

Using the Family Provider/Teacher Rating Scale to Understand Parent and Teacher Engagement in Early Childhood Programs

Child Care and Early Education Policy Research Consortium Meeting

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Participant Demographics

Teachers

- 61 Teachers
- 24 Graduate degrees, 31 Bachelor degrees, 6 less than a Bachelor Degree
- 58 female, 3 male
- 57 white, 4 black

Parents

- 396 parents (36% response rate)
- 23% Associate's degree or higher, 40% some college, 37% high school or less
- Income: 50% less than \$25,000
- Race: 319 white, 77 black, 10 American Indian, 4 other (parents can identify more than 1 race on the FPTRQ)

Methodology

Classical statistical analysis

- First analyzed the data using classical statistical analysis i.e. correlations
- Correlations are limited by sampling fluctuation and thus do not provide stable (reliable) measures
- Correlations are based on shared variance and do not provide insight into theoretical meaning

Reanalyzed the data using IRT/ Rasch

The goal for our research was

- To extract a meaningful measure from the survey responses
- To understand the developmental nature of engagement by modeling the way in which families progress from low to high engagement and what the stable pattern entails

Survey responses are presented as ordinal

1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
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These are not evenly spaced, so we cannot consider the difference between 1 and 2 the same as the difference between 3 and 4.

Our methodology results in a measure that is quantitatively defensible and qualitatively meaningful

- Quantitative: Convert ordinal data to equal intervals to make objective comparisons; in other words the difference between a 1 and 2 is now the same as between 2 and 3 so that we can perform mathematical operations.
- Qualitative: Identify the meaning of participant responses.

The method

- Validates qualitative judgments by using rigorous quantitative methods (and vice versa, provides context and meaning to statistics).
- Extracts stable and meaningful patterns from the ratings.
- Weights responses from least to most difficult.

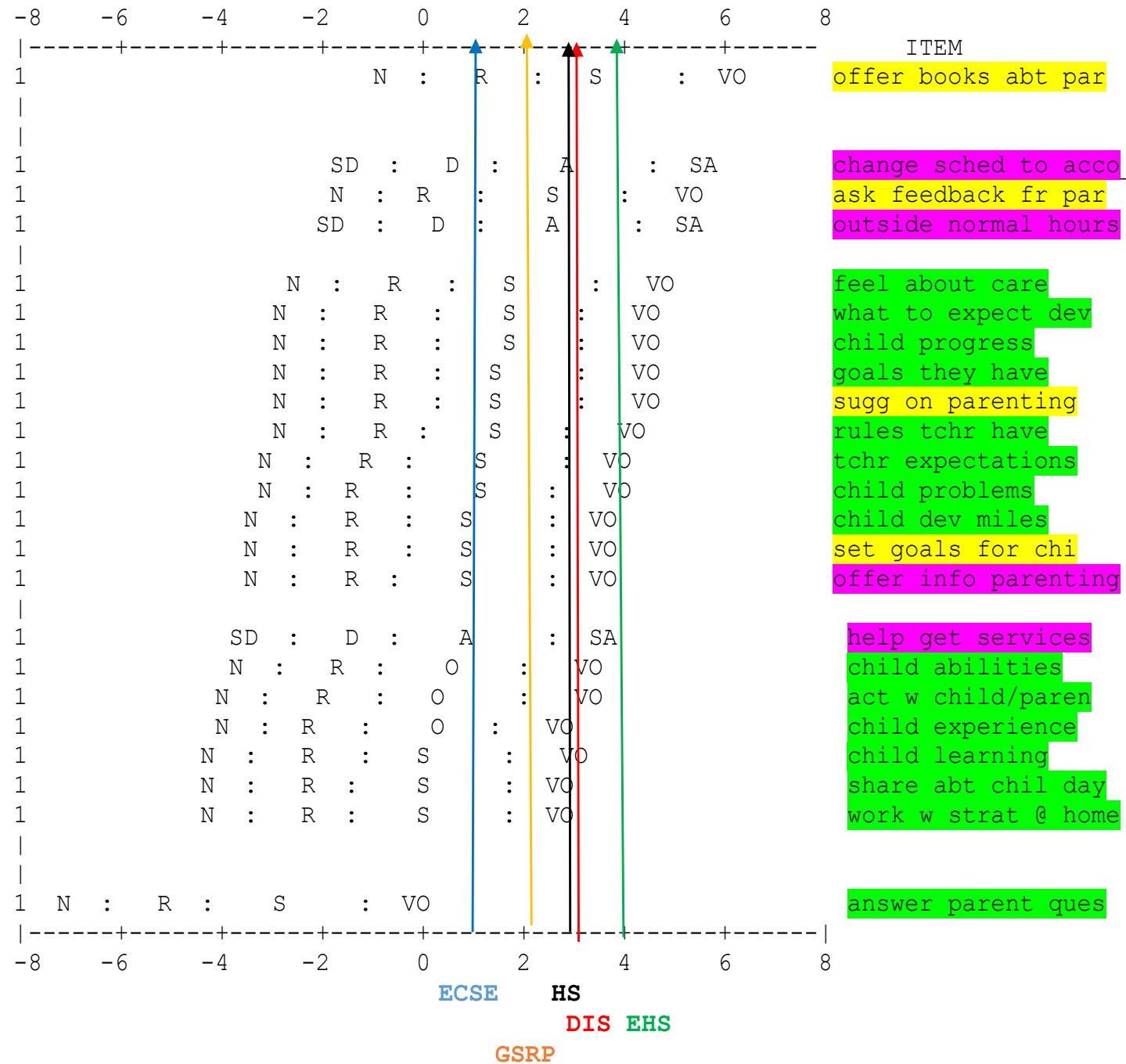
Why does this matter?

- This methodology creates a fair, objective, standardized, common form of reference.
- A program can gather useful, specific, meaningful information from the survey data.
- Continuous improvement efforts to follow a stable developmental pathway.

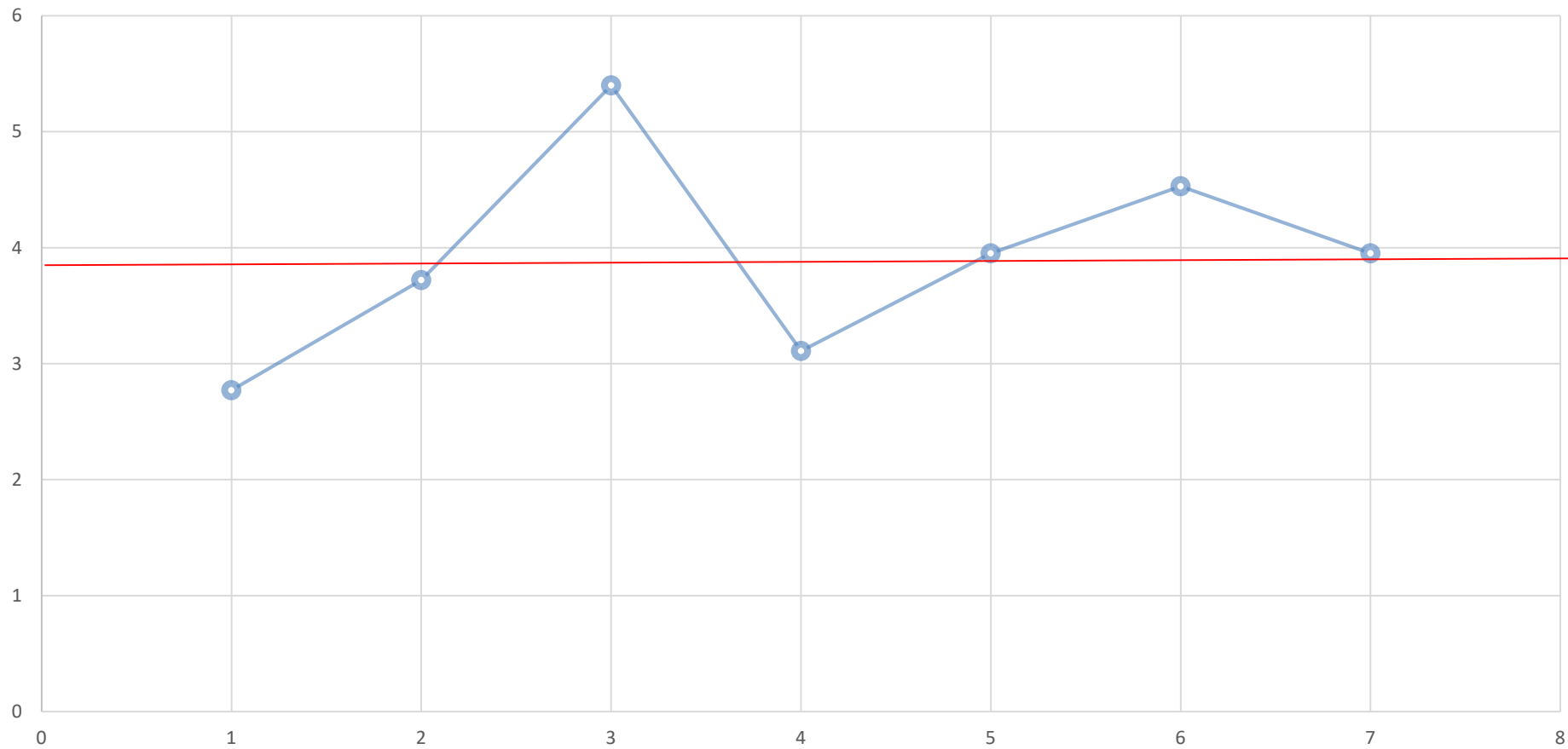
Results

The Practice Construct

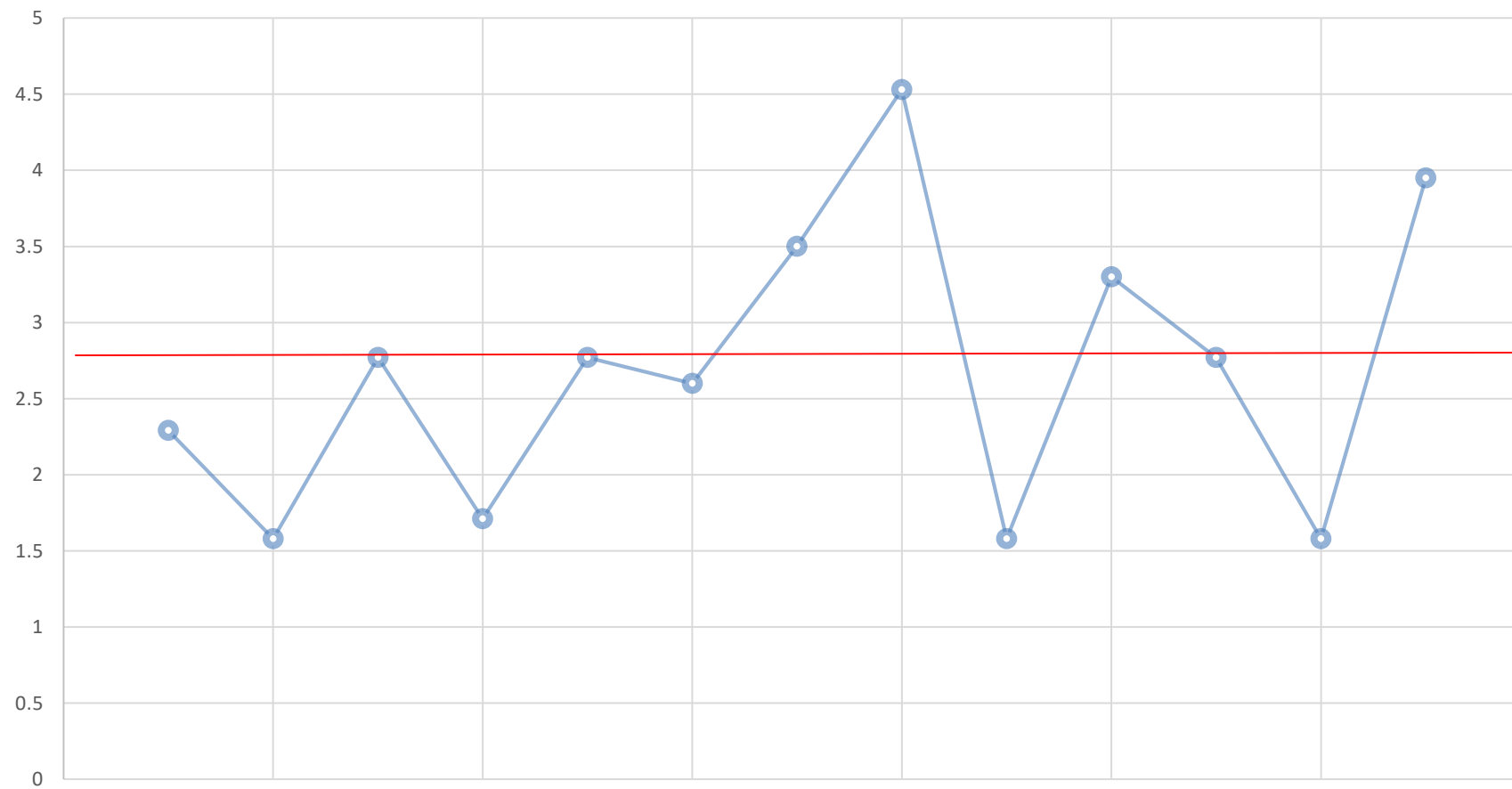
Teacher Survey- Practices



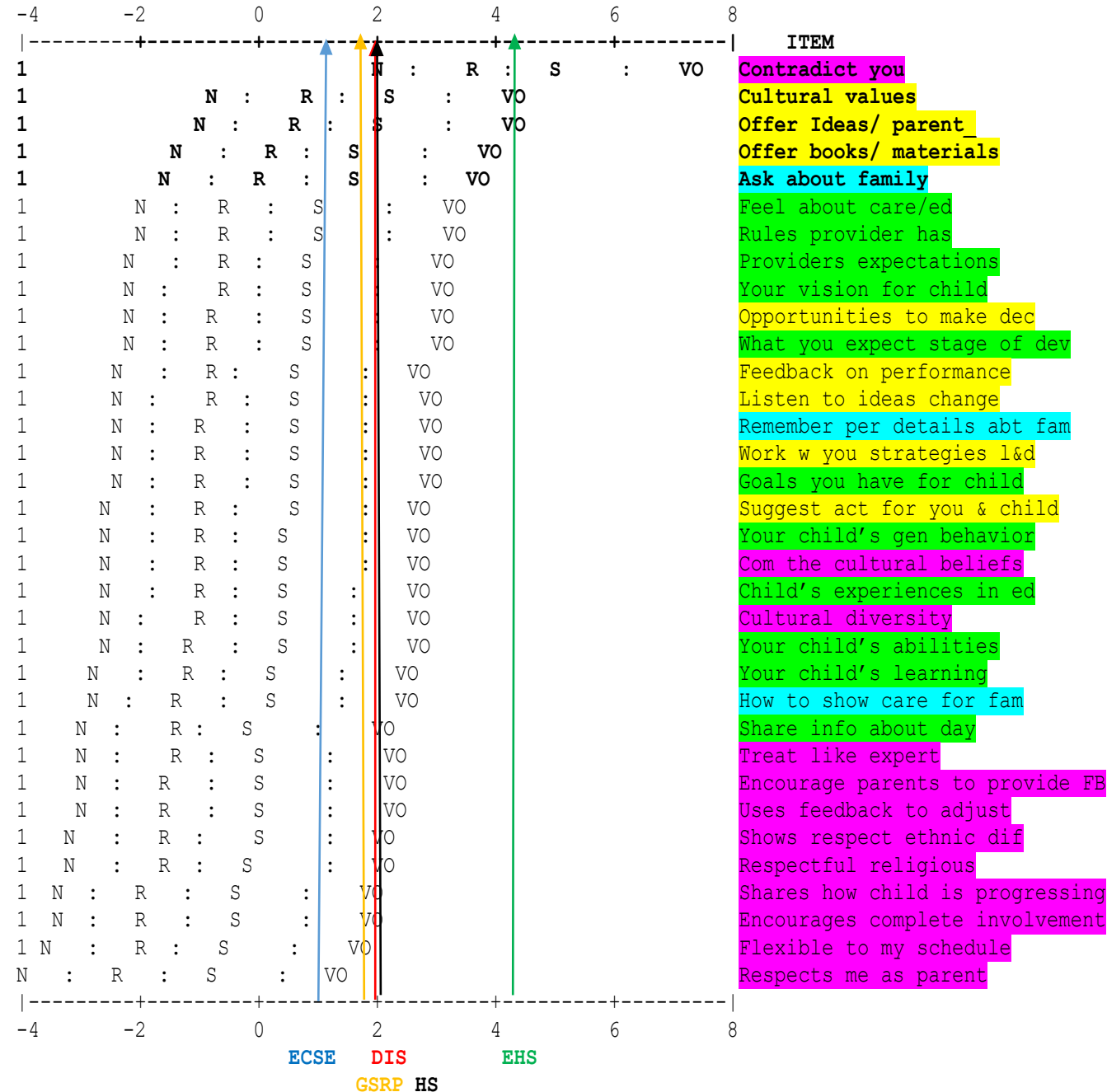
EHS Home Visitors Practice



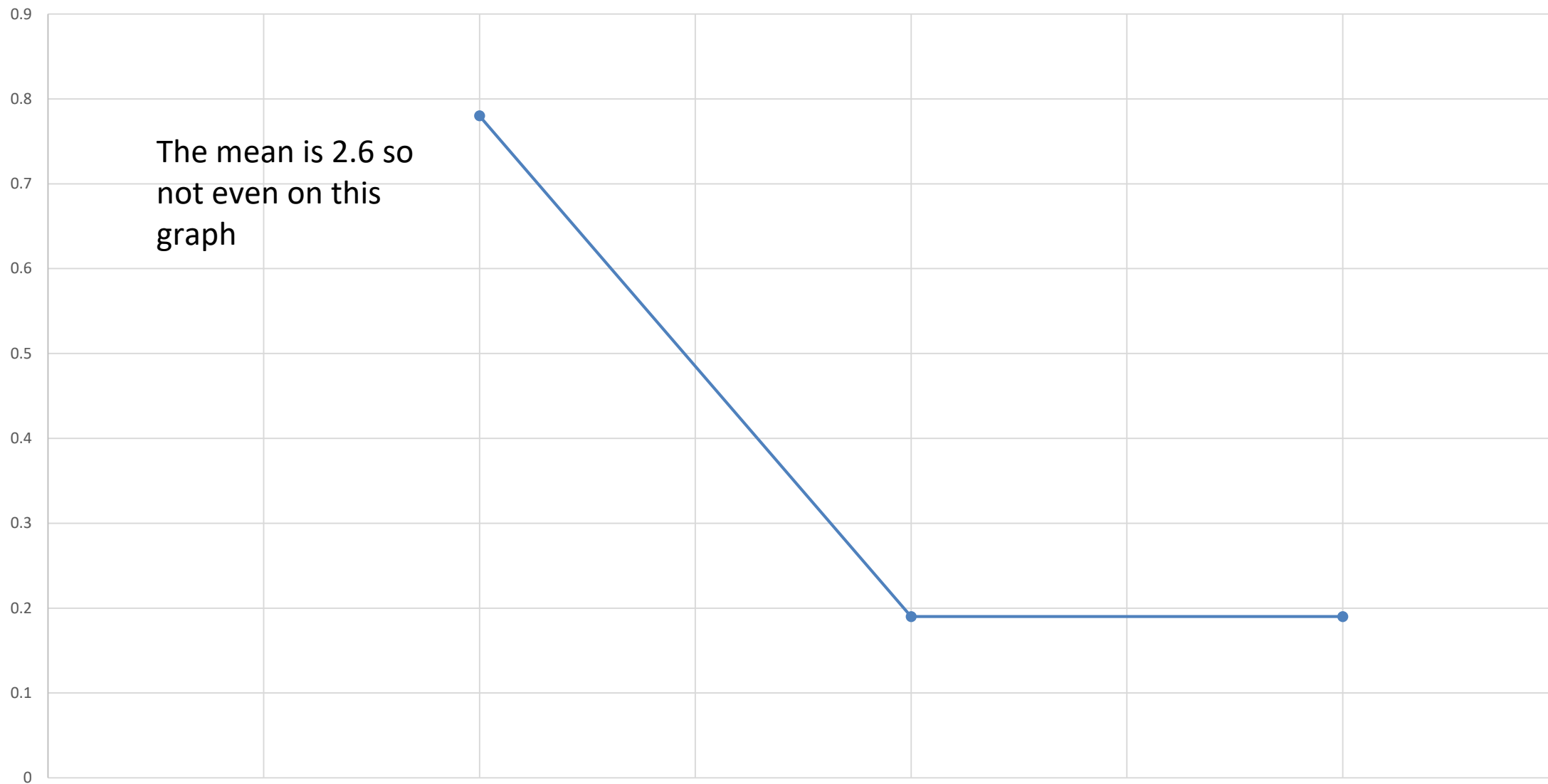
Head Start Teachers Practice



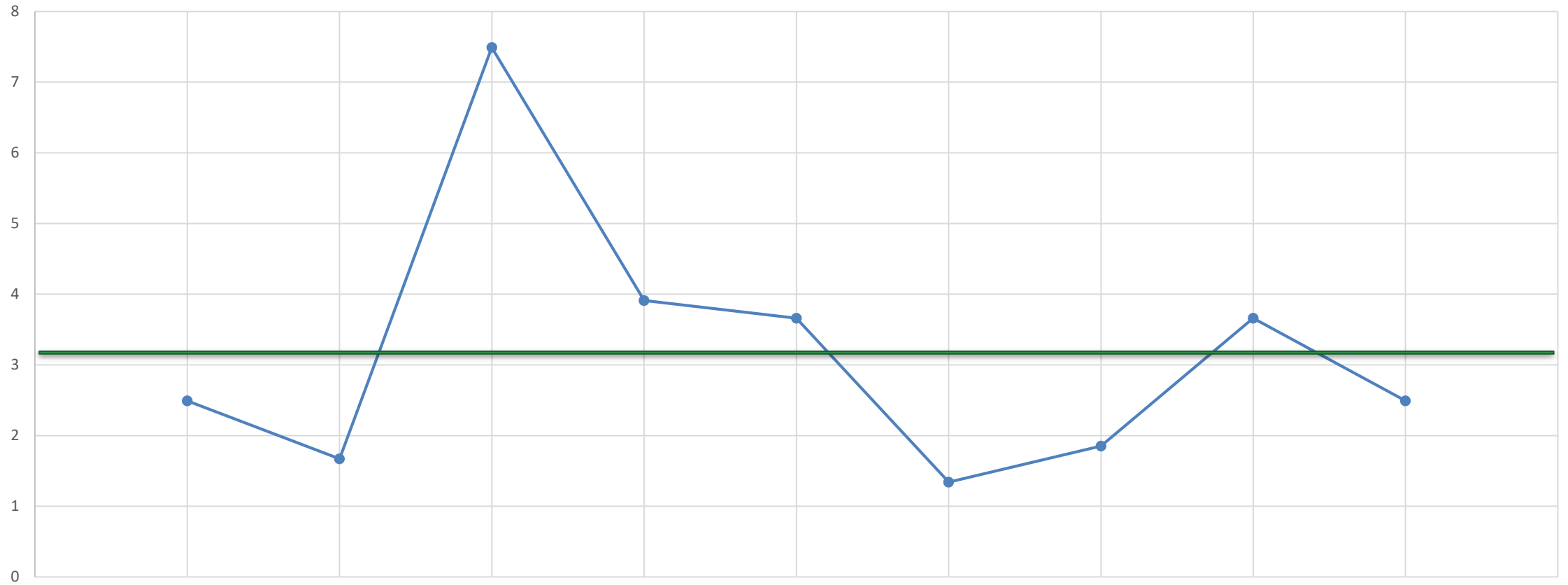
Family Survey: Practices



Parent responses for an Individual Teacher



Parent responses for an Individual Teacher



Findings

- The FPTRQ parent and teacher measures provide clear defensible qualitative and quantitative evidence for guiding practitioners on how families perceive both knowledge and practice.
- The attitude construct does not meet the criteria for measurement, and thus can only be used descriptively and not as a way to measure levels of progression.
- The item hierarchy matches expectations based on theory of parent and teacher engagement.
- As expected, programs that have more frequent opportunities for parent and teacher interactions have higher means from both the parent (greater) and teacher perspectives.

Implications

- The FPTRQ is an effective measure to understand teacher and parent engagement (practice and knowledge) for programs, centers, and teachers.
- IRT methodology is stable across samples, so the developmental nature of parent and teacher engagement is consistent across samples (within standard error estimates). This allows programs to develop a professional development response to address the knowledge, skills, and abilities teachers need to enhance family engagement.
- The data can also be used to develop individual family or teacher plans to improve family/ teacher engagement.

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