



Pedagogy, curriculum, teaching practices and teacher education in developing countries

EVIDENCE BRIEF

The evidence suggests that when teachers see pedagogy as entailing communication with students they use practices in interactive ways that mean that learning is more likely to take place: the 'how' is more important than 'what' teachers do.

About this brief

This paper summaries evidence from a DFID-funded review by Westbrook et al. (2013), entitled [Pedagogy, Curriculum, Teaching Practices and Teacher Education in Developing Countries](#), produced by the University of Sussex. The review identifies pedagogic practices that most effectively support all students to learn, and determines ways that these can be supported by teacher education and the school curriculum.

This brief provides an overview of the strength of evidence, key findings and theory of change, to assist policy makers and researchers in assessing the evidence in this field. It is not designed to compare specific intervention packages.

Key findings

Pedagogic practices were most effective when they involved communication with students. Three **strategies** indicated where teachers were focused on students' learning:

- feedback, paying inclusive and sustained attention to students
- creating a safe classroom environment

- drawing on students' backgrounds and experiences.

Six **practices** used in interactive ways by effective teachers were more likely to enhance learning:

- demonstration and explanation, drawing on subject knowledge
- flexible use of whole-class, group and pair work where students discuss a shared task
- frequent, relevant use of learning materials beyond the textbook
- open and closed questioning, expanding responses, encouraging questioning
- use of local languages and code switching (switching between two languages within a sentence to ensure understanding)
- planning and varying lesson sequences.

Practices used were student-centred *and* teacher-led, but informed by social constructivist approaches that see knowledge as socially constructed and learning as a social process. A positive and mutually reinforcing relationship between teacher attitudes, strategies and practices was found.

Practices were **enabled** by:

- teacher peer support

- alignment of professional development with teachers' needs, the promoted pedagogy and in-class monitoring of teachers
- support from head teachers
- alignment of forms of assessment with the school curriculum.

Practices were **disabled** by **misalignment** of:

- initial teacher training with the school curriculum
- Continuing professional development with the promoted pedagogy
- the school curriculum with assessment.

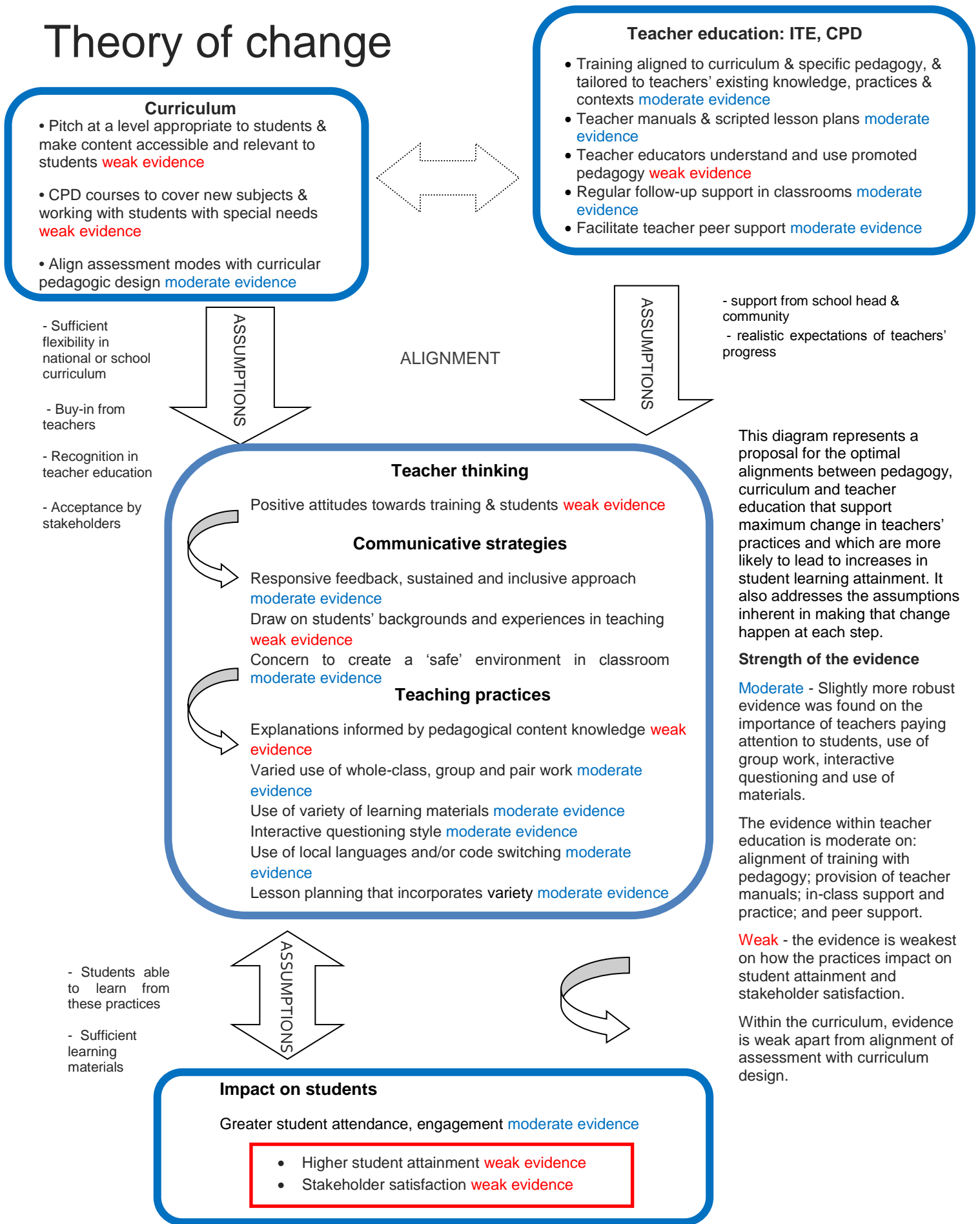
Further **disabling factors** were:

- poor communication with the community and policy makers
- limited resources and large class sizes.

Evidence Base

The overall strength of the evidence is moderate. However, the evidence is less robust on the impact of practices on student learning outcomes, with few studies using baseline and post-test measurements.

Theory of change



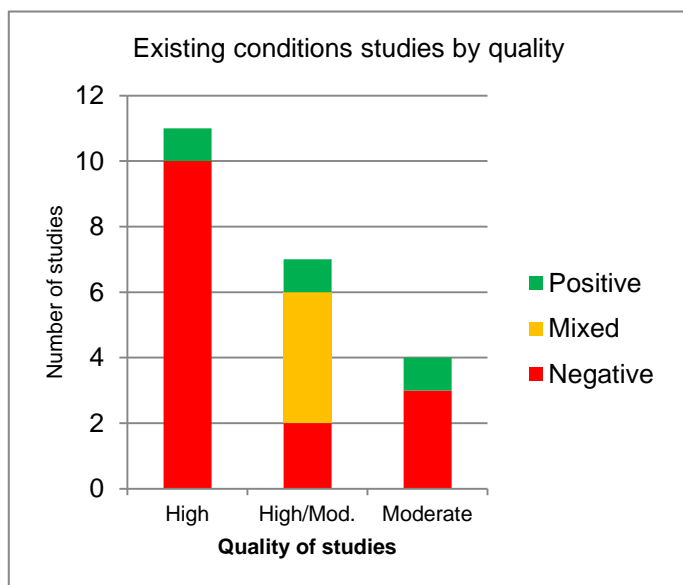
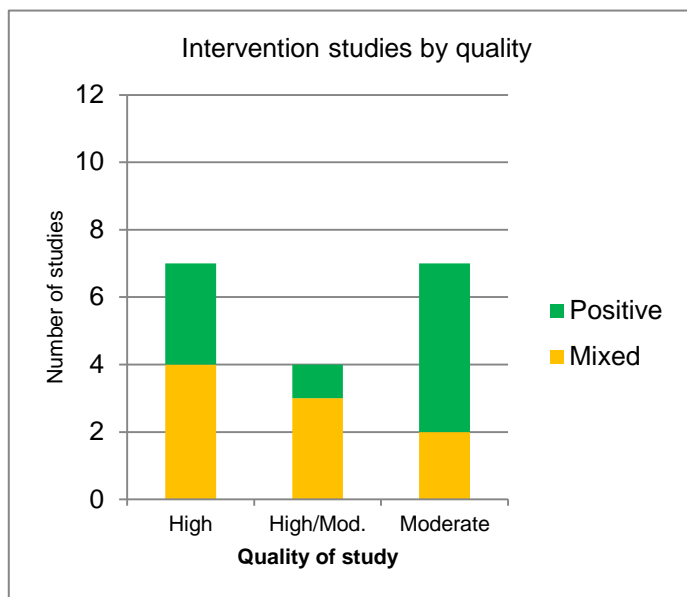
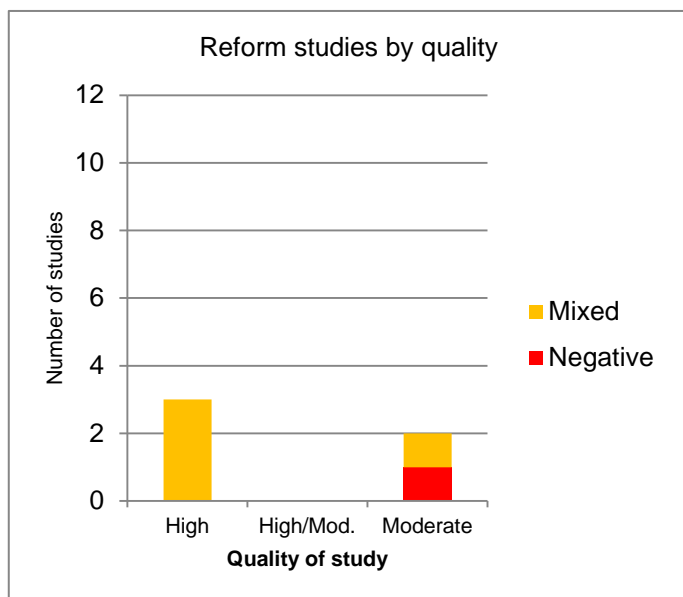
Outcomes by type and quality of study

Forty five studies that were quality assessed as either High or Moderate were included in the final narrative synthesis. The studies were classified into three types: interventions, reforms and existing conditions.

Intervention: Studies or evaluations of pedagogic practices within the context of a specific project or attempt to improve schooling in a particular location through means such as funding, training and providing material resources.

Reform: studies that take place in the context of large-scale reform mostly of national curricula, and therefore, as in interventions, there is likely to be an indication of the desired practices to be produced by the reform.

Existing conditions: exploratory research which describes and analyses what is going on in a location. Interventions or reforms may have played a part but are not highlighted by the study.



Studies were categorised as to whether they reported mostly positive outcomes, mixed results or mostly negative outcomes. The vast majority of studies were qualitative, with only four quantitative. They came from 20 different countries, predominantly from sub-Saharan Africa and South Asia. Students in the majority of studies came from poor or marginalised backgrounds and included girls.

The evidence consists of studies where a variety of pedagogical practices were used, and in different combinations, indicating how varied their implementation may be. Results indicated that the outcome is dependent on implementation.

When viewed in the light of the strategies and teacher attitudes that shape how practices are implemented, it is possible to identify some of the factors shaping the outcomes of teaching and learning. **How teachers implement a particular practice is more important than what pedagogic approach they use.**

Research gaps

- Larger-scale mixed-methods studies with baseline and post-tests measuring student attainment associated with specific practices over time and inclusion of students' perspectives.
- Effective practices for students with disabilities and overage students, and in multigrade classes.
- Further observational evidence of effective practices for very large classes.
- Examples of curricula designed for specific student groups; teachers' use of assessment in relation to the curriculum.

What is the evidence on the effectiveness of pedagogical practices, in what conditions, and with what population of learners?

This table presents the evidence for effective practices under the three pedagogic aspects of attitudes, strategies and practices and expands the headlines given in the Theory of Change on page 3. Teachers used combinations of these practices in observed lessons, but even used in isolation they sometimes led to improvements, although there is also evidence that the same practice can result in poor outcomes (often where practices are delivered without consideration of the students).

The first number in the bracket represents the numbers of studies for each aspect. The second is the number of those that gave evidence of increases in student attainment as a result of the practice. The strength of the evidence for each aspect is given in the right hand column. The evidence overall is moderate but inconsistent, with both positive and negative findings identified in different countries and regions and in different types of study.

Pedagogic aspect		Positive examples (Number of studies/number of studies giving evidence of increases in student attainment)	Negative examples (number of studies)	Overall strength of evidence
Attitudes	Training & Pedagogy	Harmonisation between culture, training, pedagogy and classroom contexts makes teachers positive towards new practices (4/2)	Constructions of the teacher as authoritarian prevent understanding of interactive practices (8)	Weak
	Students	Positive attitudes towards poor and marginalised students leads to awareness of students' backgrounds, experiences and abilities (6/1)		Moderate
Strategies	Paying attention	Tailoring instruction to specific students, giving tests, homework, constructive feedback, including all students in lesson content and discourse (7/4)	Groups of students ignored, especially students with disabilities in large classrooms (6)	Moderate
	Student characteristics	Students' backgrounds, prior knowledge and local examples drawn upon to make lesson content relevant and meaningful (5/1)	Lesson content overly abstract & irrelevant for students (2)	Weak
	Classroom Environment	Lively, warm and friendly teachers encourage participation. Absence of corporal punishment makes students feel safe (6/2)		Moderate
Practices	Group work	Verbal interaction in small mixed and ability groups, sharing tasks and resources, monitored by the teacher (15/4)	Permanent rows, little peer interaction; active zone of students at front do best (5)	Moderate
	Learning materials	Variety of materials used with textbook, from mp3s to stones, integrated with prior knowledge & concept formation (9/5)	Prescriptive and sole use of difficult textbooks, copying from board (7)	Moderate
	Use of questions	Open and closed, expanding and probing responses, encouraging student questioning (10/4)	Frequent closed questions, choral responses, one word answers (7)	Moderate
	Demonstration	Imaginative, interactive demonstrations & explanations using voice, students, images, based on sound content and pedagogical content knowledge (8/1)	Didactic lecturing, poor content knowledge (13)	Weak
	Language	Use of local language gives access to lesson content and encourages verbal interaction (9/3)	Unfamiliar language led to rote learning & incomprehension (3)	Moderate
	Lesson structure	Planned lessons led to varied sequences of methods & tasks (11/3)	Predictable teaching sequence limited variety of activities (15)	Moderate

How can teacher education (curriculum and practicum), the school curriculum and guidance materials best support effective pedagogy?

This table presents the evidence of the enabling and disabling factors provided by teacher education, support and the curriculum. As with the previous page, numbers of studies are given in brackets followed by the number of those studies that gave evidence of student attainment. The overall strength of evidence is given in the right-hand column.

Facilitating factors		Enabling factors (number of studies/number of studies indicating positive results)	Disabling factors (number of studies)	Overall strength of evidence
Teacher education	Initial Teacher Education (ITE) & Continuing Professional Development (CPD)	Alignment with teachers' needs, school curriculum and specific pedagogic practices designed for particular contexts and types of learners (e.g. Activity-Based Learning in India or Schools for Life in Ghana) (5/2)	Misalignment between the ITE or CPD curriculum and teaching methods with the school curriculum, students and classroom realities (6)	Moderate
	Resources	Teacher manuals with scripted lessons (3/3)		Moderate
	Teacher educators	Retrained, expert teacher educators who understand, model and teach the promoted practices (2/1)	Outdated, irrelevant experience; expository methods used to teach prescriptive teaching sequences (3)	Weak
Support	In-class practice & support	Regular in-class support and lesson modelling by teacher educators/mentors who give constructive feedback (6/2)	Short ITE practicum with little guidance, distance between college and schools ; no practical application of methods learnt on CPD (3)	Moderate
	Peer support	Formal and informal peer support in clusters or schools allows teachers to do joint observations and share resources, lesson plans and assessment practices (8/2)		Moderate
	Head teacher & Community	Head teacher and community awareness and support for teachers and new methods of teaching (4/1)	Lack of awareness or participation in interventions or curriculum reform by parents, School Management Committees or community members (10)	Weak
Curriculum	Content & coverage	Pitched appropriately, with accessible content focused on literacy and numeracy (2)	Irrelevant to rural or marginalised children, pitched towards highest achievers, overloaded, inflexible (3)	Weak
	Assessment	Alignment between curriculum content & modes of assessment, often continuous assessment (3/2)	High stakes summative examinations compelled teachers to quickly cover the curriculum using teacher-directed methods (4)	Moderate
	New aspects and subjects		Continuous assessment, life skills, teaching multigrade classrooms or working with disabled students neglected in CPD (3)	Weak
	Textbooks		Limited numbers of textbooks & teaching and learning materials & of poor quality (18)	Moderate
	Student numbers		Large student numbers, immovable desks, high noise levels for group work, little time to mark work (13)	Moderate

This material has been funded by the Department for International Development. The views expressed do not necessarily reflect the views of the Department for International Development.

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