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Background

- The *Ignite Challenge* is a 13-item gross motor skill assessment
- Autism is characterized by persistent deficits in social interaction and communication across many contexts.
- The Body Language Coding Scale (BLCS) was developed to be used alongside the *Ignite Challenge* to help instructors learn about the body language of youth with ASD during physical activity.
- Better awareness and understanding of a child's body language may help an instructor to work more sensitively and effectively with a child with ASD



Purpose

To assess if the new shorter versions of the *Ignite Challenge* (i.e. the *Ignite-Coach* (4-item version) and *Ignite-Lite* (5-item version) would show similar scores to the full length *Ignite Challenge* and similar correlations with respect to 'test enjoyment' and with body language when used with children with ASD ages 6-12 years.

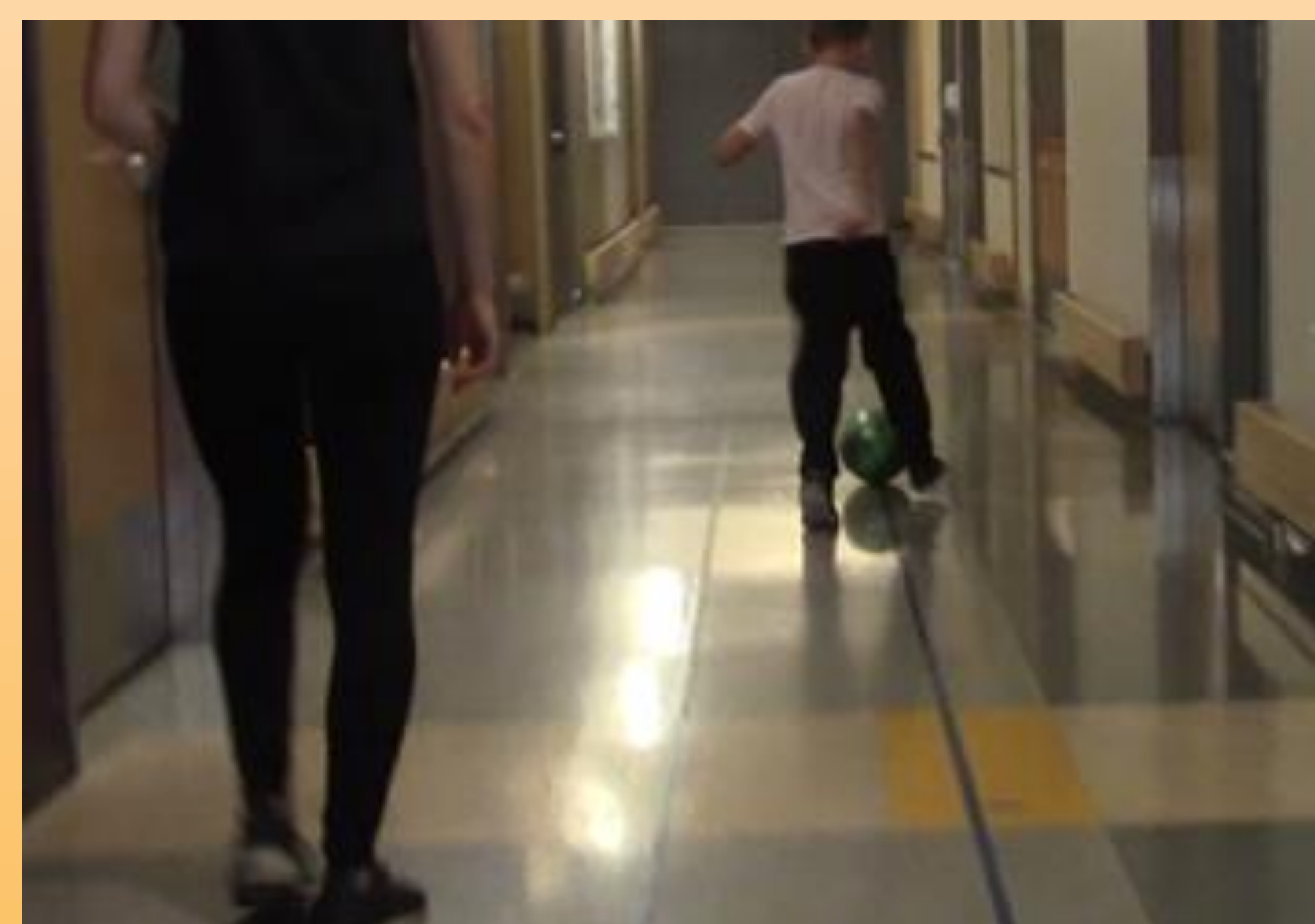


Fig. 1: Participant completing item #11 on the *Ignite Challenge*

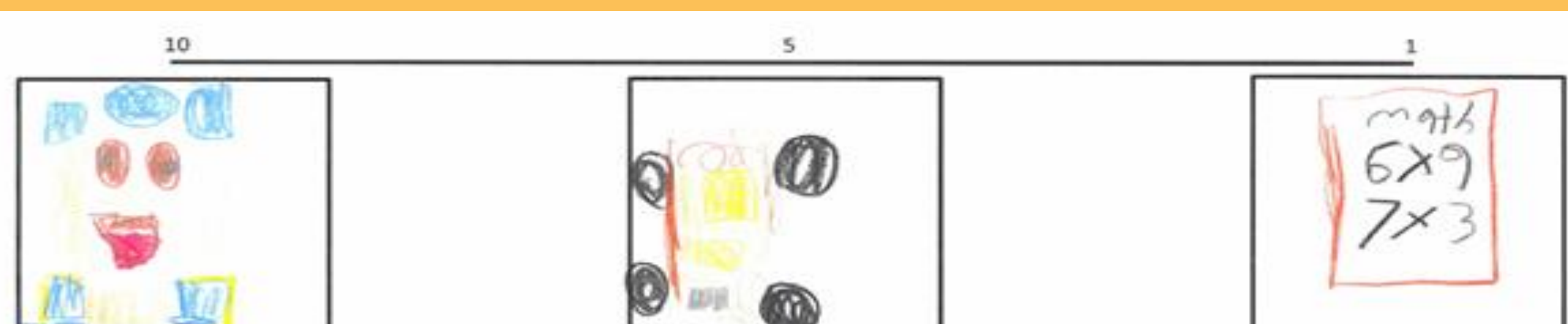


Fig. 2: Example of a completed PEQ scale for rating enjoyment on an *Ignite* item – summary score (%) calculated with ratings done for each *Ignite Challenge/Ignite Coach/Ignite Lite* item tested

Main Findings

- Similar motor scores for *Ignite Challenge, Ignite Coach & Ignite Lite*
- Similar scores on the BLCS when used with the *Ignite Challenge, Ignite-Coach & Ignite-Lite*.
- Lower PEQ (enjoyment) scores when used with *Ignite-Coach* or *Ignite-Lite*
- No significant correlations between *Ignite Challenge* & PEQ or BLCS
 - *Ignite-Coach* positively correlated w/ PEQ.
- For the *Ignite-Lite*, BLCS was positively correlated with PEQ.

The *Ignite-Coach & Ignite-Lite* hold promise as more efficient measures of a child's advanced motor skills assessment and provide a similar picture of body language. However, enjoyment seems to be specific to the motor items tested.

BLCS Item #	Body Language Behaviour
P1	Laughs, dances or jumps after a completed task or child initiated high-5
P2	Responds immediately <u>and</u> appropriately to instructions
P3	Problem solves
P4	Spontaneously interested in scoring paper, stopwatch, or speed
P5	Positive vocalizations (out of excitement or as part of a game)

Fig. 3: Example items from the BLCS

Acknowledgments

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Methods

- 28 participants with ASD aged 6-12 years old and able to follow complex 3-step instructions.
- Participants completed the 13-item *Ignite Challenge* (video taped; Figure 1), the Personalized Enjoyment Questionnaire (PEQ; Figure 2)
- Participants were then scored on the BLCS (Figure 3) using the *Ignite Challenge* videos.
- Data were re-analyzed by looking at only the subset of items in the *Ignite-Coach* and *Ignite-Lite*.
- 9 Correlations were analyzed between IC, PEQ, %pBLCS using MedCal (Version 19.6) with significance set at $p < 0.05$.

Results

Percentages of Average Scores

	IC	PEQ	%pBLCS
Ignite Challenge	68.3	67.4	63.4
SD	13.3	20.4	18.0
Ignite Coach	69.2	54.3	63.8
SD	12.7	33.7	18.1
Ignite Lite	62.3	54.5	65.7
SD	12.6	33.9	19.6

Table. 1: Mean scores expressed in percentages

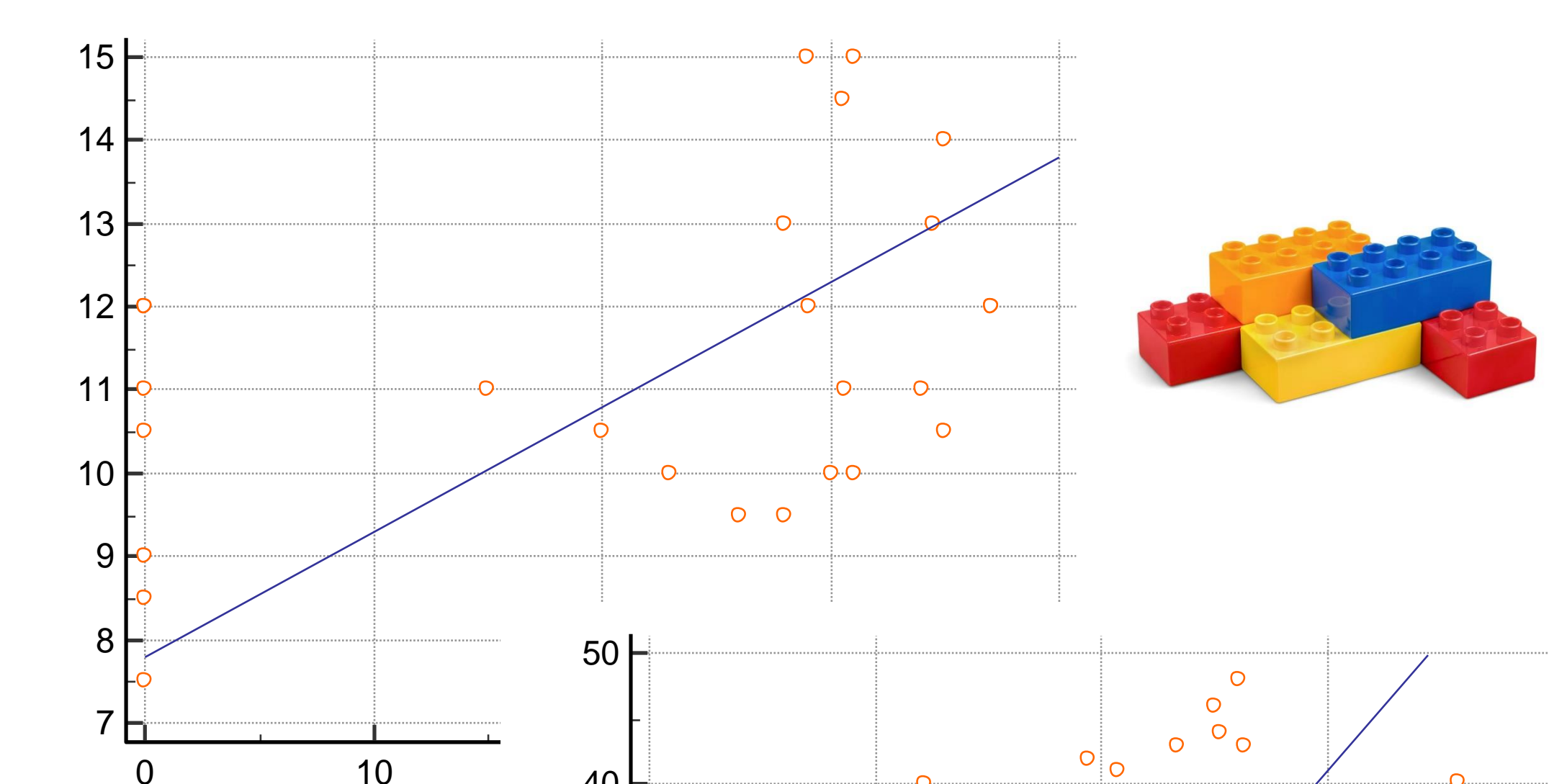


Fig. 4: Positive correlation between *Ignite-Coach* and PEQ ($r=0.39$, $p < 0.05$,)

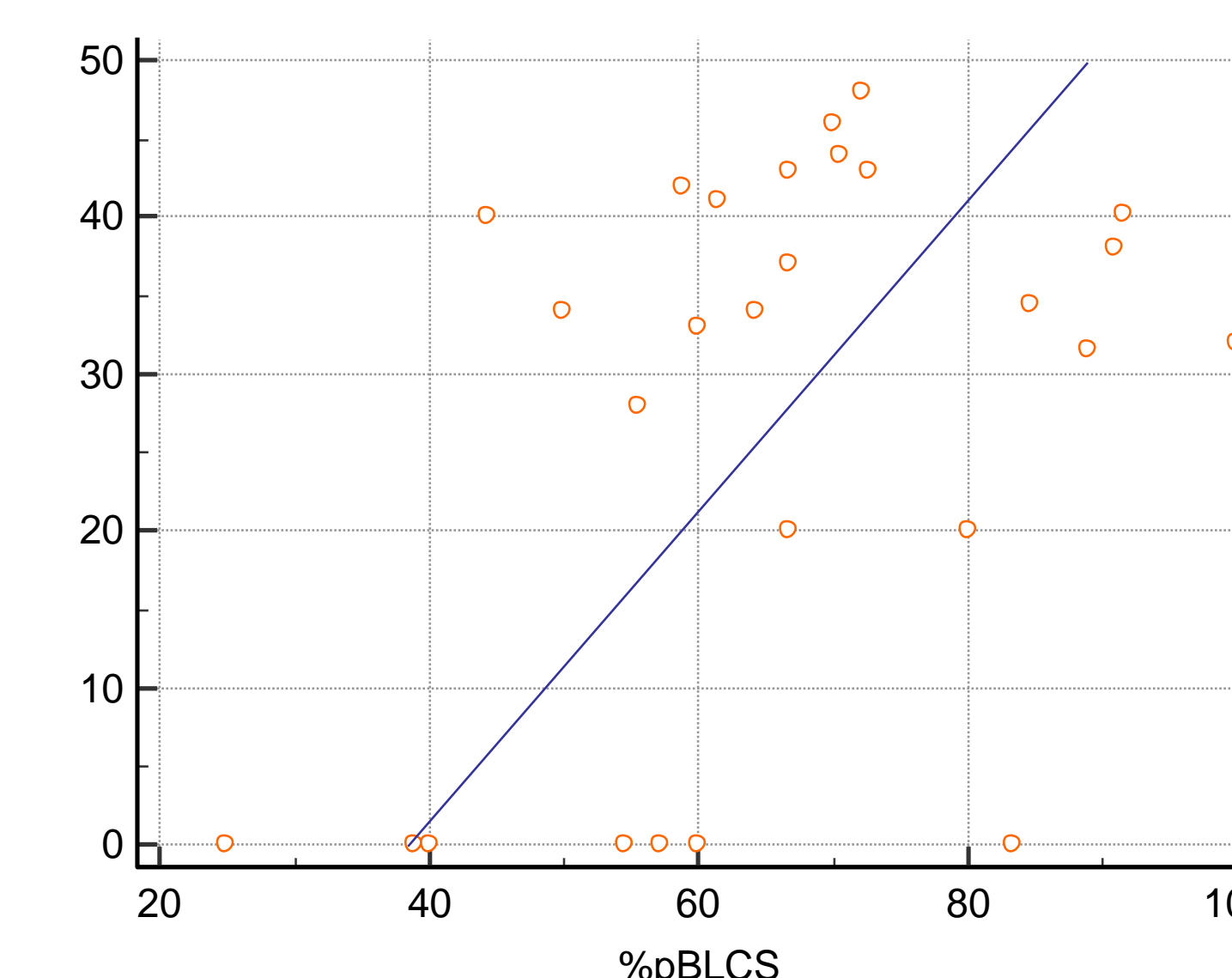


Fig. 5: Positive correlation between %pBLCS and PEQ ($r=0.43$, $p < 0.05$,) with use of the *Ignite-Lite*