

BACKGROUND



- 30% of children with autism spectrum disorder (ASD) are minimally verbal (MV).
- We don't yet know which MV children are *preverbal* and which will *remain* MV.
- LVIS: designed to assess communication in MV children with ASD.
- Understanding predictors of MV will illuminate processes critical to language development more generally.

OBJECTIVES

1. To assess convergent and divergent validity of the LVIS in relation to gold-standard measures of language ability.
2. To assess the relative difficulty of the items on the LVIS.

METHODS

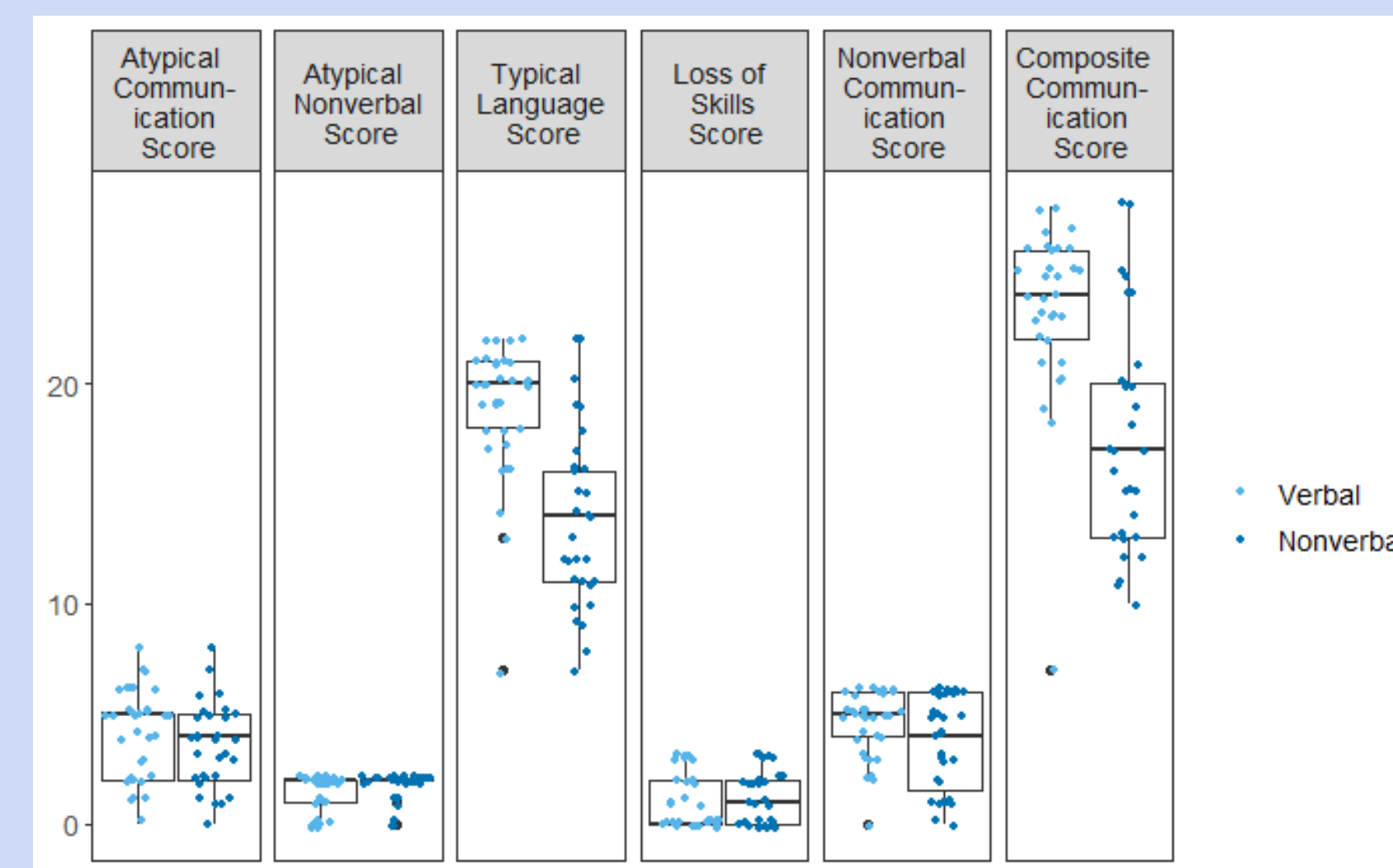
| Participants | ASD | | DLD | | TD | | | | |
|--------------|---------------------------------|-----------|-------------|-----------|-------------|-----------|------------|-----------|--------------|
| | Minimally Verbal | Verbal | n | Mean (SD) | n | Mean (SD) | | | |
| Age (years) | 31 | 4.1 (2.0) | 33 | 4.8 (1.3) | 28 | 1.9 (1.1) | 55 | 3.1 (1.5) | |
| Sex (F/M) | 31 | 4/27 | 33 | 8/25 | 11/17 | | 21/34 | | |
| PLS | Receptive Age Equivalent (mos) | 21 | 21.7 (18.5) | 29 | 38.4 (21.4) | 4 | 30.3 (5.3) | 32 | 57.2 (12.7) |
| | Expressive Age Equivalent (mos) | 21 | 20.1 (18.9) | 28 | 37.3 (17.6) | 4 | 27.3 (5.9) | 32 | 56.1 (12.9) |
| Vineland | Communication Standard Score | 16 | 63.2 (16.8) | 24 | 81.8 (14.8) | 27 | 81.1 (9.4) | 55 | 102.8 (11.1) |
| | Daily Living Standard Score | 15 | 71.9 (19.8) | 24 | 79.8 (13.3) | 26 | 87.5 (6.3) | 55 | 100.2 (10.8) |
| | Social Standard Score | 14 | 63.9 (12.0) | 24 | 75.3 (9.5) | 26 | 88.4 (7.0) | 55 | 100.0 (13.1) |
| | Motor Standard Score | 15 | 84.8 (15.8) | 23 | 79.5 (8.0) | 26 | 88.6 (9.3) | 54 | 98.7 (11.1) |
| ADOS | Social Affect | 25 | 15.1 (5.3) | 30 | 12.0 (4.7) | | | | |
| | Repetitive Behaviors | 25 | 5.3 (2.3) | 30 | 3.4 (1.8) | | | | |
| | Comparison Severity Scores | 22 | 7.5 (2.0) | 30 | 6.9 (2.3) | | | | |

The LVIS provides a valid measure of communicative competence in minimally verbal children with ASD.

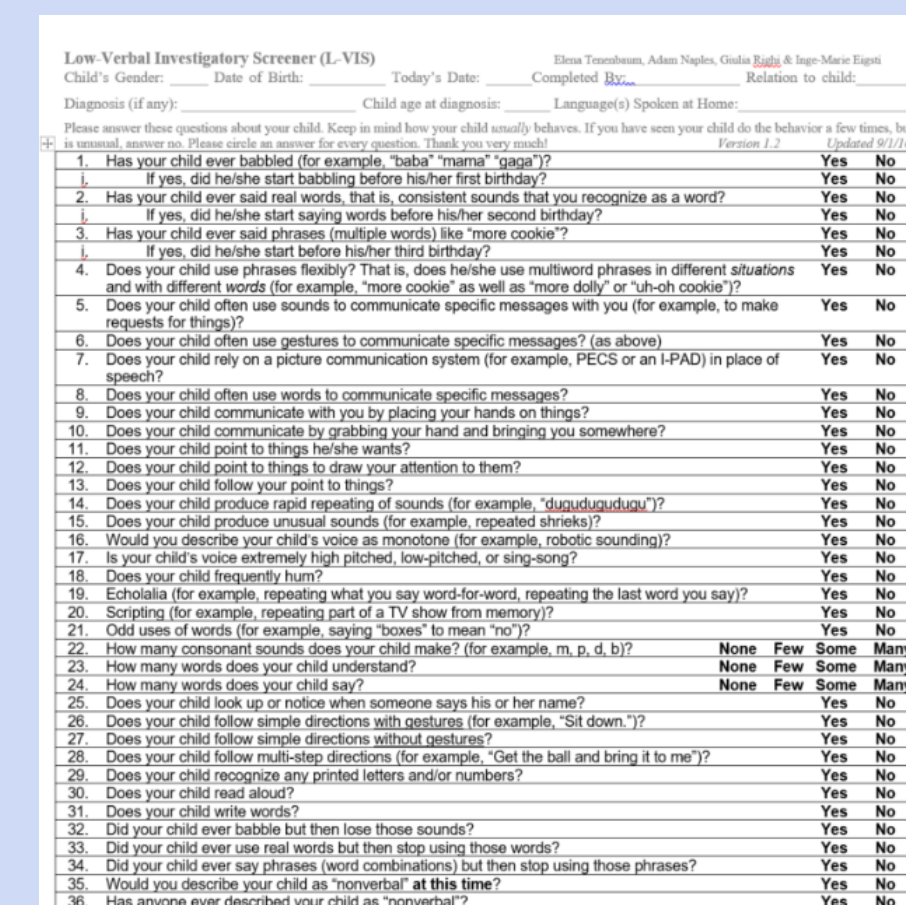
Joint attention is critical for communication.

RESULTS

- Principal components analysis was used to identify 5 factors and a composite score.
- Scores were calculated as sum of items in that factor.

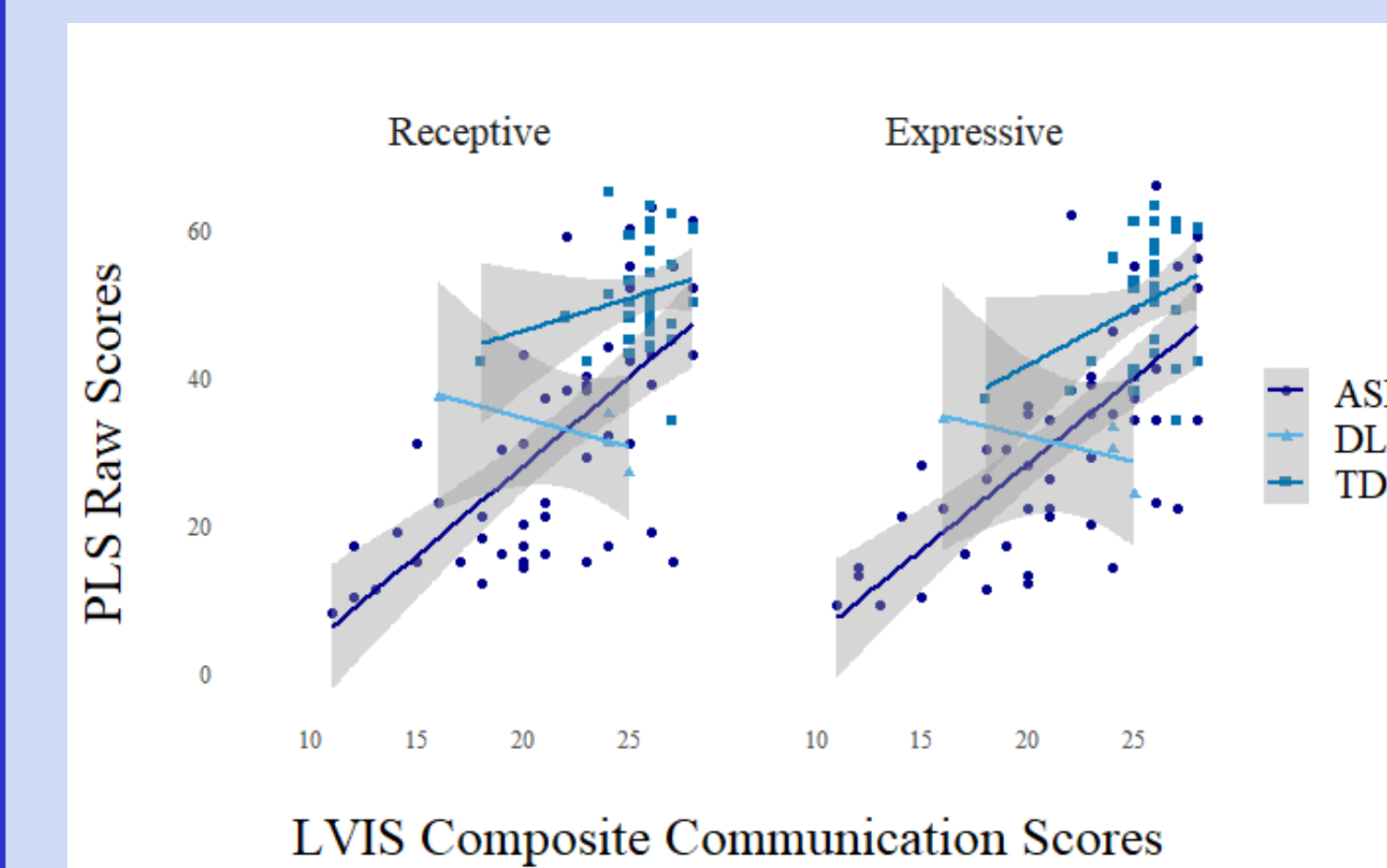


ACCESS THE LVIS (It's FREE!)



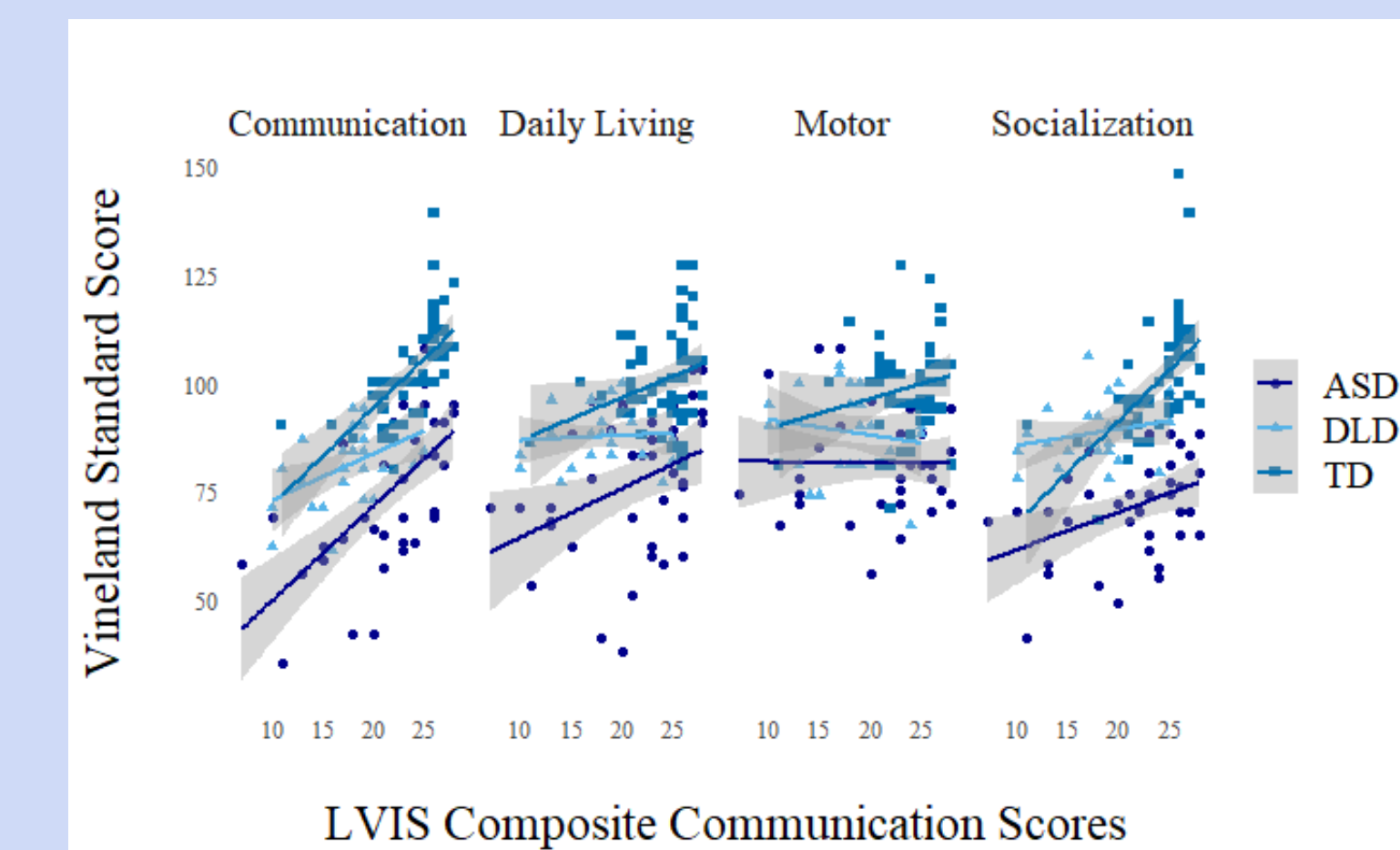
CONVERGENT/DIVERGENT VALIDITY

The LVIS is highly correlated with existing gold standard measures of communication within and across groups.



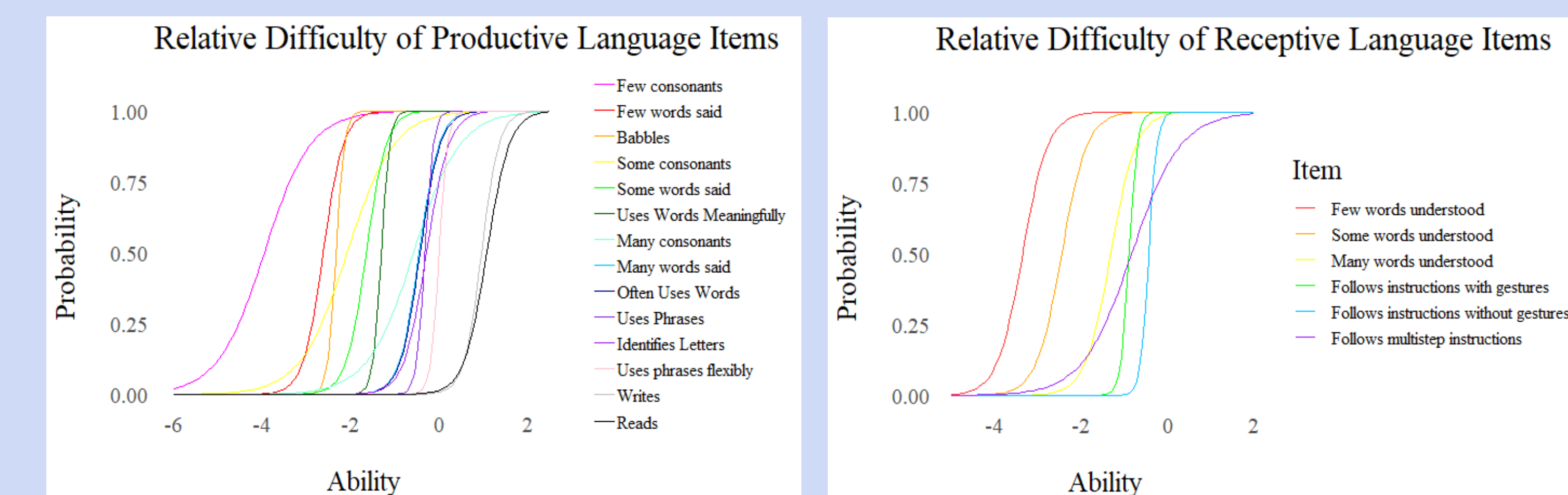
| Convergent Validity | All | ASD Only |
|------------------------|-----|----------|
| PLS Receptive | .71 | .69 |
| PLS Expressive | .71 | .69 |
| Vineland Communication | .64 | .68 |

| Divergent Validity | All | ASD Only |
|------------------------|-----|----------|
| Vineland Daily Living | .39 | .38 |
| Vineland Socialization | .42 | .41 |
| Vineland Motor Skills | .19 | .00 |



RELATIVE DIFFICULTY

Item characteristic curves based on Item Response Theory. Figure at bottom shows that response to joint attention is most basic of nonverbal communication skills.



Relative Difficulty of Nonverbal Communication Items

