



Visual Analysis

Ledford 2021



Primary Question

Did data change when and only when condition changes occurred?

When this is true, we confirm both that there was a positive impact and that the impact was the result of the intervention



Functional Relation

Consistent changes between
conditions within a single design



Level

How much behavior occurs;
generally what we are interested
in changing



Variability

How much the level varies
between sessions



Trend

Consistent movement in one
direction

Within- Condition Data Analysis

Part 1: Characteristics of Data

Characteristic	Questions	+	-
Level	Is a consistent level established in each condition prior to condition change?	Yes	No
	Is there a consistent level change between conditions, in the expected direction?	Yes	No
Trend	Are unexpected trends present that make determination of behaviour change difficult?	No	Yes
	Is there a consistent change in trend across conditions, in the expected direction?	Yes	No
Variability	Does unexpected variability exist in one or more conditions?	No	Yes
	<i>Does within-condition variability impede determinations about level changes between conditions?</i>	No	Yes

Between-Condition Data Analysis

Overlap

The extent to which data points between conditions are in the same range

Consistency

Patterns are similar across same conditions and changes are similar between conditions

Immediacy

Changes occur when or shortly after condition changes

Describing Differences Between Conditions



Time Lagged

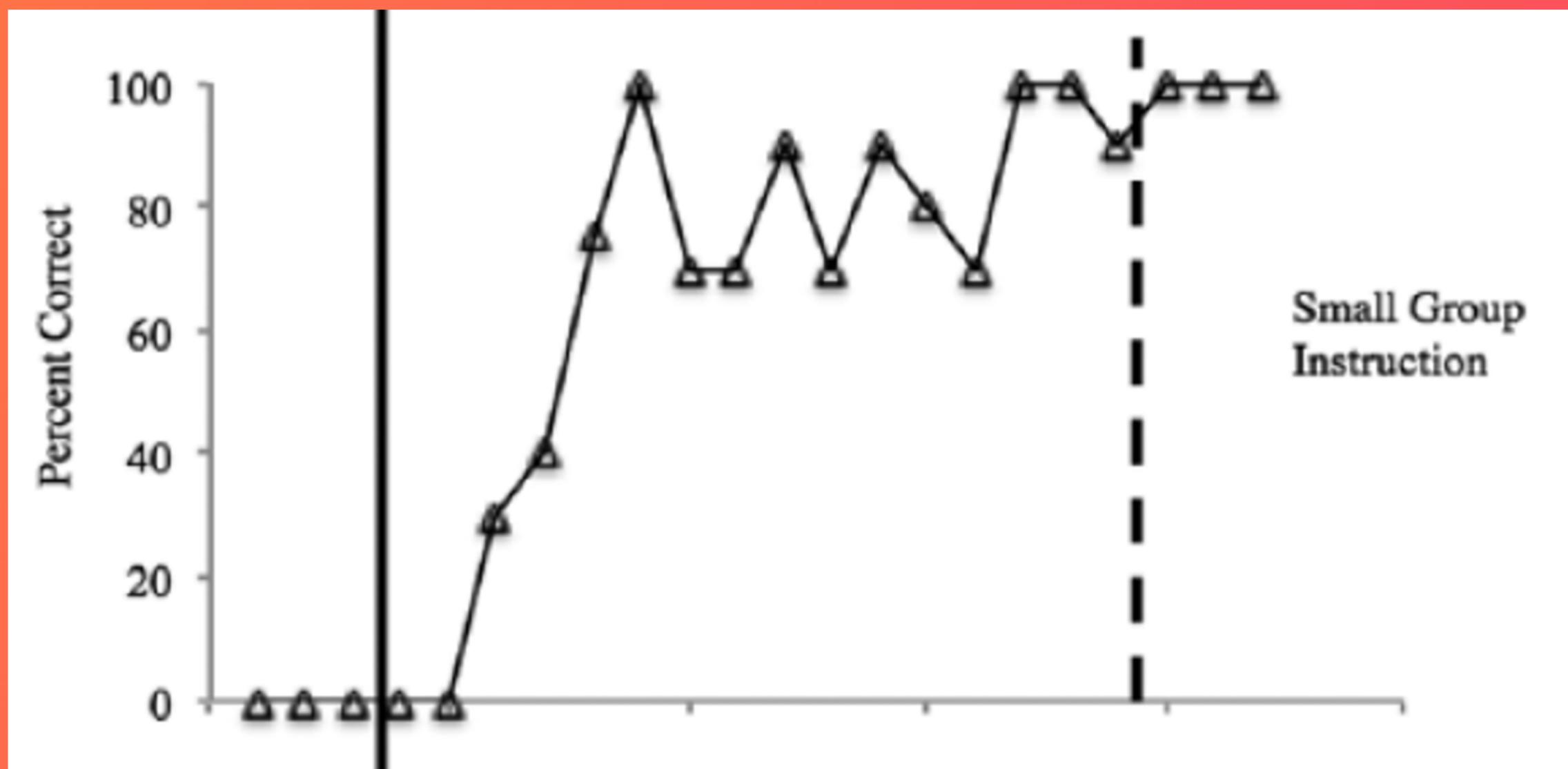
Sequential Introduction and Withdrawal

Changes



Rapid Iterative
Alternation

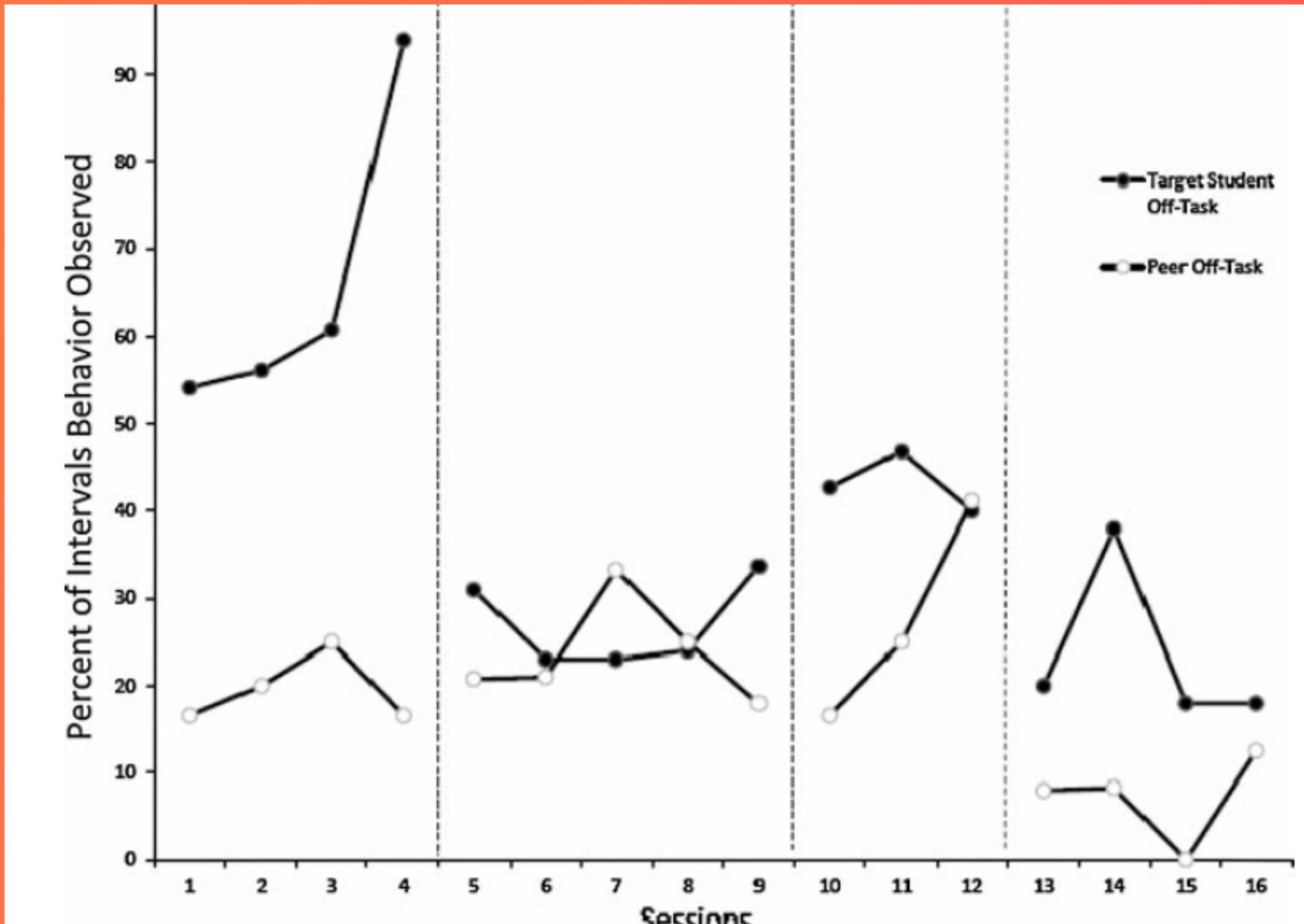
Differences



Your Turn!

Everyone answer once

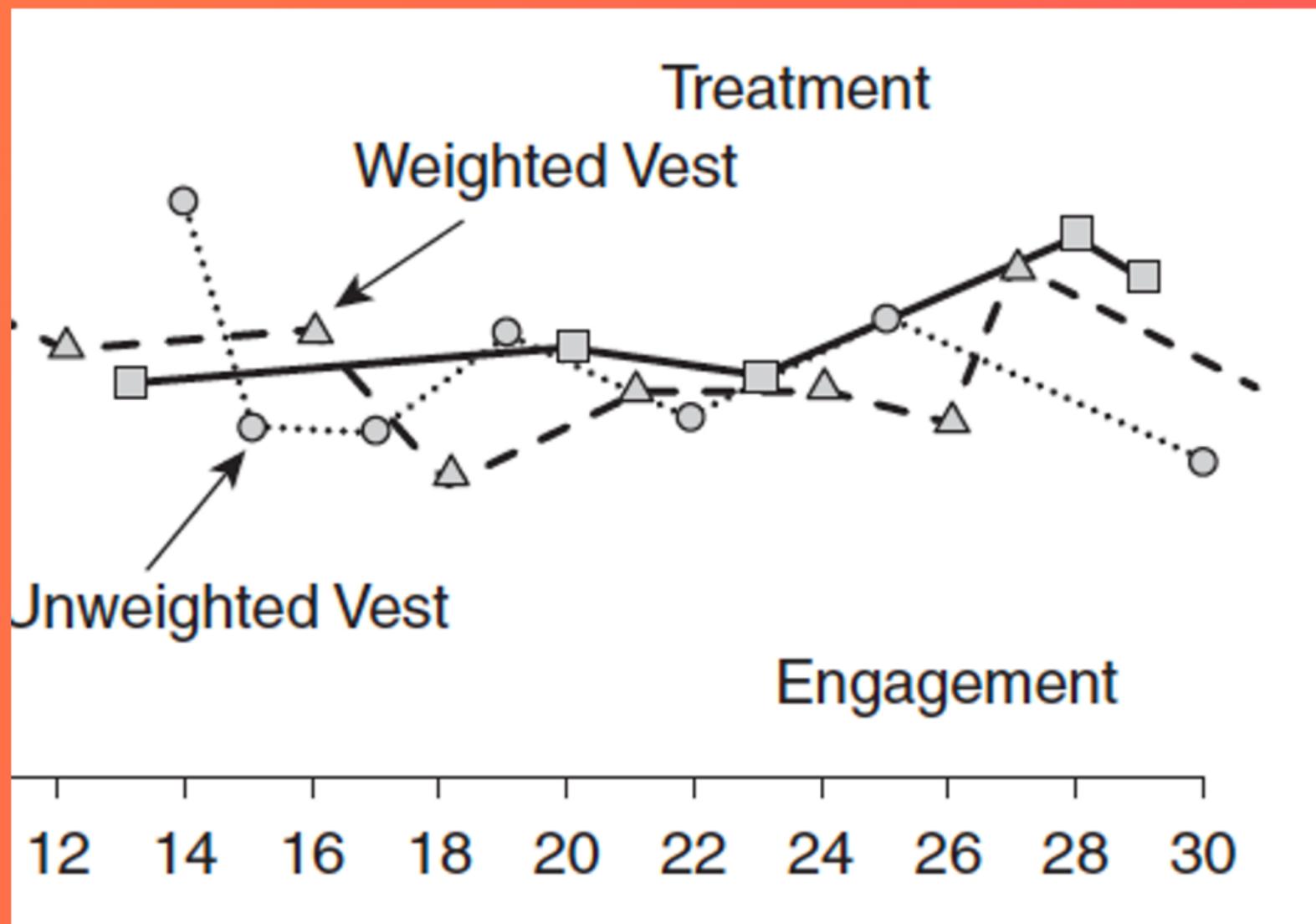




Is there a functional relation?

Target

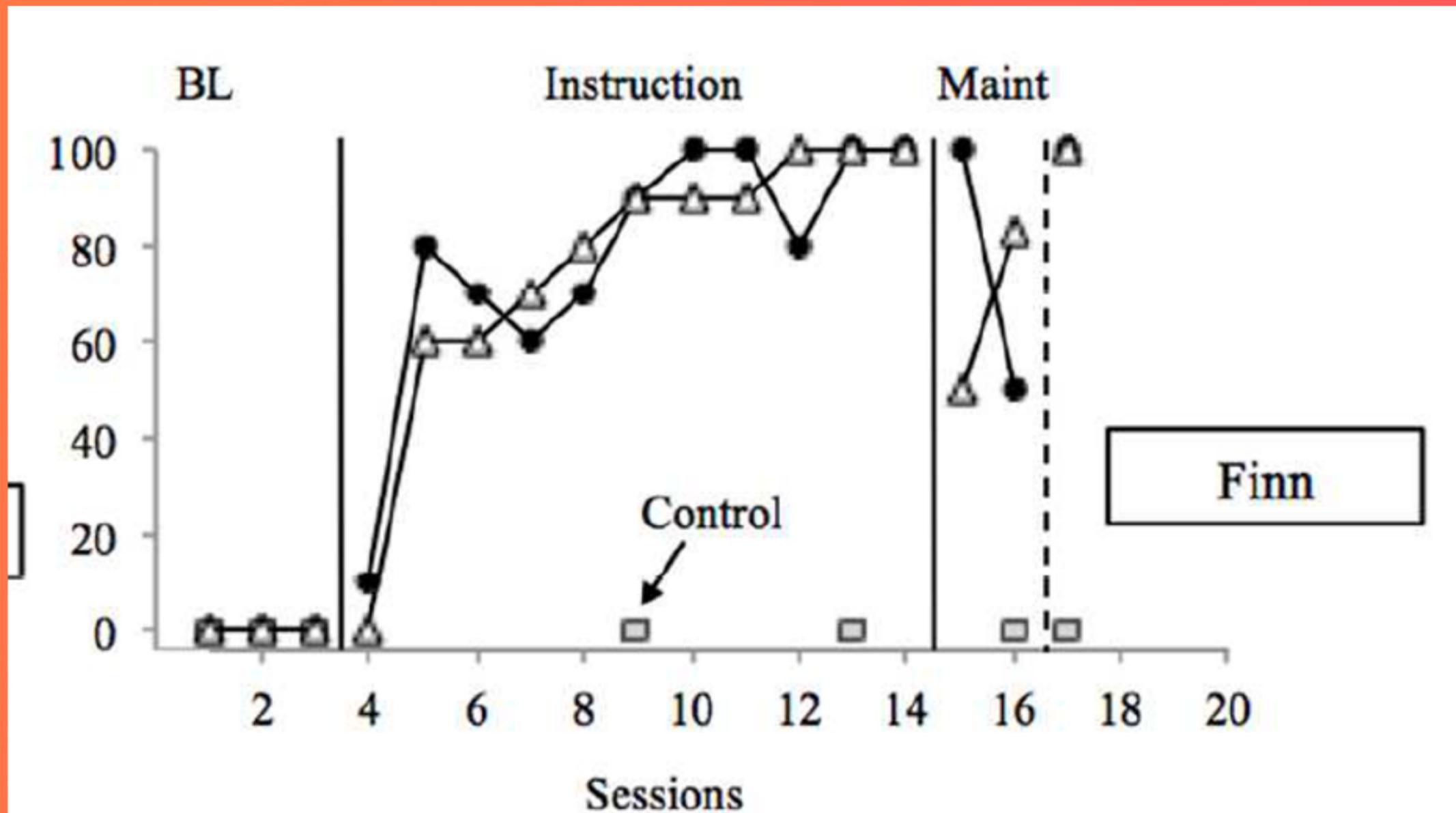
Why or why not?



Is there a functional relation?

Weighted vest vs. unweighted vest

Why or why not?



Is there a functional relation?

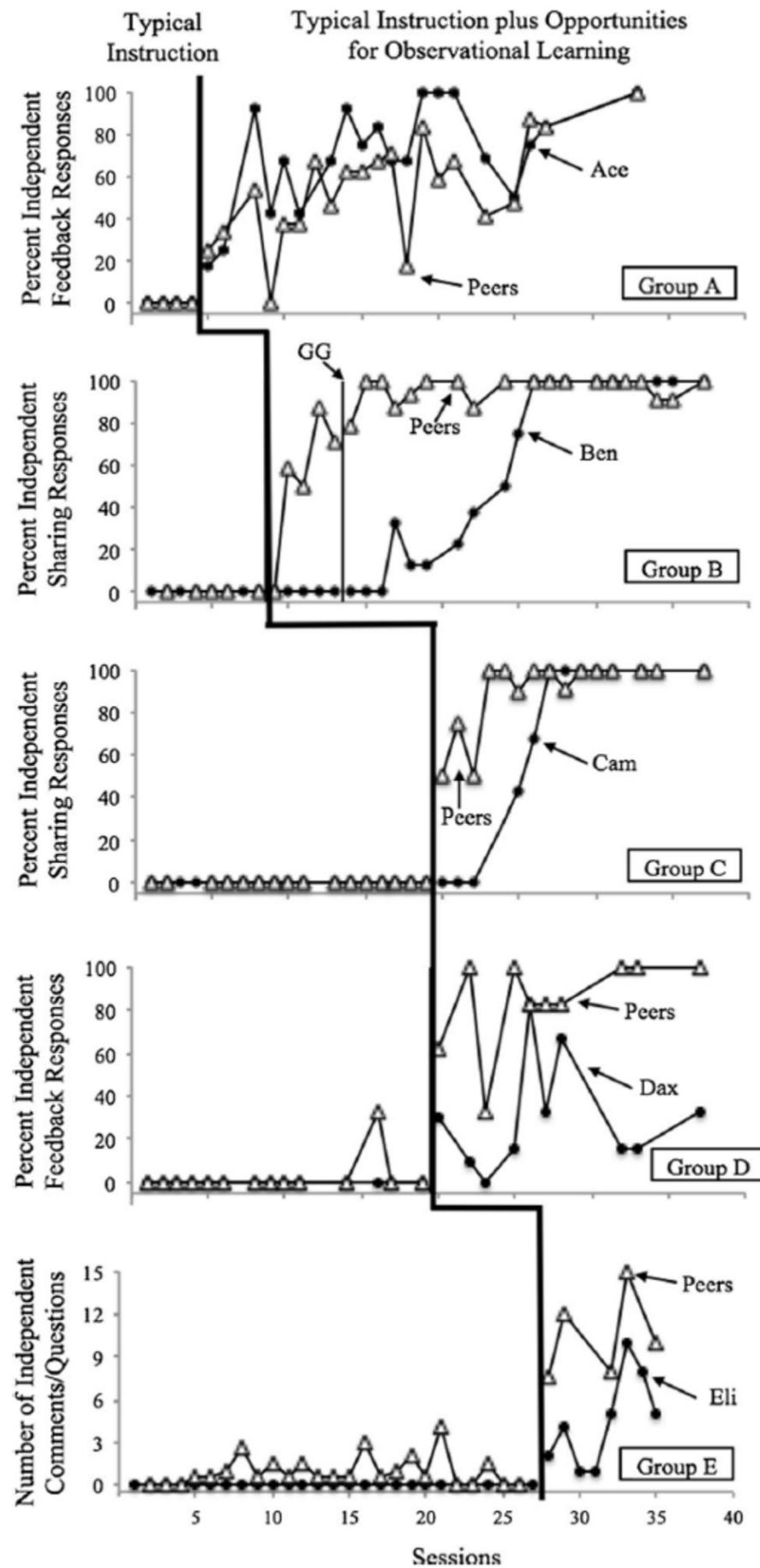
Black vs. Gray
 Black vs. control

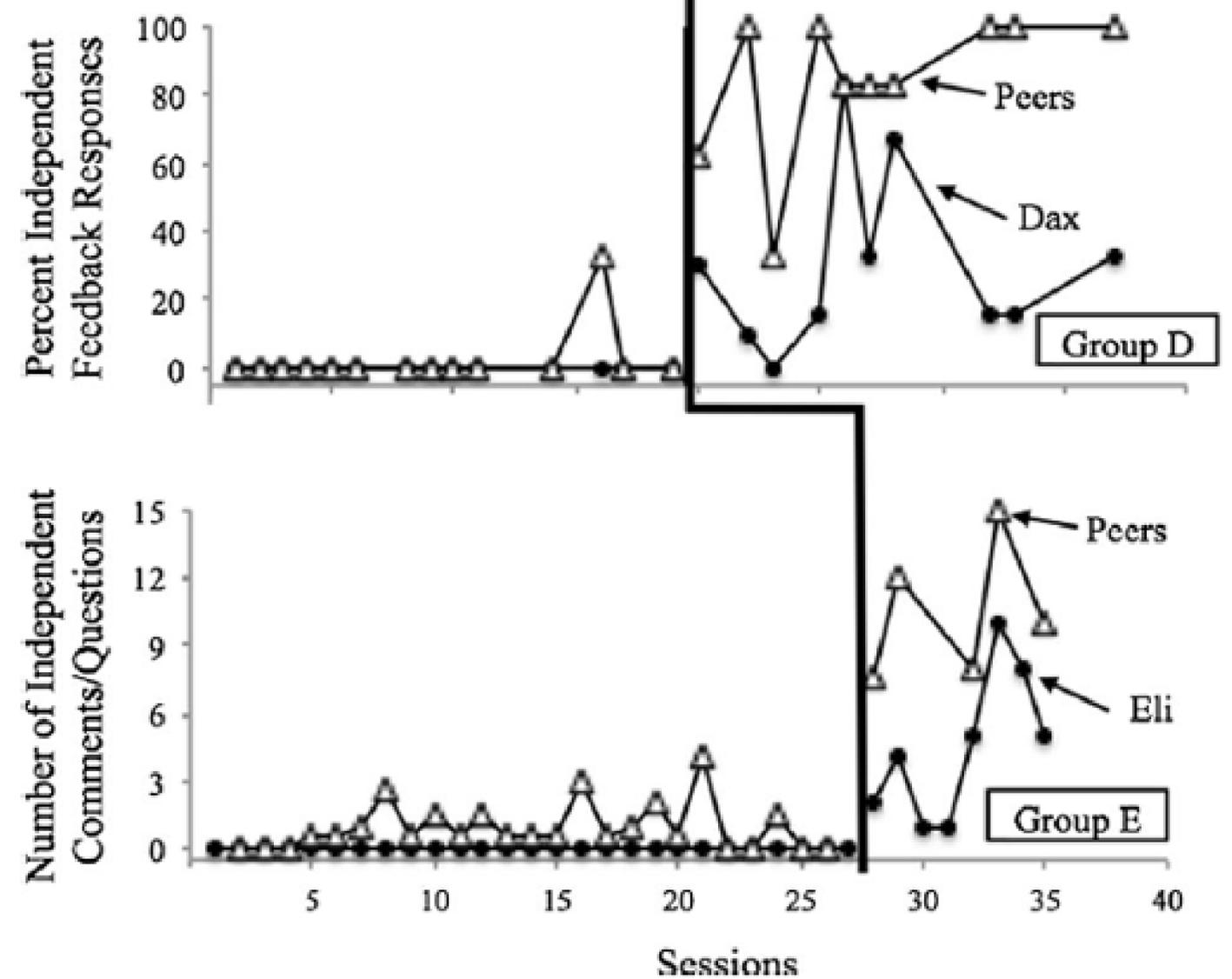
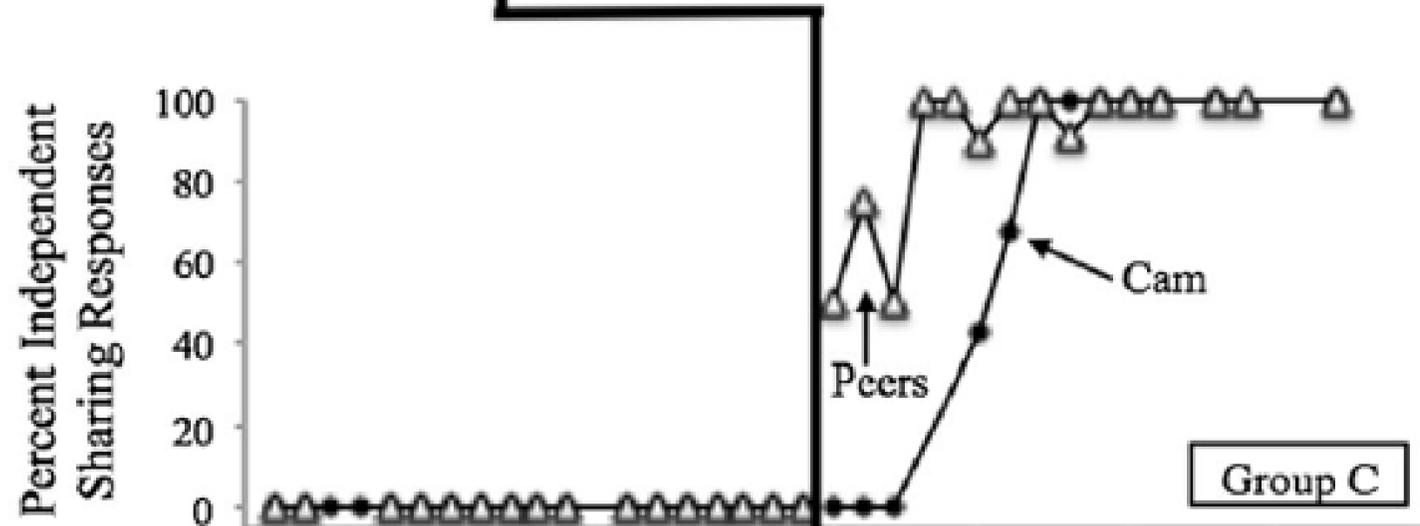
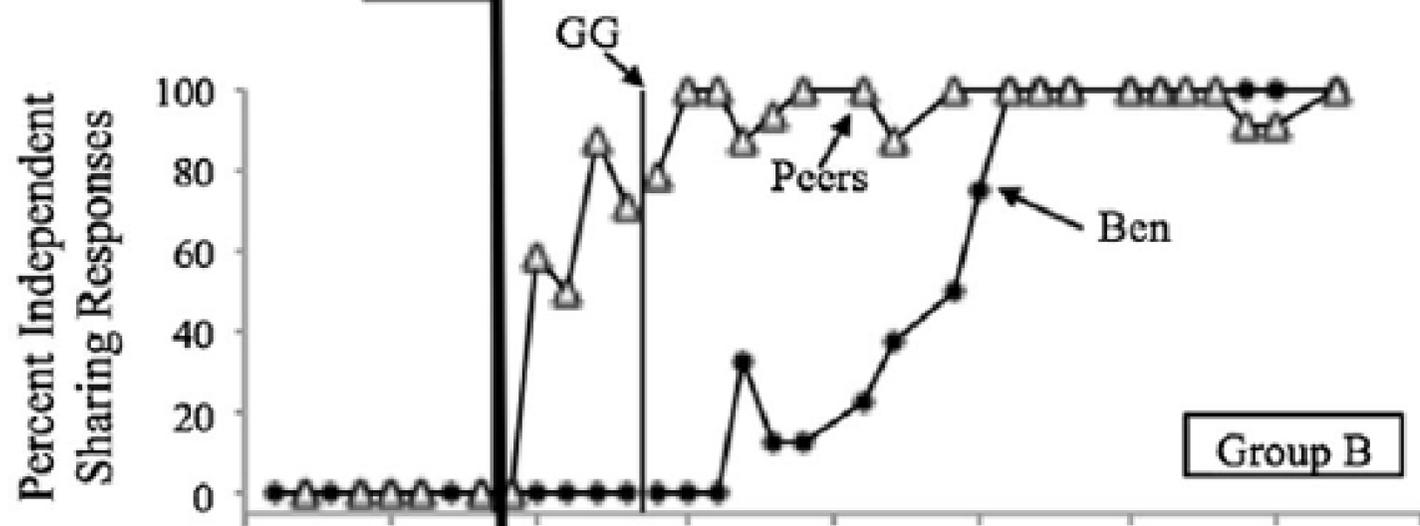
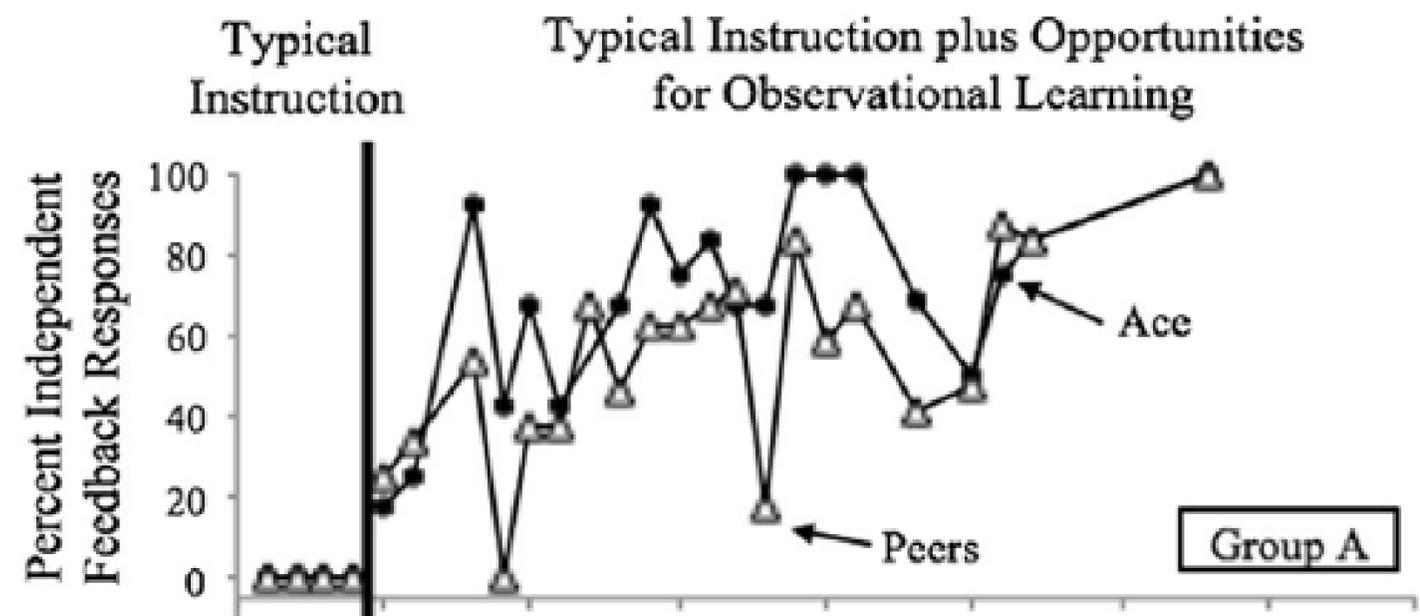
Why or why not?

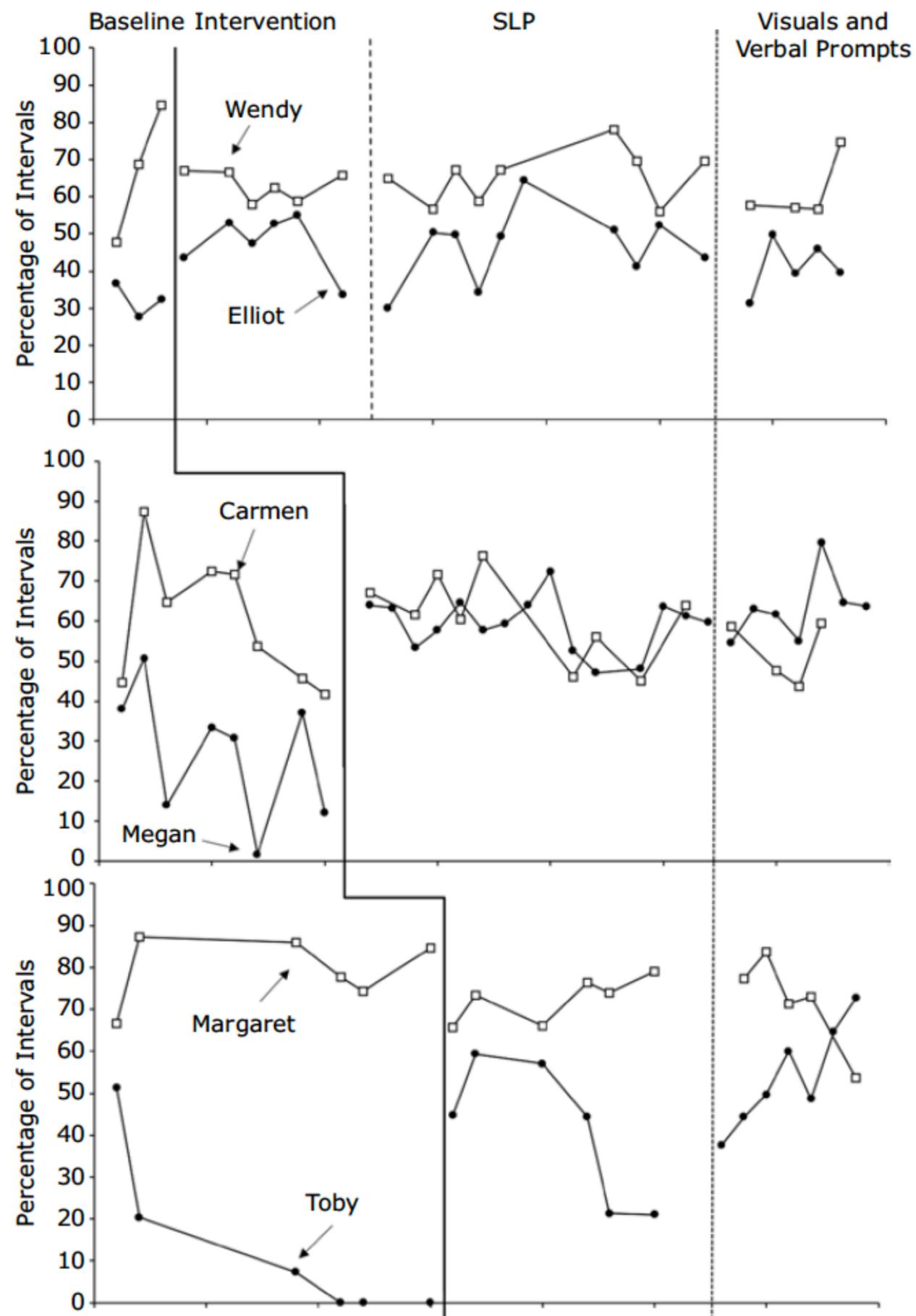
Is there a functional relation?

For focal children (filled)
For peers (unfilled)

Why or why not?





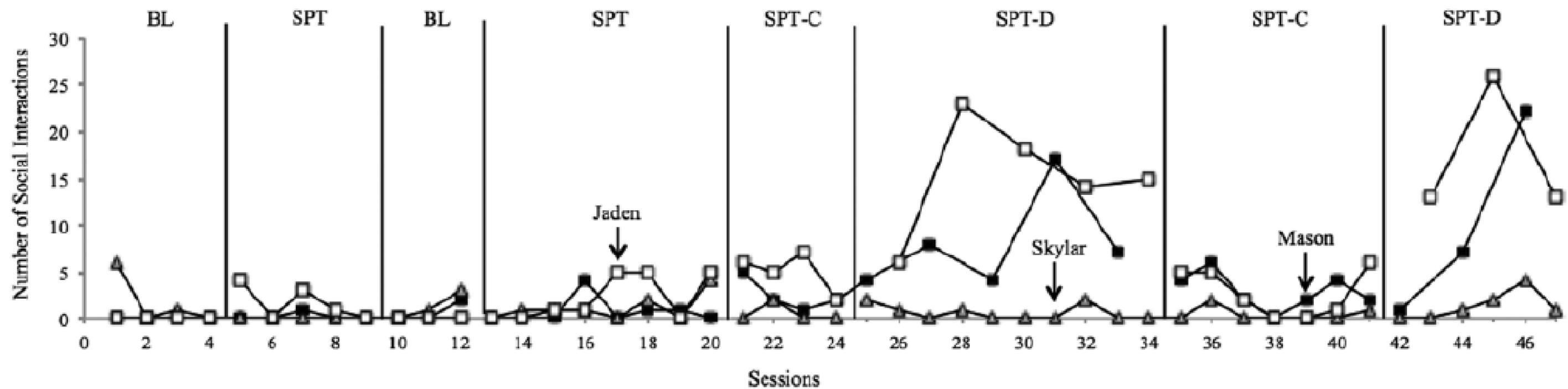


Is there a functional relation?

Baseline versus intervention

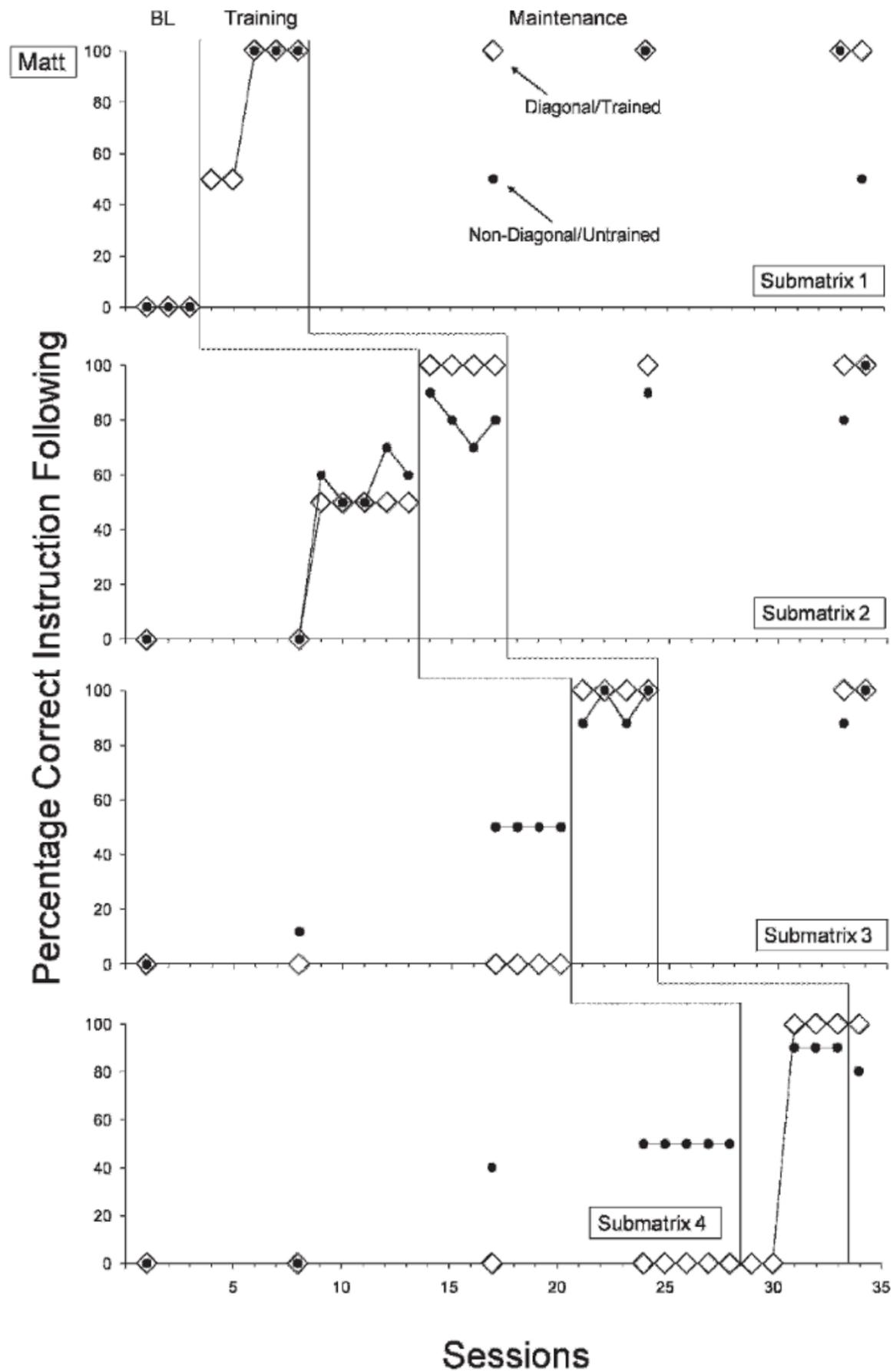
Filled
Unfilled

Why or why not?



Is there a functional relation:
 Between BL and SPT for Mason?
 Between SPT-C and SPT-D for Mason?

Why or why not?



Is there a functional relation?

Untrained

Why or why not?

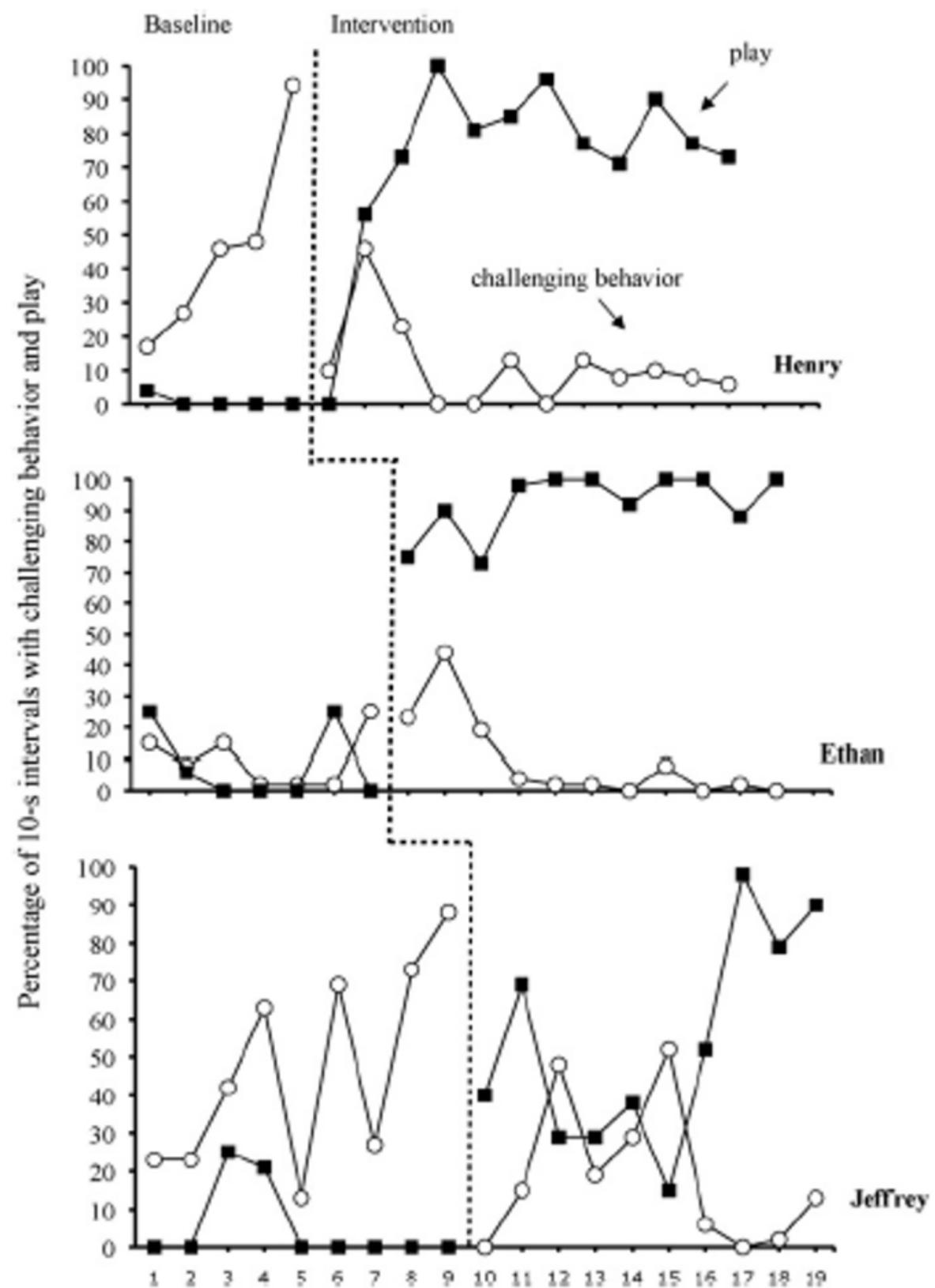


Fig. 1. Percentage of 10-s intervals with challenging behavior and play.

Is there a functional relation?

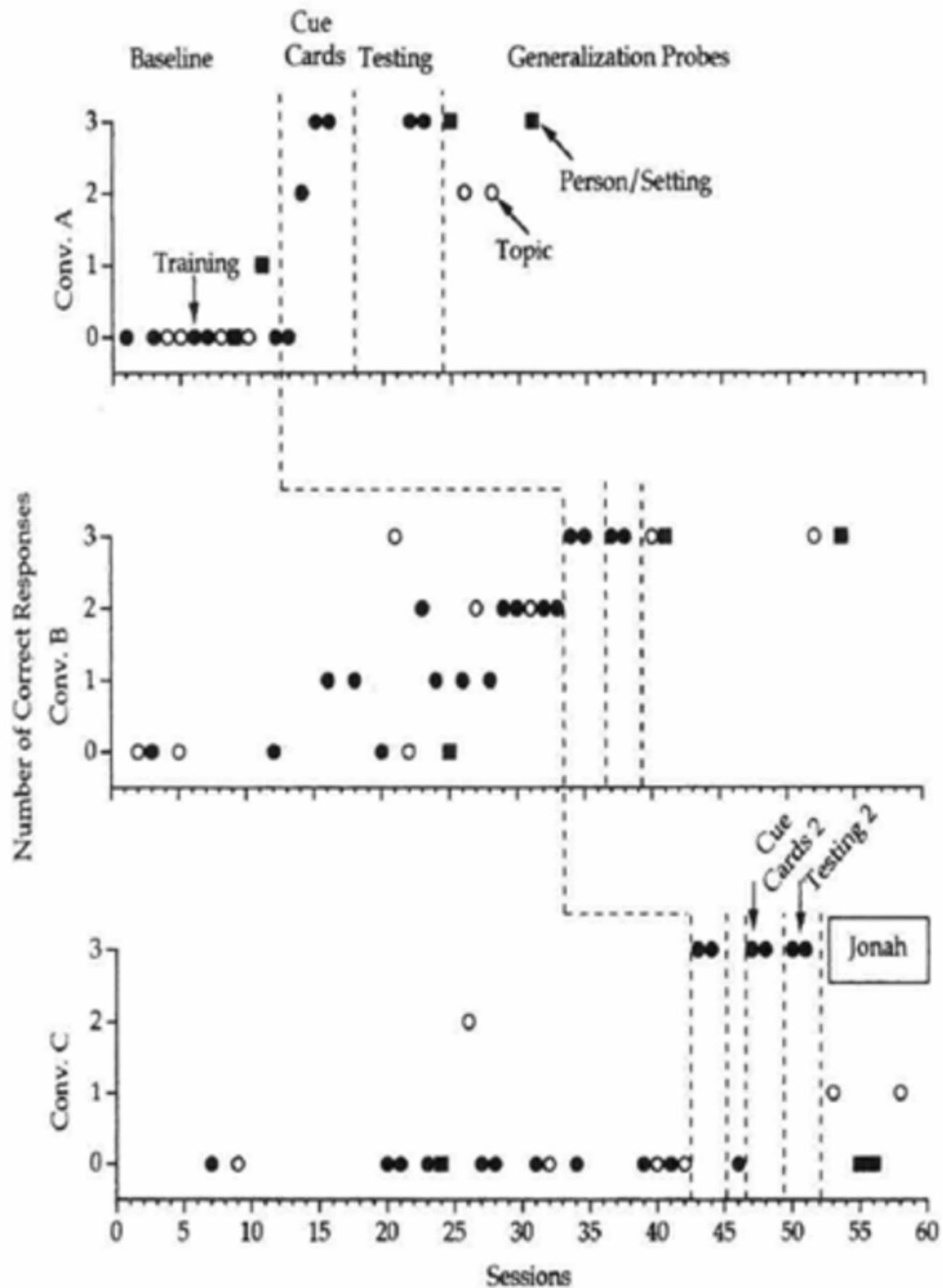
Challenging behavior

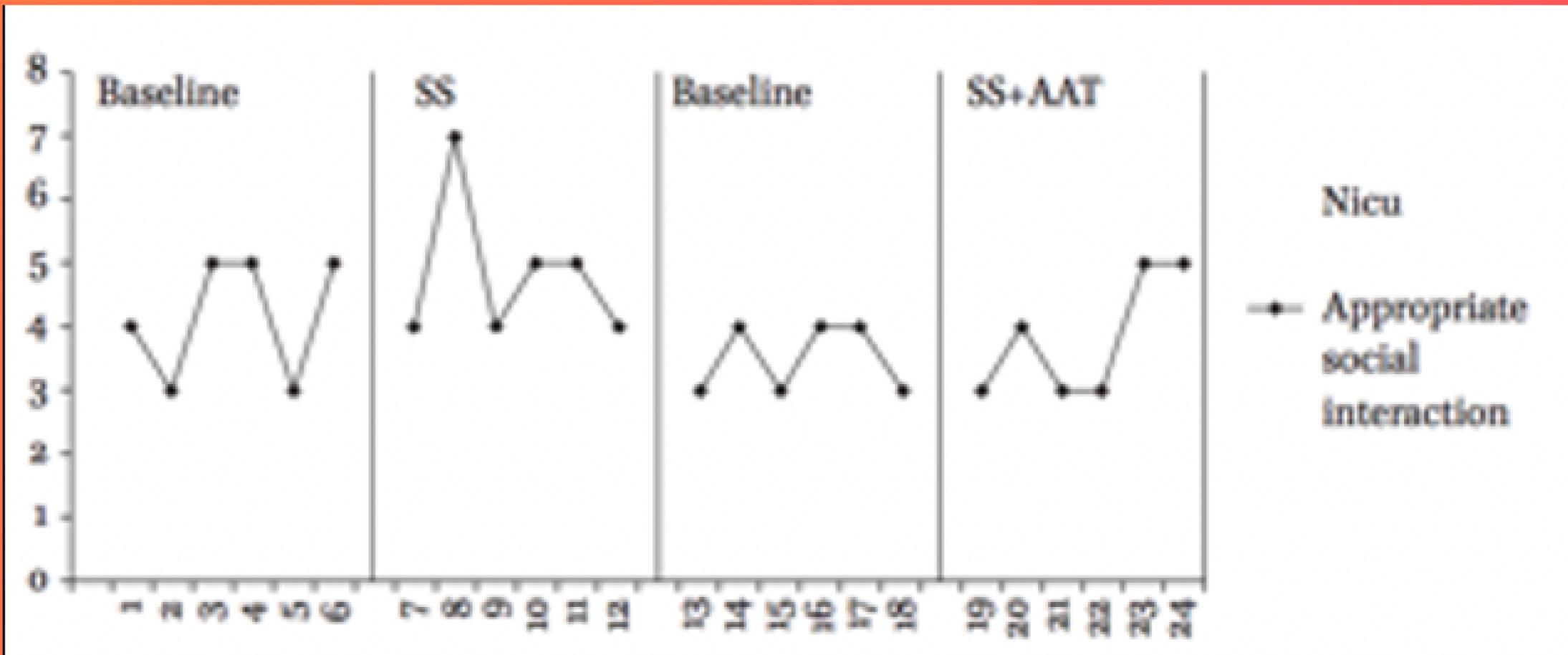
Why or why not?

Is there a functional relation?

Training (black circles)

Why or why not?





Is there a functional relation?

Training (black circles)

Why or why not?