

## Objectives

- Characterize subgroups of developmental quotient and intelligence quotient (DQ/IQ)
- Examine associations between DQ/IQ change and adaptive function
- Identify patterns between subgroups

## Participants/Methods

- n = 159, 105male/54 female
- Assessed at two timepoints
  - T1 M age = 36.5 months
  - T3 M age = 67.5 months

### Assessments:

- Autism Diagnostic Observation Schedule
- Mullen Scales of Early Learning
- Differential Ability Scales
- Vineland Adaptive Behavior Scale
- Childhood Behavior Checklist

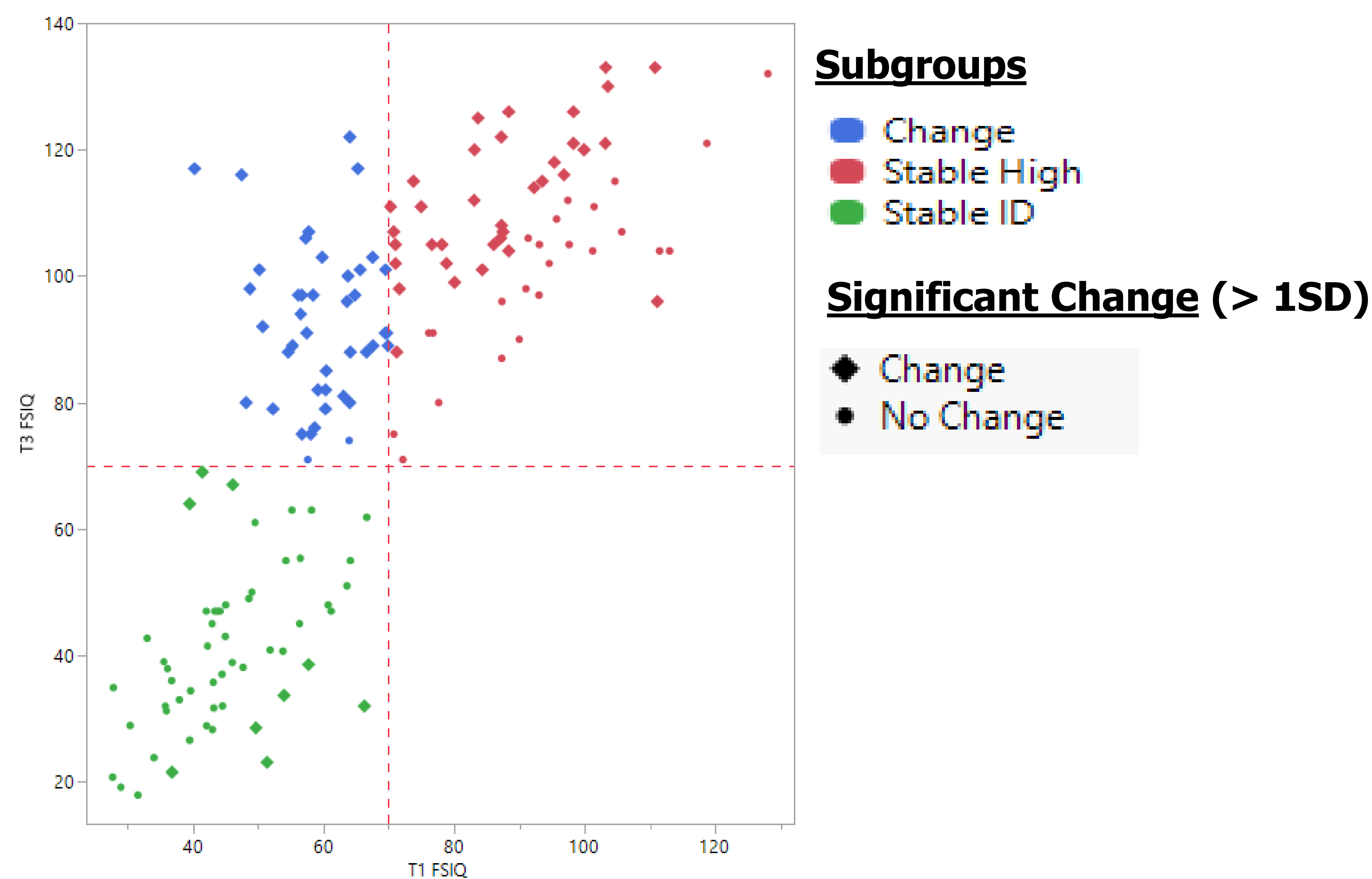
		Sex				Sex	
		Female	Male			Female	Male
T1 Age	Std Dev	5.8	5.3	T3 Age	Std Dev	8.7	11.0
	Mean	37.0	35.2		Mean	67.0	67.6
T1 FSIQ	Std Dev	23.4	21.3	T3 FSIQ	Std Dev	34.2	31.1
	Mean	69.8	64.6		Mean	82.0	78.3
T1 Vineland	Std Dev	10.3	10.1	T3 Vineland	Std Dev	18.6	15.9
	Mean	73.1	77.4		Mean	77.9	77.5
T1 ADOS Severity	Std Dev	1.7	1.8	T3 ADOS Severity	Std Dev	3.5	2.9
	Mean	7.2	7.3		Mean	4.9	6.1

## Analysis

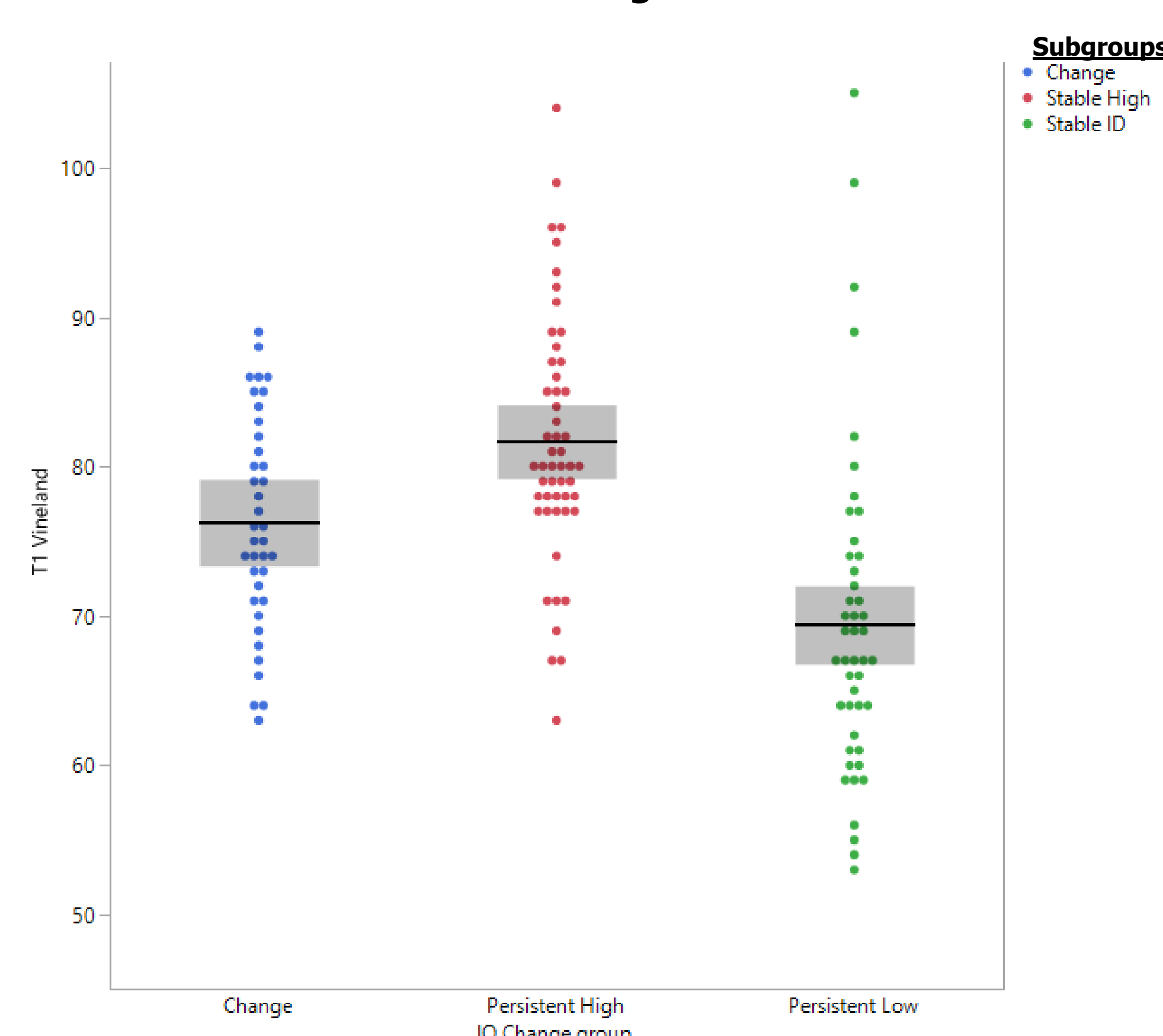
- Grouped participants by change group
  - Persistent High: >70 at both timepoints
  - Persistent Low: <70 at both timepoints
  - Change: <70 at T1, >70 at T3
- Compared FSIQ to Vineland scores

## Results

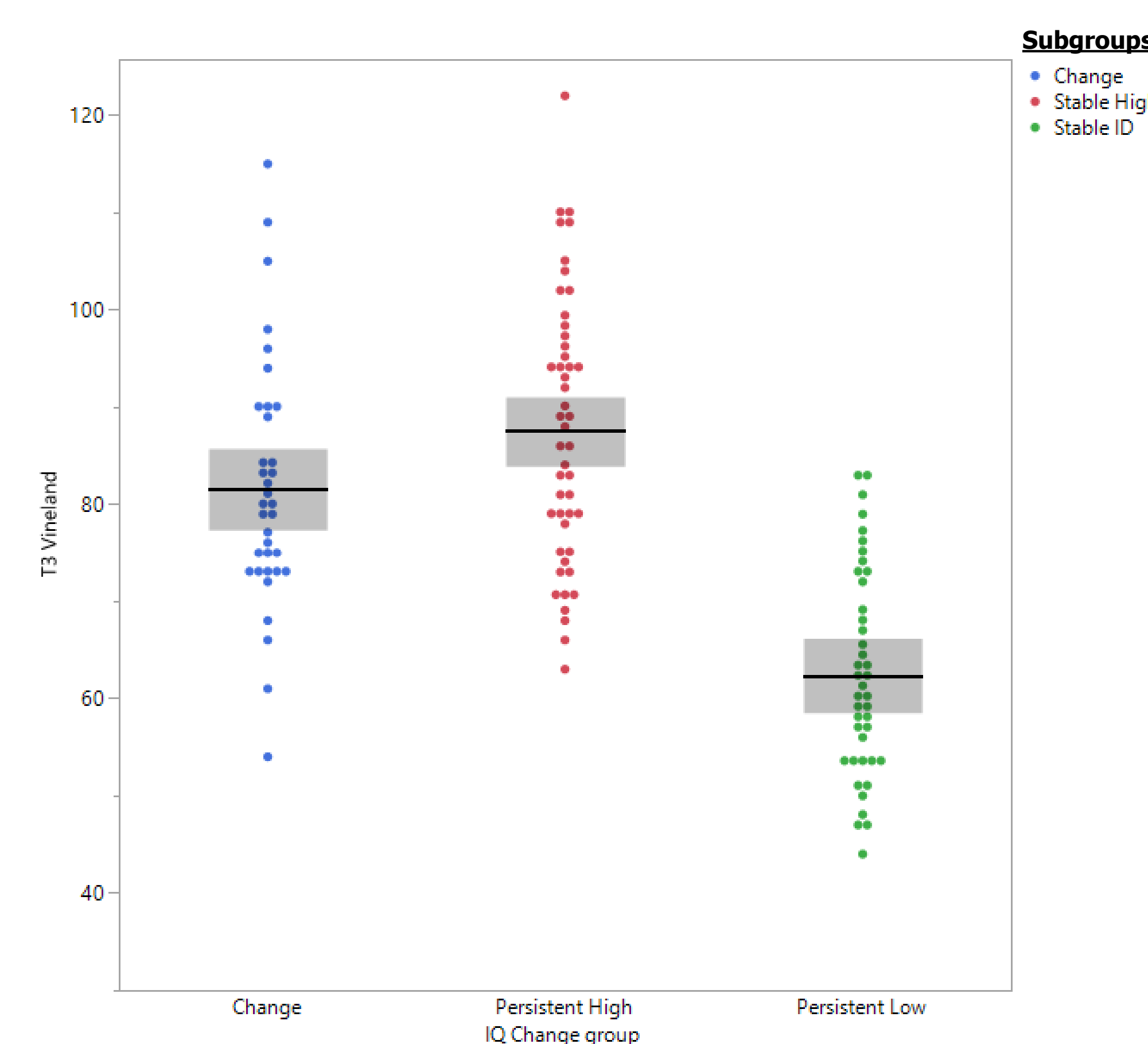
- 42 children in the Change group (26.92%), 59 children in the Persistent High group (37.82%), 55 children in the Persistent Low group (35.26%)
- No differences in sex distribution across subgroups.
- Overall, the change group had a 58% increase in DQ/IQ score.
- Change group not significantly different from persistent high group at T3.9
- CBCL internalizing and externalizing scores did not differ across subgroups at either timepoint.



Vineland Adaptive Behavior Composite scores by change group at age 3



Change group improves Vineland scores at age 6



## Conclusions/Further Study

Our work highlights the importance of studying autism with co-occurring intellectual disability (ID), affecting about 1/3 of autistic children.

We hope to better understand how heterogeneity in autism affects IQ variability at the individual level

We also hope to address limitations in assessing and interpreting IQ:

- Whether these tests accurately reflect the ability of our participants
- How appropriate these assessments are in measuring IQ in children with ID compared to measures like NIH Toolbox
- Determine the best methods for measuring cognitive change

## Acknowledgements

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