The impact of collaborative Continuing Professional Development (CPD) on classroom teaching and learning.

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This summary is based on a systematic review of studies designed to investigate whether and how collaborative Continuing Professional Development (CPD) affected both teaching and learning. The reviewers defined Collaborative CPD as teachers working with at least one other related professional on a sustained basis. The review offers insights into a number of features of collaborative CPD, including observation and feedback, partnerships between external specialists and teachers, building on existing knowledge and practice and peer support.

What impact did collaborative CPD have on teaching and learning?

The review found that collaborative CPD was linked with improvements in both teaching and learning and many of these were substantial.

The positive outcomes for teachers reported in the studies included:

- greater confidence amongst the teachers, for example, in taking risks;
- enhanced beliefs amongst teachers in their power to make a difference to their pupils' learning;
- the development of enthusiasm for collaborative working, notwithstanding initial anxieties about being observed and receiving feedback;
- a greater commitment to changing practice and willingness to try new things; and
- enhanced knowledge and practice.

The positive outcomes for students were focused either on measured improvement in student performance and/or on:

- demonstrable enhancement of student motivation to learn;
- improvements in performance such as improved test results, greater ability in decoding, enhanced reading fluency;
- more positive responses to specific subjects;
- better organisation of work;
- use of collaboration as a learning strategy;
- increased sophistication in response to questions; and
- the development of a wider range of learning activities in class and strategies for students.

What features of collaborative CPD did the review report on?

The reviewers identified a number of core features of the CPD which were linked, in combination, to the positive outcomes, including:

- the use of external expertise linked to school-based activity;
- opportunities for teachers to identify their own CPD focus so they could focus on issues which were important to them;
- processes to encourage, extend and structure professional dialogue;
- scope for teachers to identify their own starting points and learning needs;
- the use of peer support;
- observation, particularly teachers observing each other and learning from each other;
- feedback (usually based on observation);
- refining reflective processes, particularly through debriefing with HEI support; and
- processes for sustaining the CPD over time to enable teachers to embed the practices in their own classroom settings.

External expertise

All the studies reported in the review featured the use of specialist, external expertise in the collaborative CPD, although the extent and nature of these partnerships between 'experts' and teachers varied greatly. One study (Saxe et al., 2001) compared collaborative CPD involving specialist input in subject knowledge with collaboration where the teachers supported each other. The study found that the group of teachers that had had input from an external 'expert' made significantly more changes and their pupils shared greater increases in attainment than the group which only used peer support. Most of the studies, however, reported CPD which combined external, specialist input with internal, collaborative peer support and many of these emphasised the partnership that existed between the teachers and outside experts. For example:

- Kirkwood (2001) reported how the 'outside expert' played the leading role at the beginning
 of the project, with the participants gradually taking on a more central role as the research
 progressed;
- Harwell et al. (2001) concluded that 'professional development for practising teachers must combine the expertise of researchers and the knowledge of practising teachers in a collaborative effort to inform instructional decision making if educators want to create learning environments conducive to effective learning among students'; and
- Bryant et al. (2001) argued that 'time must be allocated for teachers to share their own personal knowledge about their students and teaching and to receive guidance from experts on topics'.

The use of an outside consultant was frequently cited in the studies as a source not only of technical expertise, but as an agent of change. For example:

- principals and teachers in Brown's (1992) study were clear about the benefits of outside expertise – the knowledge base and skills, the freedom from administrative constraints and the ready access to information not easily available to schools and teachers; and
- Ross et al. (1999) argued that 'the benefits of collaborative action research may not accrue
 to teachers who engage in action research independently of support from academics. The
 main contribution of the academic researchers in this study was only partly related to the
 training in research methods they provided'. More important was the sharing of decisionmaking with the teachers.

Opportunities for teachers to identify their own CPD focus

Seven studies explicitly reported that teachers were given a 'voice' in selecting the study aims and the focus of the CPD. Other studies adopted strategies that were highlighted as being important in designing the programmes around areas of direct interest to the teachers with the purpose of addressing immediate needs and concerns. In two instances, teachers initiated the CPD programmes by approaching university research departments for help.

Once teachers had identified a focus for the CPD, the 'experts' were able to draw on their knowledge of the literature to offer examples of existing research in the field. In one study (Brown, 1992), a university researcher provided a menu of learning interventions, which had been shown by previous research to be effective in supporting low achievers. The teachers tried some of these approaches, adapting them to suit their own contexts where necessary.

Teachers also took ownership of the CPD by influencing the pace and scope of the project. For example, teachers were given a voice in the intervention timetable or the professional development sessions they attended, such as developing their own team schedules for introducing new reading strategies on a staggered week-by-week basis (Bryant et al., 2001).

Processes to encourage, extend and structure professional dialogue

Outside consultants (usually university personnel) played a significant role in facilitating professional dialogue in over half of the studies. Commonly reported features included:

- provision of source ideas, including those from the research literature, to stimulate debate;
- mining teachers' tacit knowledge and beliefs; and

• joint exploration and modification of possible alternative strategies.

'Outside experts' were able to bring their subject and research expertise to help focus CPD programmes. In at least seven of the studies, this took the form of an initial 'knowledge boost' with a subject or teaching and learning focus. Unlike similar In-Service Training (INSET) inputs, this was often the precursor to the articulation of teachers' own beliefs and an opportunity to discuss alternative approaches to suit individual contexts.

In other studies, teachers were encouraged to consider alternative approaches to current practice, such as intervention strategies to enhance learning skills of lower achieving pupils or making adaptations for special needs pupils in general education classrooms. Such alternative approaches were commonly used as the basis for creating customised strategies that teachers anticipated would be effective in their own contexts. In five action research studies, university researchers were able to share their knowledge of research methodology with teacher researchers. Feedback from initial trials was frequently used as a focus for debate.

For many teachers, professional conversations provided a platform to explore their own beliefs and practices.

Scope for teachers to identify their own starting points and learning needs

In more than half of the studies, it was reported that teachers were given options when choosing strategies or accommodating practices in order to build upon what they know and could do already. Joint planning of new materials also enabled teachers to craft the proposed changes to suit their own teaching contexts and make good use of their own talents and skills. In this way, the CPD became a joint mission, flexible enough to ensure that it was fit for purpose rather than a 'one size fits all' package of imposed change.

Evidence from the individual studies indicated that the following features allowed the flexibility which was necessary to address teachers' individual starting points and learning needs:

- activities that created insights into and enabled exploration of teachers' beliefs and current practice were cited as important in eleven studies;
- observation and feedback (nine studies) enabled coaches or mentors to understand 'where teachers were coming from';
- action research programmes (five studies), involving teachers in collaborative discussions based on the research questions and processes ensured that teachers were able to start at a level of enquiry they felt comfortable with and took on new areas of enquiry as they felt able; and
- establishing more than one learning cycle was cited in three studies as enabling teachers to build on what they knew and could do already.

Peer support

Teacher-to-teacher collaboration in the form of either coaching, joint preparation of materials and/or lesson planning, or professional discussions was a feature of thirteen studies. Collegiate support, in many cases through participation in the 'project team', was beneficial not only for the individual teachers involved, but for the ultimate success of the programme. In eleven of the studies, workshops or seminars provided an opportunity for teachers to meet collaboratively to explore new strategies and to discuss how best to adapt them to suit their own contexts. In six cases, workshops also provided an opportunity to come together to draft new schemes of work or design new materials.

Observation

Observation and feedback featured in nine of the studies. Sometimes, this was an informal arrangement between teachers; sometimes a more formal process involving peer coaching or coaching by experts. The resulting feedback varied from unstructured teacher to teacher conversations, to highly focused feedback from researchers and/or teachers, relating to predetermined aspects of the lessons based on evidence from audio or video tapes or other forms

of data collection. There was evidence that teachers valued the coaching process, but that it could initially be a 'painful' experience.

Feedback

The extent to which feedback featured in the nine studies varied from being an integral part of both the CPD and the data collection to informal, ad hoc reciprocal visits between teachers, followed by feedback and the exchange of ideas. In one study (Britt et al., 2001), where the processes of observation and feedback were highly structured, audio and video tapes from lesson observations enabled researchers and teachers to explore together factors such as:

- the incidence of whole class versus group teaching;
- use of teaching materials;
- · the degree of participation by students; and
- the use made of students' existing knowledge.

Refining reflective processes

Eleven studies provide evidence of opportunities for teacher reflection as part of the CPD process, commonly through coaching (nine studies) but also through action research (five studies). Source material for reflective discussion included:

- · classroom observation reports;
- teacher and student diary notes;
- · student outcome data; and
- evaluation of draft lesson materials and schemes of work.

Processes for sustaining the CPD over time to enable teachers to embed the practices in their own classroom settings

All of the CPD programmes spanned at least one academic term. Six studies continued over one year, with the longest lasting four years. Elapsed time appeared crucial for new concepts and practices to become embedded, for student outcomes to emerge and for teachers to see the benefits of the new approaches.

Most of the studies also adopted a 'multi-layered approach' which involved several components of professional development. In many case the CPD involved systems to explore, modify and embed new practices, typically through:

- awareness raising and exploration of alternative strategies;
- trialling:
- · reflecting and reviewing; and
- further advice or instruction.

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