

Aspects of Life Impacted by SSDs in Early Elementary Students

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Introduction

- A speech sound disorder (SSD) “refers to any difficulty or a combination of difficulties with perception, motor production, or phonological representation of speech sounds and speech segments, including phonotactic rules governing permissible speech sound sequences in a language” (ASHA, 2016).
- Approximately 8 to 9 percent of young children in the U.S. have been diagnosed with a speech sound disorder (NIH, 2025),
- Each child with SSD is at risk of problems related to speech production, memory, emotional well-being, etc., if their SSD is not addressed appropriately.
- There are 46 distinct approaches for intervention-based methods in treating children with SSD (Baker, 2011), but parents and educators often lack the knowledge of which intervention-based method works for each specific subset of SSD.

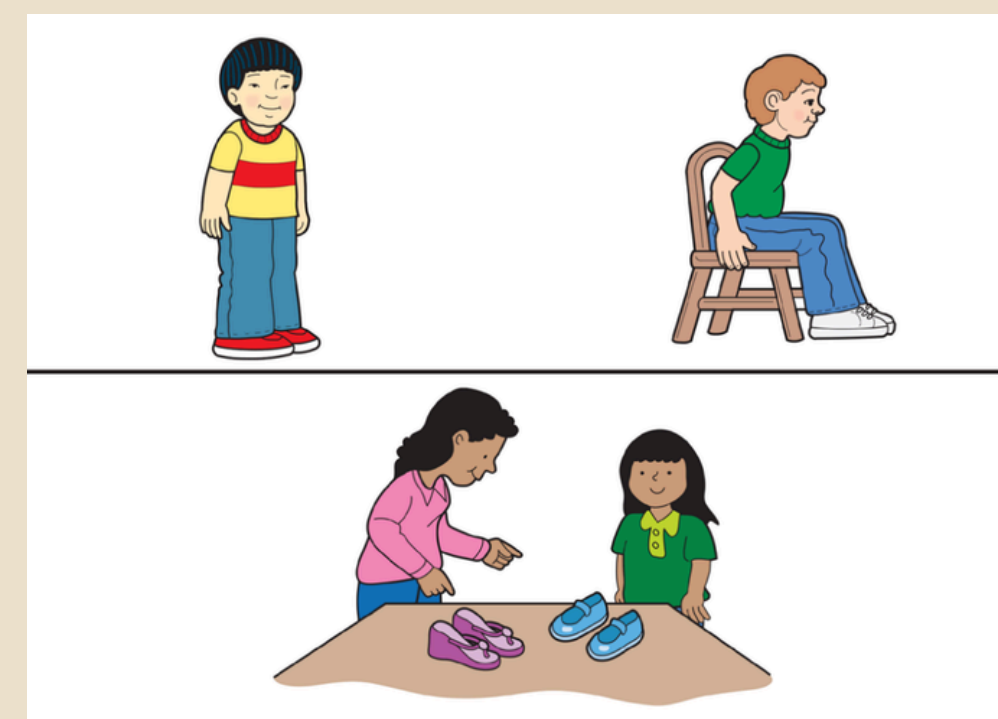
Research Questions:

1. How do SSD impact the lives of children in relation to morphological awareness?
2. How do SSD impact the lives of children in relation to phonological memory?
3. How do SSD impact the lives of children in relation to socioemotional well-being?

Conclusions

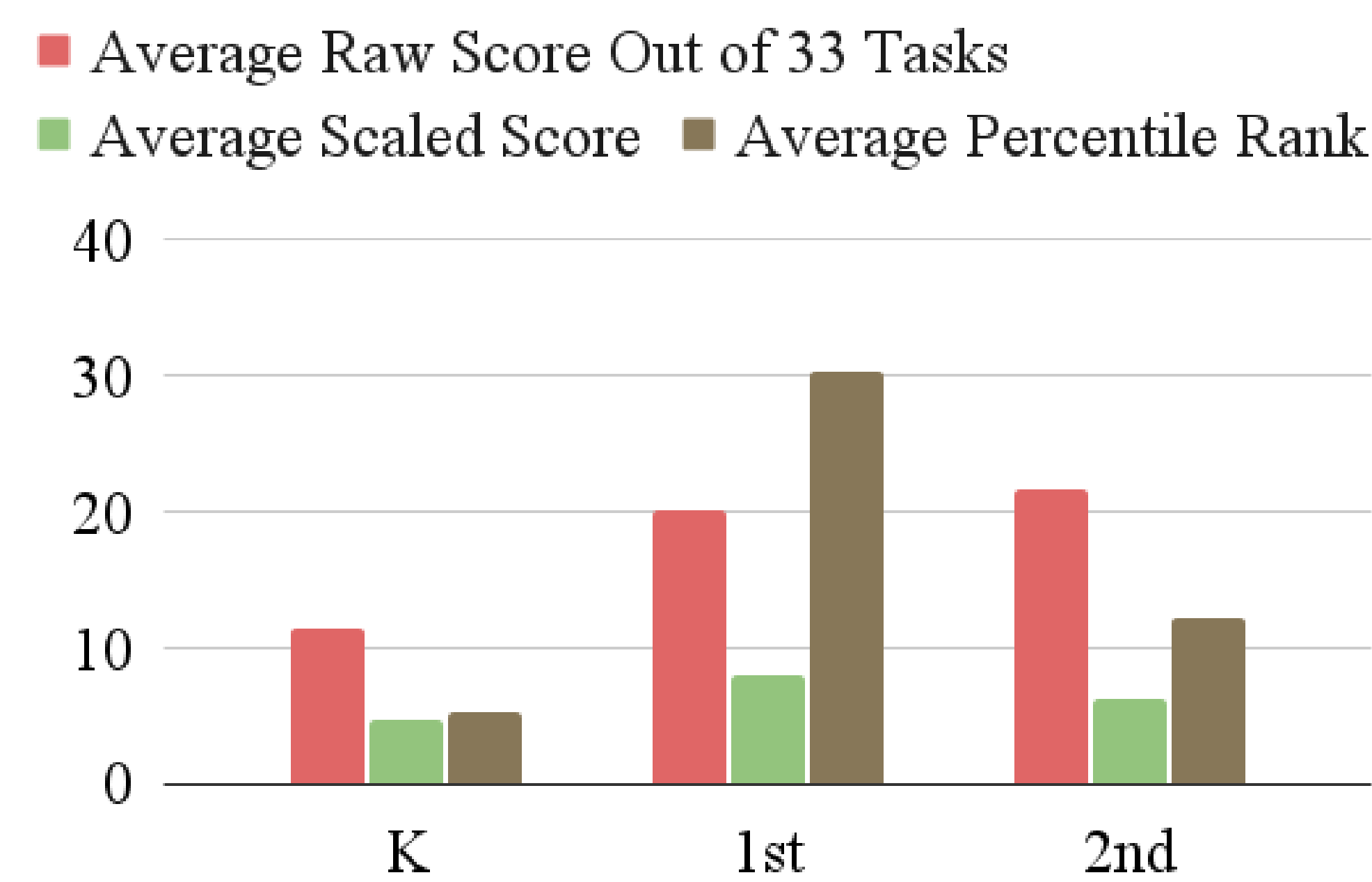
- All data collected is from the second academic year in a 4-year study; therefore, all results are preliminary.
- Additionally, all data was collected from a subset of 15 children with idiopathic SSD from Leon County schools, 5 children for each grade K-2, restricting reliability of results.
- Results show that K-2-aged children with SSD score below average, in comparison to their peers, when tested for morphological awareness and phonological memory, and they tend to struggle more with socioemotional well-being as they get older.
- The results gained from this project help to strengthen the idea that Speech Language Pathologists, educators, and parents/caregivers need the proper knowledge for how a child’s SSD should be addressed to prevent the child from being put at a disadvantage to their peers.

Methods: CELF-5 Word Structure



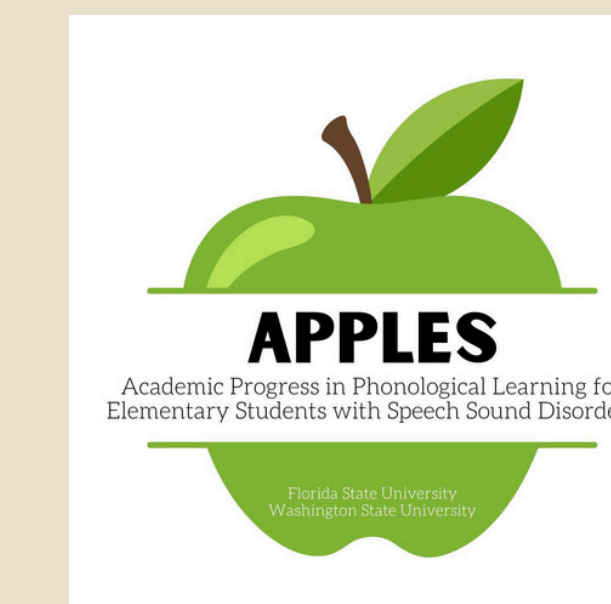
Assessor's prompt	Target word	Target morpheme or pronoun	Examples of SSD responses that would be correct (score as 1)	Examples of SSD responses that would be incorrect (score as 0)
This boy is standing and this boy is...	sitting	-ing	May have interdental or lateral lisp or may use "sittin"//θɪtɪŋ/ ("thitting")	"is" missing and/ or -ing missing entirely
Mom said, "These shoes are mine and those shoes are..."	yours	Possessive 's	/jɔʊz/ (no "r" sound, but the "s/z" sound is there)	/jɔʊ/ (no "r" or "s")

Results: CELF-5 Word Structure



Next Steps

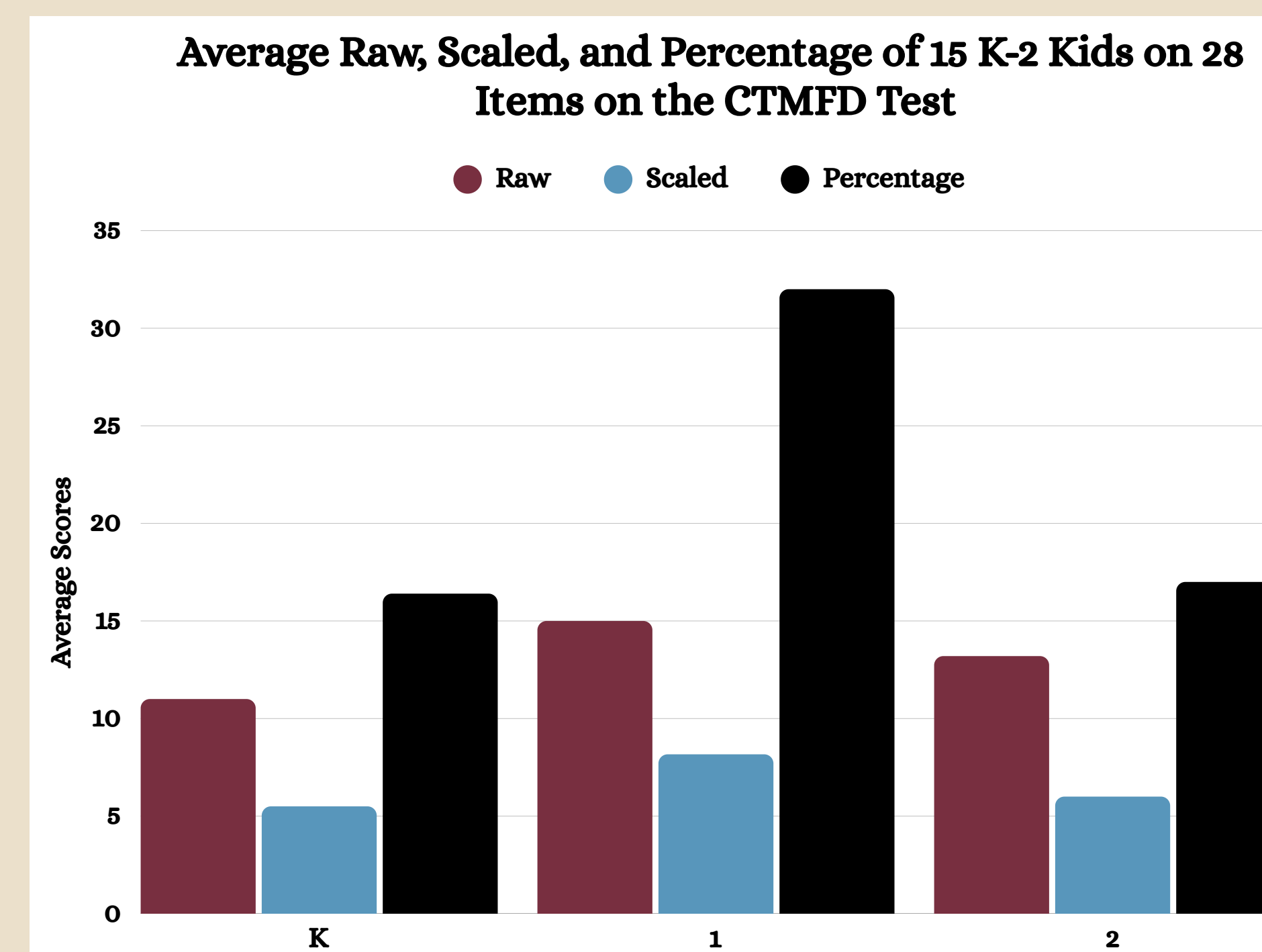
- APPLES will continue to discover the impacts of SSDs in children in multiple (other) areas through multiple avenues of testing.
- APPLES will also consider data collected from Washington State University, throughout the project, to gain a larger and more representative sample.
- As more participants are tested for the remainder of the project, more data will be collected and inputted into RedCap.
- Once all data is collected, it will be analyzed to gain a better understanding of what specifically needs addressing when providing treatment for child with SSD.



Methods: CTOPP Memory for Digits

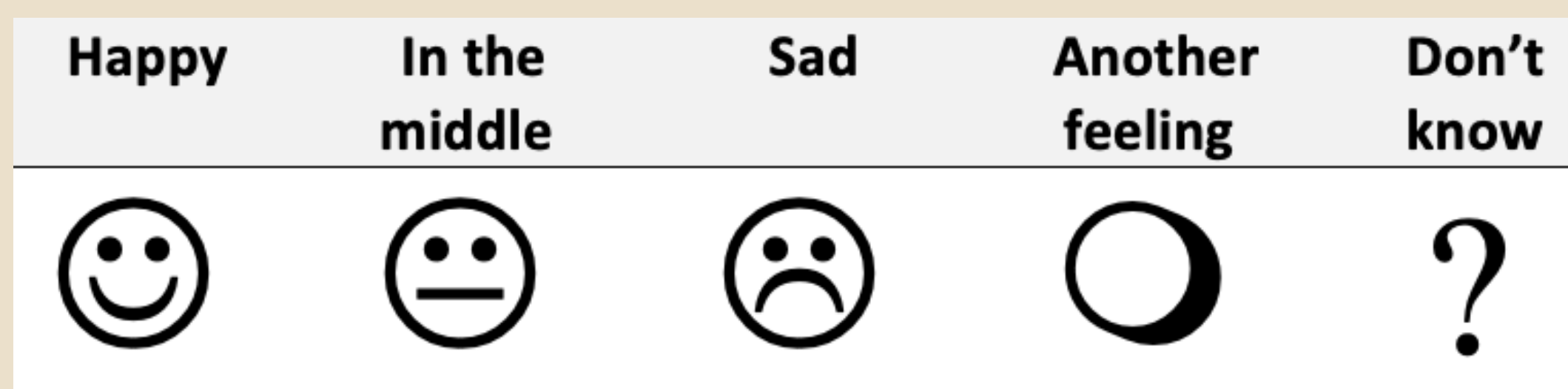
- The CTOPP-Memory for Digits: Requires the child to repeat sequences of numbers presented through an audio recording. The child must repeat these numbers in the order given, with no corrective feedback after the initial 4 items to minimize reinforcement effects.
- The assessment includes 28 total items, and the testing continues until the child makes 3 consecutive errors. The total number of correctly repeated sequences (raw score out of 28) is converted into an age-based scale score and percentile ranks using standardized norms for interpretation.

Results: CTOPP Memory for Digits



Methods: SPAA-C

SPAA-C: Speech Participation and Activity Assessment of Children



The SPAA-C is administered to gain a better understanding on childrens’ own perceptions of their speech by asking 10 questions about their emotions in different speaking scenarios.

Results: SPAA-C

- Children with SSDs tend to feel worse about their speech as they get older (shift from mostly happy kindergarteners to more sad 2nd graders)
- Female children with SSDs tend to feel worse about their speech compared to their male counterparts at all ages

References

