



## **ABC Support Brief Research Report #1: Inter-Rater Reliability for Classroom Observations and Oral Reading Fluency During 2019-2020 Experimental Pilot Study**

### **Overview**

Inter-rater reliability (IRR) was evaluated for approximately 20% of all bi-weekly classroom observation (Direct Behavior Rating; DBR) periods and oral reading fluency (ORF) assessment sessions across pre-intervention and intervention implementation phases. As shown in Table 1, the percentage of sessions during which IRR data were collected varied across student participants (range = 9% to 26%) depending on availability of data collectors.

### **Classroom Observations**

For classroom observations using the DBR, agreement between two observers was calculated separately for engagement and for disruptive behavior. Consistent with procedures used in previous research to examine reliability of DBR (Briesch, Chafouleas, & Riley-Tillman, 2010; Riley-Tillman, Christ, Chafouleas, Boice-Mallach, & Briesch, 2011), we determined agreement by dividing the lower percentage of occurrence by the higher percentage (and multiplying by 100) for the 20-minute observation period. IRR calculations were averaged across sessions for each student, as well as across all students. As shown in Table 1, the overall average IRR for engagement was 90.4% (range = 67% to 100%) and for disruptive behavior 83.9% (range = 55% to 100%).

### **Oral Reading Fluency Probes**

For words correct per minute (WCPM) on the fluency probes, we determined IRR by dividing the lower WCPM by the higher WCPM (and multiplying by 100). IRR was calculated for training and standard (non-training) passages; values were averaged across sessions for each student and across all students. As shown in Table 1, the overall average IRR for training passages was 97.4% (range = 83% - 100%) and for standard passages 97.4% (range = 85% - 100%).

Table 1.

*Inter-Rater Reliability for Occurrence of Engagement and Disruptive Behavior (during Classroom Reading Instruction) and for Words Correct per Minute on Oral Reading Fluency Passages (during Individual Assessment Sessions)*

Student	Percent of Sessions	Engagement Behavior	Disruptive Behavior	WCPM on Training Passages	WCPM on Standard Passages
01	24%	84.5% (67% - 96%)	75.0% (55% - 100%)	96.7% (88% - 100%)	97.8% (91% - 100%)
02	24%	90.3% (83% - 100%)	85.0% (83% - 100%)	97.3% (91% - 100%)	95.8% (85% - 99%)
03	9%	96.3% (94% - 100%)	88.5% (79% - 100%)	98.5% (97% - 99%)	98.5% (97% - 99%)
04	17%	91.0% (85% - 96%)	90.0% (82% - 98%)	99.5% (99% - 100%)	98.0% (97% - 99%)
05 <sup>a</sup>	17% (DBR only)	87.5% (73% - 97%)	77.3% (68% - 90%)		
06	21%	91.5% (75% - 100%)	89.5% (78% - 98%)	95.7% (92% - 100%)	96.0% (89% - 100%)
07	26%	91.4% (79% - 100%)	81.8% (63% - 100%)	96.4% (83% - 100%)	98.2% (93% - 100%)
<b>Total Average</b>	<b>19.7%</b>	<b>90.4%</b>	<b>83.9%</b>	<b>97.4%</b>	<b>97.4%</b>

<sup>a</sup> Student 05 chose not to participate in oral reading fluency assessment.

## References

- Briesch, A. M., Chafouleas, S. M., & Riley-Tillman, T. C. (2010). Generalizability and dependability of behavior assessment methods to estimate academic engagement: A comparison of systematic direct observation and direct behavior rating. *School Psychology Review, 39*, 408-421.
- Riley-Tillman, T., Christ, T., Chafouleas, S., Boice-Mallach, C., & Briesch, A. (2011). The impact of observation duration on the accuracy of data obtained from direct behavior rating (DBR). *Journal of Positive Behavior Interventions, 13*, 119-128.  
<https://doi.org/10.1177/1098300710361954>

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The development of this research brief was supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305A179961 to the University of Wisconsin-Madison, Wisconsin Center for Education Research. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education. When referencing or using any portion of this resource, please use the following citation:

Gettinger, M., Kratochwill, T. R., Eubanks, A., Foy, A., & Lindner, A. (2020). *ABC Support Brief Research Report #1: Inter-rater reliability for classroom observations and oral reading fluency during 2019-2020 experimental pilot study*. Wisconsin Center for Education Research, University of Wisconsin-Madison.