# Schools Where Teachers Get Better at Teaching

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# Teacher vary in their effectiveness

| Study | Location | Teacher effectiveness | |
|---|---|---|---|
| | | Reading | Maths |
| Rockoff (2004) | New Jersey | 0.10 | 0.11 |
| Nye, Konstantopoulos and Hedges (2004) | Tennessee | 0.26 | 0.36 |
| Rivkin, Hanushek and Kain (2005) | Texas | 0.10 | 0.11 |
| Aaronson, Barrow and Sander (2007) | Chicago | - | 0.13 |
| Kane, Rockoff and Staiger (2008) | New York City | 0.08 | 0.11 |
| Jacob and Lefgren (2008) | Undisclosed city | 0.12 | 0.26 |
| Kane and Staiger (2008) | Los Angeles | 0.18 | 0.22 |
| Koedel and Betta (2009) | San Diego | - | 0.23 |
| Jesse Rothstein (2010) | North Carolina | 0.11 | 0.15 |
| Hanushek and Rivkin (2010) | Undisclosed city | - | 0.11 |

# Can you spot a good teacher?

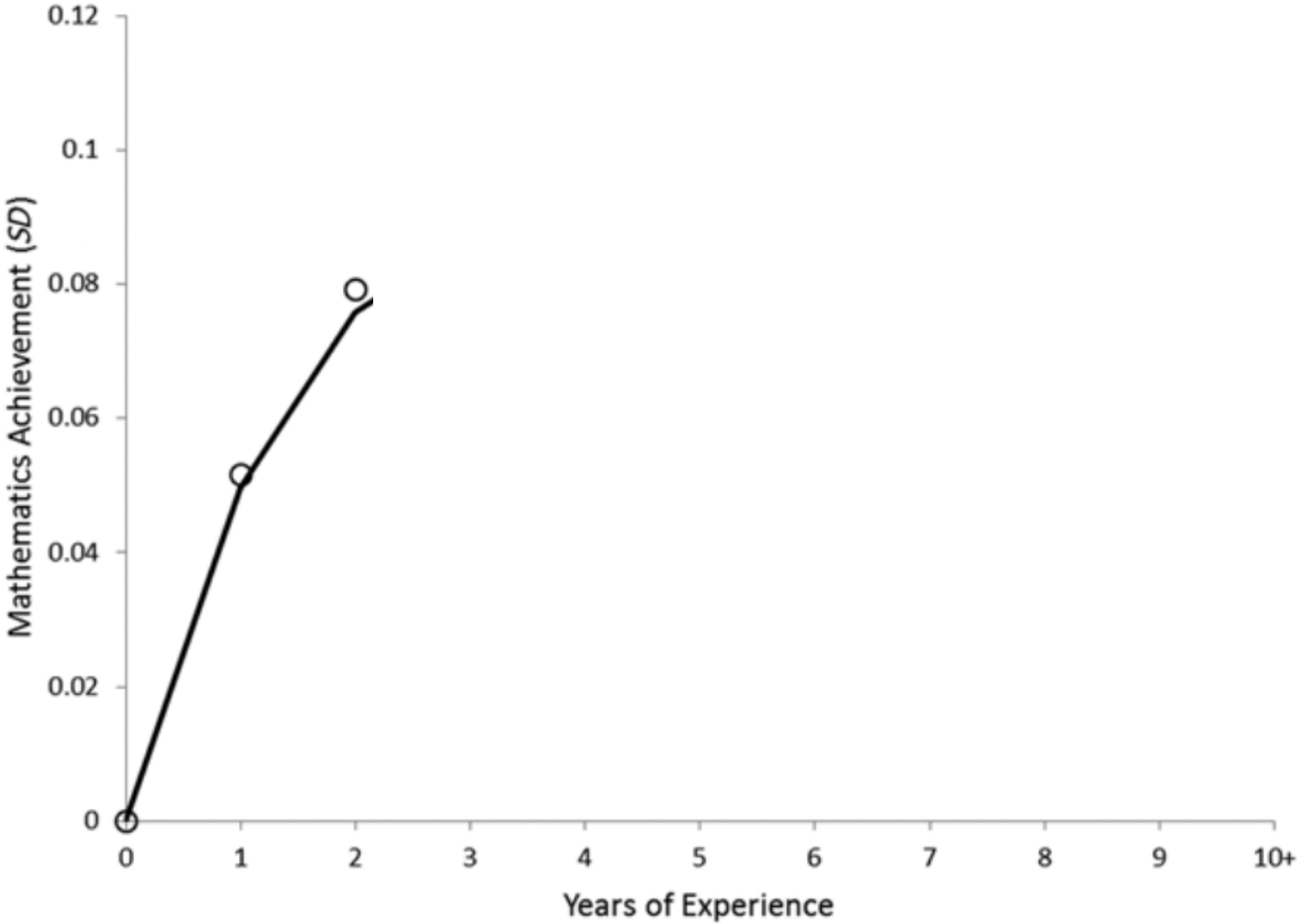**Headteacher evaluation of employees?**



**Headteacher recruitment of new staff?**
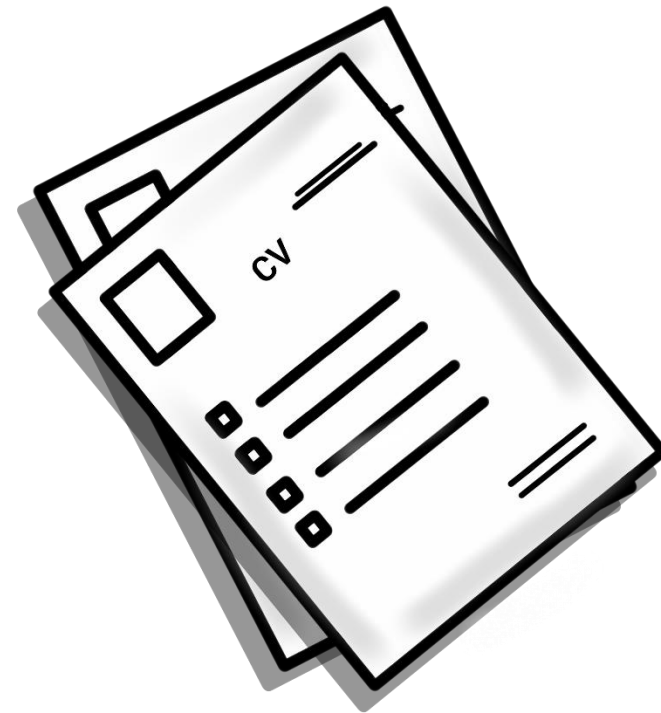
Good teachers are important,
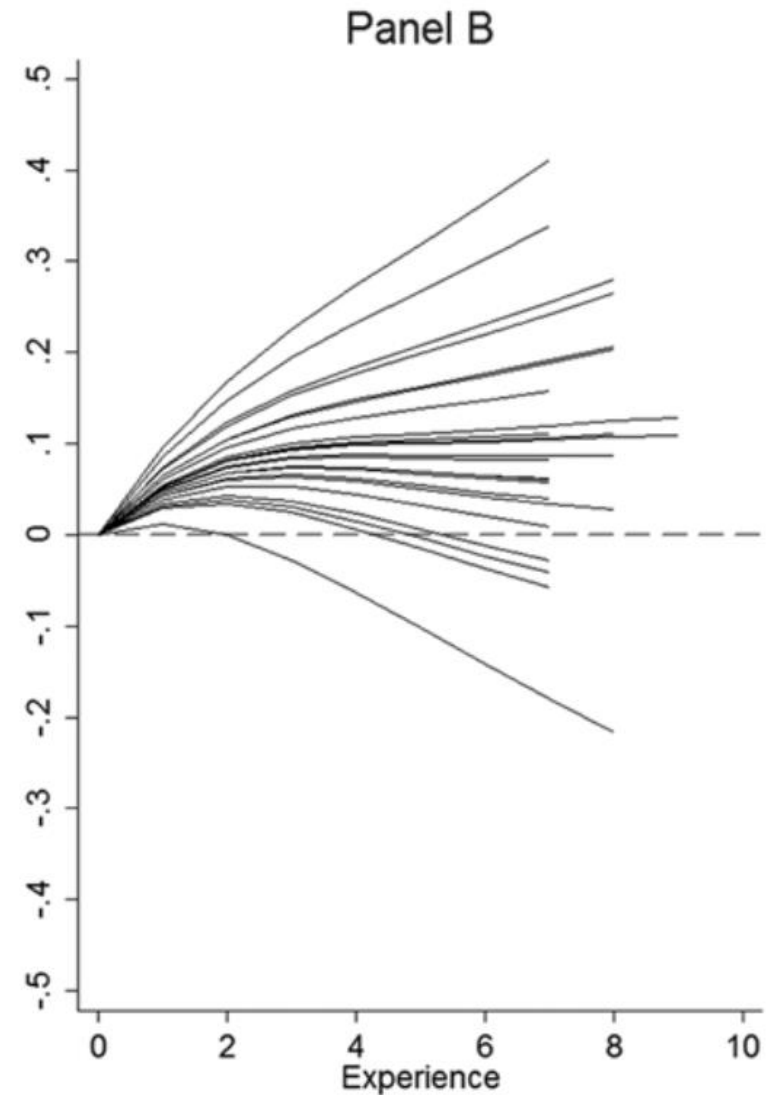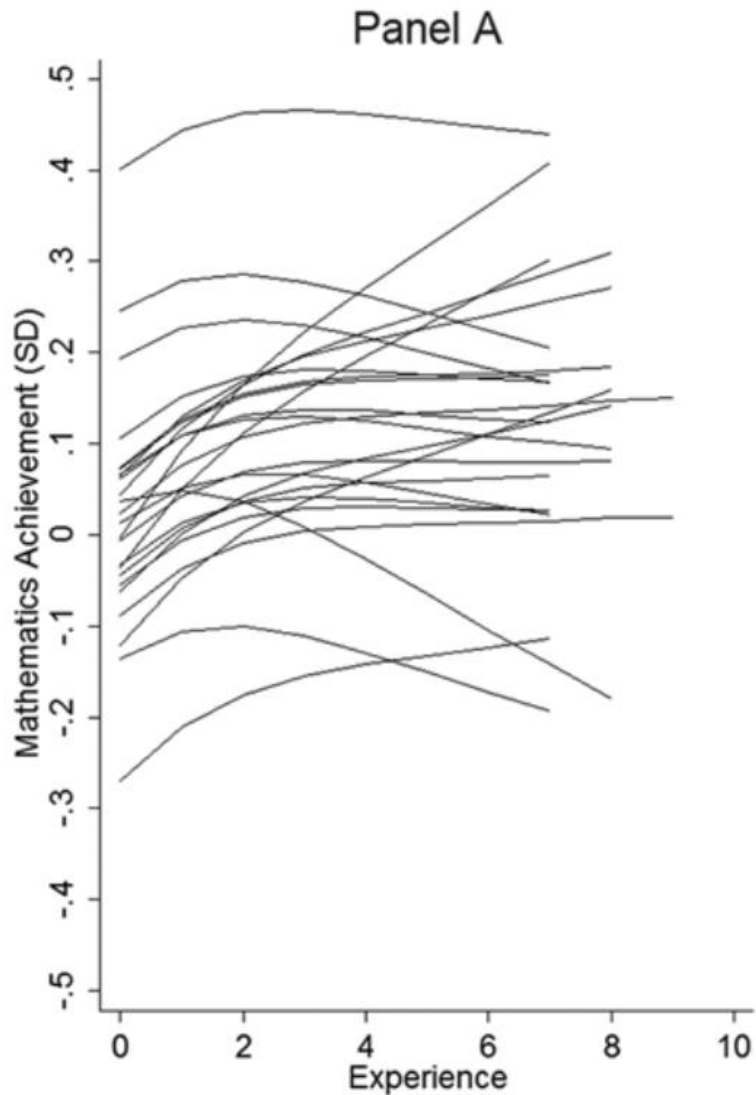but hard to spot,
so we need to grow our own...

# Teacher learning curves

# How do teachers climb up their learning curve?

1. Practise specific techniques
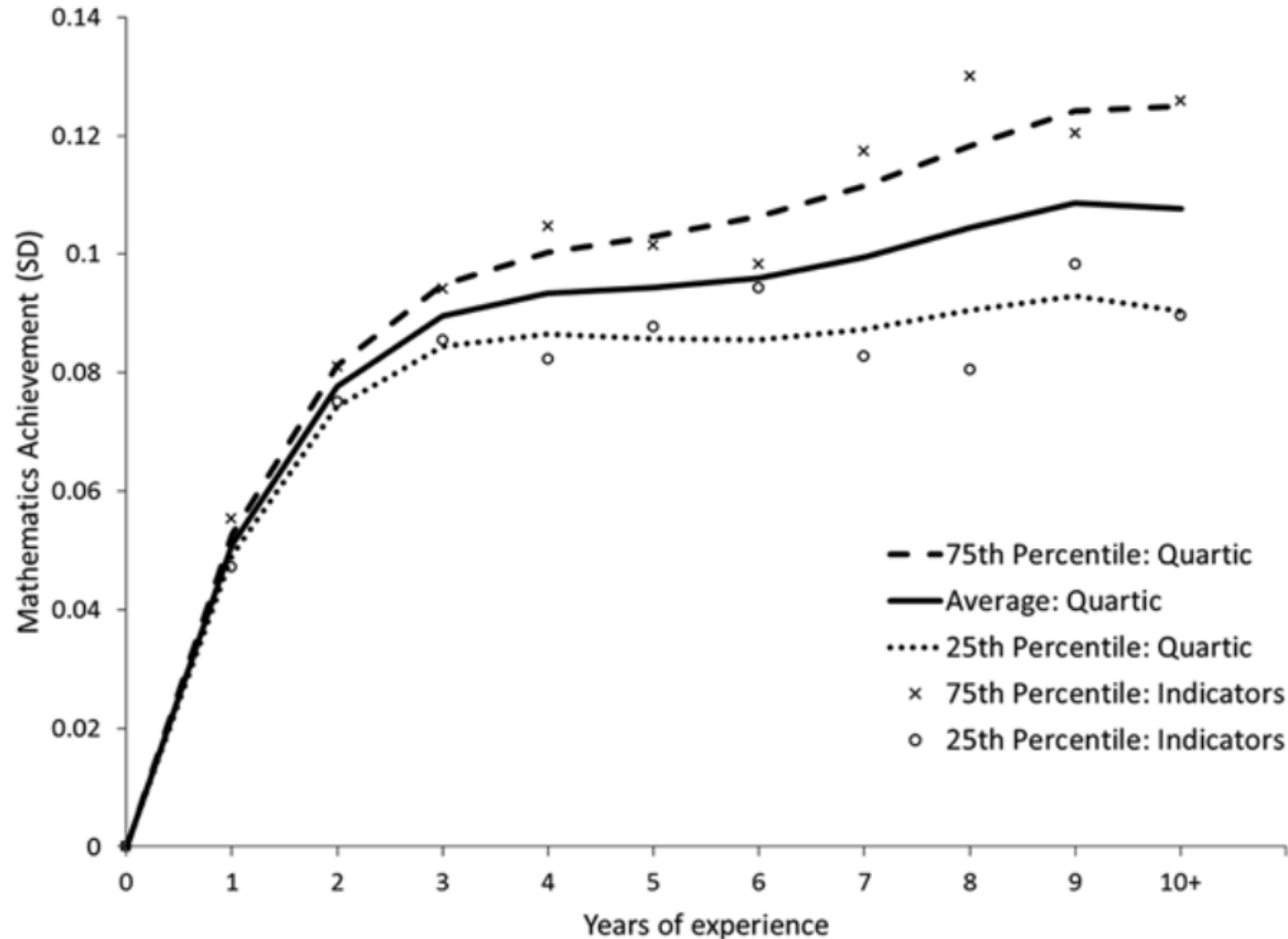
2. Get feedback

3. Adjust practice in response

# Teacher learning curves (Kraft & Papay 2014)

# What influences learning curves?

1. Specialisation in content (Ost & Schiman 2015; Atterbury et al 2016)
2. Specialisation in students (Goldhaber et al 2017)
3. Working Conditions…

# What influences learning curves? (Kraft & Papay 2014)

# Measuring working conditions in Kraft et al 2014

1. **Order and discipline:**
   - Safe working environment
   - SLT consistently enforce behaviour rules
2. **Peer collaboration:**
   - Time to collaborate with and learn from colleagues
   - Collective processes to solve problems
3. **Principal leadership:**
   - Supports teachers
   - Makes sustained effort to address teacher concerns
4. **Professional development:**
   - Funds and time for CPD
   - School PD provides teachers with knowledge and skills to teach effectively
5. **School culture:**
   - Atmosphere of trust and mutual respect
   - Clear expectations communicated to students and families
   - Commitment to help every student learn and high instructional standards
6. **Teacher evaluation:**
   - Teachers receive feedback that can help them improve teaching
   - Consistent and appropriate teacher evaluation procedures

# Stemming the flow of experience out of the classroom

| | Leadership | Teacher Collaboration | Discipline | Autonomy/ Influence | CPD |
|---|---|---|---|---|---|
| Boyd et al 2010 | ✓ | ✓ | | | |
| Ladd 2011 | ✓ | | | | |
| Marinell et al 2013 | ✓ | ✓ | ✓ | | |
| Ingersoll 2001 | ✓ | | ✓ | ✓ | |
| Weiss 1999 | ✓ | | | ✓ | |
| Kraft et al 2015 | ✓ | ✓ | ✓ | | |
| Sims 2017 | ✓ | ✓ | ✓ | | ✓ |

# Why do learning curves level off?
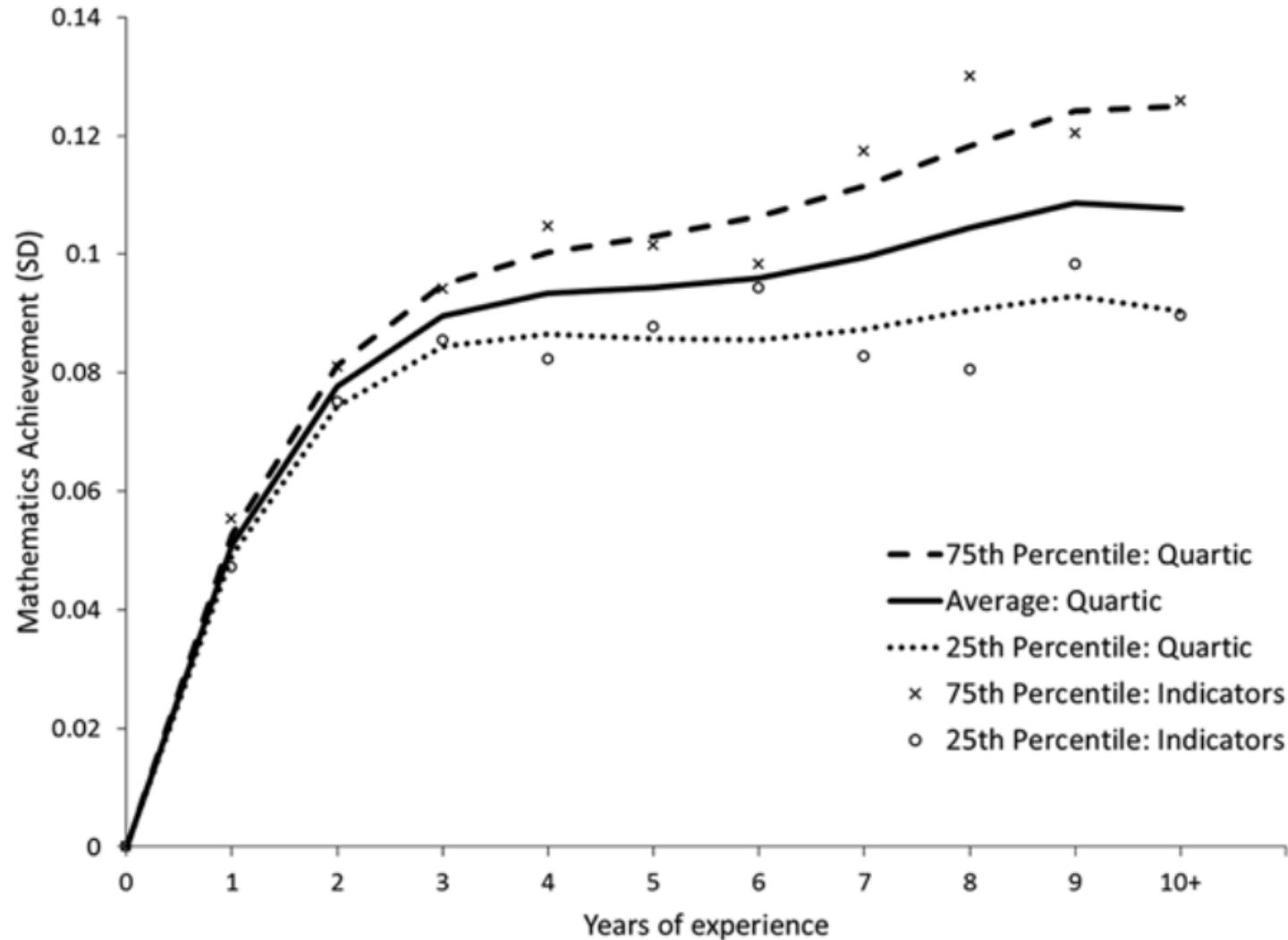
# Everyone moves up their learning curve through deliberate practice

1. Practise specific techniques

2. Get feedback

3. Adjust practice in response

# Rubric-based coaching as deliberate practice

Instructional experts work with teachers to discuss classroom practice in a way that is (Kraft et al 2017):

 (a) individualized
 (b) intensive
 (c) sustained
 (d) context-specific
 (e) focused – deliberate practice of specific skills

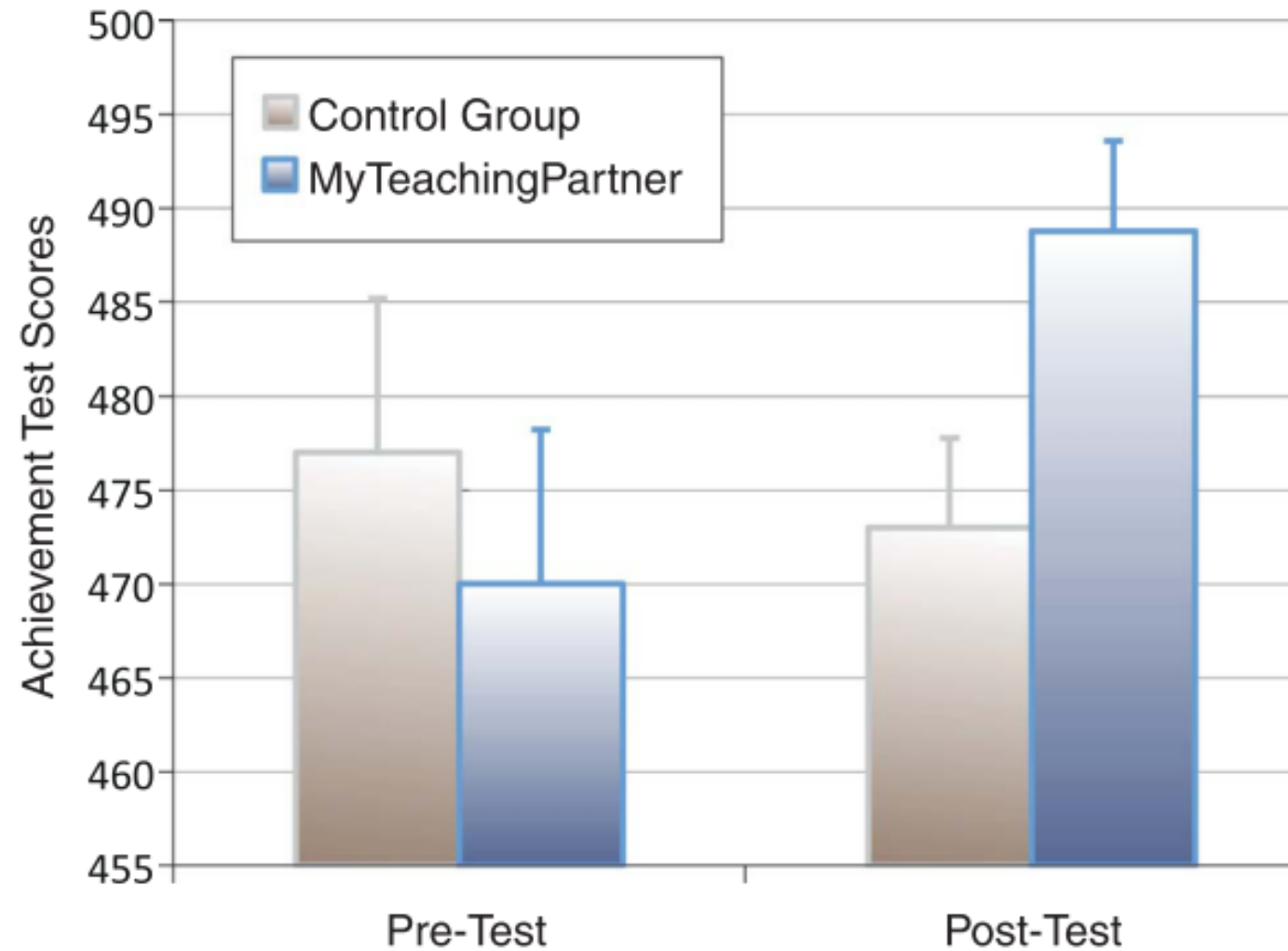Characterised by: empathy, trust, autonomy, openness to challenge (Grant & Hartley 2013)

# My Teaching Partner



**Figure 3.1** Classroom Assessment Scoring System (CLASS) Framework.
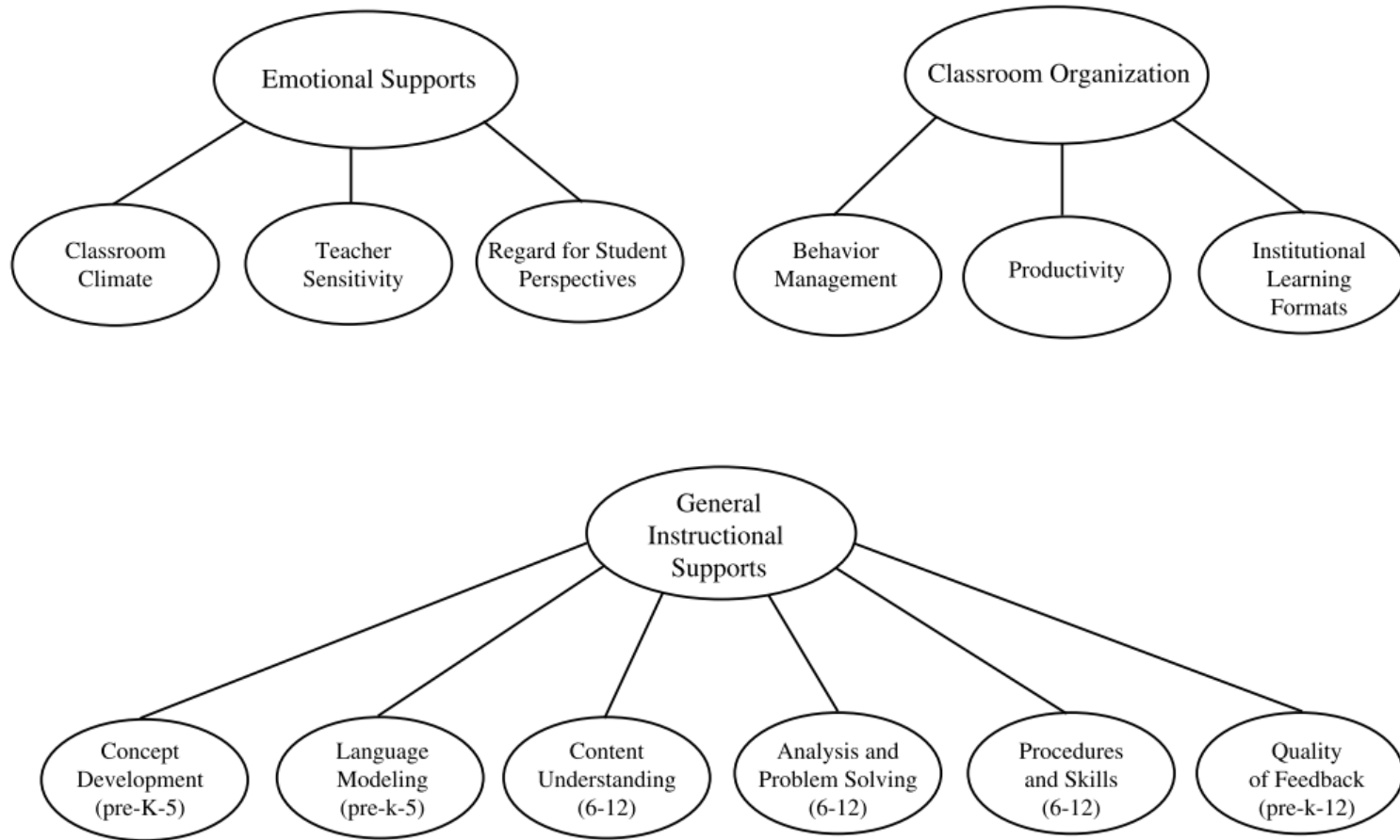
- 9 x 2 week cycles over a year
- Teachers record a lesson
- Coaches identify an area (from diagram on left) in which teacher could improve
- Coach captures a "nice work" clip and a "consider this" clip
- Coach sends these clips describing what made them good/bad in terms of the CLASS framework
- Teacher views clips, comments, discusses with coach
- Teacher reviews example clips of good work
- Action plan and repeat the cycle

# My Teaching Partner

# Good evidence coaching works

**Kraft et al (2017)**

Table 5. Pooled Effect Size Estimates by Coaching Program Size

|  | Classroom Observations | Achievement (Pooled) |
|---|---|---|
| All Studies | 0.584*** | 0.147*** |
|  | (0.065) | (0.027) |
| k[n] | 155[32] | 82[23] |
| Efficacy Trials (n Teachers <100) | 0.716*** | 0.212*** |
|  | (0.113) | (0.036) |
| k[n] | 83 | 30 |
| Effectiveness Trials (n Teachers ≥100) | 0.472*** | 0.105** |
|  | (0.072) | (0.037) |
| k[n] | 72[14] | 52[12] |

Notes: * $p < .05$, ** $p < .01$, *** $p < .001$. Pooled effect size estimates with robust-variance estimated standard errors reported in parentheses. For sample size, k is the number of effect sizes and n is the number of studies.

# Secrets ingredients of rubric-based coaching

**Public commitment to change**

**Repetition**
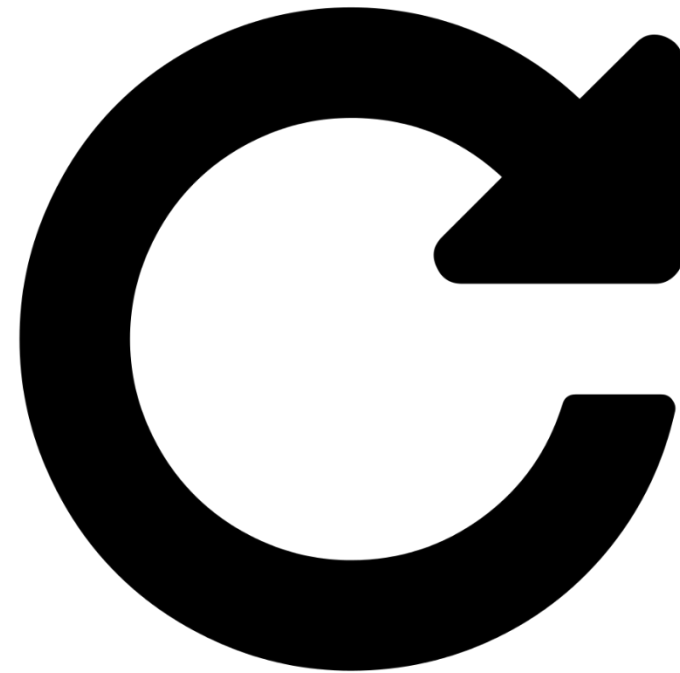
# Comparing coaching and other CPD

| | Practice specific technique? | Feedback? | Repeat? | Commit to change? |
|---|---|---|---|---|
| Peer observation | | ? | | |
| Teacher learning communities | ✓ | | | ✓ |
| Lesson study | | ✓ | ✓ | ✓ |
| Coaching | ✓ | ✓ | ✓ | ✓ |

# What can schools do?

1. Create working conditions that matter for retention and development

2. Buy-in – or train your own – rubric-based expert coaches!

3. Work out what every teacher should be working on

4. Work out where every teacher will get their feedback from