

How to read a behavior graph in sixty seconds.

What it is. A behavior graph is a picture of counts over time. Dots run left to right, one per day or session. Up means more. A vertical line marks the day something changed — a new plan, a new medicine, a new teacher.

Why it matters. Reports and IEPs are full of graphs, and most parents nod at them. Reading one lets you ask the only question that matters — *is this working?* — and see the answer yourself, instead of taking someone's word for it.

THE METHOD

How to read one yourself: three things, in this order.

1. **Level — where do the dots sit?** Cover everything but the last five dots with your hand. High, middle or low on the axis?
2. **Trend — which way are they going?** Imagine a line through the middle of the dots. Up, down or flat? For a behavior you want less of, down is good. For a skill you want more of, up is good.
3. **Variability — bunched or bouncing?** Dots close together mean steady. Dots jumping high-low-high mean something else is driving it: sleep, illness, a different adult each day. Bouncy data is a question, not an answer.
4. **Then compare across the vertical line.** Did level, trend or bounce change *starting at the line*, and hold? That is the plan working. A change that began before the line was not the plan. No change at the line is a plan that needs changing.

5. **Before any of that, read the axis labels.** Per hour? Per day? Percent of chances?
Three dots are not a trend. Missing days matter — ask why they are missing.

WORKED EXAMPLE

Ava, age seven, calling out in class.

Made-up example. The names and numbers below are invented to show the method.

Y-axis: *call-outs per hour*. Ten school days before the plan, then a line, then ten days after the teacher began “raise your hand, called on within ten seconds.”

	DAY 1	2	3	4	5	6	7	8	9	10
Before the line	6	8	7	9	8	7	8	6	9	8
After the line	7	6	6	5	4	4	3	3	2	3

Before: level about eight, flat, steady. After: level falling, trend down, still steady, and the fall starts right at the line. Verdict: working — keep going. The question to ask next: what did *hand-raising* do over the same days? It should be going up. If nobody graphed it, ask them to.

MISTAKES TO AVOID

How graphs mislead honest people.

- Reading one dot. Yesterday is a day, not a direction.

- Comparing today with the worst day instead of with the average.
- Ignoring the axis. "Down to 20" means nothing until you know 20 of what, per what.
- A claim of "better since we started" on a graph with no vertical line. Ask where the start is.
- Trusting a trend drawn through four dots.
- Accepting a graph with a month missing and no note saying why.

TRY IT

One question, then the answer.

Ten dots before the line: 6, 7, 6, 8, 7, 6, 7, 8, 6, 7. Ten after: 7, 6, 7, 8, 6, 7, 6, 7, 8, 7.
Is the plan working?

▼ Show the answer, and why

No — and you can say so in one sentence. Level is about seven on both sides, trend is flat on both sides, bounce is the same on both sides. Nothing changed at the line, so the plan changed nothing. That is not a failure of the child; it is the signal to change the plan.

SOMETHING TO KEEP

Graph-reading checklist, and a blank graph.

DRAGEN ACADEMY • GRAPH-READING CHECKLIST
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CHECK	WHAT I SEE
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Axis: what is counted, per what?	
How many dots? (fewer than 5 = not enough)	
Level of the last five dots: high / middle / low	
Trend: up / down / flat	
Bounce: steady / bouncy	
Where is the vertical line? Did the change start there and hold?	
Missing days, and why	
My verdict: working / not yet / can't tell	

BLANK GRAPH — BEHAVIOR: _ _ _ _ _
 • COUNTED PER: _ _ _ _ _ • ONE COLUMN
 PER DAY

	1	2	3	4	5	6	7	8	9	10	11	12	13	14

WHERE DRAGEN HELPS

The graph draws itself.

The DRAGENfamily hub turns what you log into the last two weeks as a graph. A pencil and the grid above do the same job tonight.

S O U R C E

Where this comes from.

Parsonson & Baer (1978), "The analysis and presentation of graphic data," in Kratochwill (Ed.), *Single Subject Research*, set out visual analysis by level, trend and variability. Cooper, Heron & Heward, *Applied Behavior Analysis* (3rd ed., 2020), the chapter on constructing and interpreting graphic displays.

Examples on this page are made up. They contain no client, student or family information. This lesson teaches a method; it does not replace your child's care team, your BCBA, or your payer's written rules.