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Design and effects of an academic development programme on leadership for educational change

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This article describes and assesses the design and effects of one of the first academic development programmes on Leadership for Educational Change. The participants are senior academics, involved in leadership of teaching and learning. We report on an evaluation using a mixed-method approach employing a self-report questionnaire administered to former participants and interviews with heads of department, followed by a questionnaire. Both groups agreed on the programme impact. The main aspects contributing to these effects were the way the programme catered to participants' needs as advanced learners by giving them influence on the content, and addressed their practice, the study tour abroad, and the opportunities for discussions with colleagues.

Keywords: academic development; educational leadership; design characteristics; effect study; mixed-method

Introduction

In the past, at most universities competence in educational leadership was something acquired on the job. Sometimes this was done with the help of a mentor or a support group for new department chairs or academic leaders, sometimes by participating in management development programmes, but most of the time without any form of support (Eraut, 1994; Hart et al., 2005; Holloway, 2004; Marshall, Adams, Cameron, & Sullivan, 2000; Raines & Alberg, 2003). In the last 15 years, however, this has changed and more professional development opportunities have been created (e.g. Kalivoda & Jackson, 2003; Wolverson, Ackerman, & Holt, 2005).

In this article, we describe and analyse the design of an educational leadership programme in a research-intensive university and evaluate this programme. The evaluation was carried out not only with the former participants but also with their supervisors and principals in the university organisation, to augment the self-report information of the participants with a more distant view. The programme's distinctive design lies in the emphasis on the relationship between the programme and daily practice. A variety of methods were implemented to promote transfer between the programme and the workplace, based on research on effective methods in teacher training programmes for secondary education (Korthagen, Kessels, Koster, Lagerwerf, & Wubbels, 2001). The designers assumed that the participants were

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advanced learners who could work in a high learner-controlled set-up of the programme (Kirschner, Ayres, & Chandler, 2011).

The programme described in this article was aiming specifically at senior academics leading educational change in the university. Educational change was seen as necessary, to solve problems in this university such as low student satisfaction and high drop-out rates, and to adapt the degree programmes to the new structure proposed in the Bologna-agreement.

The university recognised that to perform better in the future and to implement the necessary programme revisions, strategic development of teaching and learning was needed, based on a consistent educational model and university-wide implementation. Senior academics in all faculties would conceive and implement the new degree programmes. An educational leadership programme had not only to offer these senior academics the knowledge and tools for developing new degree programmes, but also to create a network of leaders in educational innovation for sharing insights and good practices across the university. The programme was developed by a team of educational developers and academic leaders, and had three general aims. At the end of the programme, participants should:

- (1) have a theoretically sound and practical vision of both student learning and university education,
- (2) be able to design and successfully implement solutions for education problems, aimed at improving student learning experiences, using state-of-the-art insights in education and in change processes,
- (3) be in a position to network with like-minded colleagues throughout the university, involved in innovation in assessment, teaching, and learning.

Theoretical framework

The term ‘academic leaders’ is usually used for deans, provosts, pro-vice-chancellors, department chairs, programme directors, or programme leaders in formal or informal leadership positions at the university and with responsibilities for research as well as teaching, (e.g. Scott, Coates, & Anderson, 2008). The term ‘educational leaders’ is usually used to refer to school principals (Fullan, 1998) and more in general to leaders with a specific responsibility for the quality of teaching and learning. In this article, we refer to leaders in formal positions in universities with a responsibility for teaching as *academic leaders*, and to academics in both formal and informal positions with a responsibility for leading educational change as *educational leaders*.

The programme design as of 1999, was to a large extent based on literature on teacher training in secondary education. Literature about leadership development in higher education was at that moment relatively scarce and often aimed at academic and not educational leaders (Knight & Trowler, 2001; Ramsden, 1998). Programmes for academic leaders are often focused on administrative and managerial themes, e.g. leadership styles, human resources management, and finance (Jongen, 2005). However, educational leaders, like school leaders in secondary education, should also be knowledgeable on educational topics such as curriculum building, supporting student learning, developing teaching and assessment, and productive learning environments (Eraut, 1994; Fullan, 2002; Marshall et al., 2000; Pearson & Trevitt, 2004)

and on topics such as leadership and change processes (Davis, 1998; Fullan, 2002; Fullan & Scott, 2009; Gibbs, Knapper, & Piccinin, 2008; Pearson & Trevitt, 2004). These topics were the focus for the content of our programme.

Several authors have investigated the needs of academic leaders for the design of training or development programmes. For example, Scott et al. (2008) summarised literature about academic leaders' preferred learning modes and derived key components for effective ways of learning from research into adult learning, professional learning, and higher education student learning. They conclude:

the same flexible, responsive, role-specific, practice-oriented and just-in-time, just-for-me learning methods that we are advocating for use with higher education students in order to engage them in productive learning and retain them apply just as well to learning leadership in higher education. (Scott et al., 2008, p. 91)

This result is consistent with earlier results for the design of successful professional development opportunities for teachers and for educational leaders, for example described in (Clarke & Hollingsworth, 2002), Eraut (1994), and Korthagen et al. (2001). Clarke and Hollingsworth suggested that a change environment should include a community of colleagues as part of the development programme, with whom to share experiences with experimentation and find encouragement to try new approaches (Clarke & Hollingsworth, 2002). Eraut writes that the 'significance of a management course for head teachers will depend on the degree to which it can enhance the on-going off-course learning process' (Eraut, 1994, p. 75); therefore, we implemented a variety of methods to promote transfer between the programme and the workplace. Eraut further reports that typical components in the design of an effective course should include: 'course meetings with opportunities for discussion and learning from others, learning on the job, resources (e.g. guest speakers), reflection and feedback, and transfer to daily practice' (Eraut, 1994, p. 75). (Hawley & Valli, 1999) add that effective professional development is also information-rich and aimed at theoretical understanding, addresses learning needs, uses collaborative problem solving, and is part of an ongoing change process in the organisation. Garet (Garet, Porter, Desimone, Birman, & Yoon, 2001) mentions that the time span of a course should be a year or more to achieve sustainable effects. Guskey (2003) and Davis (1998) add the provision of sufficient time and resources as a factor for effective professional development for teachers. Steinert, Naismith, and Mann (2012) combine the advice above in their conclusion that 'Features contributing to positive outcomes included the use of: multiple instructional methods within single interventions; experiential learning and reflective practice; individual and group projects; peer support and the development of communities of practice; mentorship; and institutional support' (p. 484). As academic leaders are experienced academics who know what they would like to learn and on what they want to spend time, a programme for this group of advanced learners should provide opportunities for learner control (Kirschner et al., 2011).

Summarising the literature, successful professional development for educational leaders should:

- be relevant for the participants and allow them to influence the content and procedures,
- have a direct relation between theory (meetings) and practice (ongoing change process),

- provide opportunities to learn from and with others, and
- be realistic in terms of length, time, and resources for participants.

The programme design

The programme for educational leaders on leading educational change was developed in 2000. In the following, we describe the content and the design of this programme.

The content was built around two main themes: (1) teaching, learning, and assessment at a curriculum level in higher education, and (2) leading change processes. The content for the programme has not been articulated in much more detail, to be able to respond to participants' learning needs that in each cohort advanced with the development of teaching and learning at the university. Each year the activities, concrete content, and guest lecturers were selected by the programme leaders (a professor in higher education and an educational developer), to accommodate the preferences and needs of the actual participants and the recent developments in higher education.

While the content was not prescribed in detail, the main components of the programme have stayed the same since the start. These components were chosen in line with the aims of the programme and the design characteristics, and are described below.

Nomination and selection procedure

Academics wishing to participate in the programme have to be experienced staff members involved in research as well as teaching. As a prerequisite candidates should possess the University Teaching Qualification (Keesen, Wubbels, van Tartwijk, & Bouhuijs, 1996). To be selected, candidates must have: responsibility for a considerable part of a degree programme; a role in the coordination of such a programme; and a role in the innovation of education. Performing such a role was deemed necessary to enable participants to implement changes in university teaching and learning as a result of participating in the development programme. The dean of the faculty nominates potential participants, thus demonstrating the positive expectations the faculty leadership has of these staff members. At the same time, the dean must ensure that participants have time set aside to attend and engage fruitfully with the programme.

The governing board of the programme, consisting of respected peers appointed by the deans of the faculties, selects 15–17 participants on the basis of a curriculum vitae and an account of a selection interview held by the programme leaders and addressing the criteria mentioned above (specifically, whether their motivation and learning needs fit within the aims of the programme, and they have the possibility for executing an innovative project in relation to the programme's aims).

Thematic sessions

The programme provides eight residential meetings, planned from Thursday afternoon until Friday afternoon, in the course of an academic year. These are held in a conference hotel at some distance of the university to give participants the

opportunity to literally step outside urgent everyday business and to provide them with ample opportunities for discussions and reflection over lunch, dinner, and drinks. Each meeting starts with peer coaching, has a thematic section with an expert as guest lecturer, and includes activities aimed at the transfer of learning to and from daily practice. During each meeting, books and other resources are provided, and participants can order these to form their own collection of literature on educational development, innovation, and research.

The thematic parts of the meetings align with the overall theme Leadership for Educational Change. The programme leaders choose the themes of the first few meetings, as close as possible matching the interests and questions of the participants mentioned in the selection interviews. The specific guest lecturers for later meetings are invited only after participants have had the opportunity to express their interests in group discussions. In every edition of the programme, guest lecturers (mostly academics) have been invited on leadership, understanding change processes, trends and developments in higher education, curriculum development, students and their characteristics, competencies and generic skills, assessing students, quality improvement, and strategic planning and finances of the university.

The programme leaders lead the sessions and discussions, and they have always asked the guest lecturers to include small group assignments and discussions within the sessions.

Innovative project

The transfer of learning from the programme to daily practice, and vice versa, has a prominent place in the programme. Participants all select and carry out an innovative project in their own faculty. This project should include work on curriculum development, should result in a substantial change, and participants should have – at least for the duration of this project – a leading role in a project team within the faculty. The criteria for such a project were established at the outset of the programme to help ensure that the project provides sufficient opportunities for the participants to apply what they learn in the programme meetings to their own practices, and to raise questions along the way for the guest lecturers and other participants. All participants have opportunities to present their projects during one of the meetings to the group and to ask for suggestions and feedback. Examples of projects include: integration of research skills training in the first year of a Psychology programme, improving assessment methods including self-assessment for academic skills in a sequence of modules in Geosciences, developing quality enhancement processes for a Health Sciences programme, and developing a new Liberal Arts degree programme.

Group-based peer coaching

In the eight meetings, time is assigned for peer coaching in groups of four to six. Participants work together in these groups to discuss critical incidents from their daily practice, using the so-called incident method. During peer coaching, possible problems related to incidents under discussion are clarified in a systematic process of questioning of the participant who brought up the incident. After problem clarification, ideas for potential solutions are suggested, experiences exchanged and discussed with fellow participants (Hendriksen, 2000).

Reflection

Reflection on practice (Schön, 1983) is stimulated in several ways. One way is the group-based peer coaching method mentioned above. A second way is by asking participants early in the programme to formulate a vision on student learning and university education and to discuss, revise, and add to this text during the programme (Schönwetter, Sokal, Friesen, & Taylor, 2002). Thirdly, at the beginning of the programme participants are asked to write their personal goals and through a midterm and end-point evaluation they are expected to reflect on the development of their vision and how they have grown as leaders of educational innovations (Korthagen et al., 2001).

Study tour abroad

A study tour to foreign universities is an integral part of the programme, aimed not only at developing new insights and ideas that might be worthwhile to implement, but also at becoming more aware of the characteristics of the study programmes in their own university. By observing practices elsewhere, what is common at home can become more prominent. To reflect participants' specific interests and concerns, during the meetings the itinerary for the study tour to foreign universities is designed in collaboration between the programme leaders and the participants. In the past, visits have been made to universities in the UK, Scandinavia, Switzerland, the USA, Canada, and Australia.

With these components of the programme, the main effects mentioned earlier should be achievable: formulating a vision on student learning and university education, designing and successfully implementing solutions for education problems, and forming a network of like-minded colleagues involved in innovation of teaching and learning.

Methods

In 2005, when four cohorts had finished the programme, a first evaluation was carried out and this was repeated and extended in 2009 for cohorts five to eight. The research questions for this evaluation were:

- (1) What effects of the programme Leadership for Educational Change are perceived by the participants?
- (2) How do former programme participants evaluate the design of the programme? Which components are assessed as especially effective?
- (3) How do deans and heads of department evaluate the results (3a) and the design (3b) of the programme?

To answer research questions 1 and 2, we developed a questionnaire for the former participants of the programme, based on four interviews with former participants. To answer research question 3, we interviewed deans and heads of department and followed these up with a short questionnaire.

To develop the questionnaire for former participants, we used the first and second research questions as a basis for semi-structured interviews with four former participants, one from each cohort, two men and two women, and from different faculties. After these interviews, we phrased the perceived effects of the programme

in the words of the participants, which resulted in 35 statements about possible effects in four categories: on participants personally, on their teaching practice, on their network, and on their career. As the first, second, and third category correspond with the aims of the programme, we were satisfied with the face validity of this part of the questionnaire.

The 35 statements had to be answered on a five point Likert-scale with 1 = strongly disagree and 5 = strongly agree. The four effects covered in the statements were used as scales, for which Cronbach's alphas were calculated (see Table 1). The total effect was calculated as well. Cronbach's alpha was reasonable to good (.67–84).

The scale *Personal effects* contains nine items, varying from 'My vision on teaching and learning has broadened' to 'I have a better overview on educational developments' and 'I still use the books'. The scale *Teaching practice effects* contains 10 items, varying from 'I have become more creative in the design of my courses', to 'The programme has had an influence on the degree programme', and 'My project has been followed up by other projects'. The scale *Network effects* contains nine items, varying from 'With other participants I share a language and framework', 'If I have a problem, I ask other participants for advice and ideas' to 'I know better what goes on in other Faculties'. The scale *Career effects* concerns both formal and informal career changes. The seven items varied from 'I became a member of the steering committee for the degree programme' to 'More often colleagues ask me about my opinion on teaching and learning matters'.

To complement rating the closed statements, three open questions were used to explore the actual network that participants had after the programme. Two other open questions explored possible other and negative effects. The last question in this section asked respondents to list the three most important effects.

To answer research question 2, a set of evaluative questions about the design of the programme was developed, using the theoretical framework, the results from the four interviews, and conversations with the designers of the programme. The 38 closed items had to be answered on a five point Likert-scale with 1 = strongly disagree and 5 = strongly agree. The questions covered all components of the programme, including the guest lecturers. Because the list of guest lecturers differed for each cohort, the questionnaire was different for each cohort. One of the open questions requested that respondents list the three most important components of the programme. The answers to this question (by 63 of 78 respondents) were listed, categorised, and the frequencies calculated.

The questionnaire was returned by 42 of the 55 participants (76%) in cohort 1–4 and 36 of 62 participants for the cohorts 5–8 (58%). The results of these questionnaires were combined for the analysis, resulting in 78 respondents.

Table 1. Effect categories, number of items, mean, standard deviation and Cronbach's α .

Effect categories	Items	Mean	SD	α
Personal	9	3.8	.4	.67
Teaching practice	10	3.5	.5	.75
Network	9	3.5	.6	.77
Career	7	3.4	.9	.83
Total	35	3.6	.4	.84

To answer research question 3, interviews were conducted with 20 deans and heads of departments from faculties and departments where participants were based. They were selected because they were responsible for nominating participants and for acting as sponsors for the innovative projects implemented by the participants. The semi-structured interview was piloted with two respondents, and then used with a few clarifications for the 18 remaining respondents. Each interview lasted for about one hour, was audio-taped and transcribed. The themes addressed in the interviews were results of the programme in the areas of educational change, network of participants, professional development in the workplace, and factors influencing the results. The interview data were categorised according to these themes. The number of principals and the number of utterances in each category were counted.

The interviews were followed by a short questionnaire aimed at finding the level of agreement between the interviewees and to improve validity and reliability of the results. The response to the questionnaire was 90%.

Results

Research question 1: effects according to former participants

Table 1 presents the mean scale scores, where 1 can be interpreted as no or hardly any effect and 5 as a considerable effect.

For all four scales, the participants on average agreed that there was an effect. The means for *personal effects*, related to the first aim of the programme to formulate a vision on student learning and university education, *teaching practice effects*, related to the second aim to find and to successfully implement solutions for education problems, and *network effects*, related to the third aim of forming a network of like-minded colleagues involved in innovation of teaching and learning, were all similar. The *career effects* with a mean of 3.4 had a larger standard deviation than the other scales. The strongest effects measured with single items (mean score of 4.0 and higher), were:

- ‘My vision on teaching and learning has broadened’.
- ‘I have a better overview of educational developments’.
- ‘I know better what goes on in other faculties’.
- ‘I have used elements from the contributions of guest lecturers’.
- ‘I am deliberately looking for ways to stimulate active involvement of students’.
- ‘I am involved in curriculum development’.

The most mentioned negative effects (an open question) were the additional workload and the availability of time needed for participating. On the open questions about their network, more than half of the respondents indicated that they still meet with about a third of the participants in their cohort, a few times per year, sometimes even very long after the programme’s end.

The total effect of the programme is 3.6 according to former participants. An analysis of variance shows no significant difference between the cohorts ($F = 1.21$, $df = 7$, $p = 31$). We can conclude that, according to the participants, the aims of the programme have been achieved.

Research question 2: design of the programme

How do former programme participants evaluate the design of the programme? Which components are assessed as especially effective?

Being nominated was often the result of participants' own initiative and had then been talked through with a dean or head of department.

For about one third of the respondents, the thematic meetings were the most important component of the design, mainly because the input of guest lecturers had been interesting and useful. The meetings had provided many opportunities for discussions and exchange of experiences with colleagues from across the university, who share the same enthusiasm for and interest in education. Participants remembered ideas from many guest lecturers and applied elements from their contributions in their own practice. During the intake interview, most candidates did not yet have a clear idea of their learning goals, but participants were positive about the alignment of the programme to their increasingly clearer interests and questions (scores between 3.9 and 4.2). The score on the question about the influence they had on the choice of themes and guest lecturers was lower than expected (3.2). The innovative project was for 16 out of 78 participants one of the main results of the programme and had been experienced as was intended, as a means for transfer between programme and daily practice. Participants valued the opportunity to receive feedback on their projects.

Group-based peer coaching was mentioned by 14 of the 78 participants as an important component of the design. For some of the participants, the process led to changes in their daily practice. Nine participants mentioned reflection as one of the most important components of the design, while the development of an informed view on teaching and learning was for about one third of the respondents one of the main results of the programme.

The study tour was in the top three most important components of the design according to the participants. The study tour was interesting, informative, and provided many opportunities for discussion and comparisons with the home university.

Although there was not always sufficient time set aside for participating, participants regarded the intensity and the time investment as positive aspects.

Research question 3: evaluation by deans and heads of department

The third research question was: how do deans and heads of department (in short: principals) evaluate the results and the design of the programme for the organisation?

The most important result for the organisation, according to the principals, is the professional development of the staff. According to most principals, the participants had developed their knowledge of teaching, learning, and assessment, and curriculum development; had become generalists looking over boundaries between faculties; and were better prepared to find support for educational change. The participants were seen as leaders of educational innovation and were more often asked for help on education matters by their colleagues. Another result was, according to most of the principals, that participants took on more tasks in the coordination and development of teaching and learning.

In the area of educational change, the principals found that many of the innovative projects were successful and had useful results. When speaking about the work

of 51 participants, the principals mentioned 59 successful projects including follow-up activities.

The principals did not see an increase in cooperation and networking between faculties initiated by the participants. This cooperation could, for example, have taken the form of exchanging experiences from the projects or developing projects together.

Being nominated to take part in the programme was considered a reward for the participant. The principals did not see results in terms of improving the status of teaching compared to research or improved career perspectives, which could have encouraged more senior academics to take part in the programme. One problematic aspect, according to the principals, was that budgets did not allow for sufficient reduction of participants' teaching loads to compensate for their time investment in the programme and in initiating and maintaining contacts with colleagues and networks.

In general, the principals valued the programme as a means to improve university education. They mentioned two factors, specifically, that influenced the value positively: the selective character of the programme; and the way the programme connects with daily practice through innovative projects.

Conclusions and discussion

Because we did not use an experimental design, we cannot draw firm conclusions that attribute the found effects to the programme, but a strength of this study is that we added principals' perspectives to those of the participants, which have not been reported in other studies (Steinert et al., 2012). Although it would have been interesting, we have not been able to include other relevant perspectives, for example of colleagues, due to time constraints. In the following we summarise and analyse the results, first regarding the effects of the programme (research questions 1 and 3a), then the design of the programme (research questions 2 and 3b).

We conclude that the effects of this programme were in line with the aims and that principals agreed to a large extent with the participants about the effects of the programme. The programme has led to a broader vision on teaching and learning in higher education (first aim); participants have used the knowledge gained in the programme to improve their own courses and in the innovative projects that were in general successful; participants were seen by principals as leaders of educational innovation and were more often asked for help on education matters by their colleagues (second aim); and the network of the participants widened (third aim), although the principals had expected even more networking activities.

The outcomes of the programme are comparable with the outcomes of Steinert et al.'s review (2012) of leadership programmes in the medical education field. The participants of these programmes also reported changes in attitudes, knowledge, and skills, as well as some changes in behaviour and in the organisation.

Our conclusion regarding the design of the programme is that the former participants and principals value the design of the programme. We use the characteristics of effective professional development (relevance, transfer, learning from and with others, realism) to analyse the components of the programme that contribute to its perceived success.

The components of the programme that might affect relevance for the participants and give them, as advanced learners, influence on the content, were especially

the choice of lecturers, projects, and the study tour. The evaluation results showed that participants valued the input of guest lecturers and the study tour as especially effective components of the design, and that they experienced the programme as relevant and aligned to their questions, which became clearer in the course of the year. However, we had expected a higher score on the question about the influence they felt they had on the programme, because the programme leaders explicitly stimulated learner control (Kirschner et al., 2011) by asking, throughout the sessions, for ideas for relevant themes and names for guest lecturers. As the control of participants on the content and methods is one of the defining design characteristics of the programme, perhaps the programme leaders should flag up the opportunity for learner control.

Transfer between programme and daily practice was implemented in several ways: through the innovative project, the opportunity to present and discuss the project, the reflection assignments, and the opportunity to bring in questions from the workplace to the guest lecturers. As principals regarded many of the projects as successful, transfer has been achieved. We cannot, however, interpret this as a direct effect of the programme, because we did not control for the experience participants had as innovators when they joined the programme. The model for faculty development research (O'Sullivan & Irby, 2011) that places a faculty development community within a workplace community or the perspective of boundary crossing (Akkerman & Bakker, 2011) might be helpful in describing the potential of projects on the transfer of the course content to the daily practice. To what extent the programme has had long-term effects on the practice of the participants, in other words, whether lasting transfer has occurred (Holton & Baldwin, 2003), could be a further research question.

The third characteristic of successful professional development that we found in the advice was learning from and with others. We can conclude that much of the time in the meetings, including the peer coaching, and during the study tour was, according to participants, fruitfully used for discussions and learning with colleagues. It was one of the especially effective design components.

The fourth characteristic, realism, refers to the time investment of the participants, which often exceeded the available compensation. However, the majority of remarks showed that the programme can be regarded as realistic. The programme leaders should make candidates better aware of this result before the programme starts.

The results of this study suggest that the advice observed in the theoretical framework has been rather successfully followed in this programme's design, and that an intensive programme as described indeed developed leadership for educational change and is successful in enhancing teaching and learning at the university.

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Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

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