

# 3-Tiered Approach to Text-to-Speech (TTS) in Instruction & Assessment

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# Objectives

Participants will:

- Review the 3-tiered approach of text-to-speech (TTS)
- Explore the Protocol for Accommodations in Reading and benefits of administering to students
- Learn the requirements for obtaining TTS for ELA passages for students on the state assessment
- Identify resources for accessible educational materials (AEM) in daily instruction.



# Focus on Instruction

\_\_\_\_\_ of degree-granting postsecondary institutions report assistive technology as core support to meet the needs of students with a disability.

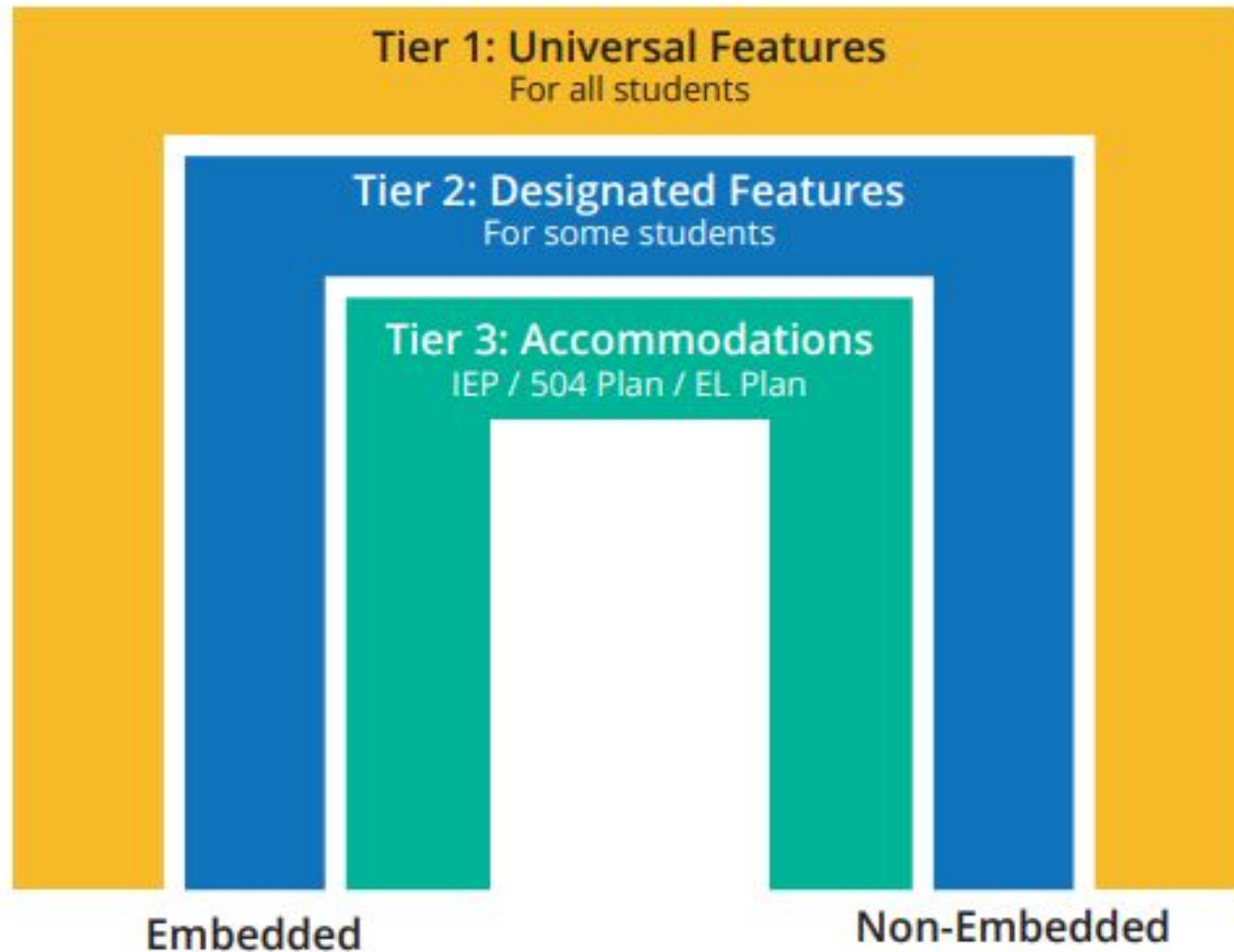
*(National Center for Education Statistics, 2013)*

# 3-Tiered Approach to Accessibility

[The Kansas Accessibility Manual](#)

# 3-Tiered Approach to Accessibility

Tools and Accommodations for the Kansas Assessment Program





## Accessible Educational Materials (AEM)

print- and technology-based educational materials, including printed and electronic textbooks and **related core materials** that are designed or enhanced in a way that makes them **usable across the widest range of learner variability, regardless of format** (e.g., print, digital, graphic, audio, video).

# Text-to-Speech (TTS)

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# TTS & AEM for Instruction

## Universal Feature

- Selected as preference by the Student
- Available as built-in accessibility feature on device or purchased universal tool
- Optional accessible digital instructional materials

## Designated Feature

- Available as a scaffold support
- Accessible digital educational materials available

## Accommodation/AT

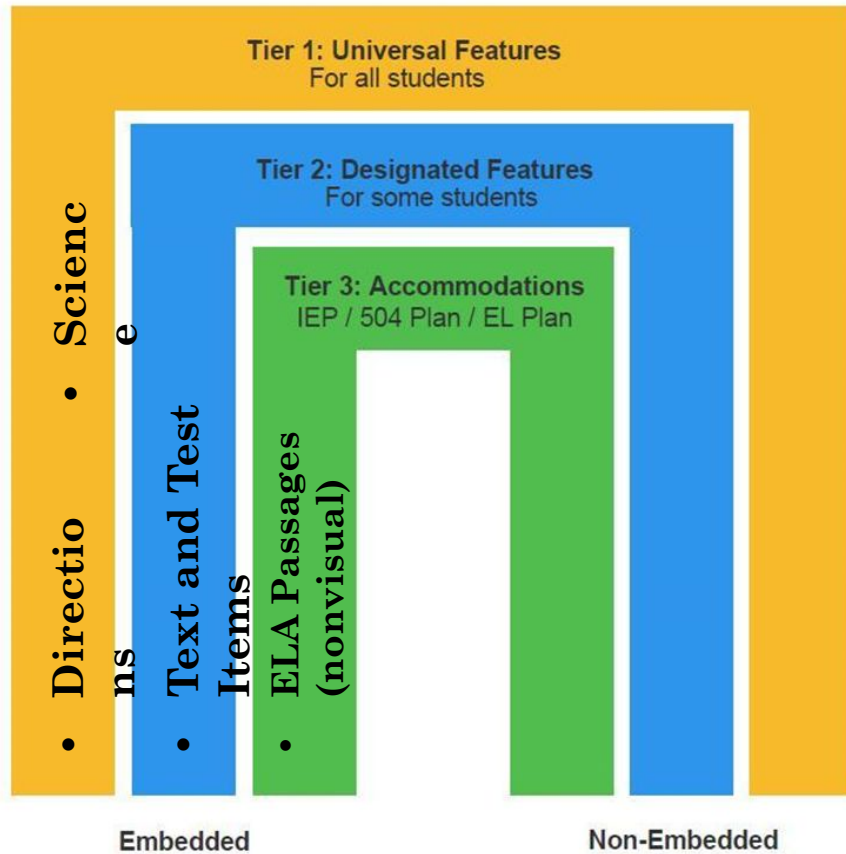
- Determined as a need for access to educational materials
- Frequency, Location & Duration Highlighted on IEP
- Specific AT Features outlined in IEP

# School Example of Resources

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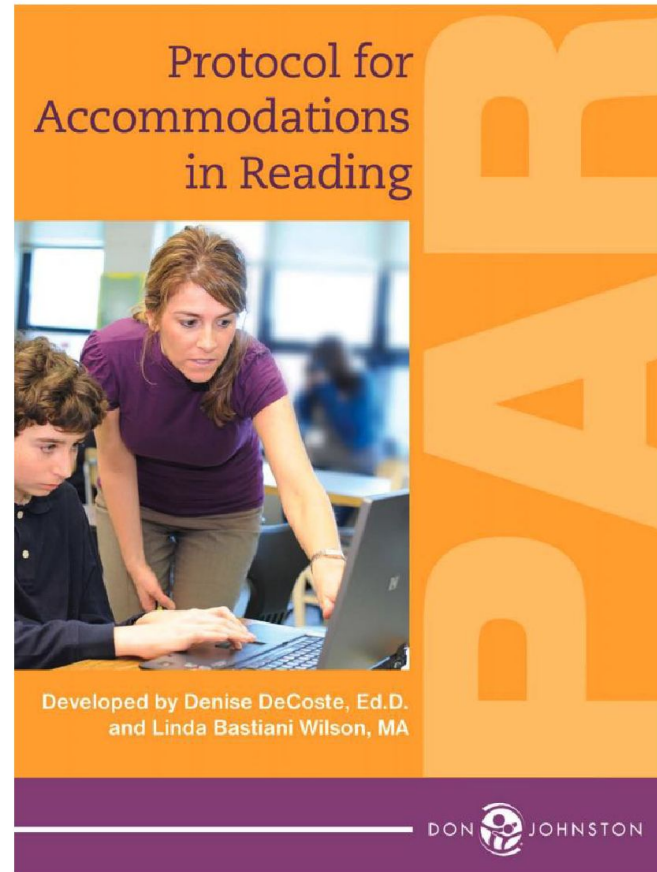
# TTS Options Available on the KAP



- Directions (available for all students)
- Science (available for all students)
- Text and Test Items- text and graphics which is the default (designated feature available to some students with a need)
- ELA Passages (nonvisual) accommodation for a few with approval from KSDE
  - Text-to-Speech Checklist (Nonvisual) must be completed and turned in by the district test coordinator by January 31<sup>st</sup>.

# Protocol for Accommodations in Reading (PAR)

# Protocol for Accommodations in Reading



- The Protocol for Accommodations in Reading (PAR) is a **formative assessment tool** that can be used with any student struggling with reading.
- The PAR is intended to help educators **make informed decision** about reading accommodations.

# Why Administer the PAR?

*“Relying on subjective judgment, teachers are no better than chance at determining whether a student needs a read aloud accommodation.”*

(Fuchs & Fuchs, 2001; Helwig & Tindal, 2003)



# Student PAR Protocol 3 Conditions

## Silent Reading Passage and Comprehension Questions

- Independent reading level identified by teacher with curriculum based measure

## Human Reading Passage and Comprehension Questions

- Text is read by human voice

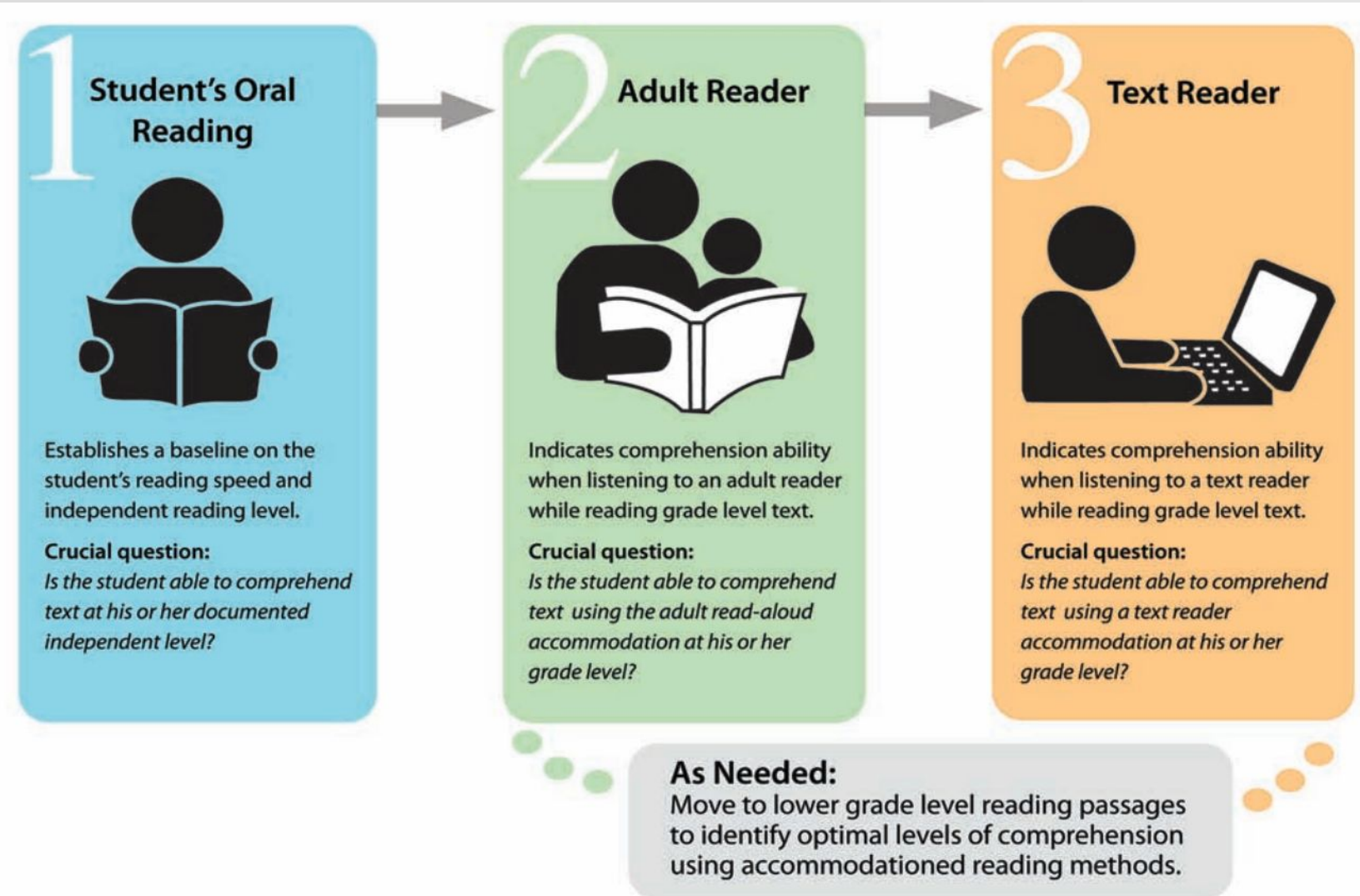
Measures Listening Comprehension

## Digital Text Reading Passage and Comprehension Questions

- Text is read by digital reader

# Profile for Accommodation in Reading

Using an evidence-based approach to compare the effectiveness of reading accommodations.





# PAR Administration Steps

Step 1:

Gather Background Information

Step 2:

Prepare Materials, Arrange a Location and Protocol Administrator

Step 3:

Score the Protocol

# Step 1: Gather Background Information

Student's Grade Level

Identify student's *Independent Reading Level*

Gather this information from most recent curriculum-based measure

Establish how often reading accommodations have been used during daily instruction

## KEY QUESTION:

Is the student familiar and using Text to Speech for daily instruction?

# Step 2: Prepare Materials

1. Print reading passages and scoring forms for the selected grade levels  
Passages and scoring forms can be found at [donjohnston.com/par](http://donjohnston.com/par)
2. Select the appropriate reading passages more likely to engage the student's interest(s).
3. Select all narrative or all expository passages in order to compare similar types of reading tasks.

## Silent Reading

- Student's Independent Reading Level

## Human Reader

- Student's Grade Level
- Not required for checklist

## Digital Text Reader

- Student's Grade Level or Above Student's Grade Level

# Step 2: Arrange Location & Protocol Administrator

Pre-arrange a quiet space to administer the PAR.

Allocate 15 minutes per reading passage.

Administration time is typically about 45 minutes in 2 or 3 short sessions.



TIP: The PAR does not have to be completed in 1 day. The Screening Protocol can be completed over multiple days.

# Free Digital Text Readers

- [Text Help's Read&Write: Free for Teachers](#)
- [Natural Reader](#)
- [Microsoft Learning Tools: Immersive Reader](#)

Accessible Built in Tools – [Review Infnitec Digital Text Resources](#)

- Chromebooks
- iPad/iOS devices
- Microsoft Learning Tools

# Tip to Consider

Print binders of manuals, passages and scoring sheets organized by grade level.



# Tip to Consider: Administering the PAR to Multiple Students

- Create PAR Stations:
  - Station 1: Educator administers the Silent Read Condition
  - Station 2: Educator administers the Human Reader Condition
  - Station 3: Educator administers the Digital Text Reader Condition
- Educators move students through all Stations
- Score all Protocols and rank after the completion of ALL PAR protocols for students

# Tip to Consider: Use Student's Daily Reader

- If the student is using digital text readers during daily instruction:
  - Use the text reader, voice, and speed similar to what the student uses daily
  - For example if the student uses Snap&Read or Text Help's Read and Write daily use those same tools to listen to the Digital Text Reader portion of the screening

What type of text to speech readers are available for students in your district or agency?



# Score the Protocol

## Scoring Key:

### Independent Level

- Comprehension in the top quartile (75% and above)

### Instructional Level

- Comprehension in the 2<sup>nd</sup> or 3<sup>rd</sup> quartile

### Frustration Level

- Comprehension at the lower quartile (25% and below)

DeCoste, Denise, and Linda B. Wilson. Protocol for Accommodations in Reading. 2nd Edition. 04/2014. Volo: Don Johnston Incorporated, 2014. eBook. donjohnston.com/par



**Who should see the data?**

# PAR Video Resources

[\*PAR in Action by Don Johnston\*](#)

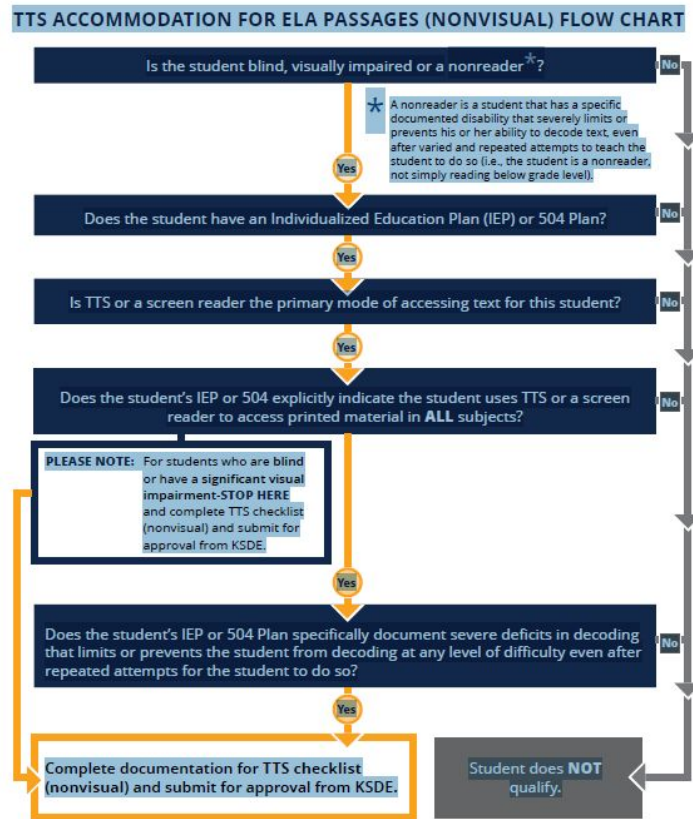
[PAR \(Protocol for Accommodations in Reading\)  
with Denise DeCoste](#)

# State Assessment: TTS Nonvisual

[KSDE State Assessment Text to Speech \(TTS\) Checklist \(Nonvisual\)](#)

# TTS Accommodation for ELA Passages (Nonvisual) Flow Chart

TTS ACCOMMODATIONS AVAILABLE ON THE KAP



## [Start with the TTS Accommodation for KAP with Flow Chart](#)

- If all questions are yes proceed to completing the TTS checklist
- If any question is no the student will not be approved for the nonvisual setting
- A test coordinator or administrator must review checklist and complete bottom of form
- The district test coordinator must submit all checklists in one pdf by **January 31**

# Text-to-Speech Checklist (Nonvisual)

**NONVISUAL TTS** Text-to-Speech Checklist (Nonvisual) FOR KDE USE ONLY

10 digit SSID/KIDS ID: \_\_\_\_\_ Grade: \_\_\_\_\_ IEP/504 date: \_\_\_\_\_

District name: \_\_\_\_\_ District number: \_\_\_\_\_

1. The student is:  
 Blind  
 Visually impaired  
 A nonreader

2. The student has a current:  
 IEP  
 504 plan

3. Is Text-to-Speech or a screen reader the student's primary mode of accessing text in ALL subjects (textbooks, books, assignments, tests)?  
 Yes  
 No

4. Please mark all that apply to the reading accommodations listed on the student's IEP/504.  
 What?  
 Text-to-Speech  
 Human reader  
 When?  
 State assessments  
 Classroom assessments  
 Classroom assignments

Students who are blind or have a significant visual impairment can stop here.

5. Does the student's IEP or 504 plan document severe deficits in decoding skills and provide services or supports to address the reading deficits?  
 Yes  
 No

6. What is the student's Lexile level without Text-to-Speech (TTS) or audio accommodations?  
 Lexile Level: \_\_\_\_\_  
 Tool used: \_\_\_\_\_  
 Date administered: \_\_\_\_\_

7. What are the student's results from the Protocol for Accommodations in Reading® (PAR) or uPAR?  
 Indicated comprehension scores in the top quartile.  
 Indicated comprehension scores in the middle two quartiles.  
 Indicated comprehension scores in the bottom quartile.

GRADE LEVEL	STUDENT'S ORAL READING			TEXT READER		
	Top Quartile	Middle Two Quartiles	Bottom Quartile	Top Quartile	Middle Two Quartiles	Bottom Quartile
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1 <https://www.ksde.org/resources/1188>

Test Coordinator or building administrator  
 I have reviewed and verified this student's checklist including the IEP/504 plan indicating the student is receiving TTS or audio supports on a regular basis for instruction and assessment.  
 Name: \_\_\_\_\_  
 Position: \_\_\_\_\_

All checklists for the district must be submitted by the district test coordinator in ONE pdf to [TTSnonvisual@ksde.org](mailto:TTSnonvisual@ksde.org) by January 31.

Kansas State Department of Education | 900 S.W. Jackson Street, Suite 102 | Topeka, Kansas 66612-1212  
[www.ksde.org](http://www.ksde.org)

For more information, contact:  
 Cary Rogers  
 Education Program Consultants  
 Special Education and Title Services  
 (785) 296-0916  
[crogers@ksde.org](mailto:crogers@ksde.org)

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 April 13, 2022

## Updated [checklist](#) for 2020-2023 school year

- Question 3 – revised to include accessing text in ALL subjects
- Question 4 – revised to remove accessing text in ALL subjects since it was moved to question 3
- Lexile with TTS has been removed
- Fluency accuracy has been removed
- Data from the PAR or uPAR graph was added (We are only asking for the oral reading and the text reader to be submitted)

# Human Reader

A HUMAN READER IS NOT  
AN ALLOWED  
ACCOMMODATION  
ON THE KAP ASSESSMENT



# Key Points to Remember

- Form must be **complete**
- This accommodation is for **TTS for the ELA passages**, KSDE does not need to approve the TTS text and graphics setting which is the default on Kite – TTS for test items
- Students who are **blind or visually impaired** can stop after question 4
- **Non-readers must be using Text-to-Speech** in order to be approved for the nonvisual setting. Students who only have a human reader will not be approved
- Students who have a Lexile without TTS or audio accommodations above 500 would not be considered a non-reader





# Is Text-to-Speech or a screen reader the student's primary mode of accessing text in ALL subjects(textbooks, books, assignments, tests)?

- Is the student using TTS or a screen reader to access
  - Textbooks
  - Books
  - Assignments
  - Tests
  - In all subjects
- How does the student access tests and assignments in PE/health, music, or elective classes?
- How does the student access core content (ex. science chapter) they are responsible for on assignments and test?
- How does the student access text when completing homework?
- The goal should always be independence – a human reader does not allow the student to be independent.



# What does the IEP/504 plan say?

- What accommodation does the student receive?
  - Text-to-Speech (includes screen reader and digital text)
  - Human Reader
  - Both TTS and Human Reader
- When does the student receive the accommodation?
  - State assessments
  - Classroom assignments
  - Classroom assessments
- Does the IEP/504 plan document **severe deficits in decoding** skills and **provide services or supports** to address the reading deficits?



# Document TTS on the IEP

- Example 1: Consistent with the accommodations that Sean is using in the classroom, he will receive the following accommodations on statewide assessments: Simultaneous visual and auditory access to text through the independent use of text-to-speech for all allowable parts of the assessment.
- Example 2: The district will apply for approval of TTS (nonvisual) for the ELA passages on the state assessment. If TTS (nonvisual) is approved the student would receive TTS for the ELA passages, if it is not approved, the student would receive text and test items (Text and Graphics).
  - Resource: [Documenting Frequency, Location, and Duration of Accommodations and Modifications on the IEP during the 2020-21 school year](#)
  - Resource: [Assuring the Documentation of Frequency, Location, and Duration of Accommodations on the IEP](#)
  - Resource: [Print Disabilities and the Consideration for Accommodations](#)



# Lexile Level

- What is the student's **Lexile level without TTS or audio accommodations?**
  - Must provide the Lexile level, tool used, and date administered (must be for current school year)
  - This will help support severe deficits in decoding skills
  - This is used to determine if a student is a non-reader
  - Students with **Lexile levels above 500 are not considered non-readers for the Kansas State Assessment**



# Student Results: Ashlee 5<sup>th</sup> grade

Grade Level	Student's Oral Reading	Adult Reader	Text Reader
10			
9			
8			
7		67%	
6		75%	
5	X	75%	63%
4			63%
3			75%
2			
1	63%		

7. What are the students results from the [Protocol for Accommodations in Reading](#)<sup>1</sup> (PAR) or uPAR?

Indicates comprehension scores in the top quartile.

Indicates comprehension scores in the middle two quartiles.

Indicates comprehension scores in the bottom quartile.

GRADE LEVEL	STUDENT'S ORAL READING			TEXT READER		
	Top Quartile	Middle Two Quartiles	Bottom Quartile	Top Quartile	Middle Two Quartiles	Bottom Quartile
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# Student Results: Jacob 6<sup>th</sup> grade

GRADE LEVEL	STUDENT'S ORAL READING			TEXT READER		
	Top Quartile	Middle Two Quartiles	Bottom Quartile	Top Quartile	Middle Two Quartiles	Bottom Quartile
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Jacob clearly performs best with a text reader
- Jacob's comprehension scores are in the top quartile for oral reading at the 3<sup>rd</sup> grade level
- Jacob would not be considered a non-reader
- Jacob could still use the TTS for test items (default which is text and graphics)



# Student Results: Maggie 10<sup>th</sup> grade

GRADE LEVEL	STUDENT'S ORAL READING			TEXT READER		
	Top Quartile	Middle Two Quartiles	Bottom Quartile	Top Quartile	Middle Two Quartiles	Bottom Quartile
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Independent Reading Level: 6 (student is not a non-reader)
- Grade Level Increase with Accommodations: +0 grade levels
- Recommended Accommodations: none
- Summary: Doesn't benefit from reading accommodations. Consider intervention/modifications.



# Reviewing and Verifying Forms

- Forms that will not meet approval criteria
  - Incomplete form
  - Question #3 is no – student can not use the nonvisual setting
  - Question #4 text to speech is not marked as an accommodation on the IEP/504 plan– student can not use the nonvisual setting
  - Question #4 state assessments, classroom assessments and classroom assignments are not listed for the reading accommodation on the IEP/504 plan – student can not use the nonvisual setting
  - Question #5 is no – only students with documented severe deficits in decoding skills and those receiving services or supports to address the reading deficits will be approved
  - Question #6 incomplete or a Lexile above 500 will not be approved since the student would not be considered a non-reader. Student can use the default TTS for test items (text and graphics)
  - Question #7 No increase in comprehension with the reading accommodation or students oral reading comprehension score is at the 3<sup>rd</sup> grade level or above
- The District Test Coordinator must submit all forms in one pdf to [TTSnonvisual@ksde.org](mailto:TTSnonvisual@ksde.org) by the end of the day January 31, 2023





# Frequently Asked Questions

- If students had TTS on KAP in the past, do we need to administer the PAR with them?
- We have students with dyslexia that are not on an IEP or 504, however, classroom... will they qualify for TTS without having the IEP or 504?
- Is “nonreader” relative to grade level text? Example student is in 6th grade but reads at the 2nd grade level independently on a silent read but scores at grade level with a text reader.

[Frequently Asked Questions for TTS Nonvisual](#)



# Student Story



# Questions about administering the PAR, Accessing Digital Text or Assistive Technology Supports:

Beth Zillinger, MS, CCC-SLP  
Program Director  
Kansas Infinitec

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# Questions related to State Assessment & Accommodations

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