Student Achievement through Staff Development

Bruce Joyce & Beverly Showers.

Summary
Joyce and Showers' influential work explores staff development that influences student learning. This summary looks at some of the key messages from their work, with a particular focus on "peer coaching".

Their work examines case studies where inquiring professional communities have made substantial changes in student learning. It explores too the knowledge base on curriculum and instruction and gives a summary of studies that can be used as a resource for staff development to help students become more effective learners.

The work considers how changes in the curriculum, instruction and social climate can help students become more powerful learners. Joyce and Showers review the literature on how staff development environments can help teachers expand their repertoire to reach more students and explain their model of Peer Coaching. Given that making things happen for students is very important, the authors focus on classroom implementation with a chapter studying the effects of changes made on the learning capacity of students. Further chapters consider people, organization and leadership.

Key messages
Joyce and Showers examine case studies where inquiring professional communities have made substantial changes to student learning. The case studies have the following in common:
- they used the knowledge base on curriculum and instruction;
- they engaged in intensive staff development;
- they studied student implementation; and
- they tracked learning.

Using the knowledge base on curriculum and instruction
Joyce and Showers looked at a variety of empirical research to determine factors which could help students to become more effective learners. They examined studies on scientific enquiry, mnemonics and cooperative learning. They tentatively concluded that the most effective teaching strategies helped students develop meta-cognitive knowledge: students grew in control over their learning strategies, or in conceptual control. They cited the research of Slavin et al. (1996) on Success for All learning programmes in reading and showed that the group investigation learning model used was effective for all socioeconomic groups. Their chief conclusions were:
- the normative mode of teaching (recitation) was much less efficient than some other models and was very subject to demographic factors;
- models which were successful taught students more effective ways of constructing knowledge and building skills - the learner did the learning;
- as students learned more about how to learn, demographic factors would become less of a barrier to learning;
- effective models of learning capitalised on individual differences;
- the use of instructional models is dependent upon subject knowledge; and

- teaching students to solve problems might result in increased measures of intelligence.

How can schools choose the best learning focus for their staff CPD?
The design of professional development involves first identifying outcomes or content to be pursued. Targets for change and improvement vary tremendously among schools. They are selected by a combination of perceptions: "What do we think are our most pressing needs?" and data: "What do our test scores tell us?" This process can result in numerous goals which make it difficult to build a coherent, faculty wide approach to any single problem. Also, whereas at a school and district level, targets are driven by the need to improve student achievement, individual teachers may wish to focus on their personal needs. Decisions about the content for staff development programmes need to be clear on the purpose of the CPD. Is it for the individual or for the school? The main difference between selecting content for individuals and a school wide effort is a heavier reliance on shared data for decision making.

The authors suggest that schools may be best served by prioritising goals, setting content that aligns with their priority goal and embedding secondary goals within the staff development process. They further suggest that planners of CPD carefully consider various explanations for the source of identified problems, since different explanations will require different solutions and consequently, different content or approaches intended to promote the solutions.

What are the important aspects of the design of professional development?
Joyce and Showers identify two, interlinked aspects of professional development. The first is the provision of opportunities that enable people to learn knowledge and skills new to them; the second is to transfer that knowledge and skill to active classroom practice.
The authors identify four training components:
- knowledge;
- demonstration or modeling;
- practice of the skill under simulated conditions; and
- peer coaching.

The first of these, knowledge, includes an understanding of the theory and rationale behind a strategy and the principles that govern its use. Demonstration or modeling of the skill greatly helps the learners' understanding of theories because it demonstrates them in action. The third component is practice of the skill under simulated conditions. The more closely the professional development setting imitates the workplace, the more transfer is improved. How much practice is needed depends upon the level of complexity of the skill and upon how different it is from the teachers' current repertoire. To bring a teaching model of medium complexity under control requires about 20-25 trials in the classroom over a period of 8-10 weeks. The fourth component, peer coaching, is the collaborative work of teachers to solve the problems or questions that arise during implementation. Peer coaching leads to a dramatic increase in classroom implementation.

Joyce and Showers have found that a multiple component design gives the best results for improving knowledge and increasing skills. Where the main objective is transfer to the classroom, all four components are needed. In particular, peer coaching is of vital importance. It is considered further below.

What skills do learners need?
Joyce and Showers believe that *teachers* need particular *learning attributes* in order to master new knowledge and skills. These are:
- persistence – they needed to be able to push themselves through the first, awkward trials in order to make progress;
- acknowledgement that transfer is hard – simply seeing a new practice was not enough to be able to use it well in the classroom;
- openness with students - teachers who explained their new approach and made the reasons for it explicit to students were more likely to successfully integrate the new behaviour;
- the ability to master the theory underlying the new behaviour goal;
- willingness to work with others and an active approach to doing so – stating explicitly what they needed and what they did/did not understand; and
- flexibility – a willingness to experiment with new behaviours and an openness to evidence that alternatives have something to offer.

Joyce and Showers suggest that individuals learn more efficiently over the long term by developing the above skills, as this enables self-teaching in settings where essential professional development is missing.

Peer Coaching
For changes in students' learning capacity to take place, effective classroom implementation of new teacher skills is a necessary prerequisite. Joyce and Showers are convinced that schools must actively support the experimenting, collaborative planning and development and the implementation of content aimed at collective goals as a matter of course.

The Joyce and Showers model of coaching

In this model, all teachers and leaders make a number of commitments:
- they agree to be members of peer coaching teams;
- they all commit to practise whatever change the faculty has decided to implement;
- they agree to support and help one another in making changes, including shared planning of the learning objectives and shared development of materials and lessons;
- they commit to collect data on a) the implementation of the planned change and b) on student effects relevant to the target for student growth.

The principles of coaching identified by the authors, in this updated version of their work, differ from many other coaching models, in which pairs of peer coaches follow classroom observation with an element of feedback. In their model, feedback is excluded. The authors found that, when feedback was included, despite the best of intentions, peer coaches slipped into supervisory, evaluatory comments.

If feedback was omitted from the process, this did not seem to depress levels of implementation or student growth. Joyce and Showers explain that providing technical feedback requires extensive professional development, a time investment which may be better spent on joint planning and development. They redefine the meaning of "coach": when teachers observe one another, the one teaching is the "coach" and the one observing is the "coached".

How does coaching work?
According to the authors, coaching seems to contribute to the transfer of teaching in five ways. In comparison with uncoached teachers, coached teachers:

- practised new strategies more often and developed greater skill as a result – they got support and encouragement from colleagues to do so;
- used the new strategies more appropriately – they had opportunities to discuss objectives, to think through the potential applications of the new strategies, to experiment and to share teaching material;
- remembered the knowledge base and retained the skills involved in the new strategy – using the skills helped memory and deepened understanding and technical mastery;
- explained the strategies to students; and
- understood the purposes and uses of the new strategies better – they used them in new situations, whereas the rare uncoached teachers who tried the new strategies at all did not deviate from the precise applications demonstrated to them .

Monitoring implementation
Setting targets: the first step in implementing anything is to define what it will look like when in place. The authors propose that these targets are discussed openly and frequently revisited.
Data collection: levels of use of the innovation need to be collected. This is a departure from the norms of many school faculties and may encounter resistance.
Using the implementation data: apart from measuring whether what was planned has been accomplished, implementation data can help to analyse obstacles and provide support for problem-solving so that the implementation does take place. Additional data on measurable student outcomes is needed to determine the effectiveness of the new strategy.

Leadership
Finally, the authors are clear that effective school leadership is critical to nurture the type of staff development that affects student learning.

References

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Slavin, R. et al. (1996) *Every child, every school: success for all.* Thousand Oaks, CA: Corwin Press.