



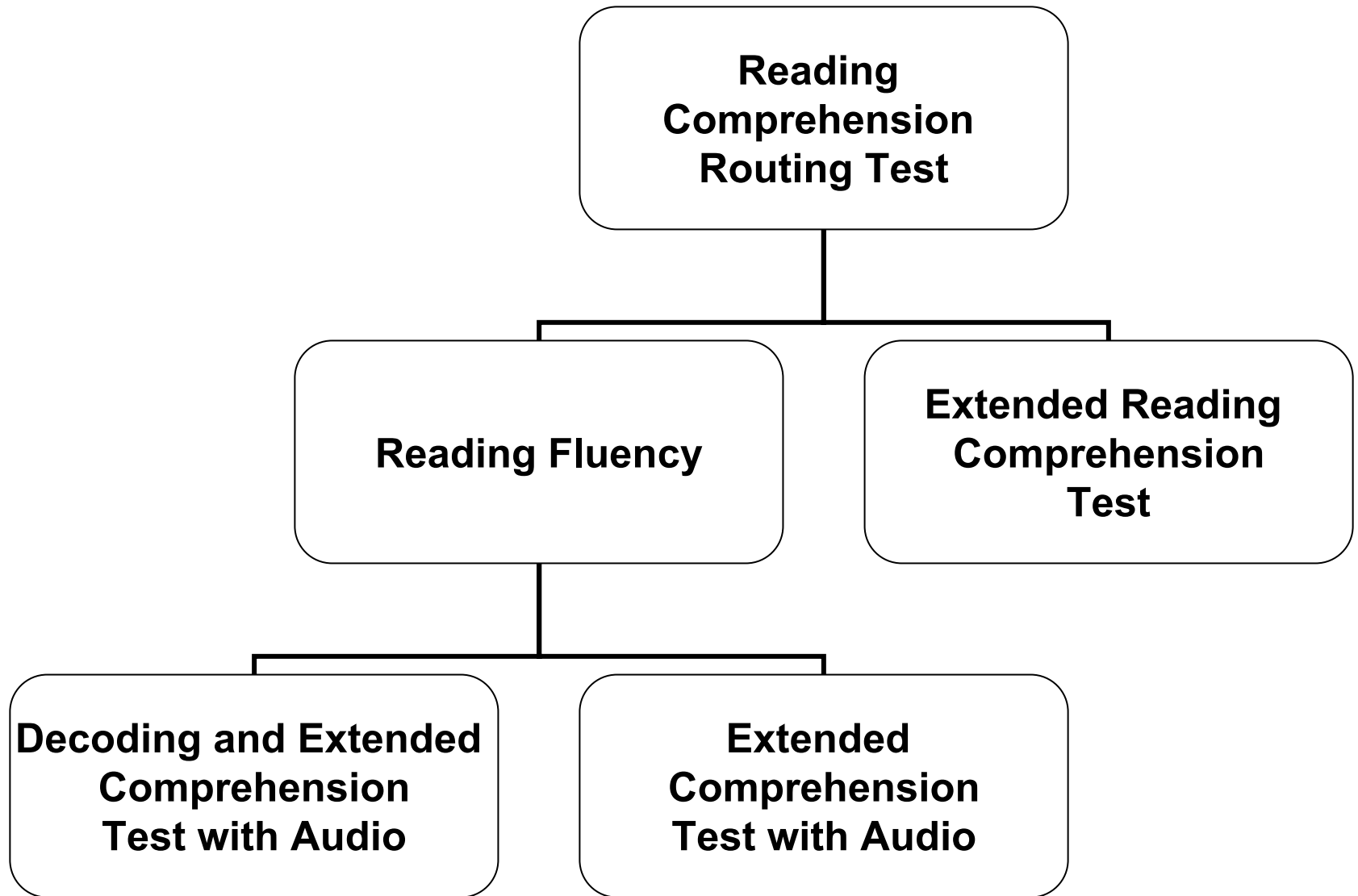
Reading Aloud Tests of Reading: Review of Research from the Designing Accessible Reading Assessments Projects

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**Cara Cahalan Laitusis
Linda Cook
Educational Testing Service**

Designing Accessible Reading Assessments (DARA) Project

- One of 3 National Accessible Reading Assessment Projects (NARAP) funded by OSEP/NCSE
- DARA research has focused on development of a multistage tailored test which measures the components of reading (fluency, decoding, comprehension, vocabulary) in isolation for some students so that read aloud of some items (vocabulary and comprehension) can be an allowable accommodation



Differential Boost Data Collection Design

Group	Session 1		Session 2	
	Form	Testing Condition	Form	Testing Condition
1	S	Standard	T	Audio
2	S	Audio	T	Standard
3	T	Standard	S	Audio
4	T	Audio	S	Standard

Differential Boost ANOVA

- Results of RM-ANOVA showed differential boost
 - Students with disabilities had significantly larger boost than students without disabilities
 - Significant interaction between score gain (boost) and disability status was observed
- Students with reading based learning disabilities do exhibit differential performance gains when they take a reading test with a read aloud test change

Validity of Scores (regression)

- Answer to second question (predictive validity):
 - Test taken with read aloud do not predict teachers ratings of reading comprehension as well as tests taken under standard conditions.
 - However combining read aloud scores with reading fluency scores results in equal (or better) prediction of teacher ratings than tests taken under standard conditions.

Purpose of Differential Item Functioning and Factor Analyses of GMRT

- Determine if the test is measuring the same underlying construct (s) for the following comparisons:
 - Students without disabilities who take the test with and without a read aloud test change
 - Students with disabilities who take the test with and without a read aloud test change

Differential Item Functioning and Factor Analysis of GMRT Data

- Comparisons of item responses for four groups
 - Reading based learning disability (RLD), no accommodation (Standard)
 - Reading based learning disability (RLD), audio modification (Audio)
 - No disability (NLD), no accommodation (Standard)
 - No disability (NLD), audio modification (Audio)

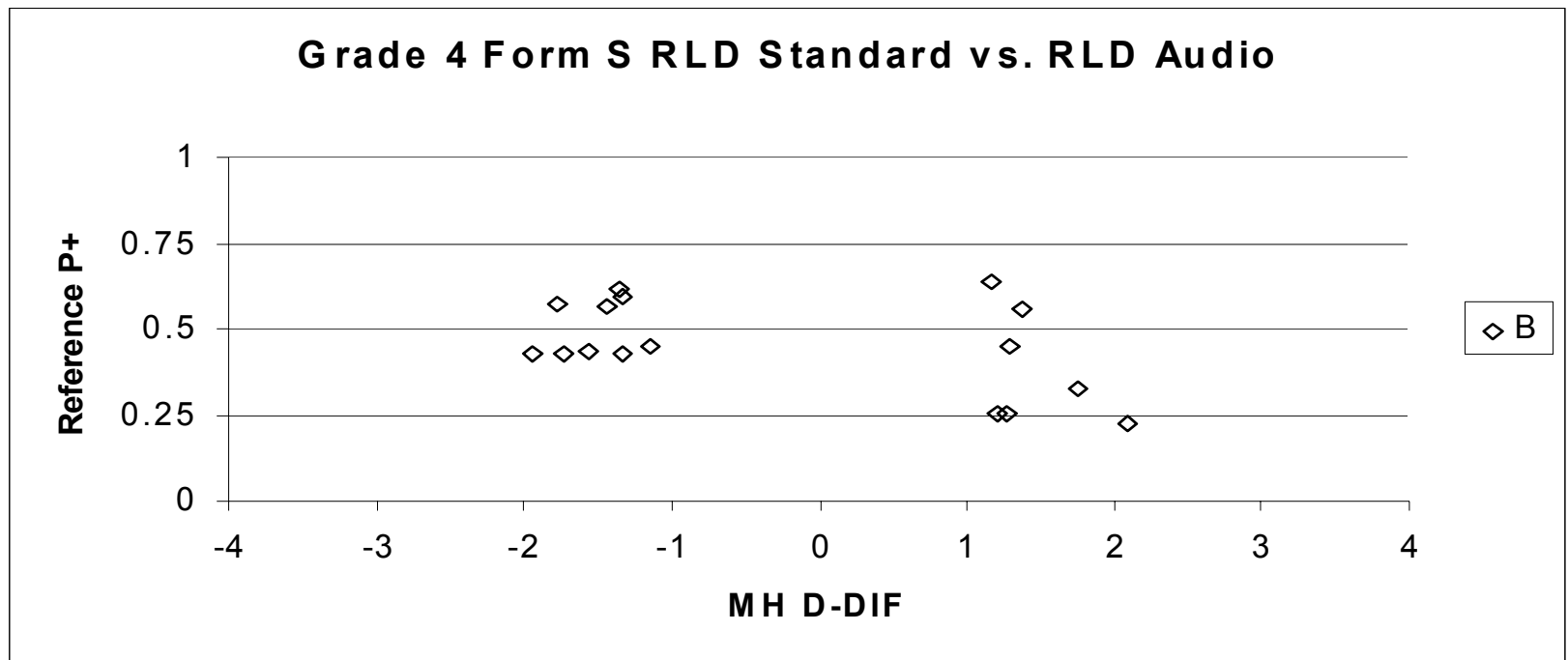
Differential Item Functioning (DIF)

- Test takers matched on proficiency level
 - Used total test score as matching criterion
- Comparison 1:
 - Reference Group: Students with reading disabilities who took the test under standard conditions
 - Focal Group: Students with reading disabilities who took the test with a read aloud test change
- Comparison 2:
 - Reference Group: Students with out disabilities who took the test under standard conditions
 - Focal Group: Students with out disabilities who took the test with a read aloud test change

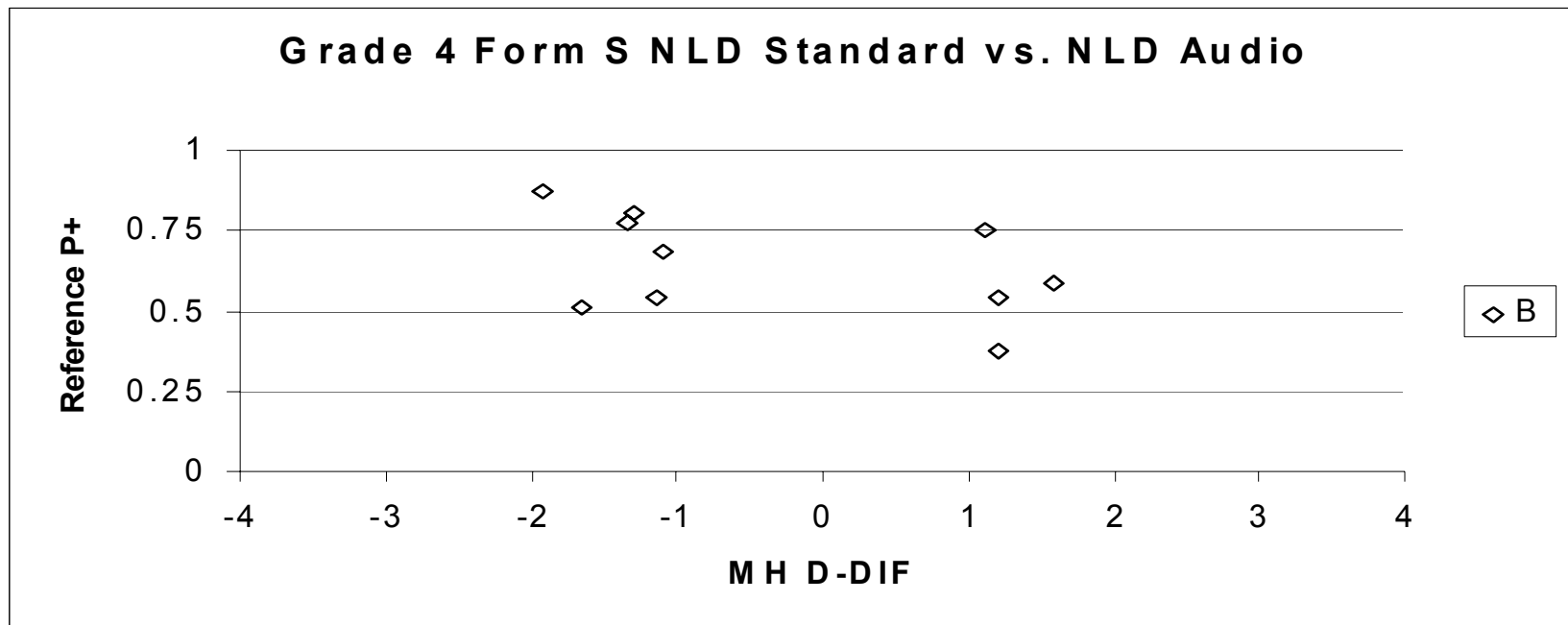
Differential Item Functioning (DIF) Analyses

- Used Mantel-Haenszel procedure with total score as criterion
- Mantel-Haenszel categorization
 - A—negligible DIF
 - B—slight to moderate DIF
 - C—moderate to large DIF
- Direction of DIF Flags
 - Negative favors reference group
 - Positive favors focal group

Comparison 1: RLD Standard (reference group) vs. RLD Audio (focal group)



Comparison 2: NLD Standard (reference group) vs. NLD Audio (focal group)



Factor Analysis of GMRT Data

- Analyzed Form S (4th and 8th grade levels) and Form T (4th and 8th grade levels)
- Investigated the impact of a read aloud test change for students with and without disabilities who took the test with and without the test change
- Does the GMRT measure the same underlying construct (s) for the study groups?

Summary of GMRT Analyses

- Purpose of the studies was to determine if the test measures the same underlying construct (s) when taken with and without a read aloud test change
- Results of the differential boost study showed that students with reading based learning disabilities receive a differential boost on a reading test taken with a read aloud test change
- Results of predictive validity study showed that tests taken with a read aloud test change were not as predictive of teachers' ratings of reading proficiency as tests taken without the read aloud test change
- Results of DIF and factor analysis studies indicate that test measures the same underlying construct for the RLD group, or for the NLD group when taken with and without a read aloud test change