

The review underpinning this guidance found early, tentative evidence that effective PD programmes are more likely to include a mechanism from all of the above four groups:

- **Building knowledge;**
- **Motivating teachers;**
- **Developing teacher techniques,** and;
- **Embedding practice.**

The authors suggest that a programme that features a mechanism from each of these areas represents a ‘balanced design’. If one or more group is missing, the programme may fail for a particular reason, as summarised in the following table:

Building knowledge	Motivating teachers	Developing teacher techniques	Embedding practice	Likely outcome
✓	✓	✓		If embedding practice is missing, a teacher may understand the content, be motivated to improve, and have the techniques to do so but—after a period of time—may revert to old habits.
✓	✓			When developing techniques and embedding practice are absent, this could lead to the ‘knowing, doing gap’. Here, a teacher may be fully aware of what they need to do and be motivated to do it; unfortunately, they do not know how to do so, nor do they have the tools to deliver.
✓				Here teachers may have effectively built the knowledge but lack the motivation and skills to implement.
	✓	✓	✓	In this instance, while teacher motivation and implementation may be present, they may have misunderstood and misapplied the initial knowledge.
✓	✓	✓	✓	Where professional development features a mechanism from each group, it may be more likely to be effective.