Unreliable proxies and unintended side-effects: *How <u>not</u> to use metrics to inform teacher training practice*

Rob Caudwell & Paul Mallaband

robert@penrose.education & paul@penrose.education

Agenda

- Introduction

- Proxies in practice

- Unintended side-effects

- The art of aligning incentives

- 3 minutes on Mosaic

Mosaic Taster Events

Join us for a 30 minute taster session, where you can see the Mosaic platform in action.
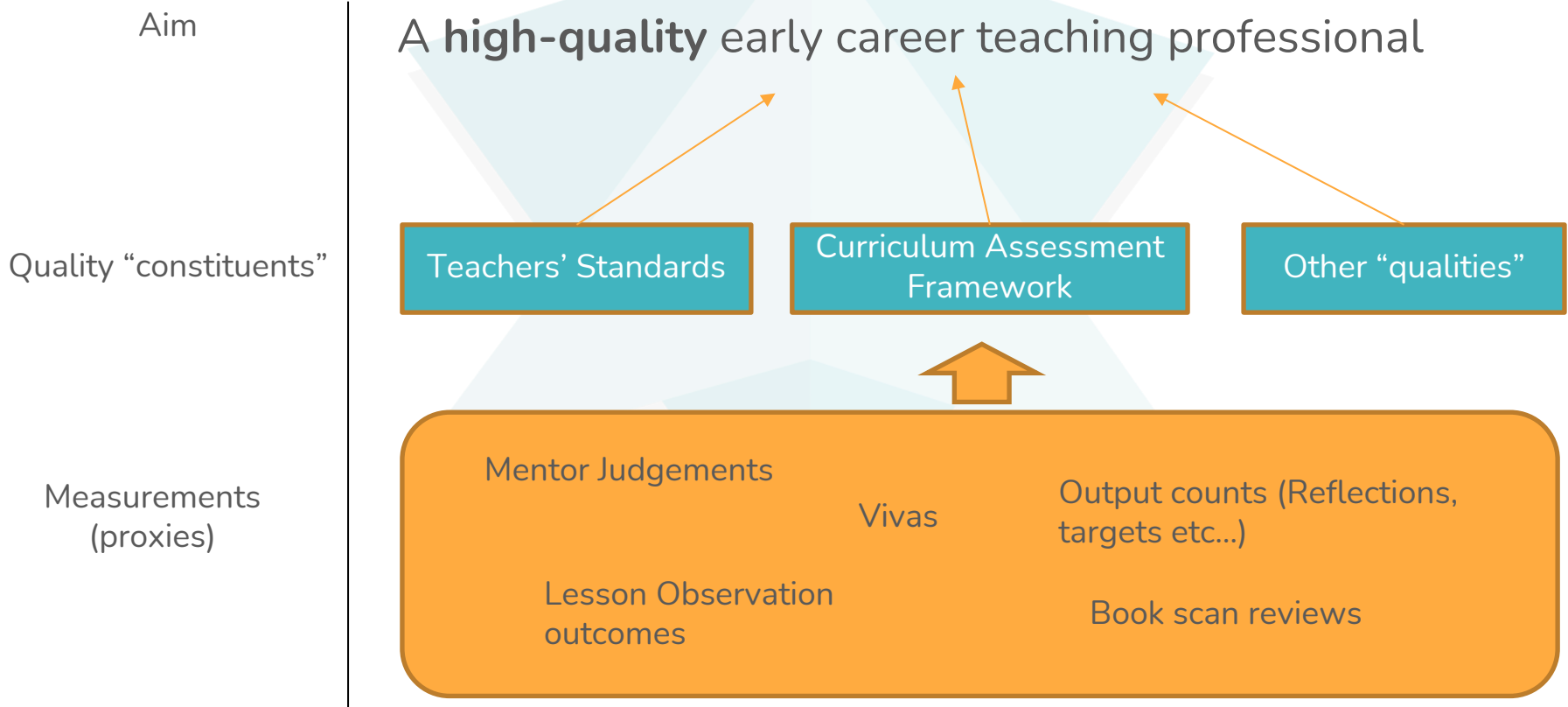Sign up using the QR code below

16/11 and 22/11 at 12.30 pm

"Not everything that is important is measurable, and much that is measurable is unimportant"

- Muller, The Tyranny of Metrics, p18

Proxies in ITT

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Aim

A **high-quality** early career teaching professional

Quality "constituents"

Teachers' Standards

Curriculum Assessment Framework

Other "qualities"

Measurements (proxies)

Mentor Judgements

Vivas

Output counts (Reflections, targets etc…)

Lesson Observation outcomes

Book scan reviews

What is a proxy?

- A variable that is not in itself directly relevant to the model, but that serves in place of an **unobservable or immeasurable** variable. These clearly exist in ITT!!!

- A **good** proxy must have a **close correlation** (not necessarily linear) with the variable of interest.

- A **good** proxy should ideally **not** correlate with other meaningful variables in the model

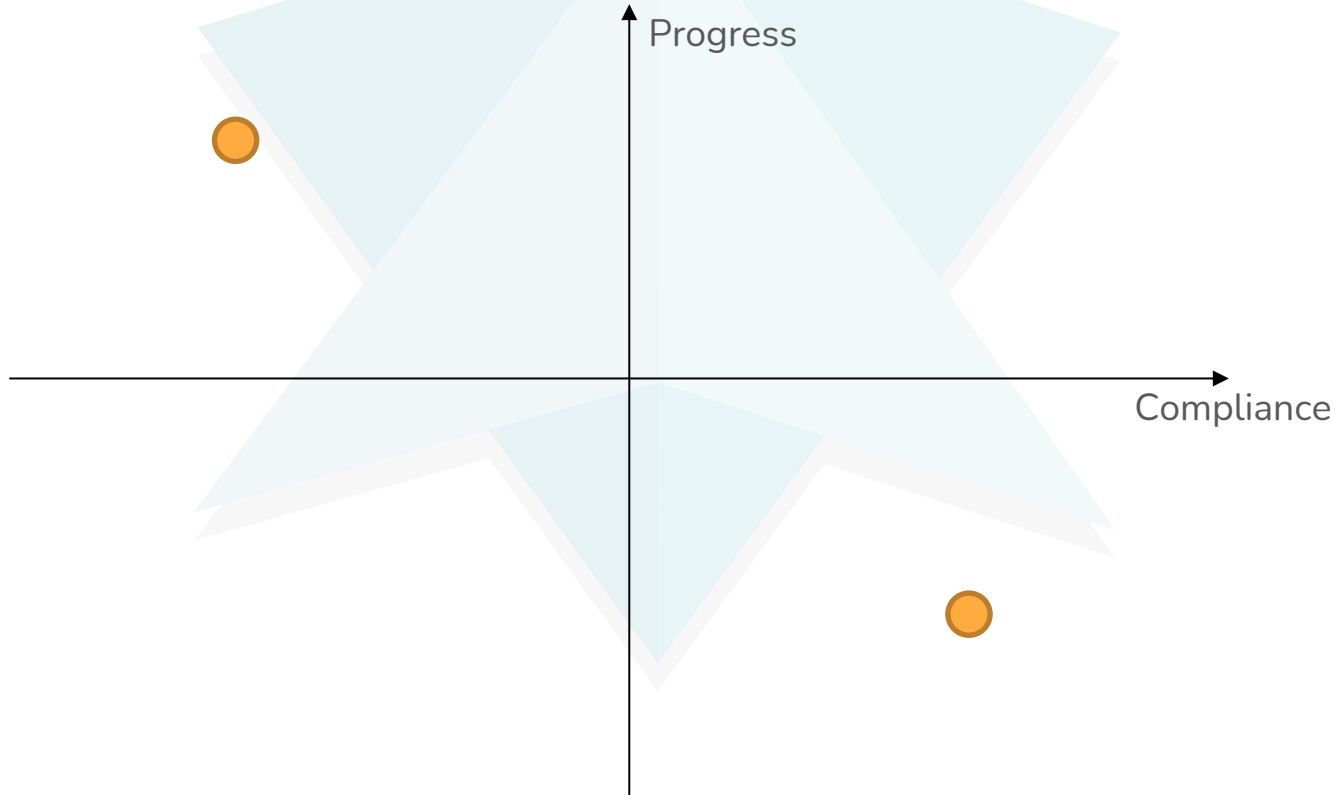# Proxies: What do you measure currently?

- How is it different from what you would measure if anything was possible?

Proxies: Mentor training

The new quality requirements are stipulating the number of hours of mentor training.

- What measurements do you make about your mentors? What do you do with this information?

Proxies: Compliance vs Progress

Proxies: Curriculum structure and "expectations"

The ITE curriculum

41. A provider's ITE curriculum sets out the aims of a teacher-training programme, covering both centre- and placement-based training. It also sets out the structure within which those aims should be implemented, including the knowledge, skills and behaviours to be gained at each stage. It enables the evaluation of trainees' knowledge and skills against those expectations.
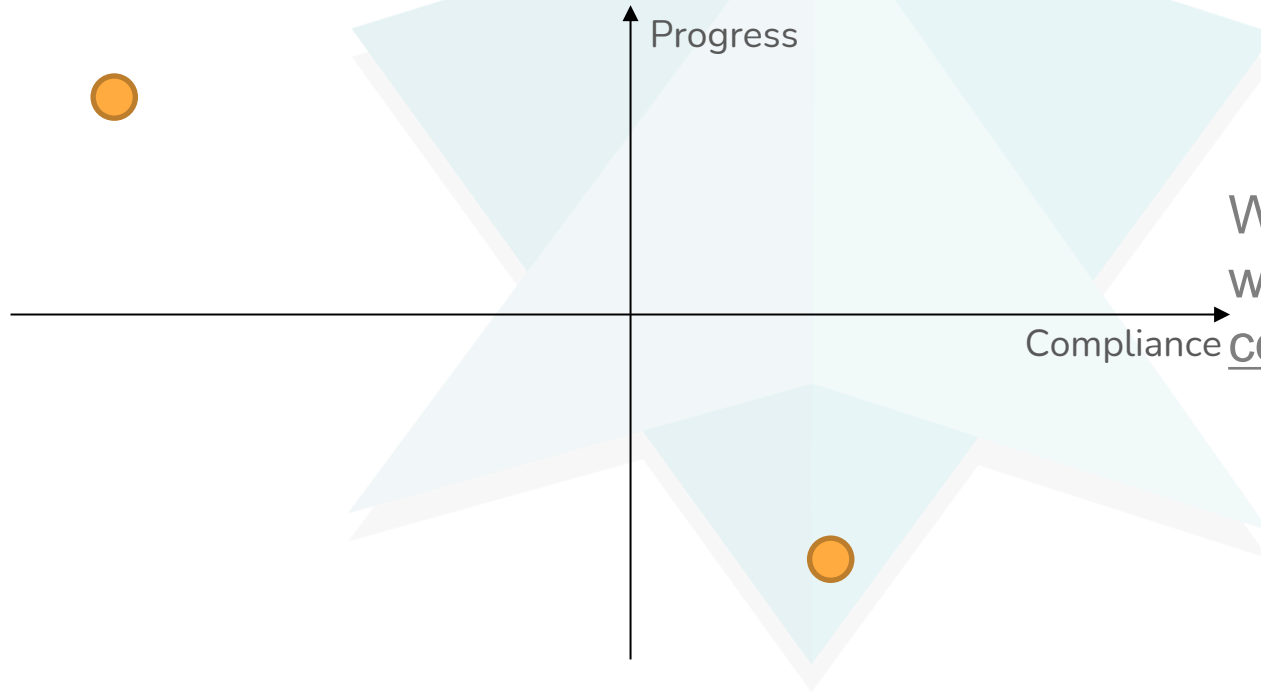
What do you measure currently?

- How is it different from what you would measure if anything was possible?

- Are you aware of any unintended side-effects of these measurements or the processes around them?

Side effects: Mentor training

The new quality requirements are stipulating the number of hours of mentor training.

- What side-effects are you already aware of with this kind of proxy? Or what might we expect?

Side effects: Compliance vs Progress

Progress

Compliance

What happens when we overly focus on compliance?

Side effects: Curriculum structure and "expectations"

The ITE curriculum

41. A provider's ITE curriculum sets out the aims of a teacher-training programme, covering both centre- and placement-based training. It also sets out the structure within which those aims should be implemented, including the knowledge, skills and behaviours to be gained at each stage. It enables the evaluation of trainees' knowledge and skills against those expectations.

What side-effects might we find if our proxy for progress against the curriculum is so rigidly defined?

Goodhart's Law: 'Any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes.'

Goodhart, Charles (1975). *"Problems of Monetary Management: The U.K. Experience"*. *Papers in Monetary Economics. Vol. 1. Sydney: Reserve Bank of Australia.*

How **not** to use metrics effectively

Signs you may not be using metrics well...

- Collecting data just because you can

- Inability to confidently articulate how a metric allows you to achieve your pedagogical goals

- Obvious false positives (e.g. compliant trainees not making progress)

The art of aligning incentives

- Be explicit about purpose: with trainees, mentors and ourselves

- Build rich pictures, so no one thing can be gamified. If you zoom out, never lose the ability to zoom back in.

- Consider the cost associated with the data collection itself, and how this compares with the value gained

3 minutes on Mosaic

- A digital online platform where your staff, mentors and trainees can come together and build trainee progression
- A place to marry University and School-led practice
- Specifically designed for ITT
- A consultative approach

Zoom out, zoom in

Name	Status	C1	C2	C4
Alishia Lentz	Active	Incomplete	Incomplete	Incomplete
Anglea Butkovich	Active	Working Towards	Working Towards	Working Towards
Clarine Almon	Active	Working Towards	Working Towards	Working Towards
		Incomplete	Incomplete	Incomplete
		On Track	Working Towards	On Track
		Incomplete	Incomplete	Incomplete
		Incomplete	Incomplete	Incomplete
		Incomplete	Incomplete	Incomplete
		Incomplete	Incomplete	Incomplete
		Incomplete	Incomplete	Incomplete
		On Track	On Track	Working Towards
		Incomplete	Incomplete	Incomplete
		Incomplete	Incomplete	Incomplete

Review of Progress

✏️ **Assessment of Trainee Progress**

[WORKING TOWARDS] [ON TRACK]

✏️ **Mentor Comment**

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On the whole I have been pleased with Oli's subject knowledge. However, there have been times where his pedagogical knowledge could be improved. While he is clearly very proficient at maths himself, he does need to spend sometime thinking about how new mathematical content can best be introduced to pupils. I think there have been a few times (for example when introducing equations to Year 8) where he was surprised that pupils didn't understand his explanation and then didn't have any alternative plans.

Oli should be encouraged that this is really common when starting out (I remember doing this myself when I was a trainee!) but he may need to spend some time considering the various different ways that you can introduce a topic to give pupils the best chance of accessing his lessons right from the start!

[SAVE]

Developmental targets for this standard

Any targets created here will also appear in the Targets area

◁ Improve focus on how new content can be delivered, particular to lower prior-attainment learners   ✏️ 🗑 ❯

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