Texas Education Agency

TEXAS Health and Human Services | Early Childhood Intervention

STATEWIDE OUTREACH CENTER
Your Trusted Resource for Deaf Education in Texas

Annual Statewide Report on Language Acquisition for Students who are Deaf or Hard of Hearing and Deafblind 0-8 Years of Age

August 31, 2022

Contents

Annual Statewide Report on Language Acquisition for Students who are Deaf or Hard of Hearing and Deafblind 0-8 Years of Age

Introduction

Children who are deaf or hard of hearing (DHH) and deafblind (DB) are often at risk for language delay or deprivation. Research indicates that there is limited success in addressing these issues after the child is past the optimal period for language acquisition.

> *House Bill (HB) 548 states that it is critical that language acquisition for children who are DHH and DB is closely monitored from birth through age eight to enable the use of timely interventions that support age-appropriate language skills.*

Therefore, the Texas Legislature passed HB 548 during the 86th Regular Session of 2019 to generate and monitor data on the language acquisition of children ages 8 years old and younger who are DHH and DB.

Methodology

Texas Education Code (TEC) §29.316 charges the Texas Education Agency (TEA), Health and Human Services Commission (HHSC), and Texas School for the Deaf (TSD) to collaboratively gather and monitor data on the language acquisition of students who are DHH and DB and are 8 years old and younger. Through a memorandum of understanding with the other two state agencies that provide the foundation for fulfilling the requirements of the law, TEA has the primary responsibility for data collection.

The data is being tracked into a data system owned by TEA, the Texas Student Data System (TSDS). The Special Education Language Acquisition (SELA) core collection use the same elements as defined in the 2021 report to satisfy the requirements in the law.

TEC §29.316(a)(3) defines language acquisition as both expressive and receptive language and literacy development in English (or another language primarily used by a child's parent or guardian) and American Sign Language (ASL). With the support of the Language Assessment Committee (LAC), TEA, HHSC, and TSD were able to provide a list of approved assessments for assessing a child's language acquisition. The approved assessments incorporate components of language acquisition in either expressive or receptive language, or both. The assessments also honor the preferred unique communication mode used by the child at home (English, ASL, both English and ASL, or another language used by the child's parent or guardian).

For the 2021-2022 school year, the LAC added five new assessments to the existing approved assessment list. These additions reflected new assessments used for infants and toddlers, vocabulary assessments, and an assessment that is accessible in ASL. Local educational agencies (LEAs) were informed of the new additions through various means of communication, such as monthly virtual office hours, special education newsletters, trainings with TSDS, and postings on the TEA Sensory Impairment website.

Annually, LEAs are expected to report the assessment results of eligible students whose families have provided consent to assess for language acquisition in the TSDS SELA core collection. Students with the eligibility codes of auditory impairment (AI) or deafblind (DB) were eligible to be assessed for SELA under TEC §29.316. Students were assessed following specific protocols that included using one or more of the approved assessments as listed on the TEA Sensory Impairment website. Teachers of students who are DHH, teachers of students with visual impairments, speech language pathologists (SLPs), educational diagnosticians, and/or special education teachers administered the assessments and reported the results.

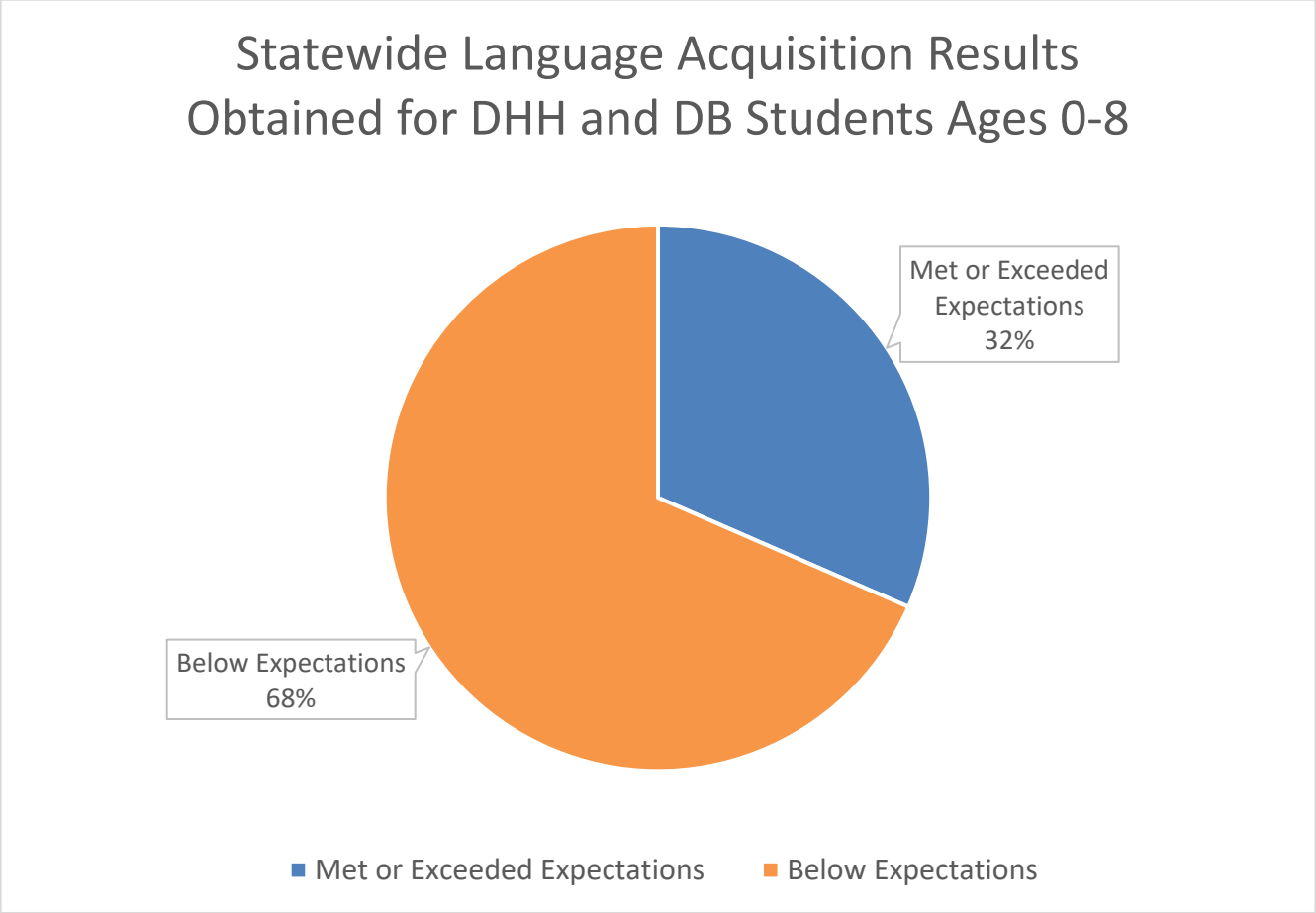
LEAs were given access to the TSDS SELA core collection starting September 13, 2021, and the collection window remained open until June 23, 2022, with some extensions granted to ensure all data were captured.

Results

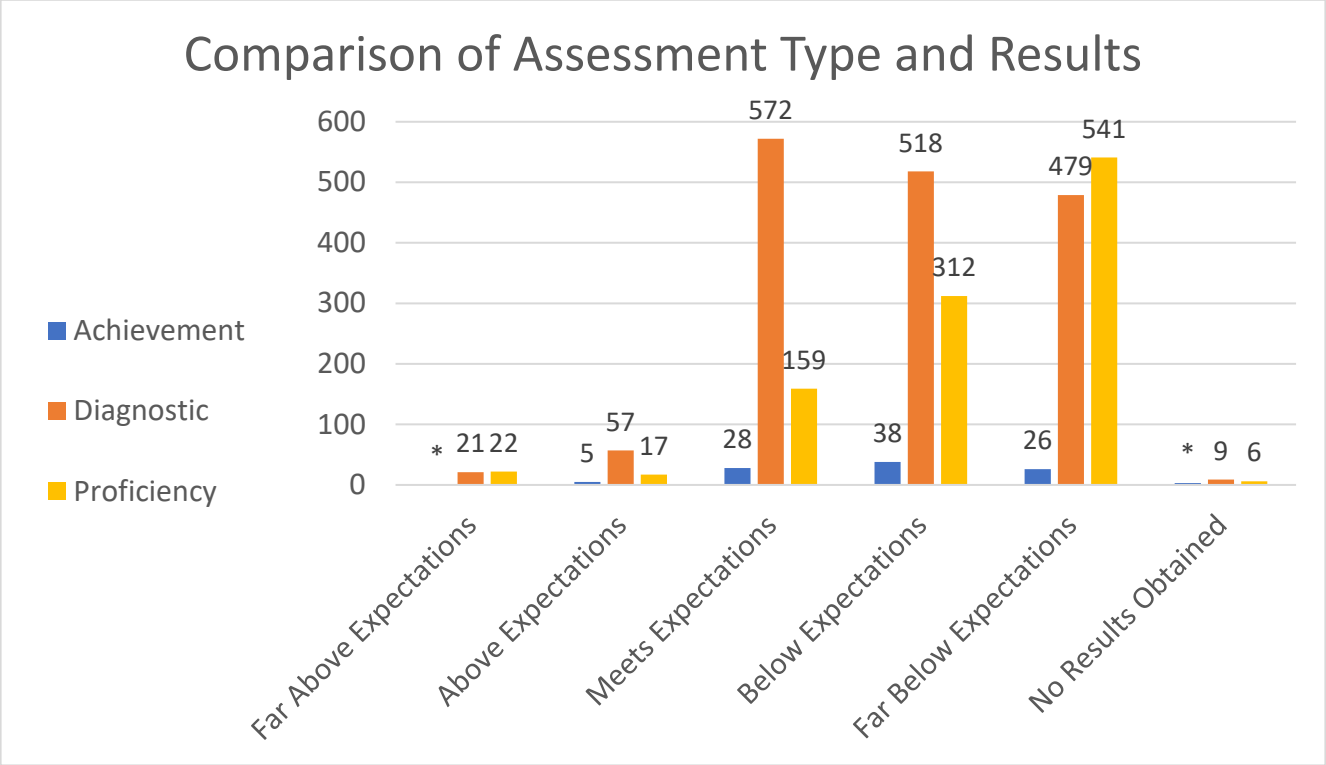
Of the 3,105 students reported in the SELA core collection, 2,814 students 8 years old and younger had parental consent for SELA testing. 291 students were reported into the SELA core collection; however, families did not provide consent to assess their child's language acquisition. Eighteen students were reported as taking an approved assessment but had no results reported, which indicates that the students were unable to complete the assessment for unknown reasons.

DHH & DB ages 0-8	• 3,105 students reported in TSDS SELA core collection
Parental consent obtained	• Families of 2,814 students gave consent for HB 548 assessment
Results reported	• 2,796 assessment results were reported for 2021-2022 school year

Of the 2,796 assessment results that were reported in the TSDS SELA core collection for the 2021-2022 school year, 1,914 students (68%) scored below expectations or far below expectations in their language acquisition based on chronological age and other determining factors. Statewide, the results indicate that these children demonstrate some degree of language delay and/or deprivation. 882 students (31%) met or exceeded expectations for language acquisition. Although more students participated in the 2021-2022 data collection, the overall results remained the same.



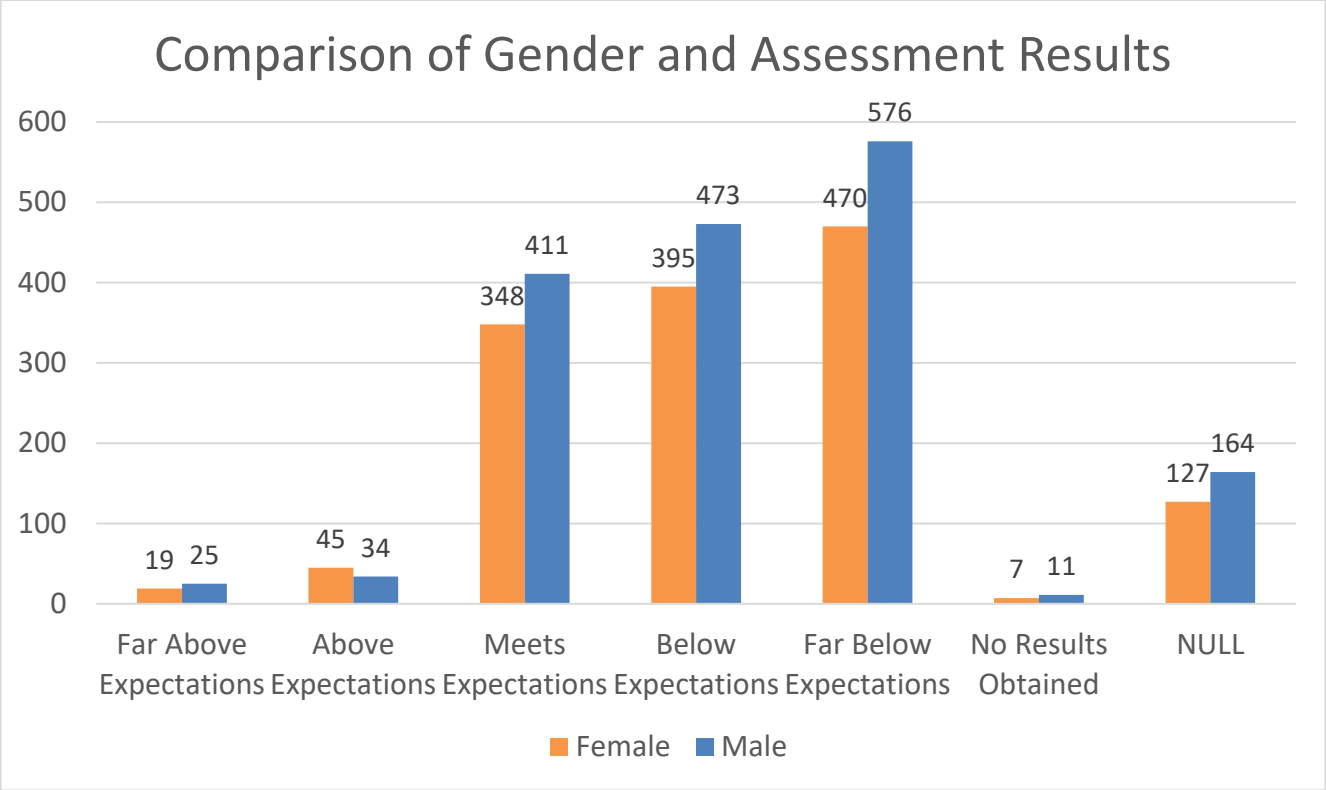
The statewide results have been expanded to include the three types of assessments administered: achievement, diagnostic, or proficiency. LEAs, with family input, decide on which assessments would be the best fit for a student for the purpose of tracking his or her language acquisition skills.



Please note, to comply with the Family Educational Rights and Privacy Act (FERPA), SELA core collection data is masked due to a small number of students reported to protect the privacy of the student's information (indicated with an asterisk).

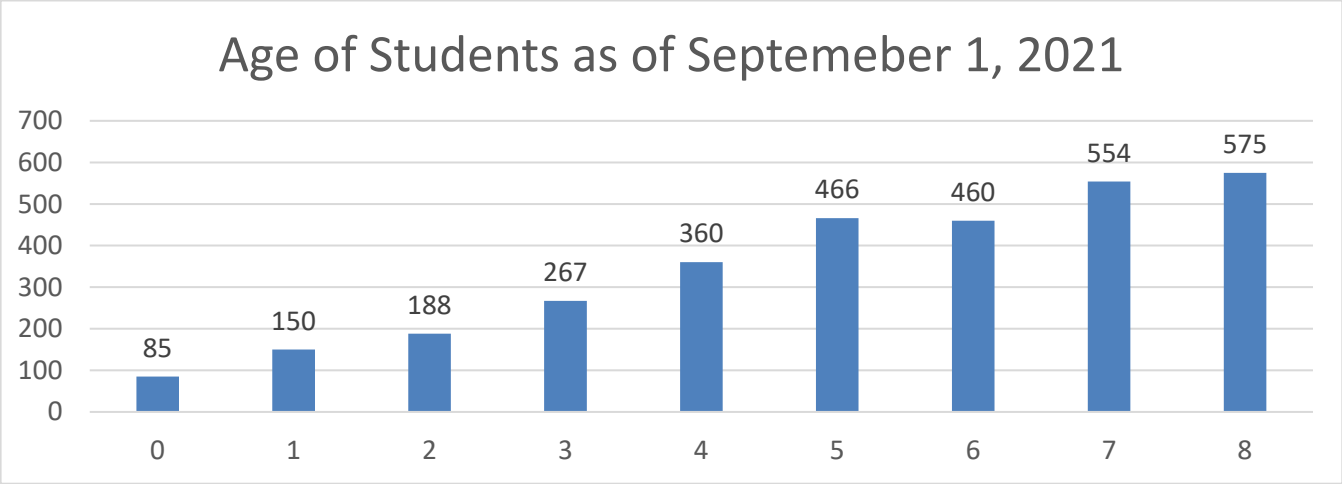
The bar graph outlines these results and shows that a majority of the students took a diagnostic assessment, which is a norm referenced assessment. Norm referenced assessments require the assessor to have some familiarity with the assessment for administration, scoring, and interpretation.

For the 2021-2022 school year, the SELA core collection collected twenty-eight data elements for each student. Each of the elements are compared to the assessment results as stated in the language of TEC §29.316. At this time, a piece of data that cannot be collected is to, "… compare progress in English literacy made by children who are deaf or hard of hearing in that subject made by children of the same age who are not deaf or hard of hearing by appropriate age range." Currently, there is one assessment, the reading State of Texas Assessments of Academic Readiness (STAAR), that assesses all students in grade 3. The STAAR is designed to measure what students are learning in each grade and whether they are ready for the next grade. However, there is not an assessment to compare progress in English literacy that all students take prior to grade 3. It is determined TEA, therefore, does not have the data to report on student progress in English literacy at this time.

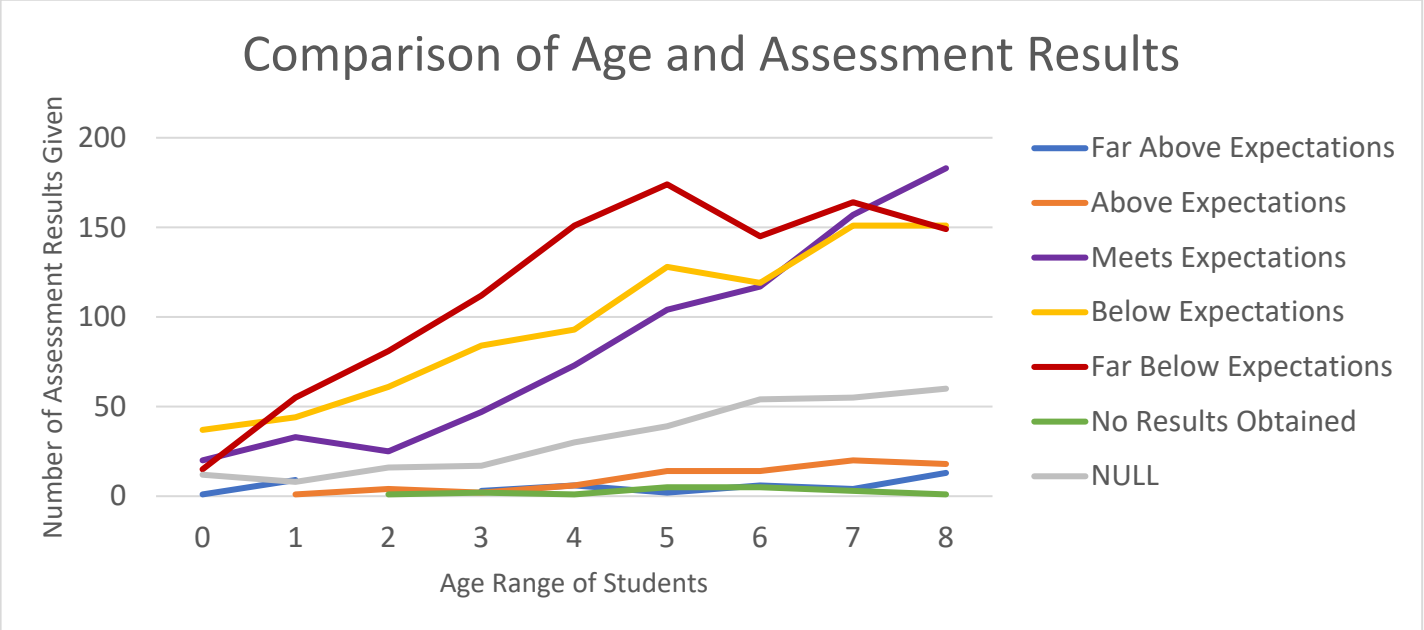


This bar graph describes the assessment results obtained for gender. There were more male students that participated in the data collection; 27% of male students reported either met or exceeded expectations, 62% were below expectations or far below expectations and 11% reported as either no results obtained or were not assessed. The data defines “NULL” as those students whose families chose not to participate in the language assessments. 29% of female students met or exceeded expectations and 61% of female students reported below expectations or far below expectations. Ten percent of female students either reported no results or were not assessed.

Another data element that was collected is each student's age as of September 1, 2021.



The number of students participating in the SELA core collection steadily increase with age, apart from a small decrease of six students between the ages of 5 and 6.

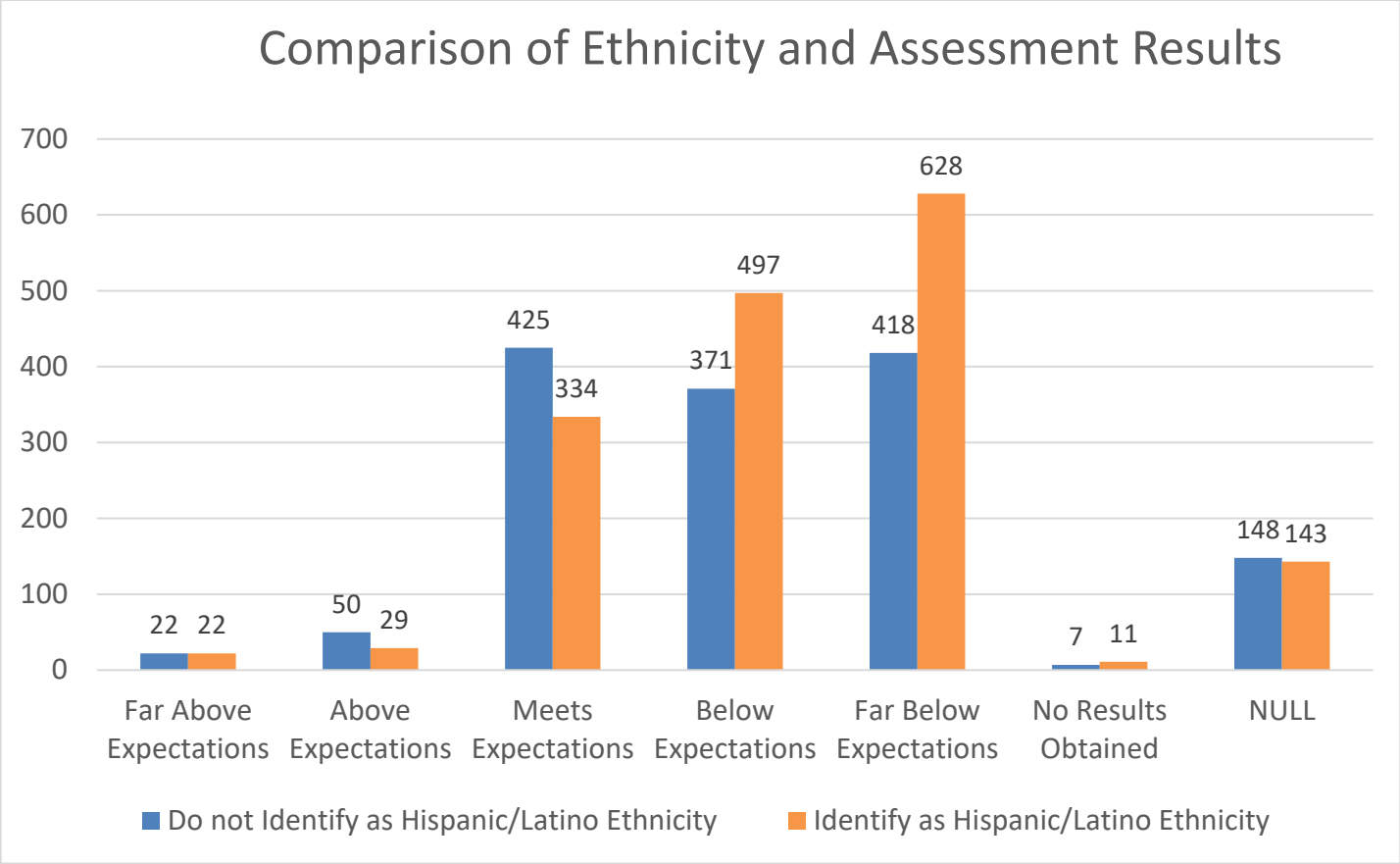


When comparing assessment results across the age range of students, it is important to note as the student matures, their exposure to language increases. Results show an increase each year in the number of students who met expectations, as well as a slight decrease in the number of students who scored far below expectations.

Race and ethnicity were compared with assessment results for each student. Each race has been compared to the assessment results and percentages are given in parenthesis next to the raw data reported. At least 50 percent of students in each category scored below or far below expectations when those results are combined. Students who do not identify as Hispanic/Latino ethnicity demonstrated a trend of performing better on the language assessments for the SELA core collection.

Comparison of Race and Assessment Results

Assessment Results Obtained	American Indian/Alaskan Native	Asian	Black/African American	Hawaiian/ Pacific Islander	Multiracial	White/ Caucasian
Far Above Expectations	2%	2%	1%	n/a	3%	1%
Above Expectations	3%	3%	2%	n/a	3%	3%
Meets Expectations	14%	24%	19%	33%	27%	26%
Below Expectations	29%	26%	26%	17%	26%	28%
Far Below Expectations	40%	35%	43%	33%	31%	32%
No Results Obtained	n/a	n/a	1%	n/a	1%	1%
NULL	12%	10%	8%	17%	9%	9%

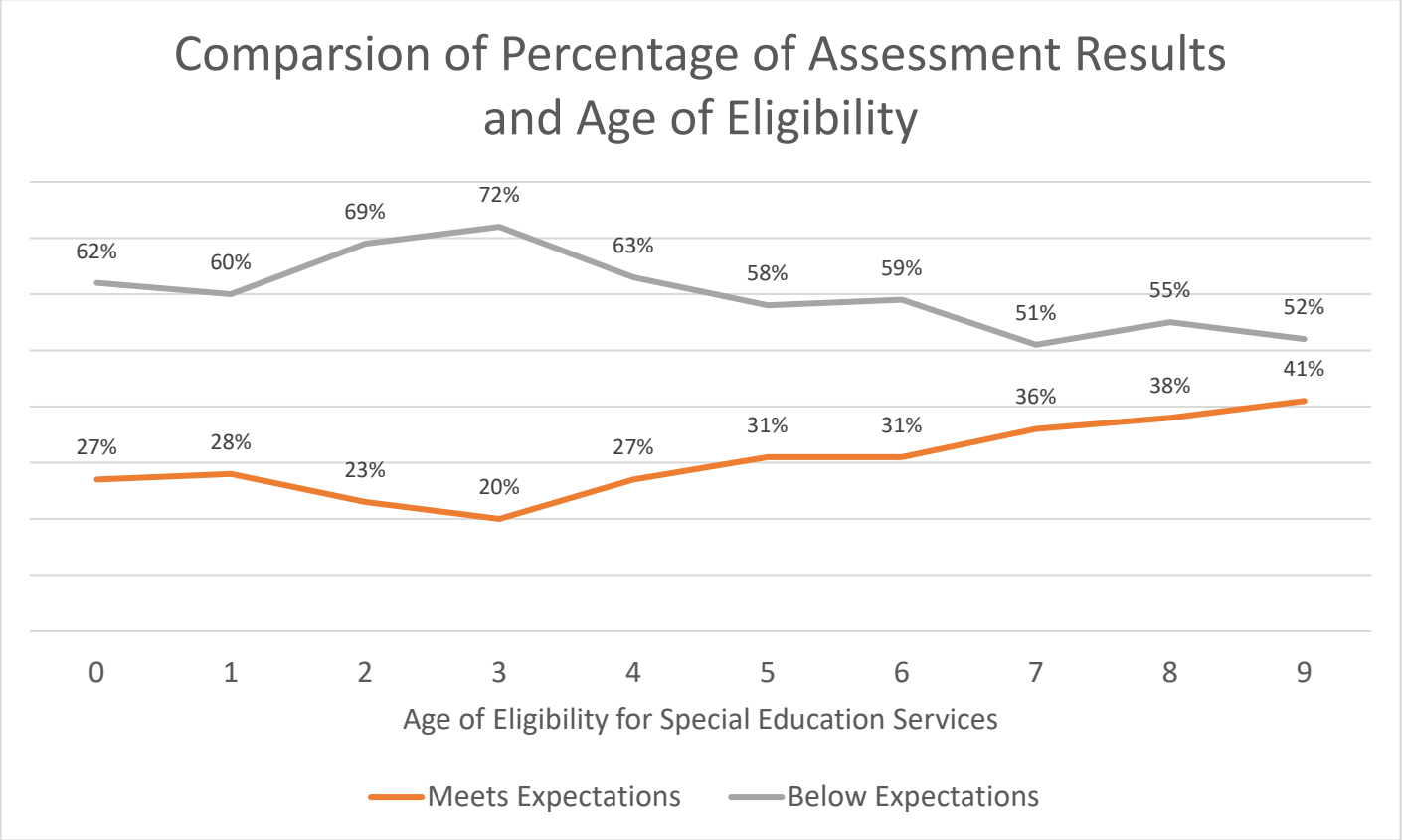

Comparison of Ethnicity and Assessment Results
700
600
500
400
300
200
100
0
22 22
50 29
425 334
371 497
418 628
7 11
148 143
Far Above Expectations
Above Expectations
Meets Expectations
Below Expectations
Far Below Expectations
No Results Obtained
NULL
Do not Identify as Hispanic/Latino Ethnicity
Identify as Hispanic/Latino Ethnicity

The age at determination of eligibility for special education services for either disability code of DHH or DB has been collected to determine if early intervention has an impact on the student's language acquisition.

Comparison of Age at Determination of Eligibility for Special Education Services and Assessment Results

Age at Determination of Eligibility										
Assessment Results Obtained	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Far Above Expectations	1%	3%	n/a	1%	1%	1%	1%	2%	3%	4%
Above Expectations	2%	2%	2%	2%	4%	2%	4%	2%	3%	n/a
Meets Expectations	24%	23%	21%	17%	22%	28%	26%	32%	32%	37%
Below Expectations	37%	26%	24%	30%	27%	28%	28%	26%	26%	33%
Far Below Expectations	25%	34%	45%	42%	36%	30%	31%	25%	29%	19%
No Results Obtained	n/a	1%	1%	1%	1%	1%	1%	1%	n/a	n/a
NULL	11%	11%	7%	7%	9%	10%	9%	12%	7%	7%

The line graph below represents the comparison of the percentage reported of either meeting or exceeding expectations and below expectations compared to the age of eligibility for special education services. Students born with access to sound and were identified as DHH or DB at a later age performed better on the language acquisition assessments. The graph shows the assessment results improve as the child is identified at a later age, potentially because the child has already had exposure to sound and language. It is important to note early identification is still important and exposure to language begins at birth.



Some students may not only be identified as either DHH or DB, so data on students' other disabilities was also collected. Additional disabilities were defined as any one or combination of the following options: autism, developmental delay, emotional disturbance, intellectual disability, orthopedic impairments, other health impairments, specific learning disability, traumatic brain delay (same as traumatic brain injury), or visual impairments. Students identified as DHH or DB with additional disabilities reported comparable results to those identified as DHH or DB only.

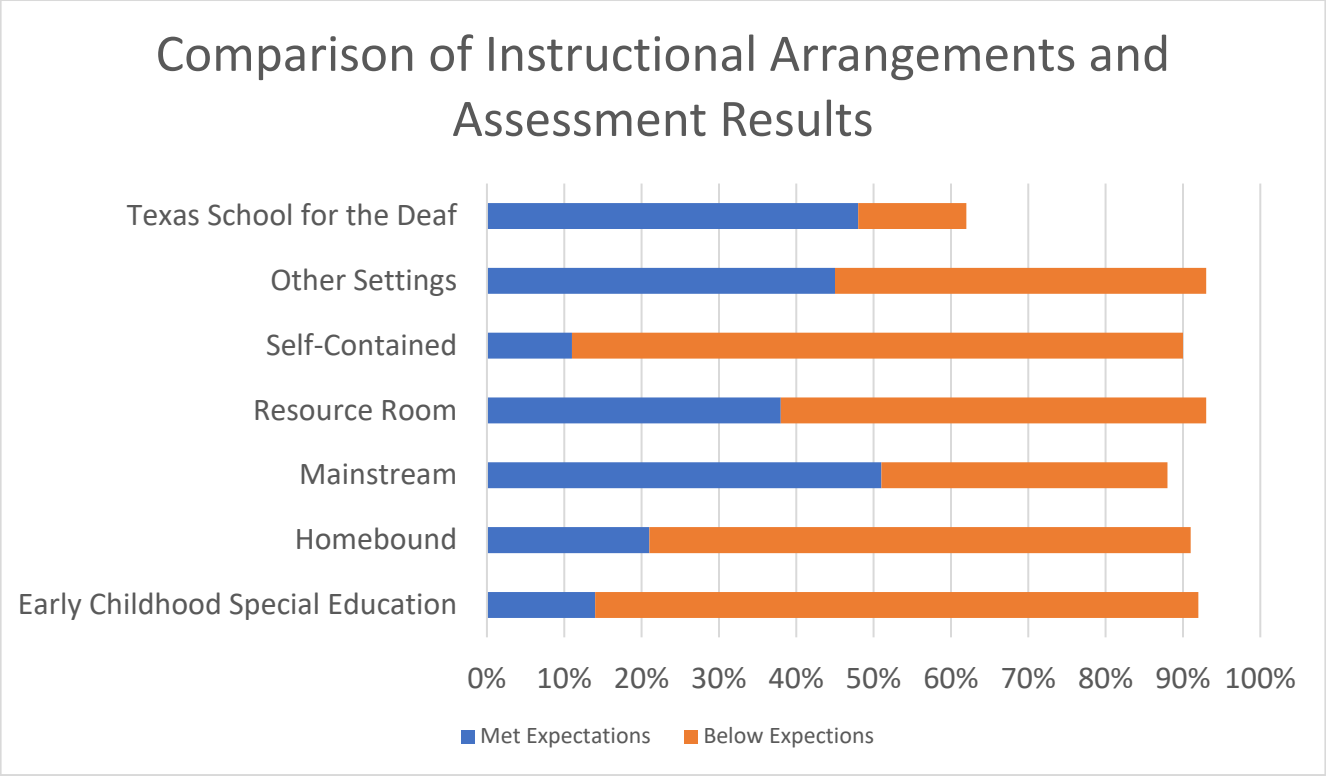
Comparison of Disabilities Identified and Assessment Results

Assessment Results Obtained	DHH only	DHH and Other Disabilities	DB only	DB and Other Disabilities
Far Above Expectations	2%	1%	n/a	2%
Above Expectations	3%	2%	1%	1%
Meets Expectations	28%	23%	5%	11%
Below Expectations	28%	29%	22%	17%
Far Below Expectations	28%	36%	62%	60%
No Results Obtained	1%	1%	n/a	2%
NULL	10%	8%	10%	7%

Many of the students currently receiving special education services for a disability code of DHH or DB have various instructional arrangements designed to ensure instruction is accessible and conducive to a positive learning experience. Instructional arrangement definitions can be found in the 2021-2022 Student Attendance Accounting Handbook (pages 96–157). The most common instructional arrangement is in the resource setting, which is defined as special education or related services outside of the general education setting. The table indicates the types of settings and compares those to assessment results. Other settings can include nonpublic day school, settings off campus such as a community class, or other environments.

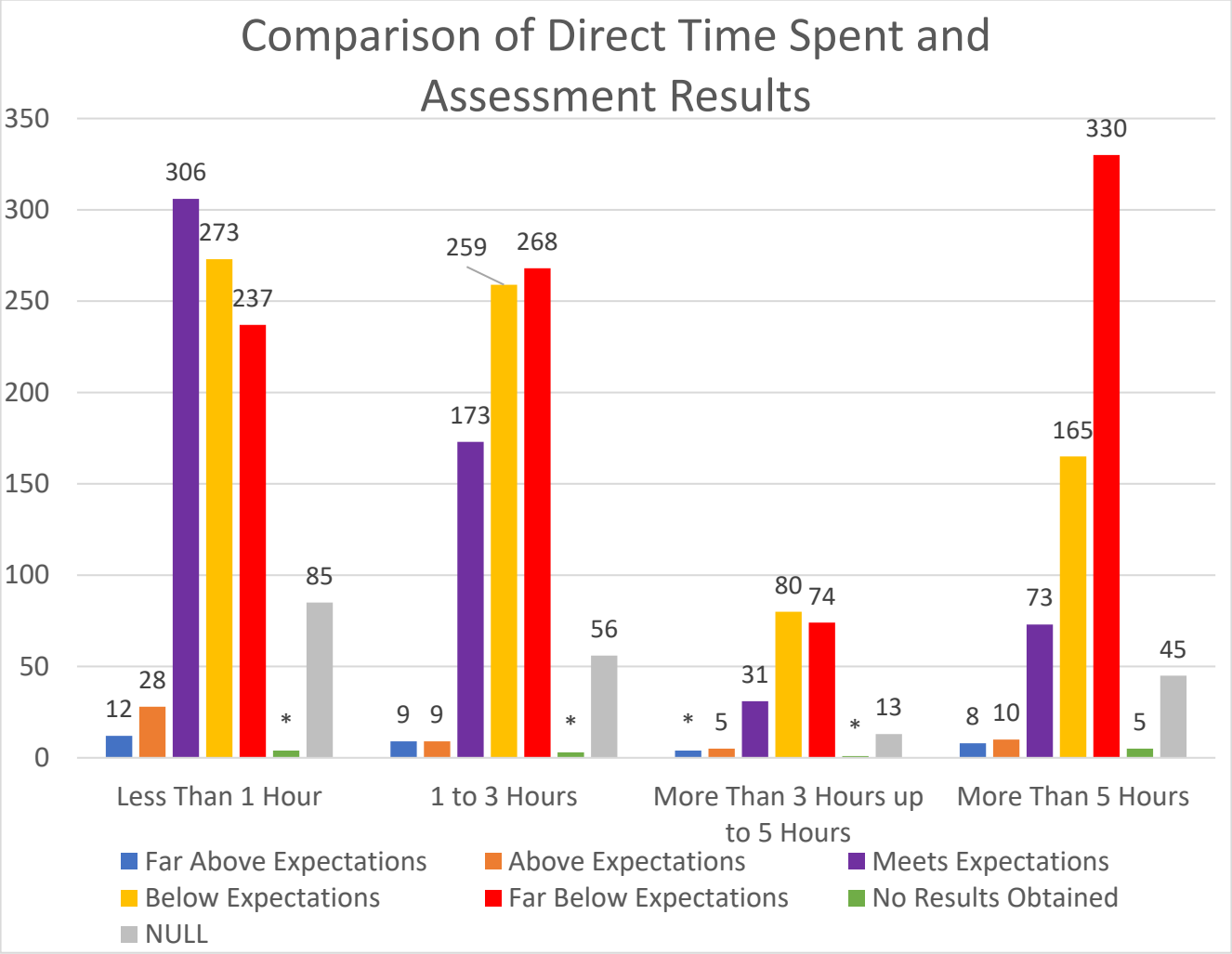
Comparison of Instructional Arrangements and Assessment Results

Assessment Results Obtained	Early Childhood Special Education	Homebound	Mainstream	Resource Room	Self-Contained	Other Settings	Texas School for the Deaf
Far Above Expectations	1%	3%	1%	1%	2%	2%	n/a
Above Expectations	1%	1%	6%	3%	1%	7%	8%
Meets Expectations	12%	17%	44%	34%	8%	36%	40%
Below Expectations	32%	29%	25%	33%	22%	34%	10%
Far Below Expectations	46%	41%	12%	22%	57%	14%	4%
No Results Obtained	1%	1%	1%	1%	1%	n/a	n/a
NULL	7%	8%	11%	6%	9%	7%	38%

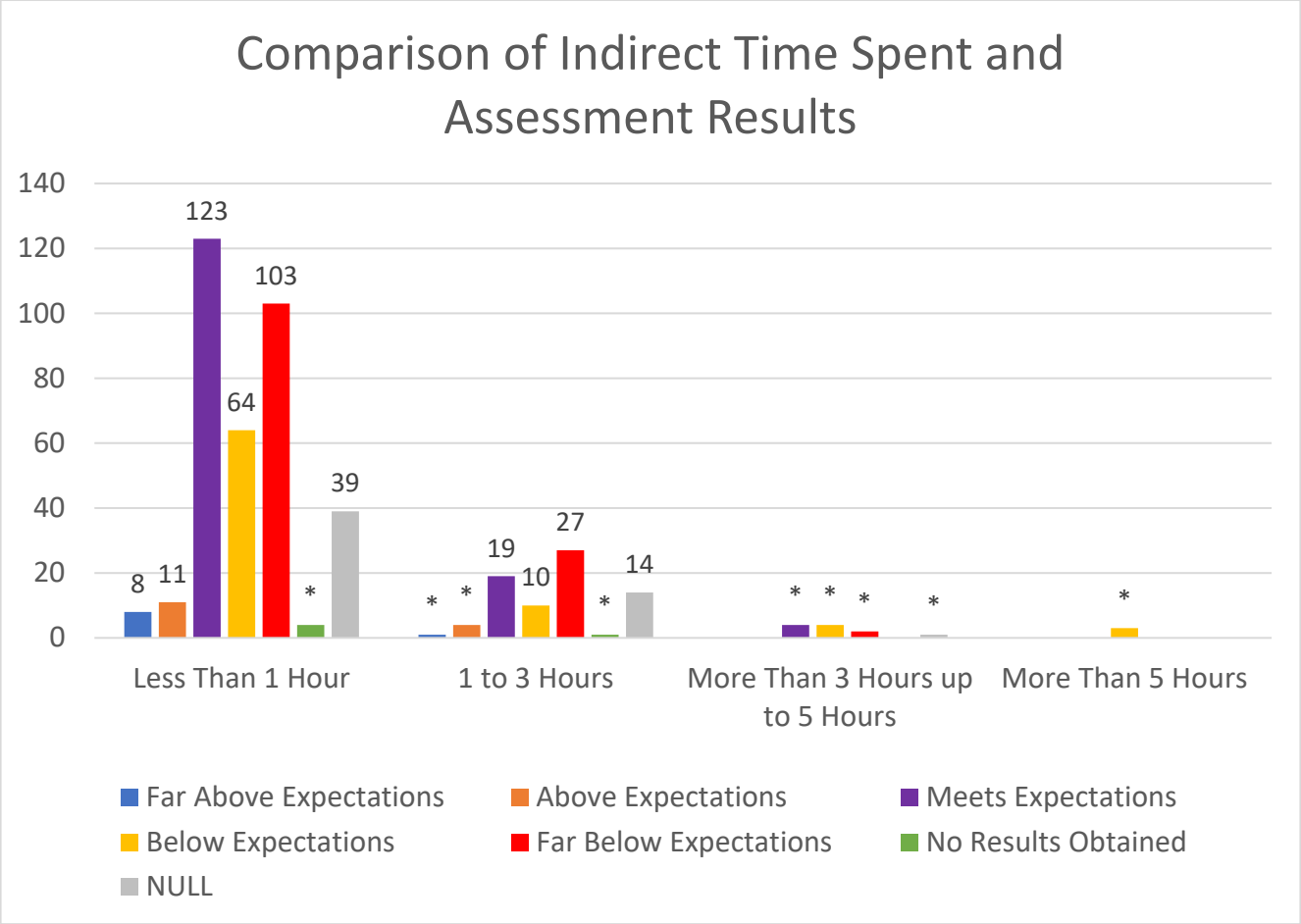


Students receiving self-contained instruction often need the most support. The assessment results reported for students in self contained settings were the lowest as compared to other instructional arrangements. Self-contained instruction is given by a certified teacher of the DHH or a certified special education teacher in a small classroom size and utilizes specially designed instruction. Students in the mainstream instructional arrangement scored better and are potentially receiving the least amount of supports. Students in a mainstream setting are attending general education classes with possibly a sign language interpreter and/or an inclusion teacher. Students in a mainstream setting also may receive itinerant services from a certified teacher of the DHH to provide the supports needed in instruction.

Direct language acquisition services can be taught in various instructional arrangements such as in a self-contained classroom with a teacher of the DHH, in a resource room with a special education teacher, at home with a parent infant advisor and Early Childhood Intervention services, or language instruction with an SLP. Indirect language instruction includes working with an itinerant teacher or an SLP who provides support to a general education teacher on how to support language instruction for a student in the classroom who is DHH. A language instruction data element has been collected as either direct or indirect/consultative services, and the times spent vary between less than an hour to more than 5 hours a day. Those times spent in either direct or indirect/consultative time are also compared to the assessment results.

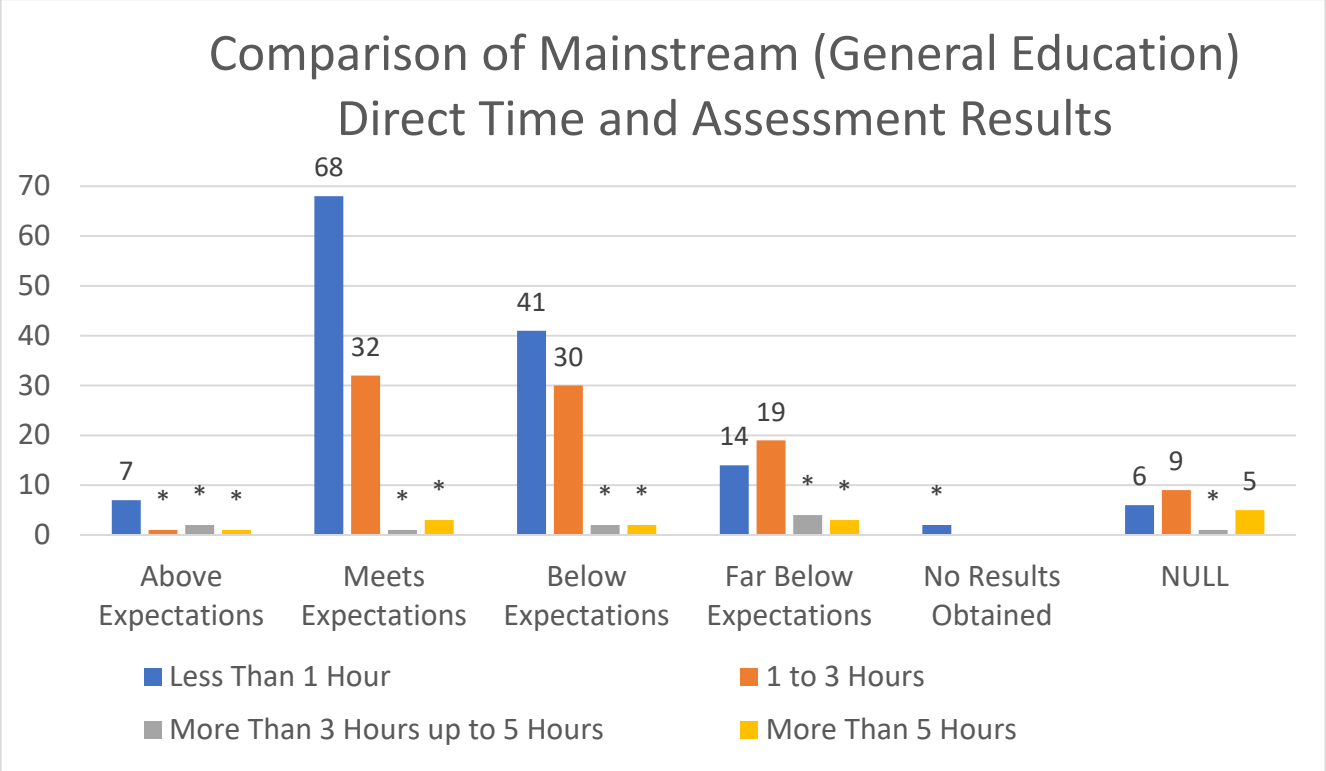


*Data reported contains small counts of students and is masked for confidentiality.



*Data reported contains small counts of students and is masked for confidentiality.

TEC §29.316(c)(2)(A) charges the agency to collect data on time spent by students in a mainstream setting. As opposed to the mainstream instructional arrangement used for attendance accounting purposes, TEA interprets "mainstream setting" to be time spent in a general education classroom. In subsequent data collection efforts, the agency will confirm this interpretation with LEAs. Students who receive special education services in the mainstream setting (253 students) spend various amounts of time in a general education classroom, with and without supports. Supports can include a sign language interpreter to facilitate communication, a paraprofessional to provide support, or an inclusion teacher to provide instructional supports. Students may spend less than an hour up to more than 5 hours a day in a mainstream (general education) setting as identified in their individualized education program (IEP). The following bar graph demonstrates the amount of time spent in a mainstream (general education) setting compared to assessment results. No students scored in the far above expectations rating while also receiving mainstream instruction.

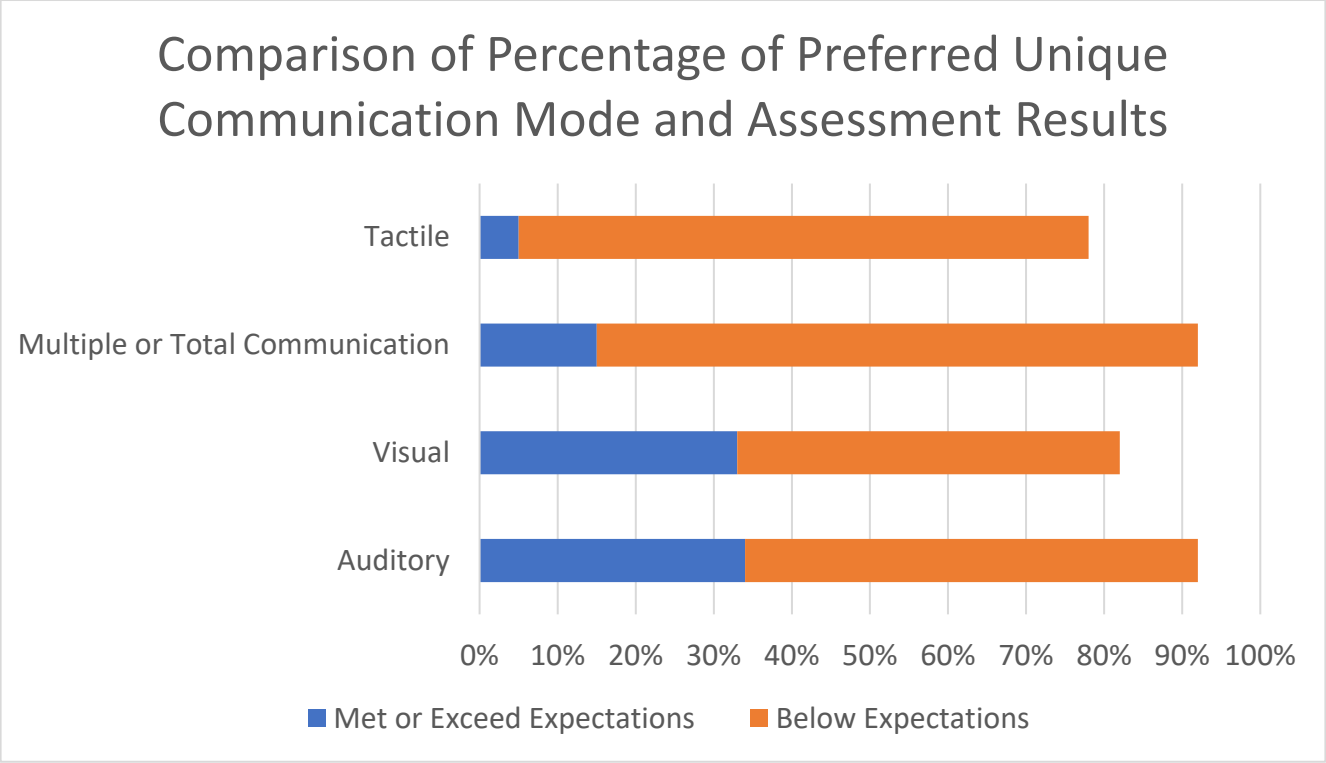


*Data reported contains small counts of students and is masked for confidentiality.

Students are exposed to various communication modes in the home and in different instructional arrangements. Students utilize a continuum of communication modes such as auditory (spoken English or another language primarily used by a child's parent or guardian), visual (ASL or a sign system such as Signing Exact English or Conceptual Signed English), multiple or total communication (both spoken English or another language and a sign system), or tactile (mode or medium, i.e., signing, using touch). Some families chose not to respond to this question, or LEAs were unable to confirm with the family what preferred unique communication mode is used in the home.

Comparison of Preferred Unique Communication Mode Used by the Child in the Home and Assessment Results

Assessment Results Obtained	Auditory	Visual	Multiple or Total Communication	Tactile	No Response from Family	Family Was Not Able to be Reached
Far Above Expectations	1%	n/a	2%	5%	2%	n/a
Above Expectations	3%	6%	1%	n/a	2%	n/a
Meets Expectations	30%	27%	12%	n/a	12%	n/a
Below Expectations	32%	15%	24%	17%	11%	18%
Far Below Expectations	26%	34%	53%	56%	16%	18%
No Results Obtained	1%	n/a	1%	n/a	1%	n/a
NULL	7%	18%	7%	22%	56%	64%



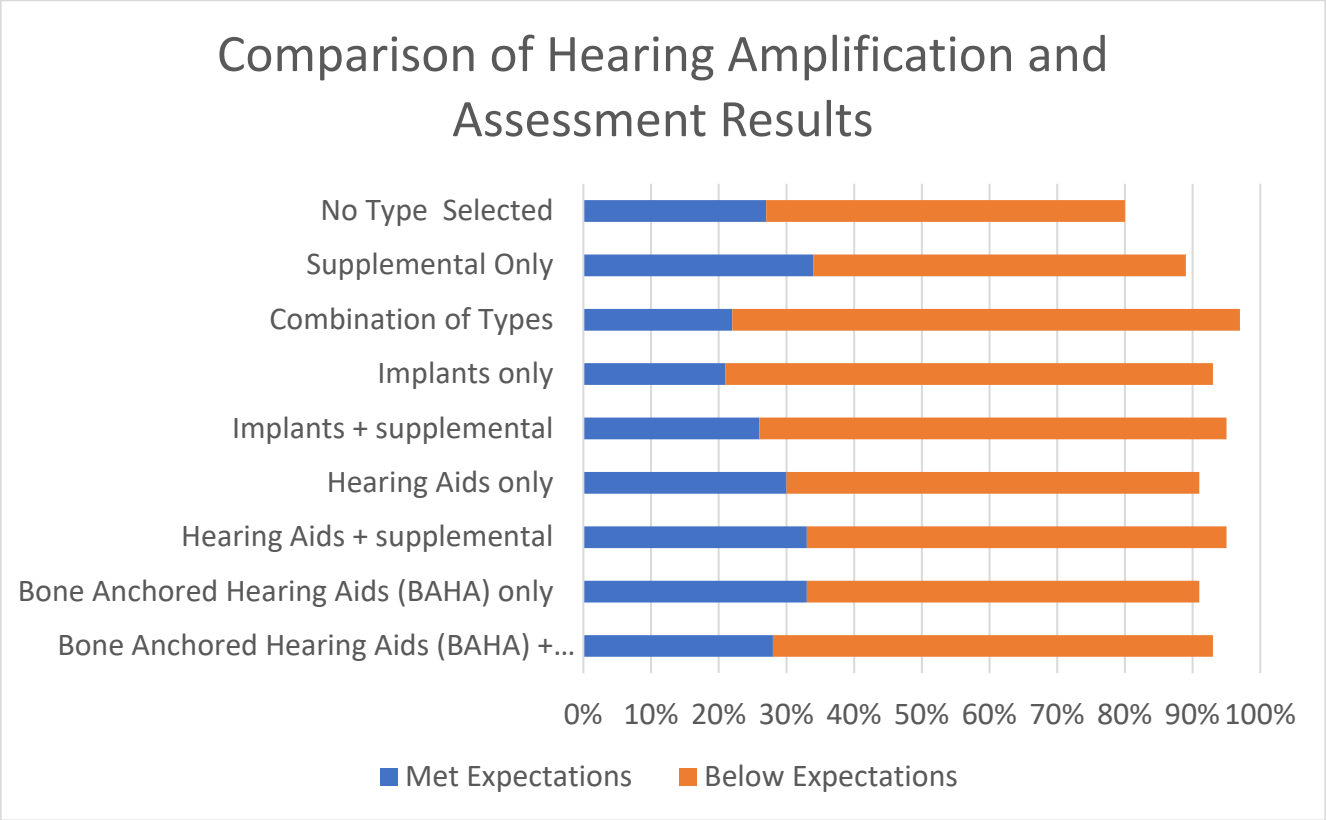
The bar graph above reveals the students have comparable results when either using auditory (spoken English or other spoken language) or visual (ASL or a signed system) communication modes. Students who use multiple or total communication scored “Above Expectations” or “Meets Expectations” at about half the rate of students who utilizes either auditory or visual modes of communication.

Hearing amplification is a potential tool for students to utilize if appropriate in the acquisition of language. Not all students benefit from using a hearing aid, bone-anchored hearing aid (BAHA), cochlear implant, supplementals such as a frequency modulation (FM) system, or sound system to bring sound to the receiver (hearing aid or cochlear implant). Some data collected shows students are using multiple combinations of amplification devices, such as a cochlear implant with a supplemental in one ear and a hearing aid with or without supplemental devices.

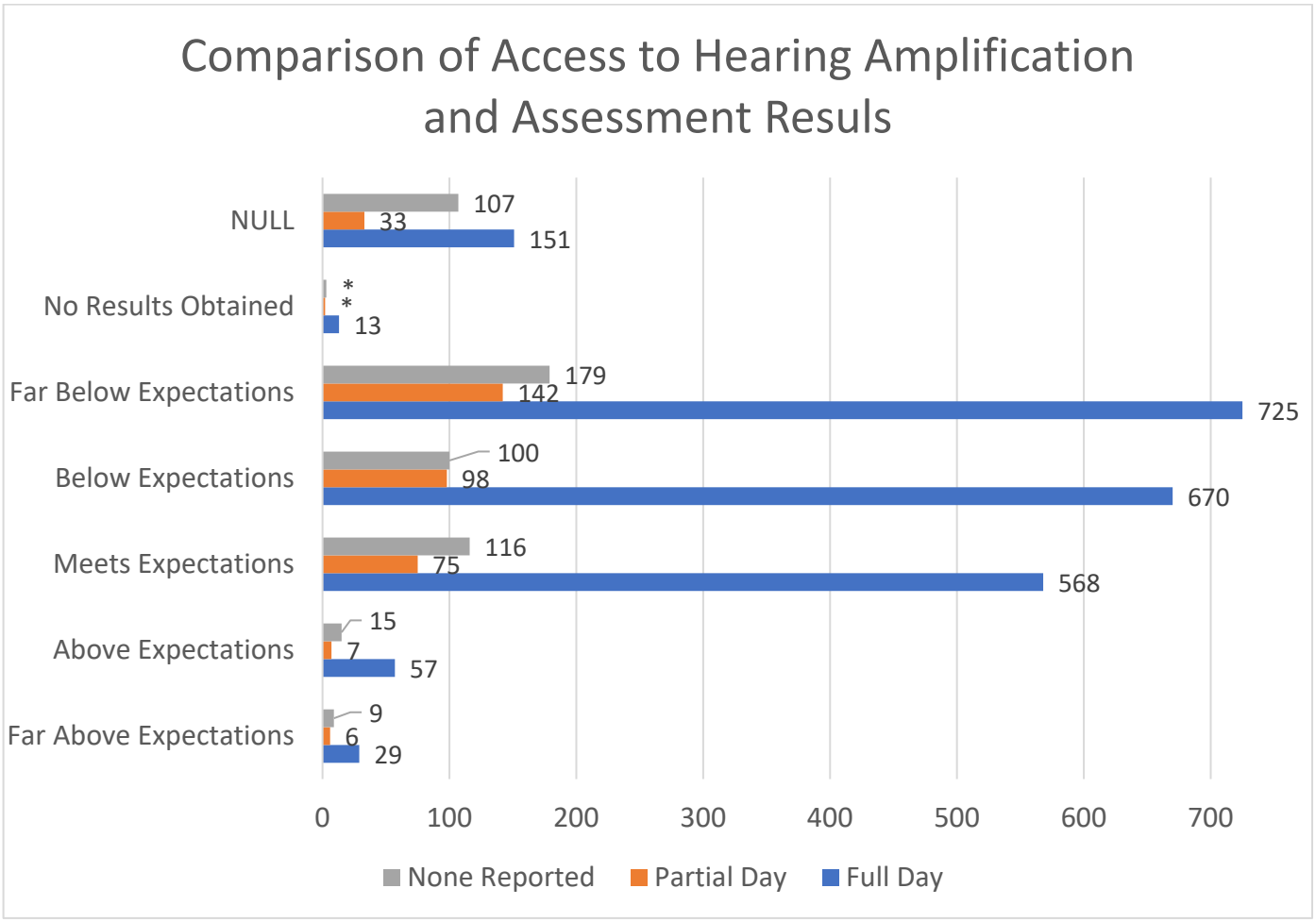
Comparison of Hearing Amplification Devices and Assessment Results

Assessment Results Obtained	Far Above Expectations	Above Expectations	Meets Expectations	Below Expectations	Far Below Expectations	No Results Obtained	NULL
BAHA	2%	3%	28%	32%	26%	1%	8%
BAHA + Supplementals	2%	n/a	26%	41%	24%	2%	5%
Hearing Aids	1%	2%	27%	29%	32%	1%	8%
Hearing Aid + Supplementals	2%	4%	27%	31%	31%	1%	4%
Implants	1%	2%	18%	26%	46%	1%	6%
Implant + Supplementals	1%	4%	21%	37%	32%	n/a	5%
Combination of Types	n/a	2%	20%	32%	43%	1%	2%
Supplementals Only	1%	1%	32%	27%	28%	n/a	11%
No Type Selected	2%	3%	22%	19%	34%	1%	19%

The next bar graph highlights the students' result percentages compared to the amplification used. Students who used implants only scored lower compared to others who used such things as hearing aids, hearing aids with supplementals, etc. Research indicates students who have a cochlear or middle ear implant have a more significant learning curve to master the ability to comprehend speech sounds and acquire language while using the device compared to students who use a hearing aid or BAHA (Pisoni, et al., 2016).

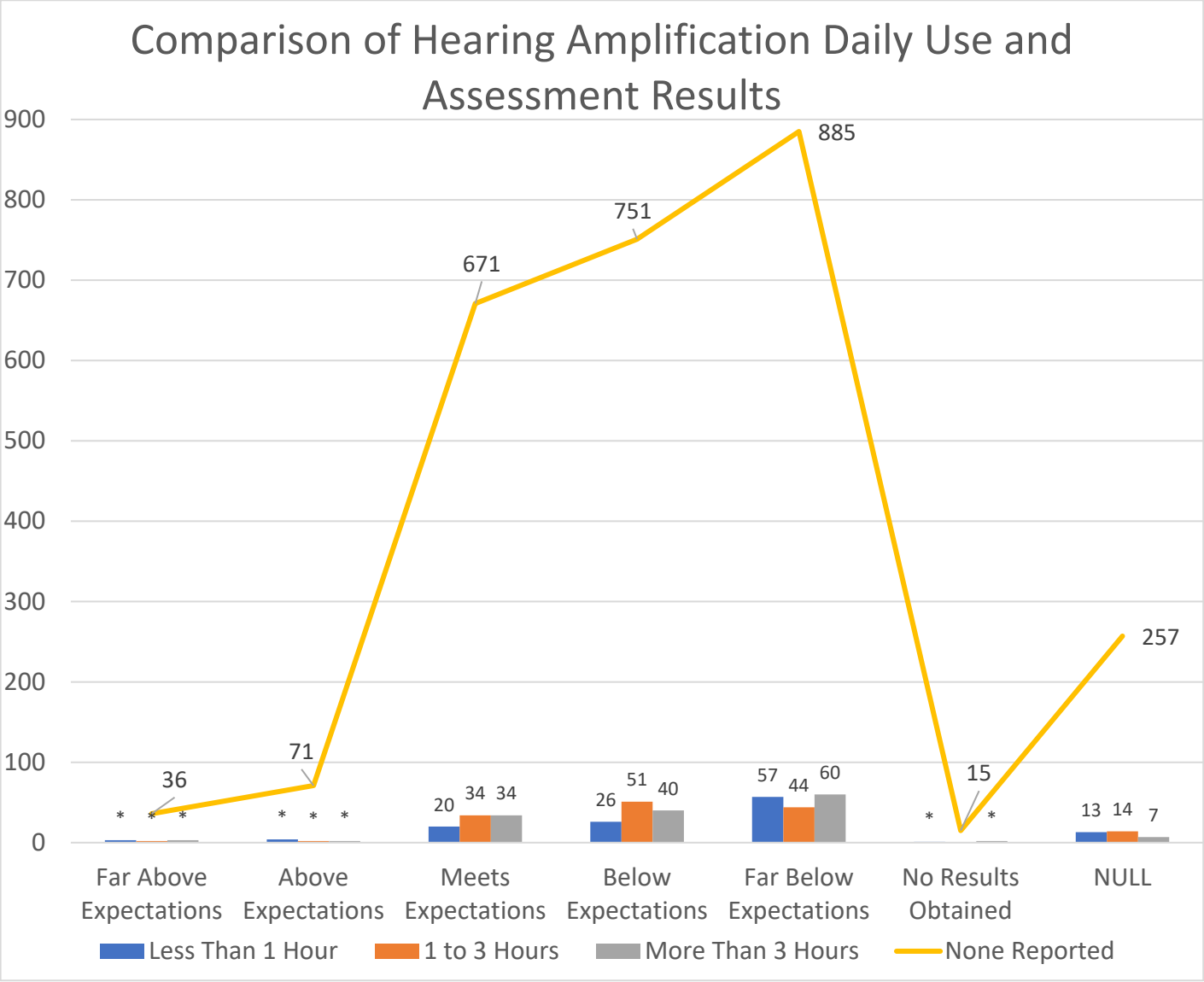


Students have the option to access their hearing amplification devices all day or part of the day. Many students do use those devices all day; however, some only use supplementals for a partial day.



*Data reported contains small counts of students and is masked for confidentiality.

For those students who use hearing amplification devices either full (all) day or partial day, the assessment results were analyzed and displayed in this combination graph. The results show the majority of the students are using hearing amplification all day. The results show many students do not use any type of hearing amplification; often this is a personal preference, or the student and their family do not see the benefit of the devices. For those students currently using some type of hearing amplification device, their scores are similar to the language assessments given.



*Data reported contains small counts of students and is masked for confidentiality.

Conclusion

Students who are DHH and DB and have language delays and/or deprivation may have long-term effects including academic deficits, lack of employment opportunities, difficulties in making and

retaining social relationships, and the need for mental health services and preventive health care (Hall et al. 2017).

The LAC met during the summer of 2021 to review the approved list of assessments and decided to reduce the number of assessments, which will provide more controlled reporting for the 2022-2023 school year. A strong emphasis was placed on ensuring the assessments used will cover all aspects of language acquisition and be available in various languages, such as English and ASL. Annually, the LAC will review the current list of approved assessments and will make amendments to the list as indicated by data and student needs. The data will drive the need for future technical assistance to be provided to LEAs and families and, eventually, will be used to identify trends across multiple years of data.

TEA, in conjunction with HHSC and TSD, will continue to evaluate the data received from the 2020 – 2021 and 2021-2022 school years and compare it with the school years to come. Additional supports have been identified to assist in the data reporting will be created (e.g., collaboration with Statewide Outreach Center at TSD to provide access to qualified assessors for ASL assessments, additional training to maintain the number of TSDS PEIMS champions to enter data in the TSDS SELA core collection and obtain clarification on the definition of "mainstream".) The annual statewide report will be reviewed by multiple stakeholders to increase awareness of the systematic concerns of language delay and deprivation for children who are DHH and DB. This will allow LEAs to evaluate the efficacy of services and interventions as well as to ensure the continuous growth of language acquisition for students who are DHH and DB and ages 8 years old and younger.

Resources

Additional information can be found in past reports:

HB 548 – Language Acquisition for Deaf and Hard of Hearing Students 0-8 Years of Age

2020-2021 Annual Statewide Report on Language Acquisition for DHH and DB Students Ages 0-8 Years of Age

For more information about HB 548 language acquisition for students who are DHH or DB and ages 8 years old and younger or the TSDS SELA core collection, please contact the SELA mailbox at SELA@tea.texas.gov.

Reference List

Hall, Wyatte C., Leonard L. Levin, and Melissa L. Anderson. "Language deprivation syndrome: A possible neurodevelopmental disorder with sociocultural origins." *Social psychiatry and psychiatric epidemiology* 52, no. 6 (2017): 761-776.

Pisoni, David B., Kronenberger, William G., Chandramouli, Suyog H., and Conway, Christopher M. "Learning and Memory Processes Following Cochlear Implantation: The Missing Piece of the Puzzle." *Frontiers in Psychology*, (2016): https://www.frontiersin.org/articles/10.3389/fpsyg.2016.00493/full.