

The impact of professional development: a theoretical model for empirical research, evaluation, planning and conducting training and development programmes

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This paper considers several trends in professional development programmes found internationally. The use of multiple learning approaches and of different modes and types of learning in PD is described. Various theories and models of evaluation are discussed in the light of common professional development activities. Several recommendations are made to progress matters and links made with school and leadership effectiveness issues. A theoretical framework for empirical research and evaluation is posited with a plea for more research in this field, especially outside North America.

Keywords: professional development; professional learning; impact evaluation; school effectiveness

Introduction

In view of the ever-increasing responsibilities of teachers and school leaders for ensuring and enhancing the quality of schools, professional development (PD) has again become one of the central concerns of educational policy-makers. In many countries, the development of professionals in schools is high on the agenda. There seems to be a broad international agreement about the need for teachers and school leaders to have the capacities required to improve in their schools the teaching of the teachers for the learning of the pupils.

Hence, teachers and school leaders need to have a profound knowledge of learning. They need this knowledge in order to take care of their own learning as professionals and that of their colleagues, staff and that of their pupils. In their professional responsibility, they are in charge of providing learning opportunities and of creating a supportive learning environment for all stakeholders. In this respect they are serving the core purpose of school and schooling and of leadership of professionals.

Regarding (continuing) PD, the learning needs and the abilities of adults have to be taken into account. Hence, it is important to consider basic andragogic principles (for a further account see, for example, Kidd 1975, Knowles 1980, Corrigan 1980, Blum and Butler 1989, Siebert 1996, Harteis *et al.* 2000, Gruber 2000, Mandl *et al.* 2000; and many others). In this respect, PD, of a formal kind and an informal kind, plays an important part in the professionalisation of

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school leaders and teachers as professionals. Means of PD have to be found that support a successful transfer from theory into practice, from knowing to acting, from PD activities to day-to-day practice (Whitehead 1929, Kolb 1984, Schön 1983, 1984).

In this article, international trends and recommendations for PD will be presented, the use of multiple learning approaches and of different modes and types of learning in PD will be described, recommendations are given, and a theoretical model for research and evaluation of PD will be suggested.

International trends

In spite of differences in cultural and institutional traditions, a number of international patterns or tendencies in PD can be identified from a global perspective. These have been derived from results of an international comparative study of the PD landscape for educational leadership personnel in 15 countries (Huber 2004, 2010a, 2010b), as well as from expert meetings on international conferences covering training and development of teachers and school leaders. Extensive literature reviews confirm the development of PD over the past few decades. While some of the following trends may be viewed as differences in emphasis, others may be so significant as to represent paradigm shifts. The largest differences are evident in those countries with longer experiences in PD for teachers and school leaders and PD research. Current trends and paradigm shifts include the following:

- Provider:
 - Centralised planning and decentralised implementation of programmes.
 - Central quality assurance and decentralised provision.
 - New forms of cooperation and partnership.
 - Dovetailing theory and practice.
- Participants:
 - Qualifying teachers and teacher teams at school level.
 - Grouping participants according to professional criteria to gain homogeneous groups.
 - Promoting collegial support (e.g. professional learning communities, peer coaching).
- Timing and pattern:
 - Extensive and comprehensive programmes.
 - Multi-phase designs.
 - Modularisation including preparatory qualification.
- Aims:
 - Adjusting the programme to explicit aims and objectives.
- Contents:
 - Holistic approaches (not only content instruction but also promotion of motivation and reflection).

- Personal development instead of training for a role.
- Orientation towards the school's core purpose.
- Methods:
 - Aligning methods to contents.
 - From knowledge acquisition to creation and development of knowledge.
 - Experience and application orientation.
 - Multi-method using more different ways of learning, e.g. workshops and the workplace.

From theory to praxis, from knowing to doing

The central question of all PD is that of its impact. What leads to the experience of professional effectiveness, to professional competence, to gaining expertise by reflected experiences, and to professionalism? What makes one confident in working in a professional context, what increases job satisfaction, motivation, and job performance (in terms of achievement of a professional)?

Teachers and school leaders, as adult learners in general, bring their personal and professional experiences, their knowledge and their own way of seeing themselves to bear in the learning process to a high degree. While among children learning something new prevails, the learning biographies of adults have the effect that their own learning is above all follow-up learning (see Knowles 1980, Siebert 1996). Adult learners select what they learn, they filter information, consciously or subconsciously. Thereby they proceed in a way that is much more problem-oriented than theme-centred and the effects of learning are more sustainable when there is the possibility to apply in practice what they have learned.

According to Gruber (2000), gaining experience for professional competences means learning in complex application-relevant and practice-relevant situations (see also Joyce and Showers 1980). New competences are mostly gained by practice followed by feedback and reflection. However, sufficient theoretical foundations should be imparted as well so that a reflection of practice beyond the well-worn subjective everyday life theories can take place (see Figure 1). Adults expect that the knowledge and understanding gained is a tool that can be applied in the specific and extremely complex work situation, with as little loss due to the transfer as possible.

Their individual experiences always have a subliminal influence on the new information and at the same time are the foundations on which something new can

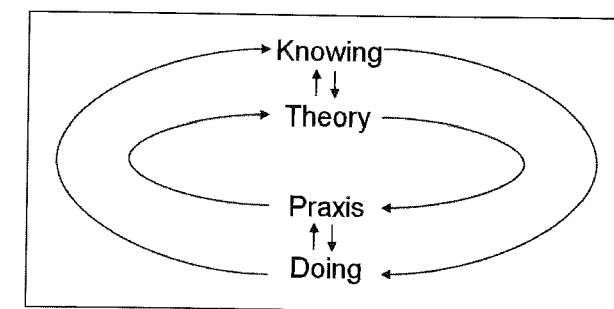


Figure 1. From theory to praxis, from knowing to doing (see Huber 2009b, 2009d).

be learnt. Themes that cannot be linked to previously existing cognitive systems are very much up in the air, so to speak, and mostly are quickly forgotten (Joyce and Showers 1980). Hence, it is preferable to refer the new information explicitly to the experiences and anchor them there. The reality and the experiences of the participants, their needs and problems, should be the starting point and the point of reference for the selection of contents and of methods applied.

A lot of people complain that, despite a high subjective satisfaction of participants concerning the seminars and courses (process evaluation), the sustainability and transfer effect of what was learnt to the everyday practice are rather low (impact evaluation) (see also Wahl 2001).

Knowledge that cannot be made use of is called 'inert knowledge' (Whitehead 1929, Renkl 1996). In order to prevent this from happening, there is no single top-priority strategy or method, but it is obvious that a big spectrum of different strategies and methods in PD is most successful. It is advisable to choose a variety of methods that help the individual learners to accept new information, not only on the cognitive level, but to motivate them to call outdated patterns of thinking, patterns of interpretation, and mental maps into question, and maybe to give up well-worn patterns of behaviour (see Antal 1997a, 1997b).

Multiple approaches to learning in (continuing) professional development

Recently, in the PD of teachers and of school leaders, 'course formats' are no longer exclusively focused on but other formats and approaches have been developed. The use of multiple approaches can be observed. Among them are cognitive theoretical ways of learning (lectures and self-study), which primarily serve to impart information, as well as cooperative (e.g. group work) and communicative process-oriented procedures (e.g. project work) and reflexive methods (e.g. self-assessment and feedback as well as supervision).

The new forms and instruments of PD are distinguished in that they foster in a concrete and motivating way the subject-based analysis and reflection of one's individual professional practice, encourage dialogue and cooperation with colleagues, and contribute to the expansion of the profession-related action repertoire (see Reusser and Tremp 2008).

PD has changed over the past few years indeed. Important aspects recently are demand orientation, practice orientation and sustainability orientation. Thereby two requirements are important.

Firstly, PD has to integrate diagnostic means as a starting point for training and development programmes (to develop differentiated approaches to the PD's aims and goals). In order to provide specialised programmes adjusted to the needs of individual persons, groups or particular schools, first the previous knowledge, subjective theories, attitudes, expectations, goals and motivation of the potential participants have to be determined. These provide the starting point for the planning of PD and the approaches to learning then have to be related to that.

Secondly, sustainability has to become a focus of attention. How is it possible to move from knowledge to action (see Huber 2001, Huber and Hader-Popp 2005, Wahl 2001), to carry out the transfer from theory to praxis, and to transfer what has been learnt into one's teaching? To achieve that, practice orientation plays an important part.

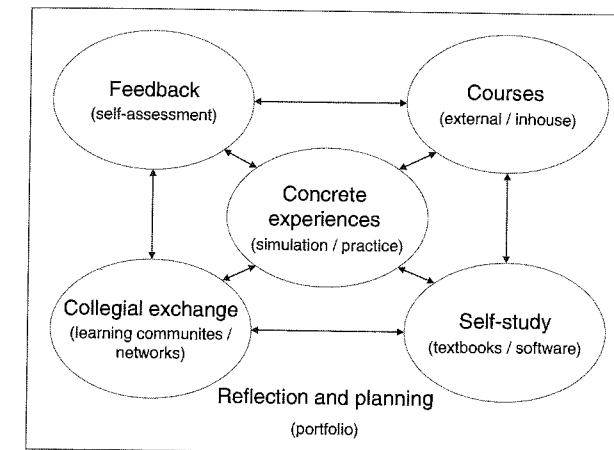


Figure 2. Approaches to learning in PD (see Huber 2009b, 2009d).

In the following, the learning opportunities as shown in Figure 2 are briefly described:

- *Courses (external/in-house)*. Course formats are part of the basic methods of PD. Used innovatively, they take into account that 'learning' in terms of modifying one's patterns of behaviour and thinking is to be comprehended as inspiration and information, reflection and exchange, experiment and realisation.
- *Self-study (textbooks/software)*. Self-study, too, is a format of PD that has been made use of for a long time. In self-study methods, the respective topics of the seminars are prepared and explored. Printed study material should be up-to-date, mirror the state of the art of academic discourse and comprise authentic documents taken from practice, and provide the participants with basic and background knowledge, but also with practical transfer support.
- *Concrete experiences (simulation/practice)*. Some PD programmes offer various opportunities of directly integrating the practice. Of course, practice is always the starting point and goal of PD programmes, particularly when they are needs oriented and practice oriented, but it is also a very interesting learning place in itself. The idea is that the real working context as clinical faculty alone comprises the appropriate complexity and authenticity necessary to lead to adequate learning processes. Working on individual projects, classroom observations, shadowing and mentoring provide the opportunity to work on complex problems taken from practice.
- *Collegial exchange (learning communities/networks)*. Professional learning communities and networks are central components in situated learning opportunities and provide chances for an intensive reflection on one's own action and behaviour patterns. By that, learners are likely to start from their individual cognitions and beliefs, which control their behaviour patterns, and from their subjective theories, and modify their ways of acting accordingly. Increasingly, professional learning communities and networks become a fixed part of PD programmes. If professionals are integrated in learning communities and networks outside their own schools, there is a higher possibility to

widen their view and, thus, change processes are supported (see Little 2002, Erickson *et al.* 2005, both quoted in Gräsel *et al.* 2006).

- *Reflection and planning (portfolio)*. In order to use all learning opportunities, reflecting upon them seems to be crucial. Such reflection can take place before participation in the PD (in order to choose the right opportunities or to sharpen the individual needs) as well as after it (in order to modify one's conceptualisations). At the beginning of a programme, the participants often start a portfolio. The portfolio is suitable to combine teaching and learning with self-evaluation. It documents the development process and supports the individual's PD planning.

In all these programmes – particularly if they are linked – emphasis is put on transfer, reflection and the exchange of what has been learnt with one's colleagues. Application orientation and action orientation are central in order to achieve the sustainability desired or required.

One aspect, however, is missing, which is the part of assessment-based feedback. This must not be underestimated as an important learning approach.

- *Feedback (self-assessment)*. It is highly recommended that participants go through self-assessment for an individual potential analysis in order to receive feedback on relevant requirement areas and dimensions. Formatively used, it provides as a needs assessment a good start for planning PD. If done in the right way, it can have a very strong impact on the motivation for learning, too, not only on the contents.

Recommendations

The following recommendations have been derived from results of various evaluations, as well as from the conception and the academic consultation and evaluation of PD. The key features in the following list are associated with programmes that have a positive impact. In recent programme evaluations one can find increasingly more of these constructs describing the conceptual premises or goals of the programmes. PD should be as follows:

- As to the provider
 - trainer oriented, i.e. the trainers of the PD are chosen carefully, because as the responsible people for the teaching and learning arrangement they are of a central importance for its quality;
 - evaluation oriented, i.e. the concept of PD plans a (continuous) academic process evaluation that evaluates the individual modules all through the implementation process regarding their quality and identifies possibilities of development and of improvement, on the basis of the evaluation results; moreover, it includes the evaluation of the impact regarding its sustainability.
- As to the target groups
 - participant oriented, i.e. individual learning needs regarding learning time and learning speed are taken into account by providing various options to choose from;

- participation oriented, i.e. aiming at the participants' taking part in decision-making;
 - demand oriented – this means it focuses on the present and future range of demands of the participants.
- As to the timing and pattern
 - process oriented respectively multiphase, i.e. it provides a systematic, long-term support;
 - modularised, in order to grant flexibility and participant orientation and still ensure commitment and quality.
 - As to the aims
 - goal oriented, i.e. it starts from explicit goals;
 - theory oriented, i.e. suitable theories are taken up and used;
 - practice oriented, i.e. it focuses on school practice and school reality;
 - research oriented, i.e. it is based upon recent national and international findings;
 - competence oriented, i.e. knowledge, abilities and skills, as well as aspects of the individual motivation of the participants are taken into account;
 - effectiveness and sustainability oriented, i.e. it is about different aspects of impact on the participants as well as about a bridge between theory and praxis and between knowledge and action;
 - relevance oriented, i.e. the acceptance and the importance of the offer of PD are increased by the means of the participants' certification;
 - quality oriented as to didactics, i.e. the PD is arranged in an optimal didactic way using various learning approaches and a consistent approach to aims, contents, methods, media and other macro-didactical aspects like sequential learning, etc.
 - As to the contents
 - value oriented, i.e. it puts emphasis on values and pedagogical premises;
 - school system oriented, i.e. focuses on the recent developments in the school system (e.g. new projects and policies);
 - school context oriented, i.e. it starts off with the particular situation of the school (contextual-external: environment of the school; contextual-internal: specific features of the organisation and educational field of action);
 - school development oriented, i.e. it not only qualifies the participants but also aims at a systematic school development in the participants' schools;
 - cooperation and communication oriented, i.e. it focuses on learning from and with colleagues and intensive cooperation;
 - method and content oriented, i.e. efforts are made to create a varied and accordingly challenging teaching and learning arrangement in order to live up to the different learning requirements and learning habits as well as learning biographies of the participants and their partly heterogeneous

needs and at the same time prevent the monotony and fatigue which result in boredom.

- As to the methods
 - reflection oriented, i.e. participants get various opportunities to reflect on their own particular competences and interests and to set up corresponding personal goals for learning and acting;
 - activity oriented, i.e. aiming at the active involvement of participants;
 - self-organisation respectively action oriented, i.e. participants are responsible for their own learning and create particular phases of PD themselves;
 - performance and feedback oriented, by providing the participants with confidential feedback as to their performance;
 - transfer oriented, i.e. the implementation competence of the participants is fostered by constant support and therefore the sustainability of PD is secured.

A theoretical framework for theory-based empirical research and evaluation

A few colleagues describe different levels of the evaluation of PD. Kirkpatrick (1994), for instance, describes four levels of evaluation:

- Level 1: Reaction (satisfaction of the participants based on the setting of training, the contents and the methods, etc.).
- Level 2: Learning (cognitive learning success and increase in knowledge).
- Level 3: Behaviour (transfer success in terms of an action resulting from the content of training).
- Level 4: Results (organisational success in terms of the transfer of the content of training to the organisational practice, resulting in positive organisational changes).

Guskey (2000, 2002) as well as Muijs and Lindsay (2007) and Muijs *et al.* (2004) describe a model of evaluation comprising five levels:

- Level 1: Participants' reactions.
- Level 2: Participants' learning.
- Level 3: Organisational support and change.
- Level 4: Participants' use of new knowledge and skills.
- Level 5: Student learning outcomes.

For the elaboration of a theoretical model for theory-based empirical research and evaluation, the studies and models already presented help to formulate a theoretical framework.

It is suggested by colleagues (for example, Fend 1987, 1998, Helmke 2003) that the learning environment in the different contexts and their nested multilevel structure (individual – learning environment/programmes – supplier – social/professional/regional context) should be taken into consideration. Furthermore, it should be considered that the impact on learning environments does not imply linear and monocausal direct conclusions from the quality of a programme to its impact on the participants. Moreover, the effectiveness depends on various processes on the participants' side.

The impact of the programme first of all concerns the participation in the programme, the perception of the programme, as well as the judgement of the programme. Further, the individual and professional context of the participants, the performance-related context as well as social conditions have to be taken into account.

When it comes to the characteristics of the quality of concrete programmes of PD for teachers and school leaders, it is necessary for the model to include both the conception of the programme and its implementation. The model should ensure that both levels (conception and implementation) can be presented with the same features in order to judge similarities and discrepancies as well as consequences. Regarding the perception and judgement processes as mediating processes, it has to be considered that programmes are not only judged by the participants themselves but also by colleagues.

The way the development programme is judged by the participants, by their colleagues and by school leadership, is an important factor in the participants' readiness to 'make use of the programme' in terms of taking part, and therefore for the success of the programme. This becomes obvious if the attitude of the staff at the school of the participants towards the programme is rather sceptical and dismissive. The readiness to participate and the learning motivation of the participants as well as the individual judgement of the programme may be strongly influenced by this. Applying new knowledge and consequently modifying one's patterns of action can also be either favoured or completely prohibited depending on the atmosphere among staff (see Brouwer and ten Brinke 1995a, 1995b).

Focusing on the impact of the programme, the model has to consider that the intended impact (on teaching) usually does not happen immediately but with a temporal delay (see Staudt and Kriegesmann 1999). It also must consider that various levels of impact do exist (see models above; Hallinger and Heck 1998, 2010 describe indirect models).

In determining the different levels of impact it has to be assumed that the perception of the programme – in terms of its (expected) relevance for practice, its (expected) usefulness, the participants' (expected) satisfaction with the programme – has to be looked at as a mediating process in the participants themselves, and does not represent a level of impact. Thereby the term impact – in contrast to its commonly understood meaning – is sharpened and aims additionally at the external views with measurable indicators and not solely at the subjective views of the participants.

Three levels of impact are differentiated by the model: changes of the characteristics of participants, changes of the performance of participants, as well as changes in the areas of application. The first level – changes of the characteristics of participants – concerns the learning success of participants and touches on aspects such as competences, attitudes, job satisfaction, and so forth. These characteristics must be clearly distinguished from the behaviour in the area of application – the modified performance of the participant. Changes in the areas of application may be described on the third level.

A modified behaviour means that the classroom teaching of the participants changes (this leads to a change in the learning behaviour and eventually to a change in the learning success of students); however, there is also a change in the communication and cooperation behaviour of colleagues. The participants may also influence the school development process of their school by their modified competences, attitudes, and so forth, as well as their improved performance.

The model provides not only a framework of structure and analysis for particular research studies but also a framework for evaluation and for the needs assessment of PD, by taking into account the plurality and the resulting necessity of choice of factors that have to be considered (see pre-studies by Huber *et al.* 2008, Huber and Radisch 2008, Huber 2009b, 2009d).

What Ditton (2000a, 2000b) demonstrates for the realm of the school about the functioning of such a model may be extended to evaluate the effectiveness of programmes of PD for teachers and school leaders. Even if the elaboration of the model does not meet the requirements of academic theories, it is an important preparatory work and functions as a well-based guideline for further research in that it demonstrates the necessary designs of studies and the relevant research questions. It is an attempt to adequately demonstrate the complexity of the matter and to include existing research strings and results.

Although taking into consideration the insights of the research on classroom teaching that the classroom level and the concrete teaching content are crucial, the model of effectiveness instead focuses on the programme level as the important level of analysis. Thereby the model differentiates the features of the programme, the perception of the programme, the judgement of the programme, the participation in the programme and the impact of the programme as well as the background conditions.

When talking about PD, the question about the definition of effectiveness is inevitable. What influences effectiveness? How can effectiveness be provided and made visible?

The framework for empirical research and evaluation according to theoretical principles, shown in Figure 3, can be used to formulate a theoretical framework for conducting research, for evaluation, and for practice, for use at the school level, in order to provide an overview of various important aspects (see Huber *et al.* 2008, Huber and Radisch 2008).

Features of the programme

Features of the programme concern not only the conception of the programme (set) but also its realisation/implementation with respect to conduction (actual). They are determined especially by the background conditions as well as the findings from surveys of needs and demands. The didactic features may be divided into macro-didactic and micro-didactic features. The macro-didactic features are, for example, the provider (i.e. central or decentral, state-run teacher training institute, or a free provider), the purpose of PD with respect to its main goals, the speaker/trainer concept (the professional background of the speaker/trainer), considerations of the formation of the teams (i.e. mixed background or focus on one expert group), the status of PD (mandatory versus optional), the duration, the timing, and the time structure (i.e. multi-phases, modularisation, sequencing). Micro-didactic features are, for example, the concrete aims of teaching-learning situations, the formats, the contents, the methods and the media used, as well as the concrete speakers or trainers who conduct and implement the programme.

Background conditions

The features of the programme are influenced by the general, professional, and personal formal and informal background conditions that include aspects of the job

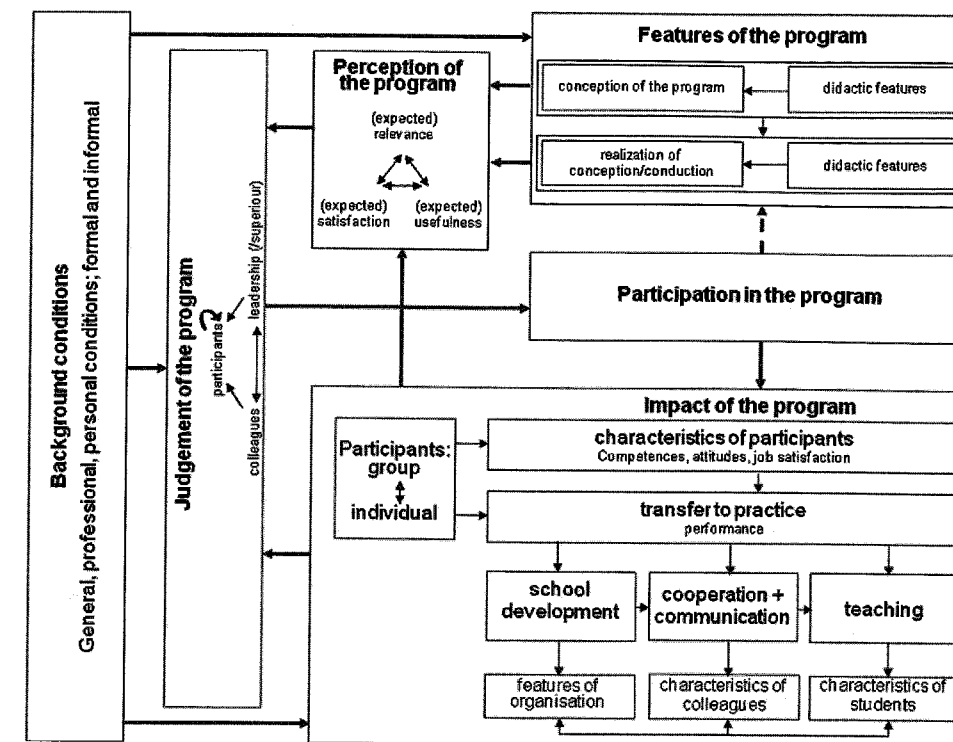


Figure 3. Theoretical framework for theory-based empirical research and evaluation.

profile, educational aims, measures of the school board, the characteristics of the educational system, legal requirements, resources (financial, temporal and special), as well as general requirements concerning PD and the interest in PD. The personal background conditions are, for instance, individual learning and professional biography, moral values or family and health aspects. These background conditions have an obvious impact on the design (the conception and realisation) of the programme, on the judgement of the programme by the participants as well as on its impact.

Perception of the programme

The perception of the programme is also influenced by the way it is promoted regarding its didactic features. Besides, it is influenced by the actual conduction of the programme (judgement, secondary experience) when it is personally experienced through direct participation or heard about from other participants. Important factors, too, are the congruency between conception and implementation, as well as the (expected) relevance, the (expected) usefulness and the (expected) satisfaction.

Judgement of the programme

Initially, the participants themselves judge the programme they partake in. However, the colleagues (in their own school or in the schools of other participants) and

superiors judge the programme as well, which then may influence the participant's own judgement. The judgement of the programme influences the actual participation in the programme, of course. If the judgement by the triad of participants, colleagues and superiors is positive, the programme appears to be useful and participation is likely.

Participation in the programme

Besides participation in terms of attendance, further features may be formulated to evaluate participation in the programme; for example, intensity (actual learning time) and the active (visible) participation in programmes (activity level of participants).

Impact of the programme

The impact of the programme may first of all be observed on two levels: the level of the entire group of participants (collective impact) and the level of the individual participant (individual impact). Two further kinds of impact may also be observed: one kind of impact concerns the change of characteristics of participants (i.e. competences, attitudes, job satisfaction). A second form of impact concerns the transfer to practice, the application of what has been learnt in the PD (modifications in the performance of the participants). Here, three different kinds of impact on professional action may be observed: direct or indirect impact on the organisational features of a school via processes of school development; impact on formal and informal contents and processes of communication and cooperation among staff; and impact on the educational core purpose, teaching, which is the ultimate aim, resulting in an impact on the characteristics of pupils. The experienced impact then has an influence on the continuous participation in the programme via the judgement of the programme.

The model does not imply that every single PD programme should have an impact on all three levels.

Conclusions and looking ahead

The existing knowledge is rather scarce and selective regarding the impact of PD programmes and their importance for the professionalisation and professionalism of educational professionals. It is based on rather simply structured evaluations. More challenging designs for theory-based empirical research are needed in order to meet the complexity mentioned before.

The theoretical framework for empirical research and evaluation presented here is deliberately formulated as an 'open' model, in order to enable an interdisciplinary approach; it may be used for formulating further theory, for research, for evaluation and practice.

In school practice, it may be used as a reflection tool for potential participants, for supervisors, for speakers or trainers as well as for people responsible for programmes of PD.

Thereby it may be used to position the planned or conducted programmes and the aims of these programmes, and to concretise the complex interdependency and make it obvious. Therefore it might contribute not only to the planning and fine-tuning of conceptions but also to the implementation of programmes, and add to a better understanding of the complex impact of PD.

It offers a framework for evaluations, which helps to position evaluations and to sharpen the design. It offers the possibility to narrow or widen the focus, depending on the aim and orientation of the evaluation and to put different areas in the central perspective, to include them more or less precisely and to blind out less important areas, without losing sight of the overall connection of different aspects and levels of evaluation.

For the area of research and theory formation, the theoretical framework contributes to the handling of the complexity as well as the systemising of assumptions of impact. Particular assumptions of impact are presented and put in a larger context. In conclusion, we should emphasise that the framework does not imply that all the programmes of PD are aimed at all the levels of impact; different programmes evoke different kinds of impact. Therefore the choice of criteria of impact in research and evaluation studies is important.

The issue of the impact of development programmes is closely connected with that of teacher or school leadership effectiveness in general. As to school leadership, for instance, Huber and Muijs (2010) give a literature review of studies and meta-studies of school leader effectiveness, and state that, in general, results support the belief that principals exercise a measurable though an indirect impact on school effectiveness and student achievement. The question that should be asked is no longer whether or not principals do make a difference but, more particularly, which means they apply and through which paths they achieve such impact.

Huber and Muijs (2010) would expect effective leadership to be a factor that helps create the conditions under which teachers can be optimally effective, which in turn would result in higher levels of pupil performance. Context is an important factor here, however, in that the influence of leadership at the school level is clearly stronger where school autonomy is greater.

There is some evidence that transformational and distributed leadership in particular can contribute to organisational effectiveness. That the research base is not as strong as one might expect reflects not just a dearth of research compared with prescription, but also deficiencies in research methods. There is a strong over-reliance on self-report in leadership studies, where the most common form of research design is either a survey or interviews, usually of a limited number of school leaders. Studies are almost always *post hoc*, trying to work backwards with a retrospective view on the research object. This practice is clearly limited. Both survey and interview-based methodologies, while highly useful, have, when used as the sole means of data collection, some severe limitations. *Post hoc* interviews are heavily prone to attributional bias (the tendency to attribute to ourselves positive outcomes, while negative outcomes are externally attributed; Weiner 1980), as well as to self-presentation bias and interviewer expectancy effects (the tendency to give those answers we feel the interviewer wants to hear). Where leaders have received leadership development, there is an increasing tendency to hear the theories learnt on leadership programmes repeated in interview situations. Survey questionnaires are likewise limited, especially where they are cross-sectional, as only correlational data can be collected. The issues of expectancy effects and bias exist here as well, as does attributional bias. In one survey study, for example, respondents tended to describe themselves as transformational leaders, while their line managers were described as using transactional leadership styles (Muijs *et al.* 2006).

These limitations mean it is often hard to make strong statements either about impact, or about processes. The quantitative methodologies used need more often to

be longitudinal, and to make more use of quasi-experimental designs, and even of field trials of new leadership methods.

Moreover, there is the need to gather data not only from the school leaders but also from teachers and others (to add additional views from an external perception to the self-reports from a self-perception). Additionally, observations, although cost-intensive and not easy to implement as they most often interfere with the day-to-day practice that should be observed, might help to move to multiperspectivity and triangulation.

Qualitative approaches likewise need to be more multi-perspective and longitudinal. They need to employ methods and instruments that allow more in-depth interrogation of processes such as ethnographic studies and genuine long-term case studies as well as the methods currently used.

Obviously, feasibility is also restricting research (of us and of our colleagues) and therefore the research designs should have the appropriate funding to provide better conditions for feasibility. Therefore the funding for research is an important aspect, too. There is a need to have big enough research grants, which allow cooperative research arrangements to develop more sophisticated multi-perspective and longitudinal designs.

Interestingly, even if some discussion has been started about combining quantitative and qualitative methods, integrating them in a mixed-methods research design, with differences in approach (explanative or exploratory mixed-method), still few studies in leadership research (but also in educational research in general) are trying to integrate these demands and ideas into their research designs. It is also interesting to see how alternative data-gathering methods might illuminate the complexity of organisation and leadership contexts; for example, Huber (2009a, 2009c) uses Social Network Analysis and Life Curve Analysis, and asks the participants for pictures and metaphors. Besides data-gathering methods, there is also a need for more refined methods of data analysis such as multi-level, growth models, and structure equation modelling, to name some of them, which are about to become popular.

More original research in the field needs to be undertaken, in particular outside North America, as the over-reliance on findings from studies conducted in the United States needs to be alleviated. Leadership, like other factors in education, is contextual (i.e. structurally and culturally specific), and it is therefore not valid to expect findings to apply unproblematically across countries and even continents. There are obvious contextual differences in terms of leadership relating to the extent of autonomy school leaders have within the educational system, their appointment and selection criteria, while less immediately obvious cultural differences make it even less likely that one could simply import findings from one context to the other without at least some adaptation. This means that the tendency to move straight to prescription becomes potentially even more harmful where the research base is from an entirely different (cultural) context, where school leadership will operate under different circumstances and conditions.

Therefore, while leadership research has made important contributions to the field of education, which have had practical benefits, if we are genuinely to move both research and practice on we need to do more rigorous quantitative and qualitative research, aimed at both measuring impact and exploring processes, taking into account the complexity of schools as organisations, and refraining from an overly prescriptive approach that, on the basis of very limited research, posits absolute

truths about good practice. If we continue the practice of coming up with a never-ending stream of poorly researched ideas, sooner or later research in this field is likely to lose credibility in the eyes of both practitioners and researchers, losing the possible benefits of genuinely improving what remains one of the key factors in educational effectiveness.

Last but not least we need to create better 'fits' of theories, empirical research, and experienced practice. Hence, besides all methodological and methodical questions and desired modified research practice, there is also a need to refine theoretical models and theories (whether with a very focused or with a broader approach). Empirical research should lead to further developed theories, and theoretical assumptions should guide our empirical work (if working in a deductive methodological approach).

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EUROPEAN PERSPECTIVES

GUEST EDITORS: KEN JONES AND JIM O'BRIEN

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