| TO: | Lance Menster <br> Director, Curriculum and Development Department |
| :--- | :--- |
| FROM: | Carla Stevens <br> Assistant Superintendent, Research and Accountability |
| SUBJECT: | THE IMPACT OF THE HOUSTON INDEPENDENT SCHOOL DISTRICT READ |
|  | HOUSTON READ MENTORING PROGRAM ON FIRST-GRADE STUDENTS' |
|  | READING LEVELS, 2016-2017 |

Read Houston Read is a first-grade mentoring program being implemented in the Houston Independent School District (HISD) with support from the Barbara Bush Houston Literacy Foundation (BBHLF) since the 2014-2015 school year. As a supplement to the district's Literacy By 3 initiative, RHR establishes a foundation for the development of students' reading skills. Community and business volunteers use read-aloud strategies in face-to-face or online environments to boost students' reading enjoyment. The purpose of this evaluation was to determine the RHR impact on students' reading levels.

Key findings include:

- A larger proportion of Spanish learners (71\%) compared to English learners (44\%) were assessed during beginning (BOY), middle (MOY), and end of year (EOY) assessment windows.
- There was an increase in the percentage of English and Spanish learners who met expected or advanced development reading levels using both face-to-face and online modalities when each assessment window, (BOY, MOY, EOY) was considered independently.
- A larger percentage of online English learners met expected and advanced development reading levels compared to their face to-face peers and a larger percentage of online Spanish learners met expected and advanced development reading compared to their face-to-face peers except non-economically-disadvantaged and limited English proficiency learners.
- By year's end, using a repeated measures design, more face-to-face English and more online Spanish learners showed reading growth compared to their respective peers.

Further distribution of this report is at your discretion. Should you have any further questions, please contact me at 713-556-6700.


Attachment
cc: Grenita Lathan

Educational Program Report

THE IMPACT OF THE HOUSTON \|NDEPENDENT SCHOOL DISTRICT READ HOUSTON READ MENTORING PROGRAM ON FIRST-GRADE STUDENTS READING

LEVELS, 2016-2017

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## EVALUATION REPORT

BUREAUOF PROGRAMEVALUATION

# The Impact of the Houston Independent School District Read Houston Read Mentoring Program on First-Grade Students' Reading Levels, 2016-2017 

By Ted D. Serrant, Ph.D.


#### Abstract

The purpose of this evaluation was to assess the impact of the Houston Independent School District's (HISD) Read Houston Read (RHR) on the reading levels of first-grade students. Students were assessed using Benchmark Reading Record (BRR) that was aligned to leveled books and Fountas and Pinnell Reading Levels. Descriptive statistics were used to develop profiles of both RHR English and Spanish students as well as the proportion of students who met expected or advanced reading levels at the beginning (BOY), middle (MOY), and the end of the year (EOY), 2016-2017, who used face-to-face or online modalities. These students were disaggregated by key educational and demographic variables. Results indicate that a higher proportion of online English students met expected or advanced reading compared to their face-to-face peers and a higher percentage of online Spanish students met expected or advanced reading levels compared to their peers in the face-to-face mode, except non-economically-disadvantaged and limited English proficiency (LEP) students. A repeated-measures design was used to determine students' reading growth between the BOY and EOY. By year's end, based on the repeated measures results, more face-to-face English and online Spanish students showed reading growth compared to their respective peers. Systematic and consistent assessment of all RHR students within the designated windows is recommended to better determine program impact.


## Background

Read Houston Read (RHR) is a first-grade mentoring program initiated during the 2014-2015 school year in the Houston Independent School District (HISD) with support from the Barbara Bush Houston Literacy Foundation's (BBHLF) Blueprint for Community Action. It is administered as a supplement to the district's Literacy By 3 initiative and is aligned to the goals and recommendations of BBHLF. The program establishes a foundation for the development of students' reading skills. Among its goals, the Foundation seeks to ensure that every child who enters kindergarten is ready to read and that every child reads proficiently by the end of third grade. BBHLF strategies include a recommendation to "promote existing and new initiatives to read books to children across all formats (traditional and digital)" (Barbara Bush Houston Literacy Foundation, 2014, p. 31). RHR is built on the assumption that the acquisition of basic reading skills requires the involvement and assistance of a wide range of volunteers and that reading aloud to children improves their reading levels and proficiency.

Business and community volunteers use read-aloud strategies in face-to-face or online environments to boost children's reading enjoyment. These volunteers provide thirty minutes to one hour of read aloud to students using books that these students or mentees enjoy reading and that are at the mentees' grade levels.
HISD provided training for all volunteer mentors. Volunteers learned "how they could share the magic of a book by reading to a child, engage in fun activities that directly relate to the reading, and listen to a child read as they share a book" (HISD, 2015a). Mentors worked with the same students for an entire school year. This strategy builds important relationships with lasting impacts on students' self-esteem, their ability to learn and, ultimately on their academic success (HISD, 2015a).
Mentors were assigned to first-grade students during the school year to reinforce the reading progress their teachers initiated in the classroom through uniform, proven methods (HISD, 2015a). Seventy-three schools volunteered to implement the RHR mentoring program for the 2016-2017 school year. Students from forty-one of the schools had face-to-face mentoring, while students in 23 schools had online mentoring and students in nine schools had both face-to-face and
online mentoring. The list of schools participating in the program is in Appendix A (p. 9).

In the online mode, students are read to using computer and audio devices unlike the face-to-face mode in which volunteers read to students in-person. The purpose of this evaluation was to determine the comparative reading levels and reading growth of students in the face-to-face and online version of RHR. The evaluation was designed to answer the following questions:

1. What is the demographic and educational profile of RHR student participants for the 2016-2017 school year?
2. How did the reading levels of RHR participants, overall, change during the 2016-2017 school year?
3. How did the reading levels of RHR participants compare between the face-to-face and online modalities?
4. To what extent did RHR students experience reading growth during the 2016-2017 school year?

## Literature Review

According to the 1985 report by the United States Commission on Reading, Becoming a Nation of Readers, "the single most important activity for building knowledge for their eventual success in reading is reading aloud to children" (Anderson, Heibert, Scott \& Wilkinson, 1985). Research on reading aloud or reading to children has been shown to have social and emotional benefits, positive impacts on their language and literacy development, and motivation to read (Swanson, Vaughn, Petscher, Heckert, Cavanaugh, Kraft \& Tackett, 2011).

A meta-analysis of 18 studies confirm significant, positive effect of read-aloud instruction on the language phonological awareness, print concept, comprehension, and vocabulary of children. Notwithstanding, the readaloud intervention type accounted for only a small amount of outcome variance (Swanson et al., 2011). The read-aloud instruction included dialogic reading, repeated reading of stories, story reading with limited questioning before, during, and/or after reading, computer-assisted story reading, and story reading with extended vocabulary activities (Swanson et al., 2011). Scarborough and Dobrich found that reading aloud accounts for only $8 \%$ of the variance in reading ability in primary grade (cited in Lane \& Wright, 2007).

Lippman (1997) studied 45 New Jersey first-grade students to determine the impact of early read-aloud on their reading success in the first grade. Students' aptitude test scores based on teacher observations and
test scores from the MacMillan/McGraw-Hill "A New View" readings series were analyzed. Questionnaires were administered to parents with an $84 \%$ response rate and students were grouped in rich and poor learning experiences. T-test results showed a statistically significant 24 -point difference in the mean reading performance of samples, in favor of the literacy-rich group. There was, however, no strong evidence that reading to children at an early age improved reading success in the first grade.

## Method

This is a comparative evaluation of the face-to-face and online modes of RHR delivery based on students' Benchmark Running Record (BRR) for the 2016-2017 school year. The evaluation used descriptive and inferential statistics to measure and compare the students' reading levels in face-to-face and online modalities, as well as changes in their reading levels at the beginning (BOY), middle (MOY), and end of the school year (EOY).

Descriptive and inferential statistical analyses included a repeated measures design to compare the beginning (BOY) and end-of-year (EOY) reading levels of first-graders who were involved in the RHR program, and the use of the Wilcoxon signed-rank test to determine any significant differences in changes in these levels for both English and Spanish students. The study also estimated the percentage changes in the proportion of RHR students' reading levels at the BOY, MOY, and EOY disaggregated by key demographic and educational variables.

## Data Collection

The list of schools participating in the RHR program was retrieved from the Elementary Curriculum and Development Department webpage on the HISD website. The list contained participating schools by modality. The reading levels based on teacher-reported Benchmark Running Record was collected from the Student Assessment Department's SharePoint site as text (.txt) files. These were later exported into an Microsoft Excel spreadsheet for each first-grade Spanish and English learner, by modality, who were assessed at the beginning (BOY) (August 22September 23), middle (MOY) (December 5-January 13), and end (EOY) (May 1-May 26) of the 2016-2017 school year. Benchmark Running Records (BRR) is a formative reading assessment instrument based on Fountas and Pinnell Guided Reading levels (Scholastic Inc., 2010). These alphabetic measures, which are linked to leveled reading books have been categorized for interpretation purposes into More Development

Needed (MDN), Meets Expectations (ME), and Advanced Development (AD) by the Curriculum Department. Details are in Appendix B, Table 3, p. 10. Teachers were trained to assess students' reading levels using Benchmark Running Record prior to the commencement of the 2016-2017 school year. Key educational and demographic data from the Research and Accountability Department Public Education Information System (PEIMS) Microsoft Access database were also collected and linked to each students' reading level for aggregated and disaggregated analyses.

## Data Analysis

Students' demographic and academic data as well as teacher and school attribute data were uploaded into International Business Machine (IBM) Statistical Packages for Social Scientists (SPSS) for statistical analyses. SPSS is a statistical software for the analyses of descriptive and inferential data. The analyses included the profile of students in the program, their reading levels, and growth. A simple difference in differences approach was used to determine changes in students' English and Spanish reading levels as a group and disaggregated by key educational and demographic variables. A repeated measures design was also used to determine the growth in the reading levels of students who were assessed at the BOY and the EOY. Repeated measures design uses the same student sample across time as a robust analysis to determine reading growth. Finally, a Wilcoxon signed-ranked test ${ }^{1}$ was used to determine the significant differences in the reading level between the BOY and EOY. Data results are presented in charts and tables.

## Limitations

Given the complex nature of reading and the multiple reading programs being implemented in HISD, it is unlikely that any growth or changes can be attributed solely to RHR. This report did not control for those other programs to which students in this sample may have been exposed. The assumption is that they all have been exposed to the same programs. The nonquantifiable aspects of the RHR may not have been captured in this report, however, a substantial part was captured in the 2014-2015 evaluation report (see (HISD, 2015b)

A critical aspect of the relationship between readaloud and literacy is the instruction or intervention

[^0]strategy used - dialogic and text talk, which this evaluation does not capture. Actual classroom observations would have provided useful data from which to determine how these are transacted in the classroom and the relationship between these strategies and student performance.

Participation in RHR is voluntary and sustained commitment to the administration of the BRR during the assigned windows may be a challenge, which may have negative consequences for program fidelity and measuring the full impact of the program on student reading levels.

## Result

## What is the demographic and educational profile of RHR student participants for the 2016-2017 school year?

An average of 2,661 HISD English first-grade student participants had a BRR reading assessment for the beginning (BOY) $(2,568)$, middle (MOY) $(2,084)$, and end (EOY) $(3,330)$ of the 2016-2017 school year. As at the EOY, 1,973 (59.7\%) and 1,327 (40.1\%) students participated in the face-to face or online modalities, respectively. The educational and demographic distribution of students in the study sample were comparable as shown in Table 1 and Table 2.

| Education/ <br> Demographic |  | n | Face-to-Face ( $\mathrm{n}=1,973$ ) | $\begin{gathered} \text { Online } \\ (\mathrm{n}=1,327) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| Gender | Female | 1,597 | 48.0 | 49.0 |
|  | Male | 1,703 | 52.0 | 51.0 |
| Econ. <br> Disadv. | No | 531 | 16.0 | 16.2 |
|  | Yes | 2,769 | 84.0 | 83.3 |
| At Risk | No | 918 | 27.3 | 28.6 |
|  | Yes | 2,382 | 72.7 | 71.4 |
| Special Education | No | 3,180 | 95.7 | 97.3 |
|  | Yes | 120 | 4.3 | 2.7 |
| LEP | No | 2,202 | 67.0 | 66.3 |
|  | Yes | 1,098 | 33.0 | 33.7 |
| Home <br> Language | English | 2,084 | 63.2 | 63.1 |
|  | Spanish | 1,040 | 31.2 | 32.0 |
|  | Other | 176 | 5.6 | 4.9 |
| G/T | No | 3,081 | 93.2 | 93.6 |
|  | Yes | 219 | 6.8 | 6.4 |
| Ethnicity | Asian | 126 | 3.7 | 4.0 |
|  | Black | 1150 | 34.0 | 36.2 |
|  | Hispanic | 1808 | 55.9 | 53.1 |
|  | White | 173 | 5.2 | 5.3 | 2016-2017

individuals are subjected to more than one condition. (https://statistics.laerd.com/spss-tutorials/wilcoxon-signed-rank-test-using-spss-statistics.php)

An average of 2,560 Spanish RHR first-grade participants had Benchmark Running Record reading assessment data for the BOY $(2,124)$, MOY $(2,216)$, and EOY (2,341). As at the EOY, 1,369 (58.5\%) and $972(41.5 \%)$ students participated in the face-to-face and online RHR, respectively. As shown in Table 2, the demographic and educational profile of RHR Spanish learners by mode were comparable.

| Education/Demographic |  | n | Face-to-Face | Online |
| :---: | :---: | :---: | :---: | :---: |
| Gender | Female | 1,157 | 50.2 | 48.4 |
|  | Male | 1,184 | 49.8 | 51.6 |
| Econ. Disadv. | No | 185 | 8.0 | 7.7 |
|  | Yes | 2,156 | 92.0 | 92.3 |
| At Risk | No | 167 | 8.3 | 5.5 |
|  | Yes | 2,174 | 91.7 | 94.5 |
| Special Education | No | 2,273 | 97.2 | 97.0 |
|  | Yes | 68 | 2.8 | 3.0 |
| LEP | No | 404 | 19.1 | 14.6 |
|  | Yes | 1,937 | 80.9 | 85.4 |
| Home <br> Language | English | 361 | 16.9 | 13.4 |
|  | Spanish | 1,970 | 82.8 | 86.1 |
|  | Other | 10 | 50.0 | 50.0 |
| G/T | No | 2,190 | 94.5 | 92.2 |
|  | Yes | 151 | 5.5 | 7.8 |
| Ethnicity | Asian | 8.0 | 0.3 | 0.4 |
|  | Black | 146 | 5.3 | 7.6 |
|  | Hispanic | 2,164 | 93.4 | 91.0 |
|  | White | 16 | 0.7 | 0.6 |

Source: Research and Accountability PEIMS Microsoft Access Database of Fall Snapshot, 2016-2017

How did the reading levels of RHR participants, overall, change during the 2016-2017 school year?

This report focused on the overall reading levels of first-grade students involved in the mentoring program regardless of RHR modality. It looked at the growth and finally it looked at the performance levels by key demographic characteristics.

Figure 1 and Figure 2 show the reading levels of students irrespective of the RHR mentoring mode (face-to-face or online) for English and Spanish learners at BOY, MOY, and EOY. For the purposes of this report, English learners are instructed in English and Spanish learners are instructed in Spanish. Figure 1 shows a decrease in the percentage of RHR English learners needing more reading development (MDN) from 63.0 percent to 53.5 from the BOY to the EOY. The proportion of English learners who met expected or advanced development reading levels increased from 36.9 percent at the BOY to 46.5 percent at the EOY, a difference of 9.6 percentage points. At the MOY, however, 52.1 percent of the students met expected or advanced development reading levels, compared to 47.9 percent of those who still required more development in reading.


Figure 1. Reading levels of RHR English Learners, HISD, 2016-2017 MDN = More Development Needed; ME = Met Expectations; Adv=Advanced Development

Figure 2 shows the reading level of first-grade Spanish-learners at the beginning (BOY), middle (MOY), and end of year (EOY). The percentage of students who needed more reading development (MDN) decreased from 63.9 percent to 44.3 percent between the BOY and EOY, 2016-2017. The percentage of students who met expected (ME) or advanced (AD) reading levels increased from 36.1 percent (BOY) to 55.7 percent at the EOY, an increase of 19.6 percentage points. Overall, there was a larger increase in the proportion of RHR Spanish learners (19.6 percentage points) compared to English learners ( 9.6 percentage points) who met expected (ME) or advanced (AD) reading levels between the BOY and EOY.


Figure 2. Reading levels for RHR Spanish learners, HISD, 2016-2017 MDN = More Development Needed; ME = Met Expectations; Adv=Advanced Development

## How did the reading levels of RHR participants compare between the face-to-face and online modalities?

RHR student reading levels were compared by modalities to determine difference in performance at the BOY, MOY, and EOY. Figure 3 and Figure 4 present the findings.


Figure 3. Comparative Reading Levels of RHR English Learners By modalities, HISD, 2016-2017
MDN = More Development Needed; ME = Met Expectations; AD =Advanced Development

While the proportion of RHR face-to-face English learners who needed more development in reading decreased from 73.1 percent to 60.4 percent (a difference of 12.7 percentage points) between the BOY and EOY, the proportion of RHR online students who needed more development in reading decreased from 70.5 percent to 50.6 percent, a difference of 19.9 percentage points for the same period as shown in Figure 3.

The proportion of RHR face-to-face English learners who met reading expectations or read at an advanced level at the BOY and EOY increased from 26.9 percent to 39.6 percent, a difference of 12.7 percentage points, while the proportion of their RHR online peers reading at the expected or advanced level increased from 29.5 percent to 49.4 percent, a difference of 19.9 percentage points for the corresponding period. Based on Figure 3, a larger proportion of English learners using the RHR online mode appeared to have been reading at the expected (ME) and advanced (AD) level at the EOY when compared to their face-to-face peers given a similar starting point at the BOY.


Figure 4. Comparative Reading Levels of RHR Spanish Learners by Modality at the BOY, MOY and EOY, HISD, 2016-2017
MDN = More Development Needed; ME = Met Expectations; AD. =Advanced Reading

As shown in Figure 4, the proportion of face-to-face RHR Spanish learners who needed more reading
development decreased from 65.9 percent (BOY) to 52.3 percent (EOY), a difference of 13.6 percentage points. The proportion of RHR online students who needed reading development also declined from 61.2 (BOY) to 51.6 percent (EOY), a difference of 9.6 percentage points. Conversely, the proportion of RHR face-to-face Spanish learners who met expected or advanced reading levels at the BOY and EOY were 34.1 percent and 47.7 percent, respectively, a difference of 13.6 percentage points. The proportion of RHR online students who met expected or advanced reading levels increased from 38.7 percent (BOY) to 48.4 percent (EOY), a difference of 9.7 percentage points. A larger proportion of RHR face-to-face Spanish learners appeared to have improved their reading over their online counterparts between the BOY and EOY as shown in Figure 4.
The BRR data was further disaggregated to determine the reading levels of RHR English face-to-face and online learners by selected student educational and demographic variables: gender, economically disadvantaged, at risk, limited English proficiency (LEP), ethnicity, and home language. Table 4 through
Table 10, Appendix C, pp. 11-13 provides details of the findings.

Similar data for RHR Spanish learners are available in Table 11 through Table 17, Appendix D, pp 14-16. The data show that the percentage of RHR English learners reading at the advanced development level increased between the BOY and EOY by students' gender (Table 4), economic status (Table 5), at-risk status (Table 6), LEP (Table 7), and ethnicity (Table 8).

The largest proportion of English learners by ethnicity who used face-to-face modes and who met expected or advanced development reading levels at year's end were Black (42.7\%), compared to White students ( $53.0 \%$ ) among online students (Table 8, p.12). The highest percentage of RHR English learners by home language ( $40.9 \%$ ) who met expected or advanced reading levels among face-to-face students were English learners with English home language compared to English learners with Spanish home language for online mentees (52.5\%) (Table 9, p. 12).
A largest proportion of RHR face-to-face Spanish Learners met combined expected or advanced reading levels by gender (Table 11), economic status (Table 12), at risk, (Table 13), and LEP (Table 14). When disaggregated by ethnicity, Hispanic Spanish face-toface learners were the largest proportion of students who met expected or advanced reading levels (47.6\%) compared to White for online Spanish learners (83.4\%) (Table 15). The largest proportion of Spanish learners by home language who used the face-to-face mode and who met expected or advanced development reading levels were those whose home language was English
( $48.9 \%$ ) compared to Spanish learners with Other home languages who used online modes (80.0\%) (Table 16).

The data revealed increased percentages in the proportion of both English and Spanish learners who met expected (ME) or advanced (AD) reading levels over the year, and a reduction in the proportion of learners who required more development (AD) when the panels (BOY, MOY, and EOY) were considered independently.

## To what extent did RHR students experience reading growth during the 2016-2017 school year?

Results of the paired sample analysis for RHR English learners are shown in Figure 5. Details are on Table 10, Appendix C, p. 13


Figure 5. Proportional Difference in Reading Levels of RHR English Learners by Mode from BOY to EOY, HISD, 2016-2017
MDN = More Development Needed; ME = Met Expectations; AD. =Advanced Reading
Both face-to-face and online groups of RHR students showed reading growth (ME \& AD) by the end of the school year. A larger change in the proportion of English RHR face-to-face learners compared to their online peers, (16.4 v. 9.3 percentage points, respectively) met expected (ME) or advanced (AD) reading levels at the EOY.

Figure 6 shows the paired sample analysis depicting reading growth for RHR Spanish learners. Details are in Table 17 in Appendix D, p.16.


Figure 6. Proportional Difference in Reading Levels of RHR Spanishlearners by Mode from BOY to EOY, HISD, 2016-2017
MDN = More Development Needed; ME = Met Expectations; AD. =Advanced Reading

As a group, the change in the proportion of RHR Spanish learners who needed more reading development decreased for both to face-to-face and online modes during the school years (Figure 6). A higher change in the proportion of RHR Spanishspeaking face-to-face students compared to their online peers met expected or advanced reading levels (10.1 v. 7.7 percentage points).

Reading levels were ranked to determine the effect of RHR using MDN as $1, \mathrm{ME}$ as 2 and AD as 3 and a cohort of students who were had both BOY and EOY BRR assessments. Wilcoxon signed-ranked test showed statistically significant changes in the reading levels of a cohort of RHR English learners from BOY to EOY who used face-to-face ( $\mathrm{Z}=-8.00, \mathrm{p}=.000$ ) and online $(Z=-3.37, p=.001)$ modalities. Statistically significant changes were also found for the cohort of RHR English learners who used face-to-face modality. The mean reading level rank was 1.68 (BOY) and 1.35 (EOY) for face-to-face modality and 1.61 (BOY) and 1.43 (EOY) for the online mode.

Wilcoxon signed-ranked test showed statistically significant changes in the reading levels of a cohort of RHR Spanish learners from BOY to EOY who used face-to-face $(\mathrm{Z}=-2.38, \mathrm{p}=.017)$ and online $(\mathrm{Z}=-3.72$, $\mathrm{p}=.001$ ) modalities. Statistically significant changes were also found for the cohort of RHR English learners who used face-to-face. The mean reading level rank was 1.56 (BOY), and 1.43 (EOY) for face-to-face modality and 1.61 (BOY) and 1.39 (EOY) for the online mode.

Overall, RHR English-learners appeared to have outperformed the Spanish learners by year's end based on the proportion who met expected and advanced reading levels, except for their peers at the online advanced reading level. However, regardless of modality or language, the reading levels of a cohort of RHR students for both BOY and EOY data seemed to decline between BOY and EOY. This is based on the results of the repeated-measures design and the Wilcoxon signed-rank test that showed the declines were statistically significant (p.<.001).

## Discussion

The purpose of the evaluation was to assess the impact of the Read Houston Read (RHR) on the reading levels of first-grade student participants. The data showed an overall increase in the percentage of both English and Spanish learners who met expected (ME) or advanced (AD) reading levels using both face-toface and online modalities when each assessment window (BOY, MOY, EOY) was considered independently. The data showed a reduction in the percentage of students who needed more development
in reading by the end of the school year, 2016-2017. However, the percentages of RHR students who were assessed using BRR varied among the BOY, MOY and EOY. The number of RHR students who were assessed at all three periods were 44 percent and 71 percent of all English and Spanish learners, respectively. There appeared to be greater commitment to assessing Spanish learners within the designated assessment window for the 2016-2017 HISD school year. The inconsistency in adhering to the assessment window guidelines may be making it difficult to fully assess growth in RHR students' reading levels.

When compared by mode, a larger proportion of online English learners met expected or advanced reading levels compared to their face-to-face counterparts. Likewise, a larger proportion of online Spanish learners met expected or advanced reading levels compared to their face-to-face peers. When disaggregated by key demographic and educational factors, that is, gender, economic status, non-at-risk, and non-LEP, a higher proportion of online RHR English learners read at the advanced reading level compared to their face-to-face peers. Conversely, a higher RHR Spanish learners using face-to-face modes met expected or advanced reading levels by female, non-economically-disadvantaged, and LEP student groups.

By ethnicity, the largest proportion of English learners who met expected or advanced reading levels at the EOY were Black face-to-face mentees, and White online students. For Spanish learners, it was Hispanic face-to-face mentees and White online mentees. When home language was considered, the largest proportion of face-to-face English learners who met expected or advanced reading levels at EOY were those whose home language was English followed closely by Spanish, and for online students it was learners whose home language was Spanish. For face-to-face Spanish learners, it was mostly students with English home language who met expected and advanced reading levels. For online Spanish learners, it was mostly students with languages other than English or Spanish (Other), who met expected or advanced reading level at the EOY.

Overall, a larger proportion of online English and Spanish learners met expected or advanced reading levels compared to their face-to-face peers. A higher proportion of Spanish and English RHR students who used face-to-face modalities met expected or advanced reading levels compared to their online peers when a repeated measure design was used to determine reading growth. However, when the cohort of all students assessed at the BOY and EOY, was compared, there was a decline in the mean reading levels of English and Spanish Learners in both the face-to-face and online modes based on the Wilcoxon-signed rank test.

Greater effort may be required to get a larger number of students assessed, systematically and within the assigned assessment window. Failure to do so may be undermining the district's ability to determine the true impact of the RHR program.

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For additional information, contact the HISD
Department of Research and Accountability at 713-556-6700 or e-mail: research@houstonisd.org.

## Appendix A

## List of HISD Read Houston Read (RHR) Schools, 2016-2017

| Face-to-Face (F2F) | 26. Kennedy ES |
| :---: | :---: |
| 1. Alcott ES |  |
|  | 27. Law ES |
| 2. Ashford ES |  |
|  | 28. Lewis ES |
| 3. Benavidez ES |  |
|  | 29. McNamara ES |
| 4. Blackshear ES |  |
|  | 30. Memorial ES |
| 5. Bonham ES | 31. Milne ES |
| 6. Bruce ES |  |
|  | 32. Northline ES |
| 7. Burnet ES |  |
|  | 33. Peck ES |
| 8. Cook ES |  |
| 9. Cunningham ES | 34. Pleasantville ES |
|  | 35. Pugh ES |
| 10. Davila ES | 36. Reagan K-8 |
| 11. Elmore ES |  |
|  | 37. Ross ES |
| 12. Elrod ES |  |
| 13. Foerster ES | 38. Sinclair ES |
|  | 39. Stevens ES |
| 14. Foster ES |  |
|  | 40. Thompson ES |
| 15. Fondren ES |  |
| 16. Garcia ES | 41. Tijerina ES |
|  | Online |
| 17. Gregory-Lincoln ES | 1. Arabic Immersion |
| 18. Grissom ES | 2. Benbrook ES |
| 19. Gross ES | 3. Berry ES |
| 20. Hartsfield ES | 4. Braeburn ES |
| 21. Helms ES | 5. Brookline ES |
| 22. Highland Heights ES | 6. Burrus ES |
| 23. Hilliard ES | 7. Bush ES |
| 24. Hobby ES | 8. Coop ES |
| 25. Jefferson ES | 9. Crockett ES |


| 10. Garden Oaks Montessori PK-8 |
| :---: |
| 11. Harris, JR ES |
| 12. Lyons ES |
| 13. Lovett ES |
| 14. Mading ES |
| 15. Montgomery ES |
| 16. Piney Point ES |
| 17. Reynolds ES |
| 18. Scarborough ES |
| 19. Seguin ES |
| 20. Sherman ES |
| 21. Wesley ES |
| 22. White ES |
| 23. Whittier ES |
| Both (F2F \& Online) |
| 1. Bastian ES |
| 2. Lockhart ES |
| 3. Martinez, R. ED |
| 4. McGowen ES |
| 5. Petersen ES |
| 6. Piney Point ES |
| 7. Southmayd ES |
| 8. Walnut Bend ES |
| 9. Woodson PK-8 |

Source: Read Houston Read Webpage; HISD Website, http://www.houstonisd.org/readhoustonread

## APPENDIX B

## Table 3. Houston ISD Running Record Benchmarks

| GRADE | BOY |  |  | MOY |  |  | EOY |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FP <br> LEVEL | FP <br> LEVEL | $\mathbf{F P}$ <br> LEVEL | FP <br> LEVEL | FP <br> LEVEL | FP <br> LEVEL | FP <br> LEVEL | FP <br> LEVEL | FP <br> LEVEL |
| Kinder | No benchmark; diagnostic/baseline only |  |  | Pre A | B-C | D-Z | Pre A-B | C-D | E-Z |
| Kinder Spanish | No benchmark; diagnostic/baseline only |  |  | AA | B-C | D-Z | AA-B | C-D | E-Z |
| 1 | Pre A-C | D-E | F-Z | Pre A-D | E-G | H-Z | Pre A-H | I-J | K-Z |
| 1 Spanish | AA-C | D-E | F-Z | AA-D | E-G | H-Z | AA-H | I-J | K-Z |
| 2 | Pre A-I | J-K | L-Z | Pre A-K | L | M-Z | Pre A-L | M-N | O-Z |
| 2 Spanish | AA-I | J-K | L-Z | AA-K | L | M-Z | AA-L | M-N | O-Z |
| 3 | Pre A-M | N | O-Z | Pre A-N | O | P-Z | Pre A-O | P-Q | R-Z |
| 3 Spanish | AA-M | N | O-Z | AA-N | O | P-Z | AA-O | P-Q | R-Z |
| 4 | Pre A-P | Q | R-Z | Pre A-R | S | T-Z | Pre A-R | S-T | U-Z |
| 4 Spanish | AA-P | Q | R-Z | AA-R | S | T-Z | AA-R | S-T | U-Z |
| 5 | Pre A-T | U | V-Z | Pre A-U | V | W-Z | Pre A-U | V-W | X-Z |
| 5 Spanish | AA-T | U | V-Z | AA-U | V | W-Z | AA-U | V-W | X-Z |

## KEY: More Development Needed Meeting Expectations <br> Advanced Development

Source: HISD Pre-Approved Performance Tasks, 2016-2017, Houston ISD Curriculum, p. 2

## Appendix C: RHR English Learners

## Table 4. Comparative Reading Levels of RHR English Learners by Mode and Gender, HISD, 2016-2017

|  | Face-to-Face |  |  |  |  |  | Difference BOY/EOY |  | Online |  |  |  |  |  | Difference BOY/EOY |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BOY |  | MOY |  | EOY |  |  |  | BOY |  | MOY |  | EOY |  |  |  |
|  | $\begin{aligned} & \text { Female } \\ & (\mathrm{n}=693) \end{aligned}$ | $\begin{gathered} \text { Male } \\ (\mathrm{n}=893) \end{gathered}$ | $\begin{aligned} & \text { Female } \\ & (\mathrm{n}=763) \end{aligned}$ | $\underset{(\mathrm{n}=881)}{\text { Male }}$ | $\begin{aligned} & \text { Female } \\ & (\mathrm{n}=947) \end{aligned}$ | $\underset{(\mathrm{n}=1,026)}{\text { Male }}$ | Female | Male | $\begin{aligned} & \text { Female } \\ & (\mathrm{n}=518) \end{aligned}$ | $\begin{gathered} \text { Male } \\ (\mathrm{n}=527) \end{gathered}$ | $\underset{(\mathrm{n}=167)}{\text { Female }}$ | $\begin{gathered} \text { Male } \\ (\mathrm{n}=203) \end{gathered}$ | $\underset{(\mathrm{n}=650)}{\text { Female }}$ | $\underset{(\mathrm{n}=677)}{\text { Male }}$ | Female | Male |
| MDN | 73.7 | 72.5 | 64.2 | 60.2 | 59.0 | 60.1 | -14.7 | -12.4 | 60.0 | 69.1 | 37.5 | 47.3 | 50.3 | 50.8 | -9.7 | -18.3 |
| ME | 15.4 | 13.9 | 20.4 | 22.4 | 18.9 | 17.7 | 3.5 | 3.8 | 14.6 | 17.8 | 37.5 | 28.6 | 20.5 | 20.7 | 5.9 | 2.9 |
| AD | 10.8 | 13.6 | 15.3 | 17.5 | 22.1 | 22.1 | 11.3 | 8.5 | 12.3 | 13.1 | 25.0 | 24.1 | 29.2 | 28.5 | 16.9 | 15.4 |

Table 5. Comparative Reading Levels of RHR English Learners by Mode and Economic Status, HISD, 2016-2017

| Reading Level | Face-to-Face |  |  |  |  |  |  |  | Online |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BOY |  | MOY |  | EOY |  | Difference BOY/EOY |  | BOY |  | MOY |  | EOY |  | Difference BOY/EOY |  |
|  | NonEcon. Disadv. ( $\mathrm{n}=1338$ ) | Econ. <br> Disadv. $(\mathrm{n}=1,512)$ | NonEcon. Disadv. ( $\mathrm{n}=232$ ) | Econ. <br> Disadv. $(\mathrm{n}=1,412)$ | Non- <br> Econ. <br> Disadv. <br> ( $\mathrm{n}=316$ ) | Econ. <br> Disadv. $(\mathrm{n}=1,657)$ | NonEcon. Disadv. | Econ. <br> Disadv. | NonEcon. Disadv. ( $\mathrm{n}=884$ ) | Econ. <br> Disadv. $(\mathrm{n}=1045)$ | NonEcon. Disadv. ( $\mathrm{n}=57$ ) | Econ. Disadv. $(\mathrm{n}=313)$ | NonEcon. Disadv. ( $\mathrm{n}=215$ ) | Econ. Disadv. $(\mathrm{n}=1,112)$ | NonEcon. Disadv. | Econ. Disadv. |
| MDN | 66.7 | 73.9 | 65.9 | 61.4 | 60.8 | 59.4 | -5.9 | -14.5 | 73.9 | 69.9 | 42.1 | 50.2 | 49.3 | 50.8 | -24.6 | -19.1 |
| ME | 17.2 | 14.3 | 13.8 | 22.7 | 16.8 | 18.6 | -0.4 | 4.3 | 18.0 | 17.4 | 21.1 | 27.2 | 19.5 | 20.8 | 1.5 | 3.4 |
| AD | 16.1 | 11.8 | 20.3 | 15.9 | 22.5 | 22.0 | 6.4 | 10.2 | 8.1 | 12.7 | 36.8 | 22.7 | 31.2 | 28.4 | 23.1 | 15.7 |

Table 6. Comparative Reading Levels of RHR English Learners by Mode and At-Risk Status, HISD, 2016-2017

| Face-to-Face |  |  |  |  |  |  |  |  | Online |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BOY |  | MOY |  | EOY |  | $\begin{aligned} & \text { Difference } \\ & \text { BOY/EOY } \end{aligned}$ |  | BOY |  | MOY |  | EOY |  | Difference <br> BOY/EOY |  |
| Level | $\begin{gathered} \text { Non-At } \\ \text { Risk } \\ (\mathrm{n}=414) \end{gathered}$ | $\begin{aligned} & \text { At Risk } \\ & (\mathrm{n}=1098) \end{aligned}$ | $\begin{gathered} \text { Non-At } \\ \text { Risk } \\ (\mathrm{n}=485) \end{gathered}$ | At Risk ( $\mathrm{n}=1159$ ) | $\begin{aligned} & \text { Non-At } \\ & \begin{array}{c} \text { Risk } \\ (\mathrm{n}=538) \end{array} \end{aligned}$ | $\begin{gathered} \text { At } \\ \text { Risk } \\ (\mathrm{n}=1435) \end{gathered}$ | Non-At Risk | $\begin{gathered} \text { At } \\ \text { Risk } \end{gathered}$ | $\begin{aligned} & \text { Non-At } \\ & \text { Risk } \\ & (\mathrm{n}=308) \end{aligned}$ | $\begin{gathered} \text { At } \\ \text { Risk } \\ (\mathrm{n}=737) \end{gathered}$ | $\begin{gathered} \text { Non-At } \\ \text { Risk } \\ (\mathrm{n}=101) \end{gathered}$ | $\begin{gathered} \text { At } \\ \text { Risk } \\ (\mathrm{n}=269) \end{gathered}$ | $\begin{gathered} \text { Non-At } \\ \text { Risk } \\ (\mathrm{n}=380) \end{gathered}$ | $\begin{gathered} \text { At } \\ \text { Risk } \\ (\mathrm{n}=947) \end{gathered}$ | Non-At Risk | $\begin{gathered} \text { At } \\ \text { Risk } \end{gathered}$ |
| MDN | 70.8 | 74.0 | 64.1 | 61.2 | 62.3 | 58.6 | -8.5 | -15.4 | 71.1 | 70.3 | 44.6 | 50.6 | 51.1 | 50.4 | -20.0 | -19.9 |
| ME | 14.5 | 14.7 | 18.4 | 22.8 | 17.7 | 18.5 | 3.2 | 3.8 | 17.9 | 17.4 | 25.7 | 26.4 | 20.5 | 20.6 | 2.6 | 3.2 |
| AD | 14.7 | 11.4 | 17.5 | 16.0 | 20.1 | 22.9 | 5.4 | 11.5 | 11.0 | 12.3 | 29.7 | 23.0 | 28.4 | 29.0 | 17.4 | 16.7 |

Table 7. Comparative Reading Levels of RHR English Learners by Mode and LEP Status

| English LEP |  |  | Face-to-Face |  |  |  | Online |  |  |  |  |  |  |  | Difference BOY/EOY |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reading | BOY |  | MOY |  | EOY |  | Difference BOY/EOY |  | BOY |  | MOY |  | EOY |  |  |  |
|  | $\begin{aligned} & \text { Non-LEP } \\ & (\mathrm{n}=1,103) \end{aligned}$ | $\underset{(\mathrm{n}=409)}{\text { LEP }}$ | $\underset{\substack{\text { Non-LEP } \\(\mathrm{n}=1196)}}{ }$ | $\underset{(\mathrm{n}=448)}{\mathbf{L E P}}$ | $\underset{(\mathrm{n}=1322)}{\text { Non-LEP }}$ | $\underset{(\mathrm{n}=651)}{\mathbf{L E P}}$ | Non-LEP | LEP | $\begin{gathered} \text { Non-LEP } \\ (\mathrm{n}=728) \end{gathered}$ | $\underset{(\mathrm{n}=317)}{\mathbf{L E P}}$ | $\underset{(\mathrm{n}=237)}{\text { Non-LEP }}$ | $\underset{(\mathrm{n}=133)}{\text { LEP }}$ | $\underset{(\mathrm{n}=880)}{\text { Non-LEP }}$ | $\underset{(\mathrm{n}=447)}{\text { LEP }}$ | Non-LEP | LEP |
| MDN | 72.1 | 75.8 | 62.7 | 60.3 | 59.5 | 59.9 | -12.6 | -15.9 | 68.8 | 74.4 | 37.5 | 51.1 | 50.8 | 50.1 | -18.0 | -24.3 |
| ME | 14.4 | 15.2 | 20.6 | 23.9 | 19.4 | 16.0 | 5.0 | 0.8 | 18.8 | 14.5 | 37.5 | 25.6 | 20.2 | 21.3 | 1.4 | 6.8 |
| AD | 13.5 | 9.0 | 16.7 | 15.8 | 21.1 | 24.1 | 7.6 | 15.1 | 12.4 | 11.0 | 25.0 | 23.3 | 29.0 | 28.6 | 16.6 | 17.6 |

## Table 8. Comparative Reading Levels for RHR English Learners by Mode and Ethnicity, HISD, 2016-2017

| Reading Level | Face-to-Face |  |  |  |  |  |  |  |  | Online |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BOY |  |  | MOY |  |  | EOY |  |  | BOY |  |  | MOY |  |  | EOY |  |  |
|  | $\begin{gathered} \text { Black } \\ (\mathrm{n}=634) \end{gathered}$ | $\underset{\substack{\text { Hispanic } \\(\mathrm{n}=764)}}{ }$ | $\begin{aligned} & \text { White } \\ & (\mathrm{n}=66) \end{aligned}$ | $\begin{gathered} \text { Black } \\ (\mathrm{n}=711) \end{gathered}$ | Hispanic ( $\mathrm{n}=798$ ) | $\begin{aligned} & \text { White } \\ & (\mathrm{n}=83) \end{aligned}$ | $\begin{gathered} \text { Black } \\ (\mathrm{n}=670) \end{gathered}$ | $\underset{(\mathrm{n}=1103)}{\text { Hispanic }}$ | $\begin{aligned} & \text { White } \\ & (\mathrm{n}=103) \end{aligned}$ | $\begin{gathered} \text { Black } \\ (\mathrm{n}=360) \end{gathered}$ | Hispanic ( $\mathrm{n}=589$ ) | $\begin{aligned} & \text { White } \\ & (\mathrm{n}=57) \end{aligned}$ | $\begin{gathered} \text { Black } \\ (\mathrm{n}=137) \end{gathered}$ | $\underset{(\mathrm{n}=190)}{\text { Hispanic }}$ | $\begin{aligned} & \text { White } \\ & (\mathrm{n}=21) \end{aligned}$ | $\begin{gathered} \text { Black } \\ (\mathrm{n}=480) \end{gathered}$ | $\underset{(\mathrm{n}=705)}{\text { Hispanic }}$ | $\begin{aligned} & \text { White } \\ & (\mathrm{n}=70) \end{aligned}$ |
| MDN | 74.1 | 73.0 | 62.1 | 62.0 | 61.4 | 65.1 | 57.3 | 60.3 | 66.0 | 70.6 | 69.6 | 68.4 | 48.9 | 51.5 | 42.9 | 52.1 | 49.5 | 47.1 |
| ME/AD | 25.8 | 27.0 | 37.9 | 28.9 | 38.6 | 35.0 | 42.7 | 39.7 | 34.0 | 28.6 | 30.3 | 31.6 | 51.1 | 49.0 | 57.2 | 47.9 | 50.5 | 53.0 |

Table 9. Comparative Reading Levels for RHR English Learners by Mode and Home Language, HISD, 2016-2017

|  | Face-to-Face |  |  |  |  |  |  |  |  | Online |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reading | BOY |  |  | MOY |  |  | EOY |  |  | BOY |  |  | MOY |  |  | EOY |  |  |
| Level | $\begin{aligned} & \text { English } \\ & (\mathrm{n}=1060) \end{aligned}$ | $\underset{(\mathrm{n}=405)}{\text { Spanish }^{2}}$ | $\begin{aligned} & \text { Other } \\ & (\mathrm{n}=47) \end{aligned}$ | English <br> ( $\mathrm{n}=1146$ ) | $\underset{(\mathrm{n}=431)}{\text { Spanish }}$ | $\begin{aligned} & \text { Other } \\ & (\mathrm{n}=67) \end{aligned}$ | English $(\mathrm{n}=1247)$ | Spanish <br> (n=615) | $\begin{aligned} & \text { Other } \\ & (\mathrm{n}=111) \end{aligned}$ | $\begin{aligned} & \text { English } \\ & (\mathrm{n}=682) \end{aligned}$ | $\begin{aligned} & \text { Spanish } \\ & (\mathrm{n}=304) \end{aligned}$ | $\begin{aligned} & \text { Other } \\ & (\mathrm{n}=59) \end{aligned}$ | $\underset{(\mathrm{n}=224)}{\text { Ennlish }}$ | Spanish ( $\mathrm{n}=116$ ) | $\begin{aligned} & \text { Other } \\ & (\mathrm{n}=30) \end{aligned}$ | $\underset{(\mathrm{n}=53)}{\text { English }}$ | $\begin{gathered} \text { Spanish } \\ (\mathrm{n}=480) \end{gathered}$ | $\begin{aligned} & \text { Other } \\ & (\mathrm{n}=70) \end{aligned}$ |
| MDN | 72.3 | 75.1 | 74.5 | 62.4 | 60.6 | 65.7 | 59.1 | 59.7 | 64.9 | 68.8 | 72.0 | 84.7 | 47.8 | 53.4 | 40.0 | 51.3 | 47.5 | 61.5 |
| ME/AD | 27.8 | 25.0 | 25.5 | 37.6 | 39.4 | 34.3 | 40.9 | 40.3 | 25.1 | 31.4 | 27.9 | 15.3 | 52.2 | 46.6 | 60.0 | 48.8 | 52.5 | 38.5 |

[^1]Table 10. Proportion of RHR English Learners Fountas and Pinnell Reading Levels Using Repeated Measures, HISD, 2016-2017

| Reading <br> Level | $\begin{gathered} \text { Face-to-Face } \\ (n=753) \end{gathered}$ |  | Face-to-Face Difference | $\begin{gathered} \text { Online } \\ (\mathbf{n}=\mathbf{3 9 0}) \end{gathered}$ |  | Online Difference |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BOY | EOY |  | BOY | EOY |  |
| MDN | 73.8 | 57.4 | -16.4 | 70.8 | 57.8 | -13.0 |
| ME | 17.0 | 17.4 | 0.4 | 15.9 | 18.8 | 2.9 |
| AD | 9.2 | 25.2 | 16.0 | 13.3 | 19.7 | 6.4 |

## Appendix D. RHR Spanish Learners

Table 11. Proportion of Spanish RHR Learners Reading by Reading Level, Mode and Gender, HISD, 2016-2017

| Face-to-Face |  |  |  |  |  |  |  |  | Online |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reading Level | BOY |  | MOY |  | EOY |  | Difference BOY/EOY |  | BOY |  | MOY |  | EOY |  | Difference BOY/EOY |  |
|  | $\begin{aligned} & \text { Female } \\ & (\mathrm{n}=615) \end{aligned}$ | $\underset{(\mathrm{n}=703)}{\text { Male }}$ | $\underset{(\mathrm{n}=656)}{\text { Female }}$ | $\underset{(\mathrm{n}=621)}{\text { Male }}$ | $\underset{(\mathrm{n}=687)}{\text { Female }}$ | $\underset{(\mathrm{n}=682)}{\text { Male }}$ | Female | Male | $\underset{(\mathrm{n}=436)}{\mathrm{Female}}$ | $\underset{(\mathrm{n}=338)}{\text { Male }}$ | $\underset{(\mathrm{n}=438)}{\text { Female }}$ | $\underset{(\mathrm{n}=501)}{\text { Male }}$ | Female (n=470) | $\underset{(\mathrm{n}=502)}{\text { Male }}$ | Female | Male |
| MDN | 63.9 | 65.0 | 48.8 | 48.1 | 51.5 | 54.4 | -12.4 | -10.6 | 58.7 | 60.6 | 46.3 | 45.1 | 52.6 | 51 | -6.1 | -9.6 |
| ME | 19.2 | 18.2 | 30.5 | 29.0 | 25.9 | 23.8 | 6.7 | 5.6 | 28.1 | 22.7 | 38.8 | 39.3 | 30.0 | 28.3 | 1.9 | 5.6 |
| AD | 16.9 | 16.8 | 20.7 | 22.9 | 22.6 | 21.8 | 5.7 | 5.0 | 12.2 | 16.8 | 14.8 | 15.6 | 17.4 | 20.7 | 5.2 | 3.9 |

Table 12. Proportion of Spanish RHR Learners by Reading Levels, Mode, and Economic Status, HISD, 2016-2017

|  | Face-to-Face |  |  |  |  |  |  |  | Online |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BOY |  | MOY |  | EOY |  | Difference BOY/EOY |  | BOY |  |  | MOY |  | EOY | Difference BOY/EOY |  |
| Reading Level | Non-Econ Disadv ( $\mathrm{n}=97$ ) | $\begin{gathered} \text { Econ } \\ \text { Disadv } \\ (\mathrm{n}=1221) \end{gathered}$ | Non-Econ Disadv ( $\mathrm{n}=107$ ) | $\begin{gathered} \text { Econ } \\ \begin{array}{c} \text { Disadv } \\ (\mathrm{n}=1170) \end{array} \end{gathered}$ | Non-Econ Disadv ( $\mathrm{n}=110$ ) | $\begin{gathered} \text { Econ } \\ \begin{array}{c} \text { Disadv } \\ (\mathrm{n}=1259) \end{array} \end{gathered}$ | Non-Econ Disadv | $\begin{aligned} & \text { Econ } \\ & \text { Disadv } \end{aligned}$ | Non-Econ Disadv ( $\mathrm{n}=53$ ) | Econ <br> Disadv <br> (n=771) | Non-Econ Disadv ( $\mathrm{n}=58$ ) | Econ. <br> Disadv <br> ( $\mathrm{n}=881$ ) | $\begin{gathered} \text { Non-Econ } \\ \text { Disadv } \\ (\mathrm{n}=75) \end{gathered}$ | Econ <br> Disadv ( $\mathrm{n}=897$ ) |  | Econ. <br> Disadv |
| MDN | 67.0 | 64.3 | 53.3 | 48.0 | 50.8 | 53.1 | -16.2 | -11.2 | 56.6 | 59.8 | 50.0 | 45.4 | 54.7 | 51.5 | -1.9 | -8.3 |
| ME | 16.5 | 18.8 | 24.3 | 30.3 | 21.8 | 25.1 | 5.3 | 6.3 | 24.5 | 26.2 | 29.3 | 39.7 | 24.0 | 29.5 | -0.5 | 3.3 |
| AD | 16.5 | 16.9 | 22.4 | 21.7 | 26.4 | 21.8 | 9.9 | 4.9 | 19.8 | 14.0 | 20.7 | 14.9 | 21.3 | 19.0 | 1.5 | 5.0 |

## Table 13. Proportion of Spanish RHR Learners by Reading Levels, Mode, and At-Risk Status, HISD, 2016-2017

| Face-to-Face |  |  |  |  |  |  |  |  | Online |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reading Level | BOY |  | MOY |  | EOY |  | Difference <br> BOY/EOY |  | BOY |  | MOY |  | EOY |  | Difference <br> BOY/EOY |  |
|  | NonAt Risk ( $\mathrm{n}=81$ ) | $\begin{aligned} & \text { At Risk } \\ & (\mathrm{n}=1,237) \end{aligned}$ | $\underset{\substack{\text { At Risk } \\(\mathrm{n}=96)}}{\text { Non- }}$ | $\begin{aligned} & \text { At Risk } \\ & (\mathrm{n}=1,181) \end{aligned}$ | NonAt Risk ( $\mathrm{n}=114$ ) | At Risk ( $\mathrm{n}=1,225$ ) | $\begin{gathered} \text { Non } \\ \text { At Risk } \end{gathered}$ | At Risk | $\underset{\substack{\text { Non- } \\ \text { At Risk }}}{\text { No }}$ | At Risk ( $\mathrm{n}=773$ ) | $\underset{(\mathrm{n}=53)}{\underset{\sim}{\text { Non- }}}$ | At Risk ( $\mathrm{n}=886$ ) | $\underset{\underset{(n=53)}{\text { At Risk }}}{\text { Nit }}$ | $\begin{gathered} \text { At Risk } \\ (\mathrm{n}=919 \end{gathered}$ | Non- At Risk | At Risk |
| MDN | 67.9 | 64.3 | 47.9 | 48.5 | 51.8 | 53.1 | -16.1 | -11.2 | 62.7 | 59.4 | 47.2 | 45.6 | 41.5 | 52.3 | -21.2 | -7.1 |
| ME | 11.1 | 19.2 | 25.0 | 30.1 | 25.4 | 24.8 | 14.3 | 5.6 | 31.4 | 25.7 | 35.8 | 39.3 | 34.0 | 28.8 | 2.6 | 3.1 |
| AD | 21.0 | 16.6 | 27.1 | 21.3 | 22.8 | 22.2 | 1.8 | 5.6 | 5.9 | 14.9 | 17.0 | 15.1 | 24.5 | 18.8 | 18.6 | 3.9 |

Table 14. Proportion of RHR Spanish Learners by Reading Levels, Mode, and LEP Status, HISD, 2016-2017

|  | Face-to-Face |  |  |  |  |  |  |  | Online |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reading <br> Level | BOY |  | MOY |  | EOY |  | Difference BOY/EOY |  | BOY |  | MOY |  | EOY |  | Difference BOY/EOY |  |
|  | $\begin{aligned} & \text { Non- } \\ & \text { LEP } \\ & (\mathrm{n}=236) \end{aligned}$ | $\begin{gathered} \text { LEP } \\ (\mathrm{n}=1,082) \end{gathered}$ | $\begin{aligned} & \text { Non- } \\ & \text { LEP } \\ & (\mathrm{n}=245) \end{aligned}$ | $\begin{gathered} \text { LEP } \\ (\mathrm{n}=1031) \end{gathered}$ | $\begin{aligned} & \text { Non- } \\ & \text { LEP } \\ & (\mathrm{n}=262) \end{aligned}$ | LEP <br> $(\mathrm{n}=1,107)$ | Non- <br> LEP | LEP | $\begin{aligned} & \text { Non- } \\ & \text { LEP } \\ & (\mathrm{n}=130) \end{aligned}$ | $\underset{,(\mathrm{n}=694)}{\text { LEP }}$ | $\begin{aligned} & \text { Non- } \\ & \text { LEP } \\ & (\mathrm{n}=147) \end{aligned}$ | $\begin{gathered} \text { LEP } \\ (\mathrm{n}=792) \end{gathered}$ | $\begin{aligned} & \text { Non- } \\ & \text { LEP } \\ & (\mathrm{n}=142) \end{aligned}$ | $\begin{gathered} \text { LEP } \\ (\mathrm{n}=830) \end{gathered}$ | NonLEP | LEP |
| MDN | 67.4 | 63.9 | 46.5 | 48.9 | 52.7 | 53.0 | -14.7 | -10.9 | 63.8 | 58.8 | 41.5 | 46.5 | 44.4 | 53 | -19.4 | -5.8 |
| ME | 16.1 | 19.2 | 26.1 | 30.6 | 21.0 | 25.7 | 4.9 | 6.5 | 26.2 | 26.1 | 46.9 | 37.6 | 30.3 | 28.9 | 4.1 | 2.8 |
| AD | 16.5 | 16.9 | 27.3 | 20.4 | 26.3 | 21.2 | 9.8 | 4.3 | 10.0 | 15.1 | 11.6 | 15.9 | 25.4 | 18.1 | 15.4 | 3.0 |

Table 15. Proportion of Spanish RHR Learners by Reading Levels, Mode, and Ethnicity, HISD, 2016-2017

| Reading <br> Level | Face-to-Face |  |  |  |  |  |  |  |  | Online |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BOY |  |  | MOY |  |  | EOY |  |  | BOY |  |  | MOY |  |  | EOY |  |  |
|  | $\begin{aligned} & \text { Black } \\ & (\mathrm{n}=83) \end{aligned}$ | $\underset{(\mathrm{n}=1,227)}{\text { Hispanic }}$ | $\underset{(\mathrm{n}=6)}{\text { White }}$ | $\begin{aligned} & \text { Black } \\ & (\mathrm{n}=83) \end{aligned}$ | Hispanic ( $\mathrm{n}=862$ ) | $\underset{(\mathrm{n}=4)}{\text { White }}$ | $\underset{\substack{\text { Black } \\(\mathrm{n}=72)}}{ }$ | $\underset{(\mathrm{n}=1,279)}{\text { Hispanic }}$ | $\begin{aligned} & \text { White } \\ & (\mathrm{n}=10) \end{aligned}$ | $\begin{aligned} & \text { Black } \\ & (\mathrm{n}=50) \end{aligned}$ | Hispanic ( $\mathrm{n}=760$ ) | $\begin{gathered} \text { White } \\ (\mathrm{n}=7) \end{gathered}$ | $\underset{(\mathrm{n}=64)}{\substack{\text { Black }}}$ | $\underset{(\mathrm{n}=862)}{\text { Hispanic }}$ | $\begin{gathered} \text { White } \\ (\mathrm{n}=9) \end{gathered}$ | $\underset{(\mathrm{n}=74)}{\substack{\text { Black }}}$ | Hispanic ( $\mathrm{n}=885$ ) | $\underset{(\mathrm{n}=6)}{\text { White }}$ |
| MDN | 69.9 | 64.1 | 83.3 | 48.2 | 48.5 | 50.0 | 58.3 | 52.4 | 70.0 | 66.0 | 58.7 | 71.4 | 40.6 | 46.2 | 55.6 | 47.3 | 52.4 | 16.7 |
| ME/AD | 30.1 | 35.9 | 16.7 | 51.8 | 51.5 | 50.0 | 41.7 | 47.6 | 30.0 | 34.0 | 41.3 | 28.6 | 59.4 | 43.8 | 44.4 | 52.7 | 47.5 | 83.4 |

Table 16. Proportion of Spanish RHR Learners by Reading Levels, Mode, and Home Language, HISD, 2016-2017

| English Home Language |  | Face-to-Face |  |  |  |  |  |  |  | Online |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reading Level | BOY |  |  | MOY |  |  | EOY |  |  | BOY |  |  | MOY |  |  | EOY |  |  |
|  | $\underset{(\mathrm{n}=214)}{\text { English }}$ | $\begin{aligned} & \text { Spanish } \\ & (\mathrm{n}=1,103) \end{aligned}$ | $\begin{aligned} & \text { Other } \\ & (\mathrm{n}=1) \end{aligned}$ | $\underset{(\mathrm{n}=216)}{\text { Engish }}$ | Spanish <br> $(1,058)$ | $\begin{aligned} & \text { Other } \\ & (\mathrm{n}=3) \end{aligned}$ | $\underset{(\mathrm{n}=231)}{\text { English }}$ | $\underset{(\mathrm{n}=1,103)}{\text { Spanish }}$ | $\begin{gathered} \text { Other } \\ (\mathrm{n}=5) \end{gathered}$ | $\underset{(\mathrm{n}-114)}{\text { English }}$ | $\underset{(\mathrm{n}=706)}{\text { Spanish }}$ | $\underset{(\mathrm{n}=4}{\text { Other }}$ | $\underset{(\mathrm{n}=133)}{\text { English }}$ | $\underset{(\mathrm{n}=804}{\text { Spanish }}$ | $\underset{(\mathrm{n}=2)}{\text { Other }}$ | $\underset{(\mathrm{n}=130)}{\text { English }}$ | $\underset{(\mathrm{n}=837)}{\text { Spanish }}$ | $\underset{(\mathrm{n}=5)}{\text { Other }}$ |
| MDN | 65. | $64.3$ | $0.0$ | $46.3$ | 48.9 | $66.7$ | $51.1$ | $53.3$ | $60.0$ | 63.2 | 58.8 | 100 | 42.1 | 46.4 | 0.0 | 44.6 | $53.0$ | 20.0 |
| ME/AD | 34.1 | 34.8 | 100.0 | 53.7 | 51.0 | 33.3 | 48.9 | 46.7 | 40.0 | 36.8 | 41.2 | 0.0 | 57.9 | 53.6 | 100.0 | 35.4 | 47.0 | 80.0 |

Table 17. Proportion of RHR Spanish Learners Fountas and Pinnell Reading Levels Using Repeated Measures, HISD, 2016-2017

| Spanish Reading Level | $\begin{gathered} \text { Face-to-Face } \\ (\mathrm{n}=\mathbf{1 , 1 0 8}) \end{gathered}$ |  | Face-to-Face Difference | $\underset{(\mathrm{n}=711)}{\text { Online }}$ |  | Online Difference |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BOY | EOY |  | BOY | EOY |  |
| MDN | 63.2 | 53.2 | -10.0 | 58.9 | 51.3 | -7.6 |
| ME | 19.3 | 26.1 | 6.8 | 26.7 | 26.2 | -0.5 |
| ADV | 17.5 | 20.8 | 3.3 | 14.3 | 22.5 | 8.2 |


[^0]:    ${ }^{1}$ The Wilcoxon signed-rank test is the nonparametric test equivalent to the dependent t -test. As the Wilcoxon signed-rank test does not assume normality in the data, it can be used when this assumption has been violated and the use of the dependent $t$-test is inappropriate. It is used to compare two sets of scores that come from the same participants. This can occur when we wish to investigate any change in scores from one time-point to another, or when

[^1]:    Note: ME and AD were merged because of the smaller group sizes

