading is recommended as an integral part of learning the major content strands of the reading process: phonemic awareness, phonics, fluency, vocabulary, and comprehension (Rupley, Blair, & Nichols, 2009).

A study of fourteen second-grade students and teachers found that students with reading difficulties had limited opportunities through core reading instructions and supplemental reading interventions to receive research-based, effective vocabulary instruction (Wanzek, 2014). Only 8% of the core classroom reading was devoted to direct vocabulary instruction. Minimal amounts of direct vocabulary instruction occurred in supplemental reading instructions (Wanzek, 2014).

Guided Reading

Guided reading is “an instructional approach that involves a teacher working with a small group of students who demonstrate similar reading behaviors and can all read similar levels of texts, which are easy enough for students to read with teachers’ skillful support” (Scholastic Inc. , 2014, p. 28). The goal of guided reading is to have students read a variety of leveled text with ease, that is, with 90% accuracy, and deep understanding (Scholastic Inc., 2014). This approach assumes that students understand how print works, will apply reading strategies of their own, know how to monitor their own reading, and have the ability to search for possibilities and alternatives if they encounter problems when reading (Scholastic Inc., 2014).

Guided reading has resulted in significant improvement in the reading achievement of struggling readers (Green, 2010), second-grade reading comprehension (Lorent Deegan, 2010), and overall reading achievement (Green, 2010). There was a significant correlation between guided reading instruction and improvement on the Illinois Standards Achievement Test scores when students were tested over time (Underwood, 2010). Time appeared to have been a significant factor in the effectiveness of guided reading programs; and longer implementation appeared to have larger effects on student reading performance (Green, 2010; Underwood, 2010). Bruce (2010) did find no signifcant difference in reading scores before and after fourth-grade reading instruction among at-risk students in one southeastern U.S.A. Title 1 school.

Read-Aloud

Read-aloud is a strategy in which time is set aside to read to students orally from text that are at their listening level but above their independent reading level, that is, 90% understanding and 95% accuracy (Beltchenko, n.d.). Increasingly, student-to-student and community volunteers are used during classroom read-aloud.

Read-aloud has been associated with increased reading enjoyment for students resulting in increase in the times students spend reading silently (Pregg & Bartelheim, 2011). Students’ active engagement in read-aloud has been associated with greater vocabulary development (Beck & McKeown, 2001). Teacher read-aloud has been shown to correlate with comprehension development, growth in background knowledge, listening skills, and attitudes to reading among elementary students (Baker, Chard & Edwards,

2002; Fisher, Flood, Lapp & Frey, 2004; Santoro, Chard, Howard & Baker, 2008, (Lorent Deegan, 2010). Reading aloud to children and restricting their online time correlated with frequent reading, that is, reading for fun at least five times a week (Scholastic, Inc, 2015).

Independent Reading (Read to Self)

Independent reading is the level at which students read fluently with 90% or higher comprehension and 95% word recognition (Burns & Roe, 2002; Johns, 2005). It involves student's alone time for sustained silent reading. The assumption is that students develop reading skills by reading constantly. Independent reading has been described as the end product of a balanced literacy curriculum, where students are allowed to apply and practice strategies they have learned during guided reading, shared reading and read-alouds. Using materials appropriate to their levels, students demonstrate they are able to read confidently on their own and are excited about their reading abilities (Marshall, 2014).

Word Work (Vocabulary)

Word knowledge or a large, rich vocabulary and the skills for using those words have been described as the greatest tools we can provide students for succeeding in their education and in life (Pikulski & Templeton, 2004). The National Reading Panel Report (2000) affirmed the long standing importance of vocabularly knowledge in the development of reading and that since 1924, research had shown that the growth of reading power relies on the continuous growth of word knowledge.

A two-year study of 90 British school children found that letter knowledge and phoneme sensitivity predicted word recognition skills. Vocabulary knowledge and grammatical skills predicted reading comprehenison (Muter, Hulme, Snowling, & Stevenson, 2004). Results from structural equation modeling on independent samples of fourth to eight-grade students found that vocabularly knowledge was a constant and significant predictor of overall reading comprehension, irrespective of grade level (Yovanoff, Duesbery, Alonzo, & Tindal, 2005).

A study of 203 third-grade students using confirmatory factor analyses, structural equation modelling, and hierarchical regression analyses showed a stronger relationship between vocabulary breath over depth and reading comprehension, however both factors overlapped on predictability for reading comprehension (Tannenbaum, Torgensen, & Wagner, 2006).

Literacy By 3

Literacy By 3 brings togther five discrete literacy components, direct instruction, guided reading, read-aloud, independent reading, and word work, using leveled books with age- and grade-appropriate texts. These texts provided scaffolded instruction for children as a foundation for the acquisition of essential literacy skills, like fluency and comprehension.

The teacher becomes a facilitator that provides students with reading strategies that guide their understanding through a process of inquiry using effective instructions and strategies that most engage students and matching resources to meet students needs and interests (Laquinta, 2006 cited in Scholastic 2014). Teachers decipher for students the story behind the facts presenting them as useful and worth understanding (Wiggins and McTighe in Wilhelm, 2004 cited in Scholastic, 2014). This is best achieved by using flexible, supportive, small-group approaches that builds a community of readers through improvisation and a process of guided reading (Scholastic Inc., 2014). Notwithstanding, teachers' knowledge of students and the instructional way in which they connect to readers with text information is pivotal to the success of the Literacy By 3 initiative and are premised on the teachers' willingness to take time to survey students' interest, background and sociocultural identities (Scholastic, Inc, 2014). This involves a balancing act that moves away from a whole-class approach to differentiation.

Method

Data Collection and Analysis

The data collection methods consisted of an online teacher survey, classroom walkthrough visits, and queries of HISD student assessment databases: Public Education Information Management System (PEIMS), STAAR, and Iowa Assessments. These are detailed below.

Teachers' Survey

Teachers were surveyed to determine their experiences and perceptions regarding the implementation of the Literacy By 3 initiative using multiple choice, Likert, and open-ended questions. The survey was tested and administered via SurveyMonkey™. SurveyMonkey™ is a free software used to collect, collate, and conduct descriptive analysis of online survey data. The survey was emailed to all teacher participants in the initiative.

Likert-type questions were analyzed individually or were scaled and combined into composite scores. Likert-type items generate ordinal data while Likert scale questions generate interval data. The former is analyzed using descriptive data and the latter uses means and standard deviations as measures of central tendency and data variability (Boone & Boone, 2012; Clason & Dormody, 1994).

In addition, Literacy By 3 classroom walkthroughs were conducted in fourteen first- and third-grade classrooms in seven elementary schools. Ten schools were selected using stratified random sampling based on the ranked percentage of students scoring at or above the 50th National Percentile Rank (NPR) on the 2013 Stanford 10 reading subtest. Schools were grouped in quartiles based on these ranks. The first school in each quartile was selected at random and every tenth school chosen thereafter formed the walkthrough sample. Seven schools were visited because of conflicts with assessment schedules and end-of-the-school-year activities.

Walkthrough

A walkthrough observation schedule based on the Scholastic Inc. Leveled Book Room implementation guide was developed. The schedule and summary of the observations are provided in **Table 1** (**Appendix A,** page 22). Unique identification codes were used in this report to protect teacher, classroom, and school identities. Scholastic Inc. is the contracted vendor that provided the reading materials and program support for Literacy By 3. Literacy routines involving the five Literacy By 3 strategies occurred at the same time in all classrooms. Classes had to be observed while routines were already in progress. Observations lasted approximately one hour. Because the routines were not seen in their entirety, classroom artifacts, learning aids, and manipulatives that demonstrated use of key Literacy By 3 strategies were considered as evidence of program implementation. All walkthroughs were conducted in collaboration with Teacher Development Specialists, principals, or Literacy Specialists. Principals or assistant principals were debriefed after each visit.

Assessment Data

Analyses of third- through fifth-grade students' performance on the 2015 STAAR reading test and the 2015 Iowa Assessments reading subtest were used to determine the average standard score and the proportion of students scoring at or above the 50th national percentile rank (NPR). The Iowa Assessments are norm-reference tests administered to all HISD students in kindergarten through eighth grade. The 2014–2015 school year marked the first administration of the test in HISD as it replaced the previously-administered Stanford Assessments.

The test results were disaggregated by grade, ethnicity and students' economic status. Students' mean scale scores and the proportion who met STAAR satisfactory reading standards were used to determine the effect of Literacy By 3 on students' reading performance using a repeated measures design. Repeated measures are based on before and after test scores of the same sample group to control on the extraneous

variables. Such control adds rigor and increases the probability that changes in students' test scores would probably be attributed to the Literacy By 3 initiative, assuming that no other initiatives or programs were implemented, concurrently. The Texas Education Agency has adopted an effect size of 0.25 as a "substantially important" effect size for evaluating education program impacts (Texas Education Agency, 2011). This will be the benchmark for evaluating the effect size of Literacy By 3 using the eta-squared statistic. Eta-squared statistic can be defined as the proportion of variance associated with or accounted for by each of the main effects, interactions, and error in an analysis of variance (ANOVA) study (Brown, 2008).

Sample

A total of 28,047 students comprised the repeated-measures design sample (519 third-grade, 14,229 fourth-grade, and 13,299 fifth-grade students). The third-grade students appeared to be repeaters or students who were in the third grade for at least two years. At the 95% confidence level and a confidence interval of five (5), this sample size yielded a sampling error of 0.53. The data set, disaggregated by grade, met the normality, homoscedasticity, and collinearity conditions using the Shaphiro-Wilk test, the normal Q-Q plot and the Detrended normal Q-Q plot on the IBM Statistical Package for Social Sciences (SPSS) software.

The student population sample consisted of third- to fifth-grade students who had a reading score on both the 2014 and 2015 STAAR reading test, and all first- to fifth-grade students with a reading standard score and a NPR on the 2015 Iowa Assessments. Students without a score were not included in the sample. STAAR regular English and Spanish versions of the exams were included in the sample.

The teacher sample consisted of all prekindergarten to fifth-grade teachers. In total, 701 teachers completed the survey. With approximately 3,213 teachers in prekindergarten through fifth grade, this is a response rate of 21.8%. According to Resnick (2012), online surveys typically yield, based on anecdotal evidence, between a 0.5% and 1.5% response rate. Of the 701 teachers who completed the online survey, 74.6% were English language instructors and 25.2% were Spanish language instructors. Of these, 20.5% were kindergarten teachers, 18.2% were first-grade teachers, 16.1% were second-grade teachers, and 12.7% were third-grade teachers. Prekindergarten, fourth, fifth, and other unspecified grades were less than 9% each of the survey respondents. Teachers were either in self-contained (66.6%) or departmentalized classrooms (33.4%).

Data Limitations

Some schools were departmentalized with 90 instructional minutes of Literacy By 3 instead of the recommended 135 minutes. This may have affected students' reading performance. Other programs like Time2Know and Read Houston Read may have been implemented concurrently with Literacy By 3, which could have compounded students' reading performance.

Classroom walkthroughs were conducted in the final two weeks of the school year. Due to end-of-year activities and testing, lessons observed may not have been as 'routine' as they could have been since arrangements had to be made to accommodate the timing of the observations.

Results

How were teachers and school leaders prepared for the implementation of Literacy By 3?

According to 2014–2015 E-train data, 10,101 teachers participated in five professional development programs designed to familiarize and prepare teachers for delivering Literacy By 3 in all HISD targeted classrooms. The distribution of teachers and school leaders who participated in these preparation programs are shown in **Figure 1** (see **Table 2**, **Appendix A**, page 24).

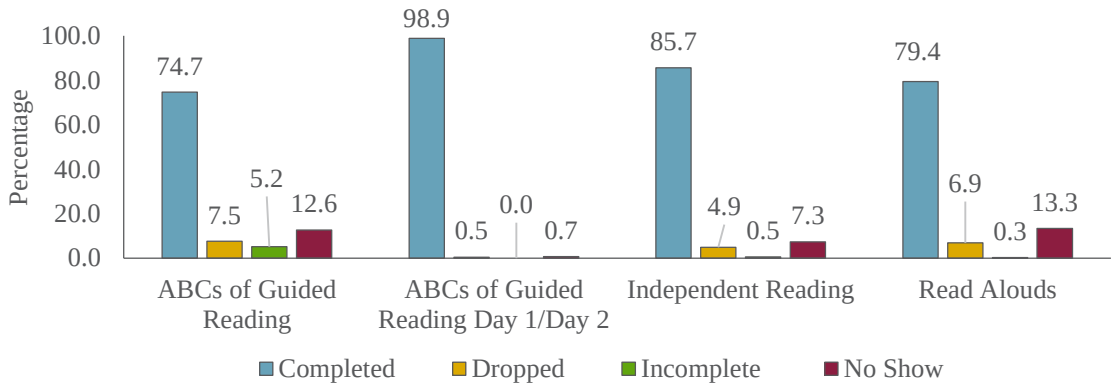


Figure 1. Percentage of Literacy By 3 summer professional development participants, 2014–2015.

- According to Figure 1, the four Literacy By 3 professional development activities were the "ABCs of Guided Reading", "ABCs of Guided Reading Day1 and 2", "Independent Reading", and "Read Aloud".
- The 2014–2015 E-train data also reflected that teachers and school leaders who completed the programs were exposed to two sessions, six hours each, of initial professional development activities related to the Literacy By 3 initiative. It is likely that teachers completed multiple programs and were probably exposed to more than twelve hours of professional development.
- In total, the initiative had 56 sessions, 6 or 12 hours each, except for the "ABCs of Guided Reading Day 1 and 2, of initial professional development. There were two sessions, two hours each, for the "ABCs of Guided Reading."
- A majority of teachers, between 74.7% and 98.9%, completed each of these programs in which they enrolled. The "ABCs of Guided Reading, Day 1 and 2" had the highest participant completion rate of 98.9%.
- The other enrollees either did not complete the professional development, dropped out or did not show.

To what extent did the walkthrough classrooms reflect Literacy By 3 practices?

Of the seven schools where walkthroughs were conducted, two had improvement required (IR) status on the state accountability system; two met state standards with distinctions[1], and three met standards in 2014 (**Table 3**, Appendix A, page 25). State standards are determined using weighted scores on student achievement, student progress, closing the achievement gap, and postsecondary readiness.

- As shown in Table 1 (Appendix A, page 22), all of the first- and third-grade classrooms visited were arranged to Literacy By 3 specifications. There were leveled books, technology centers or corners containing computers and other audiovisual equipment (except in one classroom), desks were arranged for small group and guided reading. There were independent reading corners, teachers' desks, rugs for read aloud and direct instruction, interactive white boards, and chalkboards for direct instruction. In addition, there were class libraries with books labeled according to reading levels and genres.

[1] Distinctions are awarded in reading/ELA, math, science, student progress, closing the achievement gap, and/or postsecondary readiness.

- Small groups appeared to be the common method of instruction during visits with the exception of two classrooms in one of the seven schools. Teachers in those classes admitted that they struggled with the small groups and that they preferred whole-class instruction.
- Teachers in the classrooms observed appeared to struggle with two things: (1) managing the rest of the class during small-group guided reading, particularly those groups who needed support or assistance during independent work time, and (2) the challenge of outlining clear guidelines with adequate workloads for students during independent work time and during guided reading sessions. There were four classrooms that appeared to avoid these two struggles with excellence and these appeared to be exemplars of Literacy By 3.
- Guided reading, independent reading, word work, and read-aloud were observed in all of the fourteen first- and third-grade classrooms visited. Most teachers observed (12) appeared to track students' performance using assessment tools such as Istation. Most classes had some form of tracking charts on display. They also appeared to have rotation schemes using color charts for the small-group instruction.
- Only two of the observed classrooms demonstrated active use of running records. This is not to suggest they were not used since the observation occurred during the end of the school year and at a single point in time.

What were the experiences and perceptions of teachers who implemented Literacy By 3?

Teachers were asked to rate their level of agreement or disagreement with fourteen statements related to key aspects of Literacy By 3 on a 1–5 Likert scale. These were collapsed into five key themes. The frequency of responses is summarized in **Figure 2** (**Table 4**, Appendix A, page 27).

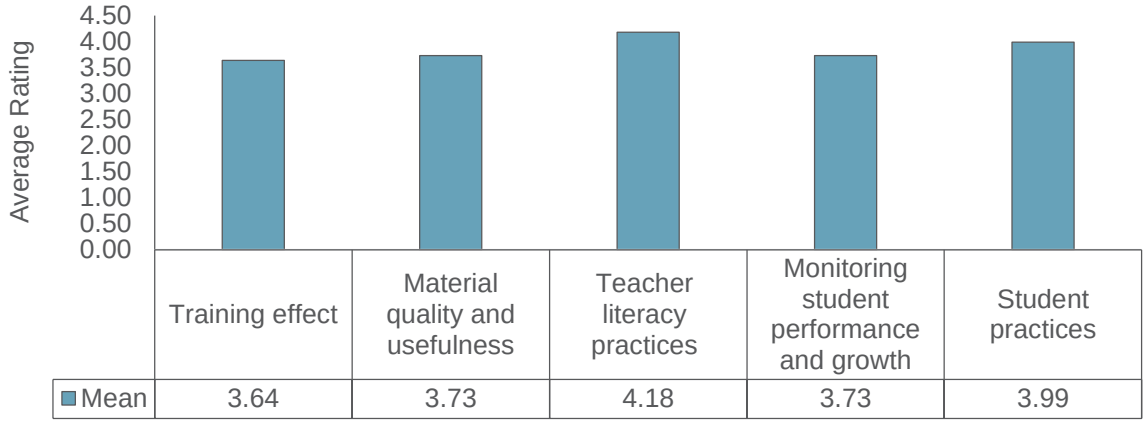


Figure 2. Summary of teacher survey respondents on key Literacy By 3 training effects, materials, and practices, 2014–2015.

- Teacher literacy practices had the highest average rating of 4.18 on a 5-point scale. The training effect on teacher perceptions of their understanding of what it means to be an effective literacy teacher had the lowest ratings with an average of 3.64.
- Material quality and usefulness had an average rating of 3.73.
- Monitoring performance and growth, which includes the use of running records and Istation data to monitor students' performance and form guided reading groups, had a 3.73 average rating.

Teachers were asked to state their agreement or disagreement to statements regarding their Literacy By 3 training on a 1–5 Likert Scale. **Figure 3** shows the results.

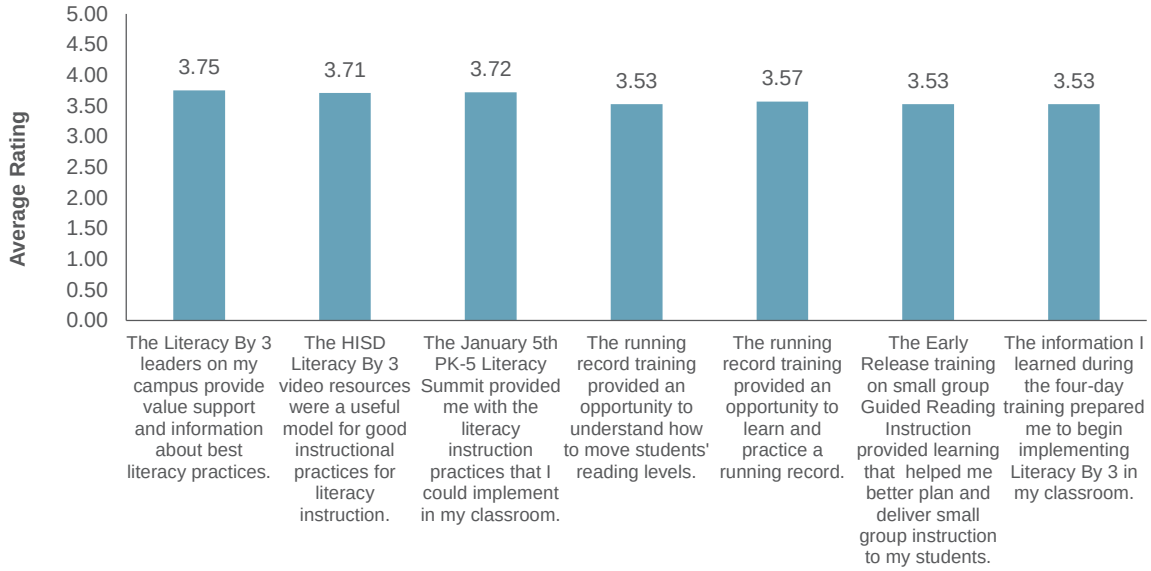


Figure 3. Teacher perception and experiences with key Literacy By 3 training activities, 2014–2015.

- The average ratings on all seven statements related to training activities were below 4.0, which is the "agree" rating on the 5-point scale (**Table 5**, Appendix A, page 28).
- The following statements had average rating of 3.53: The information I learned during the four-day training prepared me to begin implementing Literacy By 3 in my classroom and the early release training on small group Guided Reading instruction provided learning that helped me to better plan and deliver small group instruction to my students. There was also 3.53 average rating for the statement, the running records training provided an opportunity to understand how to move students' reading levels.
- Campus-based support and information about best literacy practices recorded the highest average rating (3.75).

Figure 4 shows teacher respondents' perspectives on the link between the Literacy By 3 and HISD curriculum and instructional guides (**Table 6**, Appendix A, page 29).

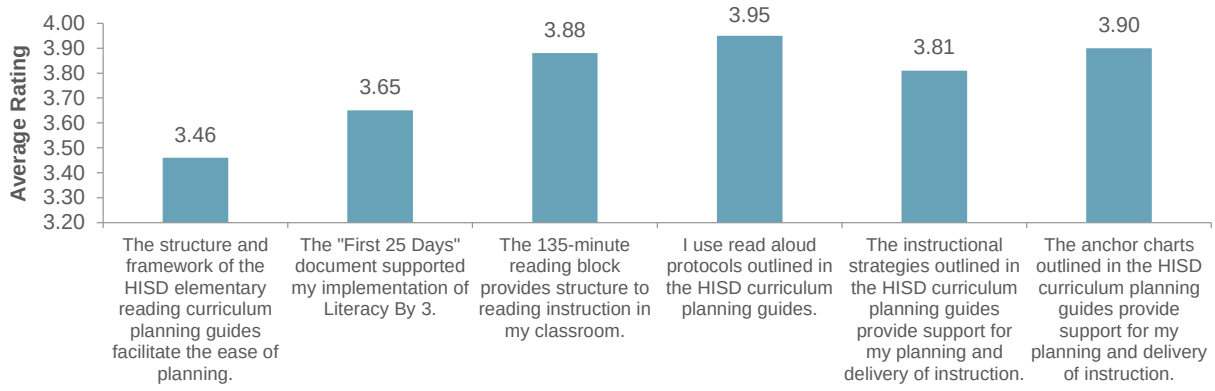


Figure 4. Teacher perceptions and experiences with HISD instruction support framework and Literacy By 3, 2014–2015.

- The average weighted scores for all six Likert-type statements were lower than 4.0.
- Teachers' "use of the read aloud protocols as outlined in the HISD curriculum guides," had the highest average rating (3.95) for instructional support framework, followed by the use of the "anchor charts" (3.90).
- The extent to which the structures of the HISD elementary reading curriculum planning guides facilitated the ease of planning received the lowest weighted average of 3.46.

Teachers were also asked to identify additional details they would like to see as support for Literacy By 3 implementation. Their responses were categorized into emergent themes. Themes were developed based on the initial reading of the responses and recategorized as new themes emerged to better capture the essence of those responses. Using a tally sheet, each response was collated by theme. **Figure 5** displays the additional support suggested with ten or more responses.

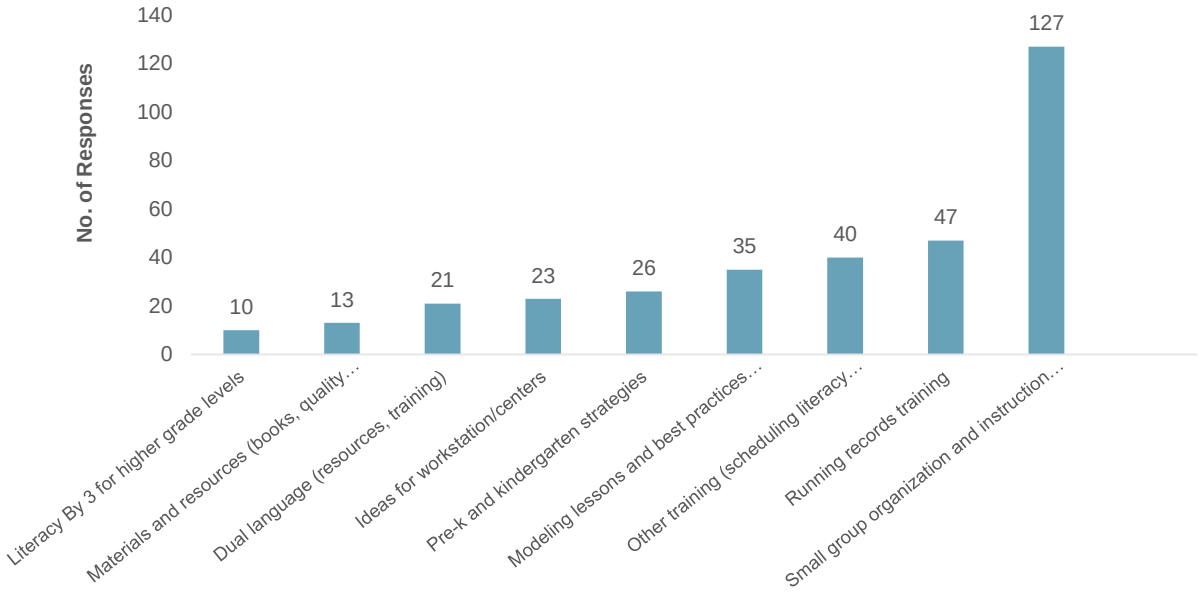


Figure 5. Teacher suggested additional support for Literacy By 3, 2014–2015.

- Based on Figure 5, teacher respondents proposed additional support in the following areas: training in organizing and instructing small groups (n = 127), running records (n = 47), other training (n = 40), modeling lessons and best practices (n = 35), prekindergarten and kindergarten strategies (n = 26), ideas for workstations and centers (N = 23), dual language models (n = 21), material and resources (n = 13), and Literacy By 3 for the higher grades (n = 10).
- Specifically, most teacher respondents recommended ongoing or summer training in small groups, guided reading and other Literacy By 3 components to improve implementation. The training would support teachers who were hired during the year and who were not exposed to the initial summer professional development.
- They proposed other training including scheduling, literacy circles, yearlong comprehensive training, campus-based training in reading instruction, lesson planning, and effective use of the whole-reading block.
- Teachers also requested training in dual language models, exposure to lesson modeling and best practices that include sample lessons, videos, and demonstration lessons. Survey respondents wanted training to extend beyond the Literacy By 3 basics.

Teachers were also asked to propose additional information that they would like to see in the HISD curriculum guide to further support Literacy By 3 implementation. Using emergent themes, **Figure 6** is a summary of the responses. The figure includes only those themes with 10 or more respondents.

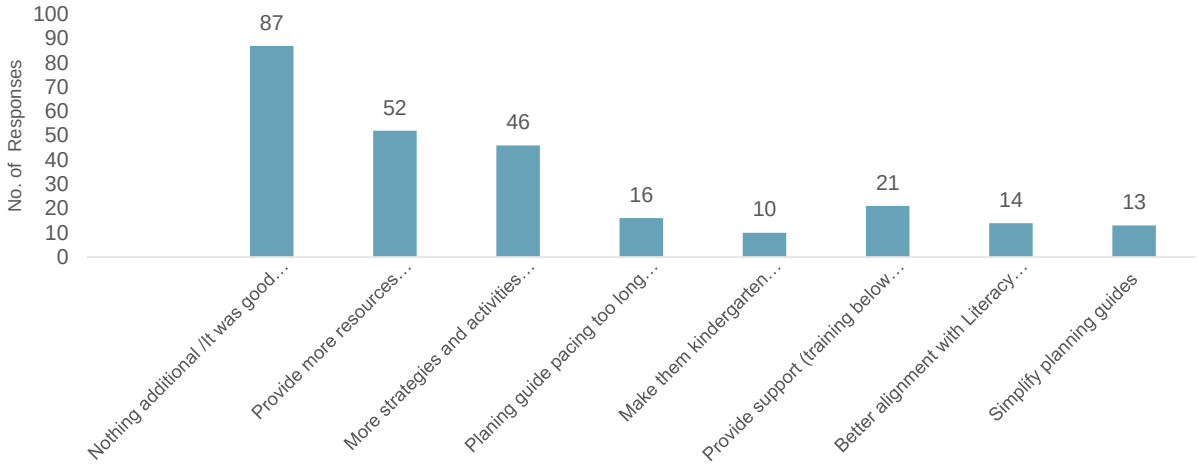
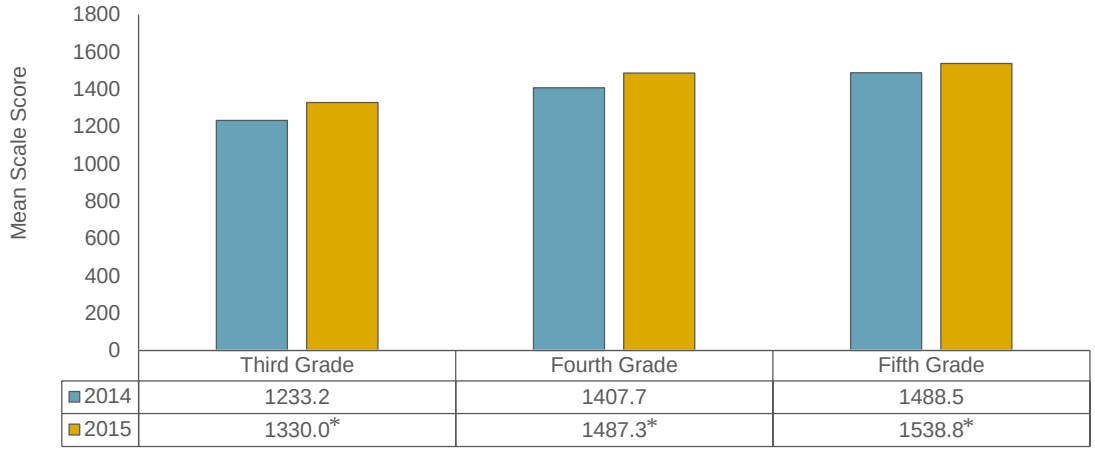


Figure 6. Teacher perceptions and experiences with curriculum planning guides and Literacy By 3, 2014–2015.

- Most teacher respondents were either satisfied with the planning guides or did not offer any possible changes.
- Teachers wanted more Literacy By 3 resources (n = 52) and more strategies and activities to be included in the planning guides (n = 46).
- Some teachers expressed that the pacing guide was too long and should be shortened (n = 16) and, overall, the guide should be tailored to reflect the prekindergarten and kindergarten levels (n = 10).
- Teachers indicated that the guides should be better aligned to Literacy By 3, the books, TEKS, and other aspects of the curriculum.
- Some teacher respondents called for simplification of the guides (n = 13), and better alignment with Literacy By 3 (14).

What were the effects of the Literacy By 3 Initiative on third- through fifth-grade students' STAAR reading performance?

Figure 7 and **Figure 8** show the comparative STAAR mean reading scale scores by grade for students who had 2014 and 2015 test scores. **Table 7** (Appendix A, page 30) shows the composition of the student-level sample by grade, gender, at-risk status, special education, G/T identification, ethnic group, economic status, and students' LEP status.

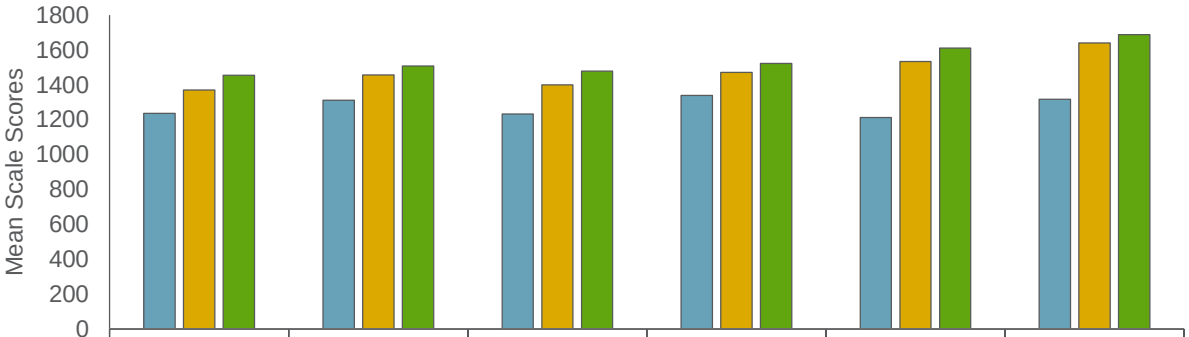


*p < .001 (two-tailed)

Figure 7. Comparative STAAR mean reading scale score of HISD third- to fifth-grade students in the sample, 2014 and 2015.

- Figure 7 shows that the third-grade students in the sample had a higher mean scale score (M = 1330.0, SD = 109.8) on the 2015 STAAR reading test compared to their mean scale score on the 2014 STAAR reading test (M = 1233.2, SD = 77.2). The difference was statistically significant, t (518) = 22.6, p < .001 (two-tailed). The eta-squared statistic (.50) indicated a large and substantially important effect size (**Table 8**, Appendix A, page 31). These students were third-grade repeaters.
- Fourth-grade students had a higher mean scale score (M = 1487.3, SD = 149.0) on the 2015 STAAR reading test compared to their mean scale score on the 2014 STAAR reading test (M = 1407.7, SD = 141.0) (Figure 9). The difference of 79.6 was statistically significant, t (14,217) = 94.7, p < .001 (two-tailed). The eta-squared statistic (.29) indicated a moderate and substantially important effect size (Table 8, Appendix A, page 31). The Texas Education Agency (2015), has determined that for accountability purposes, individual fourth-grade students with a scale score difference of 82, over the same period, would have Met Progress on reading.
- Fifth-grade students had a statistically significant higher mean scale score (M = 1538.8, SD = 146.8) on the 2015 STAAR reading test compared to their mean scale score on the 2014 STAAR reading test (M = 1488.5, SD = 136.2) (Figure 9). The difference of 50.3 was statistically significant, t (13,298) = 61.2, p < .001 (two-tailed). The eta-squared statistic (.22) indicated an important effect size. (Table 8, Appendix A, page 31). The Texas Education Agency (2015), however, has determined that individual fifth-grade students with a scale score difference of 32, over the same period, would have Met Progress on reading.
- Students in the third-grade sample had the highest mean reading scale score difference of 96.8 scale score points, compared to fourth grade (79.6 scale score points) and fifth grade (50.3 scale score points).

Figure 8 displays comparative mean reading scale scores by ethnicity for the third-, fourth-, and fifth-grade students in the sample.



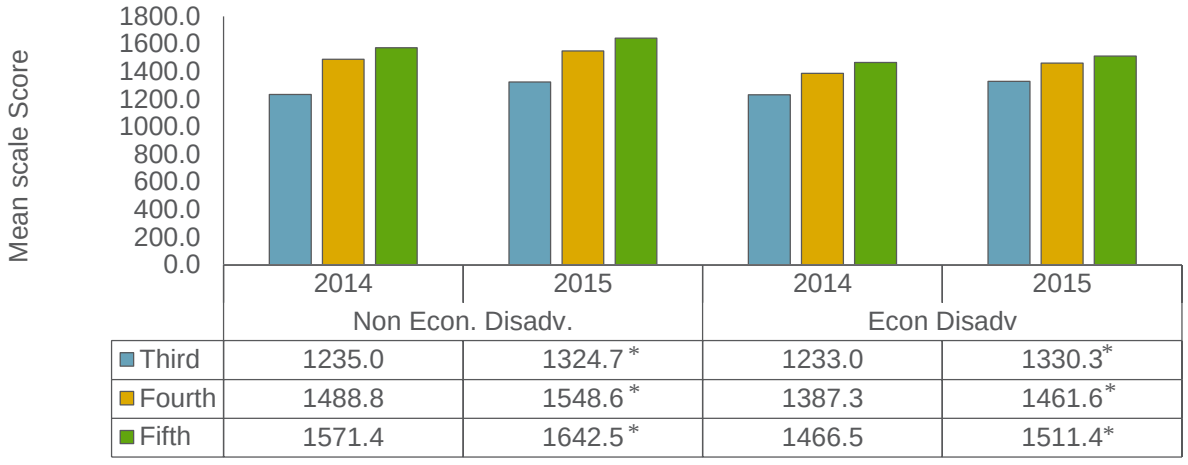
	2014	2015	2014	2015	2014	2015
	African American		Hispanic		White	
Third	1235.9	1310.8*	1232.4	1339.3*	1212.2	1316.5*
Fourth	1369.6	1456.9*	1399.3	1471.0*	1533.5	1639.3*
Fifth	1453.7	1507.3*	1478.6	1522.2*	1610.0	1688.2*

*p < .001 (two-tailed)

Figure 8. Comparative STAAR mean reading scale score by selected ethnicities for HISD third- to fifth-grade students in the sample, 2014 and 2015.

- African American, Hispanic, and White third-, fourth-, and fifth-grade students in the sample had higher mean scale scores on the 2015 STAAR reading test compared to their mean scale scores on the 2014 reading test. The differences in the scores for each of the three ethnic groups in the three grade levels were statistically significant, $p < .001$ or .05 (**Table 9,** Appendix A, page 31).
- Third-grade Hispanic students in the sample had the highest mean reading scale score difference (106.9 scale score points) followed by White students (104.3 points) and African American students (74.9 points) (Table 9). The largest effect was on Hispanic and White students with an eta-squared statistic of .57 in both cases indicating substantially important effect sizes (Table 9, Appendix A, page 31).
- In the fourth grade, White students had the highest mean reading scale score difference (105.8 points) followed by African American (87.2 points) and Hispanic fourth-grade students (71.6 scale score points) (Table 9). In the fourth grade, the largest effect was for African American students with an eta-squared statistic of 0.50 compared to 0.46 for White students and 0.33 for Hispanic students (Table 9, Appendix A, page 31). These three effect sizes were substantially important. The Texas Education Agency (2015), however, has determined that individual fourth-grade students with a scale score difference of 82, over the same period, would have Met Progress on reading.
- In the fifth-grade, White students had the highest mean reading scale score difference (78.2 points) followed by African American (53.6 points) and Hispanic students (43.6 points) (Table 9). Among the fifth-graders, the largest effect was seen for White students (eta-squared = 0.35) followed by African American students, (eta-squared = 0.28) and Hispanic students (eta-squared = 0.18) (Table 9, Appendix A, page 31). These eta-squared statistics were substantially important.

The data in **Figure 9** show the comparative mean scale score by the economic status of the third-, fourth- and fifth-grade students in the sample.



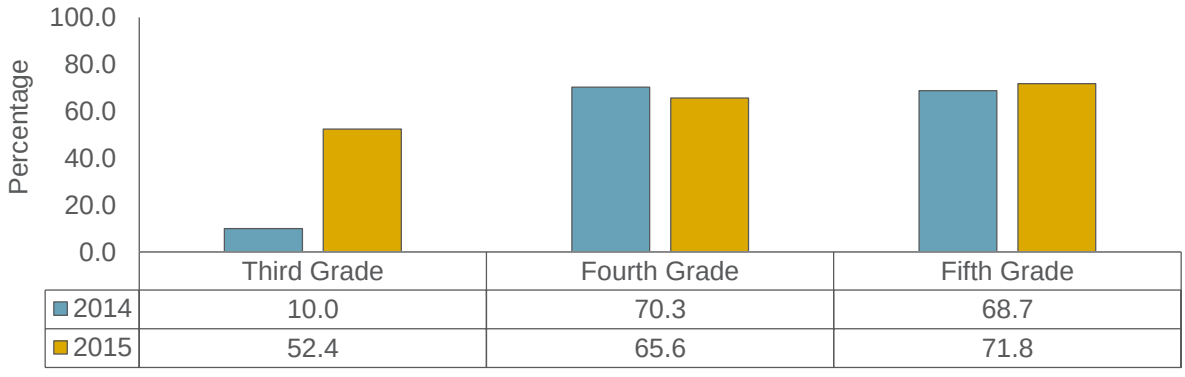
	2014	2015	2014	2015
	Non Econ. Disadv.		Econ Disadv	
Third	1235.0	1324.7*	1233.0	1330.3*
Fourth	1488.8	1548.6*	1387.3	1461.6*
Fifth	1571.4	1642.5*	1466.5	1511.4*

*p < .001(two-tailed)

Figure 9. Comparative STAAR mean reading scale scores by economic status of third- to fifth-grade students in the sample, 2014 and 2015.

- Non-economically-disadvantaged third- through fifth-grade students had higher STAAR mean reading scale scores compared to their economically-disadvantaged peers (Figure 11). The fourth- and fifth-grade mean scale score differences between the two groups were statistically significant ($p < .001$) in favor of the non-economically-disadvantaged students (**Table 10**, Appendix A, page 32). The Texas Education Agency (2015), has determined that for accountability purposes, individual fourth-grade students with a scale score difference of 82, between 2014 and 2015 would have Met Progress on reading. The difference for a fifth-grade student would be 32 scale score points.
- In the third grade sample, the economically- disadvantaged students had a higher STAAR mean reading scale score growth (97.3 scale score points) compared to non-economically-disadvantaged students (89.7 points), with an eta-squared statistic of 0.51. The largest and substantially important effect was seen for the economically-disadvantaged third-grade students (Table 10, Appendix A, page 32).

Figure 10 displays the comparative percentages of students, in the sample, who met Level II Satisfactory phase-in 1 standards on the 2014 and the 2015 STAAR reading test by grade (English and Spanish).

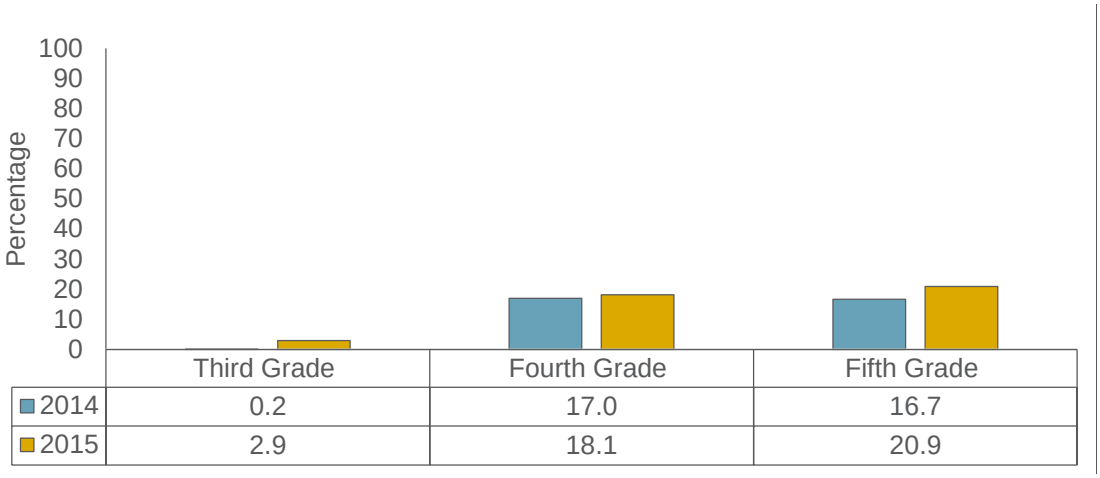


	Third Grade	Fourth Grade	Fifth Grade
2014	10.0	70.3	68.7
2015	52.4	65.6	71.8

Figure 10. Comparative percentage of the third- through fifth-grade student sample who met Level II Satisfactory phase-in 1 STAAR reading standards, 2014 and 2015.

- The percentage of third-grade students in the sample who met Level II Satisfactory phase-in 1 standard on the 2015 STAAR reading test increased from 10% in 2014 to 52.4% in 2015. This was an increase of 42.4 percentage points. Again, the 519 third-grade students in this sample were repeaters.
- The proportion of fourth-grade students, in the sample, who met Level II Satisfactory phase-in 1 standard on STARR reading decreased from 70.3% in 2014 to 65.6% in 2015. This decreased by 4.4-percentage points.
- In this study, the proportion of Literacy By 3 fifth-grade students who met Level II Satisfactory phase-in 1 standards on the 2015 STAAR reading test increased from 68.7% in 2014 to 71.8% in 2015. This was an increase of 3.1 percentage points.

Figure 11 shows the comparative percentage of students who met Advanced performance standards on the 2015 STAAR reading test by grade level.



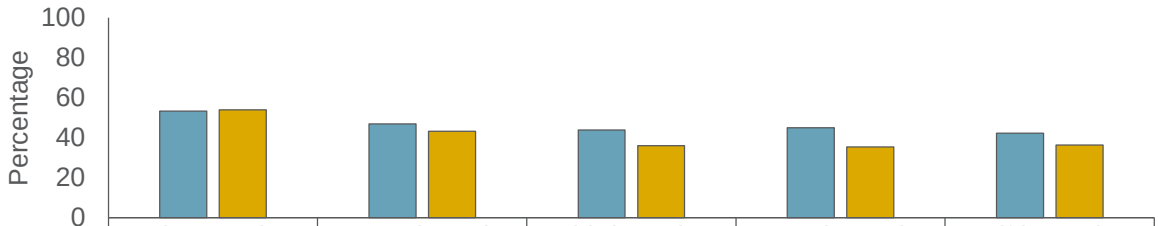
	Third Grade	Fourth Grade	Fifth Grade
2014	0.2	17.0	16.7
2015	2.9	18.1	20.9

Figure 11. Comparative percentage of third- through fifth-grade students in the sample who met STAAR Advanced performance standard, 2014 and 2015.

- The percentage of the third-grade student sample who met Advanced performance standards on the 2015 STAAR reading test increased from 0.2% in 2014 to 2.9% in 2015. This is an increase of 2.7 percentage points. These students were repeaters.
- The percentage of fourth-grade students in the sample who met Advanced performance standards on the 2015 STAAR reading test increased from 17.0% in 2014 to 18.1% in 2015. This was an increase of 1.1 percentage points.
- The percentage of fifth-grade students in the sample who met Advanced performance standards on the 2015 STAAR reading test increased from 16.7% to 20.9% in 2015. This was an increase of 4.2 percentage points.

How did the Literacy By 3 first- through fifth-grade students perform on the Iowa Assessments?

Figure 12 shows the proportion of students who scored at or above the 50th National Percentile Rank (NPR) on the Iowa Assessments.



	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade
ELA	53.3	46.9	43.8	45.0	42.2
Reading	53.9	43.2	36.1	35.4	36.3

Figure 12. Percentage of HISD Literacy By 3 first- through fifth-grade students who performed at or above the 50th NPR on the Iowa Assessments ELA and reading, 2015.

- The percentage of first- to fifth-grade students who scored at or above the 50th NPR on the 2015 Iowa ELA assessment ranged from 42.2% in the fifth grade to 53.3% in the first grade.
- The percentage of students who scored at or above the 50th NPR on the 2015 Iowa reading assessment ranged from 35.4% in the fourth grade to 53.9% in the first grade (Table 11, Appendix A, page 32).

Discussion

The purpose of this study was to assess the implementation, teacher experiences, and perceptions of the Literacy By 3 initiative and measure its effect on elementary student reading performance. The initiative focused on kindergarten- through third-grade teachers and students. This discussion focuses on preparation for implementation walkthrough visits, results of the teachers' survey, and effects of the initiative on students reading and ELA performance.

Preparation for implementation

According to E-train data, 10,101 teachers and school officers completed training in five professional development components in preparation for implementing Literacy By 3 initiative. More than two-thirds of teachers completed training in each of the Literacy By professional development activities. Based on the survey results, they had at least some awareness of what the expectations were and how their classrooms should be organized to deliver the key components of Literacy By 3. This was also evident during the walkthrough of the selected classroom sample. Although each component was delivered in less than fourteen hours, the follow-up sessions could have helped to explain the positive effects of the initiative on students' performance.

Walkthrough

Most of the fourteen classrooms visited had their rooms organized and arranged for Literacy By 3. They all had leveled books, book corners, arrangement for guided reading, and independent reading. Classrooms had evidence of a systematic approach to group assignment for guided reading. However, with few exceptions, teachers who were observed did not appear to use running records to assess students' performance during the walkthroughs. Some schools used Accelerated Reading assessments to track students' reading performance and most used Istation data. Most classrooms and even schools displayed some way of tracking students' reading performance. During the debriefing sessions, principals in the high performing schools were confident, based on their experiences, that guided reading was the best approach to literacy instruction.

The two lower performing schools in the walkthrough sample (four classrooms) had other experiences that should be considered when analyzing literacy performance. They had higher proportions of African American students, higher student mobility rates, and slightly higher proportions of economically-disadvantaged students. Most teachers who were observed in these lower performing schools appeared to struggle with managing the rest of their classrooms during guided reading and to provide sufficient work to keep the rest of the class engaged in reading. There were no clear written outlines on the chalkboard of what students needed to do during the period compared to what was observed in the two high performing schools (four classes). Teachers in these high-performing schools had tasks written on the chalkboard.

The high- and low-performing walkthrough schools had substantial differences in percentage of economically-disadvantaged students who met STAAR reading Level II Satisfactory phase-in 1 standard in 2015 (63% and 69% compared to 3% and 4% respectively). The high-performing schools observed appeared to have a culture of guided reading with both principals indicating during the debriefing that they had been using this practice for over ten years.

From observation and through informal discussions, teachers appeared to place all students into appropriate groups for guided reading, rotate students by Literacy By 3 components on a regular basis, and reconstitute the groups based on assessment results from Istation, or Accelerated Reading, and running records.

Survey

Of the 701 (approximately 21.8%) of teachers who completed the Literacy By 3 survey, the results showed that 67.8% of them were implementing Literacy By 3 in the recommended 135 instructional minutes, however, almost one-third of the classrooms were not. One reason given was that reading instruction time had been restructured to 90 minutes in some schools. The research shows that reading is foundational to learning and failure to provide adequate exposure to the reading opportunities may affect students' outcomes (Annie E. Casey Foundation, 2010).

Teachers rated their Literacy By 3 practices (4.18 on a 5.0-point scale) much higher than material quality and usefulness, monitoring student growth and performance, and student reading practices. The training effect received average rating of 3.64 on a 5.0-point scale. None of the key aspects of the training received average ratings of 4.0 or higher on a 5.0-point scale. Taken collectively, if teachers completed multiple components, the training may have been adequate to affect students' outcomes based on the U.S. Department of Education Institute of Education Sciences What Works Clearinghouse (Yoon, Duncan, Lee, Scarloss, & Shapley, 2009). Running records training and preparation information received during the four-day training had an average rating of 3.53, which may explain why so few teachers used them. Again, the running records are crucial for assessing and tracking students' performance and for assigning students to guided reading groups. Based on the survey data, teachers requested further training in the use of running records in order to improve Literacy By 3 implementation (Figure 7).

The support from campus leadership, the Literacy By 3 videos, and the January summit received the highest average ratings (3.71 – 3.75) for the training component. These data confirm the importance of providing year-round support for teachers during the implementation of the Literacy By 3. None of the average ratings associated with teacher perception and experiences with using HISD curriculum and instructional framework to guide Literacy By 3 were higher than 3.94 points.

Teachers' use of read-aloud protocols, use of anchor charts to support for instructional planning and delivery, and the 135-minute block itself as a structural provision for Literacy By 3 delivery received the highest ratings, between 3.80 and 3.94. In addition to training, teachers may need more structure and materials that allow them to plan, prepare, and execute the initiative's key components. According to teacher respondents, materials should be appropriate and the existing curriculum may have to be revised to reflect Literacy By 3 approaches. In this respect, teachers called for more and sustained

training in small group organization and instruction, scheduling, modeling lessons, and best practices. It appears that they are willing to learn more and improve their performance through exposure to what works and how it works. The optimism must be built upon and principals and schools encouraged to make Literacy By 3 the primary approach to literacy instruction in all schools and particularly in underperforming schools.

Program effect

Results from the repeated-measures design indicated that the 2015 STAAR mean reading scale scores were significantly higher for the third-, fourth-, and fifth-grade students after the year of Literacy By 3 than before this initiative. While the fourth grade students showed a scale-score increase of 79.6 over their third-grade performance, the Texas Education Agency (2015) has determined that for accountability purposes, individual fourth-grade students with a scale score difference of 82 between 2014 and 2015 would have Met Progress on reading. The average scale score increase of 50.3 for fifth grade students exceeded the State's standard of 32 scale-score points for Met Progress in reading for individual students. The proportion of students who met Level II phase-in 1 Satisfactory reading standards was also higher after the Literacy By 3 initiative except in the fourth-grade.

The Literacy By 3 initiative had substantially important effects on the third grade (eta-squared = 0.50) and fourth grade (eta-squared = 0.39) and important effect on fifth grade (eta-squared = 0.22) reading based on the Texas Education Agency Best Practices Clearinghouse (TEABPC) effect size benchmark (See Texas Education Agency, 2011). Based on Fryer's (2012) benchmark of .08 standard deviations as equal to one month of improvement, these effect sizes indicate approximate growth of between three to six months. This is, particularly, significant for the third grade sample since these constituted students who were retained in the grade but who, on average, showed a six-month growth in reading.

When disaggregated by ethnicity, Literacy By 3 probably explained between 18% and 57% in the variance in the reading scale scores between 2014 and 2015. This is equivalent to approximately two- to seven-months growth in reading. Third-grade Hispanic and White students had the largest average reading growth, equivalent to approximately seven months growth (57% of the variance) and fifth-grade Hispanic students had the smallest average reading growth (approximately 2 months). Fourth-grade African American students demonstrated an average reading growth of six months.

When disaggregated by student economic status, Literacy By 3 had important to substantially-important effects on both groups ranging from an eta-squared statistic of 0.16 through 0.51 in the third, fourth, and fifth grades. The initiative probably explained between 16% and 51% of the variance in the reading scale scores. This is equivalent to approximately two to six months growth in reading after one year's Literacy By 3 based on Fryer's (2012) benchmark.

The Iowa Assessments are in their initial administration in HISD; therefore, there are limits to the analysis for first- through-fifth grade students. Only in the first grade did the majority of students perform at or above the 50th NPR for both ELA Total and reading. A majority of fourth-grade students performed at or above the 50th NPR for ELA Total.

In summary, Literacy By 3 resulted in substantial improvement in students' reading performance, including low-performing students. Students were exposed to other programs but supplementary to Literacy By 3. After the literacy interventions, a higher proportion of students, in the sample, met the STAAR Level II phase-in 1 Satisfactory reading standards at the third, and fifth-grades and Advance performance standards at all three grade levels.

Based on the survey results and walkthrough debriefings, principals and teachers recognize the challenges associated with implementing Literacy By 3, organizing and managing guided reading groups, reorganizing the curriculum, accessing adequate materials, and assessing students' performance and progress. They also identified its merits in meeting the reading needs of students in small groups who may otherwise face challenges in whole class instruction. While teachers rated their

own instructional practices higher, they appeared to agree that sustained support is essential. Analyses showed that after one year, the students, on average, showed a two- to seven-month growth in reading in the third, fourth, and fifth grades in comparison to the year, prior. The improvement and effects were substantive for minority, underperforming, and economically-disadvantaged HISD student subgroups

Recommendations

- Consistent with respondents' recommendations, the district should continue training in small group organization and instruction, guided reading, instructional strategies, and running records for Literacy By 3 in order to improve classroom practices.
- Continued training in the management of small or guided reading groups should focus on how to keep students engaged, how to pace work assignment for students, and exposing teachers to exemplars and Literacy By 3 best practices.
- Leveled books and related materials for all, and in particular LEP classrooms, need to be available to support instruction.
- Students should be exposed to the required 135 minutes for Literacy By 3 instruction.

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Appendix A

Table 1. Summary of walkthroughs for a sample of HISD Literacy By 3 schools, first and third grade, 2015.

Classroom set-up (learning corners)	AB1		BC3		CD1MS		DE3MO		EF1MV		FG3MG		GH1MM		HI3MB		IJ1MS		JK3MT	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Classroom library	X		X		X		X		X		X		X		X		X		X	
Technology center	X			X	X		X		X		X		X		X		XX		X	
Tech led independent and small group	X			X	X		X		X		X		X		X		X		X	
Teacher table	X		X		X		X		X		X		X		XX		X		X	
Independent writing and follow-up		X	X		X		X		X		X		X		X		X		X	
Students' desks	X		X		X		X		X		X		X		X		X		X	
Teacher desk	X		X		X		X		X		X		X		X		X		X	
Direct instruction	x		X		X		X		X		X		X		X		X		X	
Evidence of use																				
Level book room/corner	X		X		X		X		X		X		X		X		X		X	
Running records		X		X	X		X		X		X		X		X		X		X	
Teaching cards			X		X		X		X		X		X		X		X		X	
Close reading strategies	X		X		X		X		X		X		X		X		X		X	
Organization of classroom library																				
Leveled books	X		X		X		X		X		X		X		X		X		X	
Appropriate shelf heights	X		X		X		X		X		X		X		X		X		X	
Genre	X		X		X		X		X		X		X		X		X		X	
Fiction labels	X		X		X		X		X		X		X		X		X		X	
Mystery, play, novel, graphic novel, poetry, realistic etc.																				
Non-fiction labels	X		X		X		X		X		X		X		X		X		X	
Informational, narrative, biography/autobiography																				
Evidence of practice																				
Direct instruction	X		X		X		X		X		X		X		X		X		X	
Guided reading	X		X		X		X		X		X		X		X		X		X	
Independent reading	X		X		X		X		X		X		X		X		X		X	
Word work	X		X		X		X		X		X		X		X		X		X	

Table 1. Continued

	LM1MS		MN3MM		NO1MM		OP3MP	
	Yes	No	Yes	No	Yes	No	Yes	No
Classroom set-up (learning corners)								
Classroom library	X		X		X		X	
Technology center	X		X		X		X	
Tech led independent and small group	X		X		X		X	
Teacher table	X		X		X		X	
Independent writing and follow-up	X		X		X		X	
Students' desks	X		X		X		X	
Teacher desk	X		X		X		X	
Direct instruction	X		X		X		X	
Evidence of use								
Level book room/corner	X		X		X		X	
Running records	X		X		X		X	
Teaching cards	X		X		X		X	
Close reading strategies	X		X		X		X	
Organization of classroom library								
Leveled books	X		X		X		X	
Appropriate shelf heights	X		X		X		X	
Genre	X		X		X		X	
Fiction labels	X		X		X		X	
Mystery, play, novel, graphic novel, poetry, realistic etc.								
Non-fiction labels								
Informational, narrative, biography/autobiography	X		X		X		X	
Evidence of practice								
Direct instruction	X		X		X		X	
Guided reading	X		X		X		X	
Independent reading	X		X		X		X	
Word work	X		X		X		X	

Note: AB1, BC33, CD1MS and so on are unique classroom identifiers.

Table 2. Distribution by programs of HISD teachers and school leaders who participated in the Literacy By 3 professional development sessions, 2014–2015.

Literacy by 3 Professional development program	No. of sessions	Hours of PD per session	Completed	Enrolled	Incomplete	No show	Total
ABC's of guided reading	17	**12**	1,833	185	127	309	4,415
ABC's of guided reading day 1/day 2	7	**12**	1,939	9	0	13	1,961
Independent reading	18	**6**	2,667	152	16	227	3,111
Read aloud	16	**6**	2,012	176	8	337	2,533
Total	**58**		**8,451**	**522**	**151**	**928**	**12,062**

Figures exclude prek and k

TABLE 3. SOCIOECONOMIC, DEMOGRAPHIC, AND ACADEMIC CHARACTERISTICS OF LITERACY BY 3 WALKTHROUGH SCHOOLS, 2013–2014.

SCHOOL	Expenditure Per Student ($)	Ethnic Composition (%)			Socioeconomic status (%)				STAAR Reading Performance (%)				TEA Accountability Rating
	Instruction	African American	Hispanic (%)	White (%)	Econ. Disadv.	[1]At-Risk (%)	ELL	Mobility (%)*	Met Level II phase-in 1 Satisfactory Standard (%)	Econ. Disadv. Who Met Level II phase-in 1 Satisfactory Standard (%)	Met Advanced Standards (%)	Econ. Disadv. Who Met Advanced Standards (%)	2014 Ratings
LP2015	4,573	77.9	21.6	0.3	96.5	86	16.0	22.6	38	3	37	3	Improvement Required
AP2015	4,520	1.8	95.6	1.8	94.3	83	46.6	9.5	71	15	70	13	Met Standards
SE2015	4,838	0.2	99.2	0.6	95.0	78	54.4	12.0	80	15	79	14	Met Standards
ME2015	4,592	92.0	6.6	0.7	99.1	87	3.7	31.7	48	4	47	5	Improvement Required
VE2015	4,037	0.8	98.0	0.6	94.5	83	47.3	6.4	79	39	78	39	Met Standards
HI02015	4,525	6.5	16.3	45.2	10.1	20	5.5	3.2	98	63	100	43	Met Standards - Distinction
IH02015	4,256	1.6	36.7	66.7	1.8	16	1.8	5.1	99	69	100	55	Met Standards – Distinction

Sources: Texas Education Agency, 2013–14 School Report Card
[1]HISD, District and School Profiles, 2013–2014

**These are only for 3rd- to 5th-grade rates.*

Note: LP2015, AP2015, and so on, are unique school identifiers.

Notes:

Of the seven schools where walkthroughs were conducted, two had improvement required (IR) status on the 2014 state accountability system; two met state standards with distinctions on reading/ELA, math, science, student progress, closing the achievement gap, and students' postsecondary readiness, and three met standards. State standards are determined using weighted scores on student achievement, student progress, closing the achievement gap, and postsecondary readiness.

The walkthrough IR schools had the highest proportion of African American students (77.9% and 92.0%), the highest proportion of at-risk students (86% and 87%), and the highest proportion of economically disadvantaged students (99.1% and 96.5%). They also had the highest student mobility rate for grades three to five (31.7% and 22.6%), the lowest percentage of students who met Level II, phase-in 1 Satisfactory reading standard as well as advanced standards (38% and 48%). In addition, they had the lowest percentage of economically-disadvantaged students who met STAAR Level II phase-in 1 Satisfactory reading standard (3% and 4%), and Advanced reading standards (3% and 5%).

The walkthrough schools that only met state standards had the highest proportion of Hispanic students (95.6%, 98.0% and 99.2%), the largest percentage of ELL students (46.6%, 54.4% and 47.3%). These schools also had relatively high proportions of economically-disadvantaged students (94.3%, 95.0%, and 94.5%). Between 71 and 80% of their students met STAAR Level II phase-in 1 Satisfactory reading standard while between 15% and 39% of the economically disadvantaged met the state standard and 13-39% met the Advanced reading standard.

Those walkthrough Literacy By 3 schools that met standards with distinction had the highest percentage of White students (45.2% and 66.7%). Those schools had the lowest proportion of economically- disadvantaged, at-risk, ELL and mobile students. They had also the highest percentage of students (98% and 99%) who met the Level II phase-in 1 Satisfactory reading standard level with 100% of the economically- disadvantaged students meeting STAAR Level II phase-in 1 Satisfactory reading standard. Of these economically-disadvantaged students, 43% and 55%, respectively, met the Advanced reading standards.

Table 4: Teacher experiences and perceptions on Literacy By 3 materials, practices, and student performance monitoring and reading behavior, HISD, 2014–2015.

LITERACY FACTORS	Please rate your degree of agreement or disagreement with the following statements:							
	Answer Options	**Strongly Disagree (%)**	**Disagree (%)**	**Somewhat Agree (%)**	**Agree (%)**	**Strongly Agree (%)**	**Rating Average**	**Response Count**
TRAINING EFFECT	In comparison to one year ago, I have a deeper understanding of what it means to be an effective literacy teacher.	4.7	10.4	21.1	43.2	20.6	**3.65**	655
MATERIAL QUALITY AND USEFULNESS	The Scholastic leveled reading materials and resources available to my classroom are high quality.	6.1	8.1	18.3	41.1	36.4	**3.74**	655
	The Scholastic leveled reading materials and resources available to my classroom are useful.	5.3	7.0	16.9	40.3	30.2	**3.83**	653
TEACHER LITERACY PRACTICES	I facilitate interactive read aloud on a daily basis in my classroom.	3.1	2.9	9.0	38.3	46.7	**4.23**	655
	The identified English/Spanish Language Arts TEKS are practiced as a common thread throughout my daily literacy block.	2.8	2.1	8.9	42.6	43.6	**4.22**	653
	I facilitate small group guided reading instruction daily in my classroom.	3.1	4.4	13.1	36.6	42.8	**4.12**	655
	Students read books on their independent level during independent reading time daily in my classroom.	3.9	3.8	12.0	32.8	47.7	**4.17**	652
MONITORING STUDENTS PERFORMANCE AND GROWTH	I use running records to form guided reading groups.	5.1	10.6	20.1	35.5	28.7	**3.72**	642
	I use running records to assess student-reading levels.	5.4	10.0	19.6	35.6	29.4	**3.74**	649
	I use running records to monitor reading growth.	5.4	9.9	18.5	36.2	30.1	**3.76**	649
	I use Istation to form guided reading groups.	7.4	9.6	19.0	33.4	30.5	**3.70**	646
	I use Istation to assess students' reading levels.	7.6	9.1	18.5	33.6	31.2	**3.72**	649
	I use Istation to monitor reading growth.	6.8	8.2	17.8	35.7	31.5	**3.77**	645
STUDENT PRACTICES	Students in my classroom independently select a "just right book" for independent reading.	3.7	5.7	14.1	40.5	36.0	**4.00**	652
Answered question								**657**
Skipped question								**44**

Table 5. Teacher experiences and perceptions on their Literacy By 3 training, HISD, 2014–2015.

PLEASE RATE YOUR DEGREE OF AGREEMENT OR DISAGREEMENT WITH THE FOLLOWING STATEMENTS:								
ANSWER OPTIONS	**Strongly Disagree (%)**	**Disagree (%)**	**Somewhat Agree (%)**	**Agree (%)**	**Strongly Agree (%)**	**N/A (%)**	**Rating Average**	**Response Count**
The information I learned during the four-day training prepared me to begin implementing Literacy By 3 in my classroom.	6.7	9.7	18.6	33.1	17.5	14.24	**3.53**	639
The early release training on small group guided reading instruction provided learning that helped me better plan and deliver small group instruction to my students.	4.9	6.1	17.7	27.6	12.2	31.4	**3.53**	637
The running record training provided an opportunity to learn and practice a running record.	5.2	4.9	18.1	29.2	12.9	29.8	**3.57**	637
The running record training provided an opportunity to understand how to move students' reading levels.	5.5	5.4	18.6	26.8	13.1	30.6	**3.53**	634
The January 5th pk-5 literacy summit provided me with the literacy instruction practices that I could implement in my classroom.	3.5	3.3	11.5	18.6	14.3	48.9	**3.72**	636
The HISD Literacy By 3 video resources were a useful model for good instructional practices for literacy instruction.	4.7	4.4	17.9	30.5	18.4	23.7	**3.71**	637
The Literacy By 3 leaders on my campus provide value support and information about best literacy practices.	7.8	3.6	15.4	28.5	26	18.7	**3.75**	638
Answered question								**640**
Skipped question								**61**

Table 6. Teachers experiences and perceptions on curriculum and instructional frameworks, guides and protocol for the delivery of Literacy By 3 initiative.

Please indicate your level of agreement or disagreement with the following statements:

Answer options	Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree	N/A	Rating Average	Response Count
The structure and framework of the HISD elementary reading curriculum planning guides facilitate the ease of planning.	8.4	9.7	22.8	38	16.2	4.9	**3.46**	631
The "first 25 days" document supported my implementation of literacy by 3.	6.3	8.7	20.3	30.5	25.2	9	**3.65**	632
The 135-minute reading block provides structure to reading instruction in my classroom.	4.4	4.1	17	40.2	27.3	7	**3.88**	630
I use read aloud protocols outlined in the HISD curriculum planning guides.	3.3	3.5	17	41.5	28.8	5.9	**3.95**	631
The instructional strategies outlined in the HISD curriculum planning guides provide support for my planning and delivery of instruction.	4.9	5.5	19.8	38.7	26.9	4.3	**3.81**	633
The anchor charts outlined in the HISD curriculum planning guides provide support for my planning and delivery of instruction.	4.8	4.9	16.6	36.9	31.5	5.3	**3.90**	628
Answered question								**634**
Skipped question								**67**

Table. 7. Educational and demographic composition of the third- to fifth-grade students in the Literacy By 3 study sample.

	Third	Fourth	Fifth
Sample Size	**519**	**14,299**	**13,299**
Male	58.8	49.6	49.4
Female	41.2	50.4	50.6
African American	31.6	23.1	22.4
Hispanic	66.7	64.9	65.2
White	1.2	7.5	7.8
Non-Special Education	93.8	96.0	96.8
Special Education	5.8	3.8	3.1
Non-At-Risk	0.6	35.2	38
At-Risk	99.4	64.7	61.9
Non-G/T	98.8	75.9	72.1
G/T	0.8	23.9	27.8
Non-Economically Disadvantaged	6.4	20.1	20.9
Economically Disadvantaged	93.6	79.9	79.1
Non-LEP	52.4	52.6	54.2
LEP	47.6	47.3	45.7

Table 8. Results of paired t-test and effect sizes of Literacy By 3 initiative on HISD third-, fourth-, and fifth- grade STAAR reading test, 2014–2015.

Grade	Year	Sample	Mean	Standard Deviation	t-test	Mean Difference	Significance (2-tailed)	Effect Size (Eta squared)
Third	2015	519	1330.0	109.8	22.6	96.8	0.00*	**0.50**
	2014	519	1233.2	77.2				
Fourth	2015	14,218	1487.3	149.0	94.7	79.6	0.00*	**0.39**
	2014	14,218	1407.7	141.0				
Fifth	2015	13,299	1538.8	146.8	61.2	50.3	0.00*	**0.22**
	2014	13,299	1488.5	136.2				

*p < .001

Table 9. Results of paired t-test and Literacy By 3 effects on HISD third-, fourth-, and fifth-Grade Major Ethnic Groups' STAAR Reading Test, 2014–2015.

Grade	Ethnicity	Year	n	Mean	SD	MD	t	Sig (2-tailed)	Effect Size (Eta squared)
Third	African American	2015	161	1310.8	118.9	74.9	9.2	0.00*	**0.26**
		2014		1235.9	74.2				
	Hispanic	2015	346	1339.3	104.9	106.9	21.2	0.00*	**0.57**
		2014		1232.4	78.9				
	White	2015	6	1316.5	63.3	104.3	2.6	0.05**	**0.57**
		2014		1212.2	46.5				
Fourth	African American	2015	3,248	1456.9	134.3	87.2	56.9	0.00*	**0.50**
		2014		1369.6	126.3				
	Hispanic	2015	9,236	1471.0	137.6	71.6	67.8	0.00*	**0.33**
		2014		1399.3	135.6				
	White	2015	1,064	1639.3	152.3	105.8	30.1	0.00*	**0.46**
		2014		1533.5	136.9				
Fifth	African American	2015	2,975	1507.3	134.2	53.6	33.8	0.00*	**0.28**
		2014		1453.7	123.3				
	Hispanic	2015	8,669	1522.2	134.1	43.6	43.1	0.00*	**0.18**
		2014		1478.6	129.9				
	White	2015	1,042	1688.2	149.7	78.2	23.7	0.00*	**0.35**
		2014		1610.0	138				

*p < .001 (two-tailed) **p ≤ .05 (two-tailed)

Table 10. Results of paired t-test results and Literacy By 3 effect sizes on HISD third-, fourth-, and fifth- grade STAAR reading test by economic status, 2014–2015.

Grade	Econ Status	Year	n	Mean	SD	MD	t	Sig (2-tailed)	Effect Size (Eta squared)
Third	Non-Economically Disadvantaged	2015	33	1324.7	146.9	89.7	4.0	0.00	**0.33**
		2014		1235.0	93.5				
	Economically Disadvantaged	2015	486	1330.0	107.0	97.3	22.5	0.00	**0.51**
		2014		1233.0	76.1				
Fourth	Non-Economically Disadvantaged	2015	2,856	1589.6	159.2	100.7	52.8	0.00	**0.49**
		2014		1488.8	142.6				
	Economically Disadvantaged	2015	11,371	1461.6	134.7	74.3	79.9	0.00	**0.36**
		2014		1387.3	133.1				
Fifth	Non-Economically Disadvantaged	2015	2,777	1642.5	158.6	70.7	36.2	0.00	**0.32**
		2014		1571.4	142.5				
	Economically Disadvantaged	2015	10,521	1511.4	130.5	44.9	50.3	0.00	**0.16**
		2014		1466.5	125.6				

*p < .001 (two-tailed)

Table 11. Iowa ELA and reading NCEs, percent performing at or above the 50th NPR and mean standard scores by grade, HISD, 2015.

		Mean NCE		50th NPR Standard Score	Mean Standard Score		% Performing At or Above the 50th NPR	
Grade	n	ELA	Reading	ELA & Reading	ELA	Reading	ELA	Reading
First	11,782	52	50	150	150.3	151.5	53.3	53.9
Second	11,956	48	46	168	166.9	168.1	46.9	43.2
Third	12,520	47	44	170	186.6	179.9	43.8	36.1
Fourth	14,850	48	43	200	204.9	193.3	45.0	35.4
Fifth	15,270	47	44	214	215.2	205.7	42.2	36.3