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Research capacity building in and on teacher education: developing practice and learning

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ABSTRACT

Research is widely acknowledged as a key element of professional learning for intending and serving teachers, as well as for their teacher educators. And yet, despite this centrality, research in teacher education is often subjected to critique and contestation. Internationally, the quality of such research has been questioned, and there are on-going issues about when, how and why teacher educators and teachers (can) engage in research. Initiatives to build research capacity in teacher education thus remain of crucial importance. Here we focus on this issue, aiming to analyse how to strengthen the field of teacher education locally and internationally. We first set out a conceptual framework for considering capacity building, and then analyse three international examples of practice in teacher education research: the Norwegian Doctoral School (NAFOL); the use of self-study research in Belgium (Flanders); and the Teacher Education Research Network (TERN), a social practices initiative in England. The contextualised analysis of these local capacity-building initiatives exemplifies what factors influence their enactments and outcomes and, in so doing, also inform a more 'glocal' understanding of how to build research capacity in and on teacher education. From this follows our overall question: what can be learned from these cases about how to build research capacity in and on teacher education?

Keywords: *teacher education, research capacity building, teacher educators*

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SAMMENDRAG

Forskningskapasitetsbygging i og på lærerutdanning: utviklingspraksis og læring

Forskning er anerkjent som et sentralt element i profesjonell læring for lærerstudenter, lærere og for lærerutdannere. Likevel blir forskning i lærerutdanningen ofte utsatt for kritikk

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og bestridelse. Internasjonalt blir det stilt spørsmål ved kvaliteten på forskningen, og det er en pågående diskusjon om når, hvordan og hvorfor lærerutdannere og lærere (kan) involvere(r) seg i forskning. Initiativ for å utvikle forskerkapasitet i lærerutdanningene er således av avgjørende betydning. Artikkelen fokuserer på denne problemstillingen, med mål om å analysere hvordan man kan styrke feltet for lærerutdanning lokalt og internasjonalt. Først presenteres et konseptuelt rammeverk for å vurdere kapasitetsbygging, før tre internasjonale eksempler av praksis i lærerutdanningsforskning analyseres: Nasjonal forskerskole for lærerutdanning (NAFOL); bruken av self-study forskning i Belgia (Flandern); og Forskningsnettverk i lærerutdanning (TERN), som er et prosjektinitiativ om sosial praksis i England. Den kontekstualiserte analysen av disse lokale kapasitetsbyggingsinitiativene eksemplifiserer hvilke faktorer som påvirker deres vedtak og utfall, og informerer på denne måten også om en mer 'glokal' forståelse av hvordan man bygger en forskningskapasitet i og på lærerutdanningene. Av dette følger vårt overordnede spørsmål: hva kan læres av disse tre casene om hvordan bygge forskningskapasitet i og på lærerutdanning?

Nøkkelord: *lærerutdanning, forskningskapasitetsbygging, lærerutdannere*

1. Introduction

Teacher education across the world is a field in which there are divisive and sometimes contradictory discourses and practices around what academic work and practice means for teacher educators (Murray & Kosnik, 2013). Teacher education is often positioned as research-informed or research-based, and teaching and research are often portrayed as synergistic in teacher educators' work and identities. And yet, research and teaching may also be viewed as separate or even competing activities, a familiar dualism which has historical roots in teacher education internationally. These tensions exist even when research is widely acknowledged as a key element of professional learning and development for intending and serving teachers, as well as for their teacher educators. Perhaps not surprisingly then, research both on and in teacher education is often subjected to critique, contestation and struggle.

These on-going issues about when, how and why teacher educators and teachers (can) engage in research, alongside the continuing international critiques about the quality of teacher education research, are part of our rationale for our starting point in this article – that initiatives to build research capacity in teacher education remain of crucial importance. The structure of the article is as follows: having first set out a conceptual framework for considering capacity building, we then analyse three international examples of practice in teacher education research: the use of self-study research in Belgium (Flanders); the Teacher Education Research Network (TERN), a social practices initiative in England; and the Norwegian Doctoral School (NAFOL). The contextualised analysis of these local capacity-building initiatives exemplifies what factors influence the actual enactments and outcomes of research in teacher education and, in doing so, also informs a more 'glocal' – that is both local and global – understanding of how to build research capacity in and on teacher education. Our overall question then is: what can be learned from these cases about how to build research capacity in and on teacher education?

2. The 'status' of research on and in teacher education

Research studies on and in teacher education are intricately connected. We define research *on* teacher education as the sub-field of education research which focuses directly on pre- and in-service programmes, including the histories, policies, practices, institutions, multiple stakeholders and individuals involved. Research *in* teacher education is defined as research conducted by those individuals and collectives who are active in such programmes. In some contexts, research *in* teacher education can be read, in part, as a response to disenchantment with the progress made by researchers who have produced knowledge about teacher education in remote, 'scientific' research settings.

As Menter et al. (2010) note, systematic and state-sponsored teacher education has a long history in many countries, dating back to at least the 19th century, but teacher education research is a young sub-field of education research more generally. Internationally, the quality of the research on and in teacher education has been repeatedly questioned, perhaps because much of it remains small-scale (with very few large-scale studies involving more than one hundred participants), qualitative (often using self-report data collection methods such as interviews), practice-based (in particular, there is a strong self-study tradition emerging since 2000) and often unfunded (sometimes characterised as 'boot-strap' research).

There are relatively few attempts to theorise within this body of work, with the research often being descriptive, pragmatic or developmental (Menter et al., ibid) or reliant on 'reflection' as a core method. Cameron and Baker (2004) also found methodological weakness in the studies they reviewed. There is a cumulative effect here: as Menter et al. (ibid), Murray et al. (2009) and Cochran-Smith and Zeichner (2005) identify: 'the high volume of single studies and the paucity of large-scale, longitudinal studies reduce the cumulative and developmental impact of the research' (Menter et al., 2010:134) and its coherence. There is little doubt then that research on teacher education needs to be strengthened. Cochran-Smith and Zeichner (2005: 2) suggest the need to develop a rich portfolio of theory-driven studies' including 'accurate national databases' making 'cross-institutional and multivariate analyses possible' and multi-site studies linking multiple smaller studies. Vanassche and Kelchtermans (2015) argue that this body of work will have to find ways to manage the tension between relevance and rigour, which is intrinsically connected with the double agenda of this research of contributing to the development of practice, but also 'the development of a publicly accessible and grounded knowledge base on teacher education' (p. 15).

Research on teacher education is often conducted by those who are also its practitioners and major stakeholders, that is, by the teacher educators, managers and policy makers of the field (Menter et al., 2010; Cochran-Smith and Zeichner, 2005, Murray et al., 2009). The emergence of research traditions is therefore closely related to the emergence of teacher educators as an occupational group in Higher Education and the trajectories of colleges of education and universities as their employing institutions.

This emphasis brings into play on-going issues about when, how and why teacher educators and teachers engage with research as consumers and/or as producers. The BERA RSA report[1] (2014) on research in and on teacher education across the UK, for example, identified various ways in which schools and teacher education institutions might engage with research. It identified three forms which such engagement might take: research informing programme design, here teacher educators are positioned as research consumers; research findings as a central element of programme content, here again teacher educators are consumers; and active research engagement and production of new knowledge, here teacher educators are positioned as producers. The report consistently emphasised the importance of research in developing the practice of serving teachers in schools, student teachers in training and the teacher educators offering pre- and in-service programmes. The report did not give a clear opinion on how teacher educators as research producers engage in the world of research and how that contributes to their work, practice and identity in Higher Education. Because of this omission, this highly influential report, sadly, could not address, in full, the issue of developing research capacity in and on teacher education.

In contrast, we contend that developing research for teacher education is central to strengthening the field and must necessarily involve close consideration of the teacher educators, undertaking the vast majority of the available research. We see research capacity-building initiatives then as essentially a targeted form of professional learning (or development) for teacher educators as individual practitioners and members of a larger professional community, which also has the potential to strengthen knowledge of practice, policy and identity in the field. The three cases put forward in the third section of this paper – the Norwegian Doctoral School (NAFOL); the use of self-study research in Belgium (Flanders); and the Teacher Education Research Network (TERN), a social practices initiative in England – adhere to this definition. Each case reports on an initiative taken to support (groups of) teacher educators locally in order to build research capacity on the individual, institutional and national level. These cases have not been selected to set a norm of 'good' research capacity, building initiatives. However, by carefully describing key elements in each of these initiatives and providing insight into the defining factors and processes, we aim to deepen our understanding of how to build research capacity in and on teacher education, making such building exercises both effective and sustainable - for individual teacher educators, the higher educational institutions in which they work and the national systems to which they contribute. In considering the analysis of these cases in relation to this question we will touch on a number of inter-related areas, including teacher educators' professional learning needs, research mentoring, institutional change, individual motivations and agency.

1. The British Educational Research Association and Royal Society of Arts (BERA RSA) report.

3. Building research capacity in teacher education

We see central parts of capacity building as providing the support and opportunities for motivated researchers to acquire new skills, knowledge and understanding, thereby increasing their expertise. Our conceptual framework for this article therefore starts from an old but still valuable statement from Charles Desforges, a highly influential educational researcher in the UK. Desforges (cited in Davies and Salisbury, 2008: 9) expressed the key elements of capacity building in the following equation:

$$Capacity = expertise \times motivation \times opportunities$$

This equation has been widely deployed as an analytical tool in UK-wide capacity-building initiatives in the last ten years, particularly those generated within the Teaching and Learning Research Project (TLRP) (Pollard, 2008). 'Expertise' is defined in this body of work as the increased knowledge and understanding gained through participation in the initiative; the word can be understood here as signifying the acquisition of both individual and communal knowledge. 'Motivation' focuses on the individual - and sometimes institutional or communal – strength of will to participate. The word 'opportunities' aims to capture the quality and quantity, range, depth and breadth of the learning offered through participation in the initiative. Each part of the equation needs to be designed, deployed and evaluated to enable a successful initiative. In writing about this equation, Davies (2008) identified that 'the use of the multiplier here means that with just one element absent from an initiative, the sum of the equation becomes zero' (cited in Murray et al., 2009; 945).

We argue that, in order for research capacity-building initiatives to achieve degrees of success and sustainability, a number of variables need to 'line up'. In order to develop our arguments further we now turn to describe and analyse three research capacity-building initiatives in teacher education research in three different European countries. We have deliberately chosen initiatives of different types and scales in order to illustrate some of the many variables at play.

4. Research capacity-building case studies

4.1 The use of self-study research in Belgium (Flanders)

The context of the first research capacity-building case study is a two-year inter-institutional professional development project in Flanders, which was launched under the title 'Learning and facilitating learning in the workplace: A self-study project in teacher education' in 2009. The project was competitively funded by the School of Education (a collaborative teacher education consortium) and engaged six teacher educators from various institutions in the systematic study of their practice. The project was inspired by the international research community of Self-Study of Teacher Education Practices (S-STEP) (a.o. Louhgran et al., 2004; Vanassche & Kelchtermans, 2015a), but also clearly aided by a growing awareness of the

importance of research in developing the practice of teacher education, regardless of where practice is located.

Flanders has a dual system of higher education with, on the one hand, universities offering research-based academic training and, on the other hand, Colleges of Higher Education (polytechnic institutions located outside of university) and Centres for Adult Education mainly providing programmes for professional and vocational training. While the latter have started to develop research expertise, this expertise consists mainly of applied forms of research, with theory-building research still firmly nested in the university sector. Thus, teaching and research in Flemish teacher education have led separate historic and institutional lives, making the plea for all teacher educators to develop research capacity and become research-active easily heard.

To balance out participants' limited research expertise and build their research skills, a rigorous theoretical and methodological support system was put in place. Geert Kelchtermans initiated the project in his role as Professor of Education at the University of Leuven and acted as the overall project supervisor. Eline Vanassche joined the project as part of her ongoing doctoral research on teacher educator professionalism. Both of them acted as academic facilitators, organising monthly research group meetings, coaching teacher educators in the design, implementation and analysis of their self-study of practice, and providing the theoretical tools (e.g. research literature, theoretical frameworks, concepts) for framing their research questions and analysing data. These whole group meetings were supplemented with individual support through email, telephone and one-on-one meetings with the facilitators.

Analysing recordings of the research-group meetings and facilitators' journal-writing (Vanassche & Kelchtermans, 2016) showed the project varied widely in terms of the effects – broadly defined – it generated for participants and their institutions. A detailed analysis of how the pedagogical principles on facilitating a teacher educator research group actually played out in practice (and why) was reported elsewhere (see Vanassche & Kelchtermans, 2015b; Ritter et al., 2018). Here, we limit ourselves to analysing one crucial determinant in the process, that is, the level of institutional support teacher educators received. Or, more precisely, the crucial importance of the degree to which teacher educators' normative beliefs – as evidenced in their self-study research agenda – accorded with the collective practices and beliefs on the institutional level – as evidenced in the operating curriculum policy. In most cases, these priorities did align, resulting in a joint commitment and ownership of the research agenda, which also involved clear consequences for the structural conditions provided to teacher educators to participate in this research project. Efforts were made to manage their workload effectively, results were shared at staff meetings, colleagues actively took part in the research, and so on. These practical benefits also carried important symbolic meaning for the teacher educator participants.

In cases where priorities did not align, 'not only did the dissemination of the developed understandings fail to occur, but also the professional development of

the individual teacher educators and the relationships with their colleagues became at risk' (Vanassche & Kelchtermans, 2015b: 11). The latter became overwhelmingly clear in a narrative analysis of the professional learning of one teacher educator in the project (Vanassche & Kelchtermans, 2016), whom we refer to as John. Through his self-study of practice, John sought to understand the importance of the more personal characteristics of teaching (e.g. enthusiasm, personality, care) in his teacher education approach. This research interest – and the normative assumptions about teacher education to which it spoke – explicitly contested the competency-based curriculum approach in his institution. Over the course of the project, and the various dissemination activities it encompassed, these two very different normative agendas of teacher education were made public with severe consequences. Most importantly, John's trustworthiness as a researcher and the validity of his research outcomes were questioned. His 'experiment' was merely being tolerated, in part because his teacher education practice was framed as 'marginal'. Overall, this meant that an important premise underpinning this – and many other – research capacity-building projects was not realised; that is, processes of individual professional development serving as a catalyst for programme and institutional improvement (see Newmann, Bruce King & Youngs, 2000, among others).

4.2. Regional research capacity building in England

This section of the article focuses on an inter-institutional research capacity building in England, part-funded by the Economic and Social Research Council (ESRC) as part of a series of UK-wide initiatives under the auspices of the Teaching and Learning Research Programme (TLRP) (Pollard, 2008). This ambitious initiative was called TERN (Teacher Education Research Network); it ran for more than four years in various forms and involved the Education Departments of seven universities in the North West England. Here we focus only on one year of the project, which had a major focus on building capacity in and on teacher-education research through a social-practices model of research engagement. This project was extensively reported at the time of operation (Gardner, 2009; Murray et al., 2009, 2011) and we drew on some of those accounts here.

At the heart of the network were 44 teacher educators (all from the participating universities), who formed research groups around themes which were either personally or institutionally relevant. All the teacher educators were nominated by their universities as 'early career' researchers, well-motivated to both develop their own research expertise and to contribute to capacity building in their university departments. Only one third of the group had doctorates, but most others were studying to achieve this qualification. This is a profile commonly found in teacher education in England, where practical experience of school teaching is prioritised over research as a recruitment criterion. Demographically, the group was also representative of teacher educators in English universities; 30 were female and 14 male; 70% were over the age of 40.

All the universities in the project supported it enthusiastically from the start, in part since it could contribute to building their departmental research capacity before the Research Excellence Framework (REF) audit of 2014, in which the quality and quantity of research 'outputs' from each university are assessed nationally. They signed up to release all the participating teacher educators from normal teaching and management responsibilities to participate fully in the project.

The aim of the project was to provide ways for individuals and groups to engage in 'an active community of researchers successfully practising the principles of supportive interaction, collaboration and participation' in the initiative (Gardner, 2009: 2). It was facilitated and led by three senior researchers, two from the region and Jean Murray as an 'outsider' from London. Other UK and international researchers also gave inputs into the project. Over the year in question, participants met regularly both in face-to-face meetings and online, with opportunities offered including: learning about teacher-education research nationally and internationally; mentoring on academic writing and personal development; debates on theoretical frameworks for research; sustained guidance on developing viable proposals for research grants; engaging in debate with senior national and international researchers in teacher education; and creating institutional research development plans.

Overall, the project was judged by the external evaluator to be effective in meeting its aims: it created the desired active community and the participants had an 'overwhelmingly positive perception of the personal impact of TERN' (Gardner, 2009: 2). In general, research expertise for the participants was enhanced and research capacity grew in their university departments. These findings were welcome to the project leaders, of course, but we were aware that there were distinct variations in the ways in which individuals and institutions benefitted from the project.

Analysing the full data set from the internal evaluation (Murray et al., 2009) showed that conflicts between differing professional commitments and institutional imperatives were often part of the cause of this variability. For instance, 40% of participants reported distinct dissonances and difficulties restricting their full participation in the project. Some of these problems were personal (for example, child care issues, illness, bereavement) but the majority were caused by institutional factors. Influential factors here included how participants managed their 'day jobs' teaching on intensive pre-service programmes alongside research engagement and how they managed conflicts for themselves and for colleagues, including their perceived 'entitlement' to develop their research expertise through being a 'chosen one' on the project. But we also found personal motivation and underlying attitudes – or dispositions – to research to be important factors in how individuals deployed their senses of agency (Murray et al., 2011). For example, working in the same university, both Laura and Joe derived some personal success from the project; both saw teaching and research as integrated and synergistic in their work and identities; both lived with enduring institutional dissonances around their engagement in research, but they did this with

differing expectations about their future research. This was not least because of the ways they deployed personal agency in navigating and negotiating the research-teaching nexus within their work as teacher educators (see Murray et al., 2011).

4.3. The Norwegian Doctoral School (NAFOL)

Our final example of a research capacity building exercise is of a very different scale to the two previous examples. NAFOL – The Norwegian National Research School in Teacher Education – is a national initiative funded by the Norwegian government from 2010–2019. Unlike the other two projects described in this article, NAFOL is an on-going initiative; the final evaluations have not been completed, and there is, as yet, little evaluative writing about it in English. We therefore cannot report on the impact of the initiative at national, institutional and personal levels with the same degree of detail as for the Flemish and UK initiatives, but rather explore what this case teaches us about the importance of policy discourse and practices which advocate a particular type of teacher educator professionalism (i.e. including a focus on research) for the success of capacity-building initiatives in teacher education.

As Smith (2015) identifies, NAFOL was in part the result of a 2004 report by the Norwegian Research Council, in which Norwegian educational research was criticised and all higher education institutes were challenged to improve research outcomes and infrastructures. The further development of NAFOL was a policy shift, beginning in 2017, to locate all teacher education programmes at Master's level (Vanassche et al., 2015). This move included all programmes taught in the University Colleges, where teacher educators had not previously been required to have doctorates or equivalent research experience. It should be noted that within both colleges and universities, there are teacher educators without doctorates, often brought into higher education because of their knowledge and experience of school teaching (Ulvik and Smith, 2019). These teacher educators are though still working within a system in which 'inquiry learning and the production of publications are the norm' (Vanassche et al., 2015: 47).

One aim of NAFOL was to increase the number of teacher educators with doctorates in the colleges and universities, strengthening the professional identity and research knowledge of these staff (Smith, 2015) and equipping them to supervise research-based Master theses. But another aim included making a coherent response to repeated criticisms about the quality of teacher education through the further development of research-informed programmes. A longer-term aim was also to enhance the quality of teachers and teaching in schools through the improvement of teacher education (Vanassche et al., ibid).

Involving a network of 23 teacher education institutions and currently led by Kari Smith, NAFOL works, in the main, with staff already accepted into an academic doctoral programme at a Norwegian university. These PhD students, once enrolled on the NAFOL programme, work in cohorts of around 20 for four years,

attending four seminars each year. NAFOL also offers three seminars a year for teacher educators who do not want to study for a doctorate but still wish to develop their practical expertise informed by self-studies, action research projects and curriculum development. As Vanassche et al. (ibid) identify, this alternative leads to a broader qualification called 'first lecturer' (førstelektor). Another innovative aspect of NAFOL then is the double aim of first, enhancing the development of high-quality doctoral work, and second, providing support for practising teacher educators to develop identities as practitioner-researchers, achieved through the same research school.

Activities at the seminars include guidance and feedback from senior academic staff and peers on research methodology and methods, literature reviews, theoretical and conceptual frameworks, academic writing, opportunities to critique journal papers in preparation, and the study of issues in teacher education research, practices and identities. In addition to the face-to-face meetings, each cohort also has online communication groups set up on social media. The programme is designed 'to pull doctoral students out of isolation' (Vanassche et al., 2015: 45) and to integrate student voices within it.

Both authors of this article have personal experience of working as international facilitators with NAFOL cohorts during some of their seminars. This experience of communal working was a revelation, not least because of the very high quality of the academic debate and peer critique shown by the students at each learning opportunity, whether that was responding to a formal lecture on trends in teacher education across Europe, reading and responding to draft journal papers or offering critiques of relevant theories. It was clear to us that each cohort had created a genuine 'community of practice' (Wenger, 1998) in which individual learning about research and practice in teacher education was magnified through the application of powerful communal knowledge, understanding and empathy.

In terms of its impact, NAFOL has had excellent mid-term international evaluations, as well as achieving recognition and respect in the Norwegian educational research community (Smith, ibid; Vanassche et al., ibid). All the original institutions continue to participate in the initiative. In the first two cohorts, there was a completion rate of around 90%, alongside the production of two edited books, many journal publications and numerous conference presentations. Current predictions are for 160 doctoral graduations by 2019 when the current tranche of national funding comes to an end (Smith, ibid; Vanassche et al., ibid).

The initiative is clearly an integral part of Norwegian educational research policy, aiming to transform a practice-based teacher education into research-informed teacher education, and it is clearly already multiplying the number of doctoral graduates in the field. Yet the ultimate success of the initiative will be seen through the achievement of two inter-linked aims: an improvement in Norwegian teacher education and schooling; and a substantial enhancement of the quality of Norwegian research in, on, and with teacher education.

5. 'Good' examples of practice in developing research capacity

As we have identified in Section 1, in all teacher education systems there are varying and sometimes contradictory discourses, practices and attitudes to active research engagement by teacher educators. These are, of course, differentiated in their effects across different teacher education systems and institutions, and we have explored such issues in previous work (see, inter alia, Vanassche & Kelchtermans, 2015b; Murray & Kosnik, 2013). In this section of the article, we revisit the three cases presented above in terms of the Desforges equation in order to answer our overall question: *what can be learned from these cases about how to build research capacity in and on teacher education?*

The first two projects we have presented here are complete and both were widely acknowledged to be successful. In terms of the Desforges equation, cited above, we could then argue that capacity was enhanced because motivated individuals were given structured opportunities to increase their research knowledge and hence their expertise. And yet, this equation alone cannot explain some of the more nuanced findings from both projects. For example, despite formal exemptions from regular work, including teaching duties, some teacher educators struggled to find enough time for full participation and subsequent research development. In some cases, the teacher educators found tensions or even conflicts between maintaining their core work with their students and colleagues and their research. Despite institutional 'buy-in' to the projects, others faced conflicting demands from their institutions, or their perceptions about research did not fit with how teacher education work was understood in their workplaces.

We do not yet know whether the NAFOL 'students' will have faced similar conflicts, but previous studies indicate that consideration of the socio-cultural contexts for research within the teacher education institutions is a key factor influencing capacity building (Murray et al, 2009, 2012; Tack, 2017; Vannasche & Kelchtermans, 2015b). This is hardly surprising, given that these institutions instantiate the discourses and practices of teacher education into the physical and organisational spaces within which teacher educators and their students work. We would suggest that in the first two projects discussed here, teacher educators' struggles with varying institutional imperatives played out in the tensions and conflicts some experienced, and impacted – perhaps inevitably – on the opportunities offered by the projects and in the individual and communal learning which resulted. To the Desforges capacity-building equation of capacity = expertise × motivation × opportunities, we add then our understanding that the inter-relationships between research in and on teacher education mean that any initiative is necessarily framed by deep-rooted institutional factors and by the broad discourses and practices as extant in the field of teacher education at the time.

Desforges (ibid) includes motivation as a central element of his capacity-building equation. We consider that the term 'motivation' needs to be re-conceptualised to encompass a broader understanding of what participating individuals' dispositions

to research (Murray and Mahony, 2011; Tack and Vanderlinde, 2016) might be, that is, the ways in which individuals understand research, their capabilities and senses of agency to participate in it, and its relationship to their broader practice. For example, Tack and Vanderlinde's statistical analysis resulted in four subscales of what they call 'researcherly dispositions': 1) being a smart consumer of research; 2) valuing research; 3) being able to conduct research; and 4) actually conducting research. Interestingly, they point out that the last two factors could not be combined into a single factor, so in this study, teacher educators who were capable, ready and willing to be researchers still did not actively engage in research production. As illustrated in the capacity-building examples above, an important piece of the answer to this puzzle lies in the working conditions in teacher-education institutions. Brief indications of what these conditions look like have been given in the English and Flemish cases, including the structural (i.e. available time, expertise, etc.) and symbolic (i.e. aligning definitions of teacher education and research on the individual and institutional level) conditions necessary to actually perform research. Murray and Mahony's study (2011) of 54 'research successful' teacher educators in the UK also indicates some of the ways in which the workplace and its norm-referenced practices impact on research production. We have only limited evidence of the influences which dispositions to research had on individuals' participation in the first two case studies here, but we would suggest that this is an important factor taking us well beyond simple 'motivation' to participate in the initiatives.

An additional factor affecting participation in the projects is the effects of growing performativity cultures and increasing managerialism in all aspects of teacher educators' work, but perhaps particularly in research. Research production is now measured and judged in diverse ways, including tenure track systems for individual career progression in countries as diverse as the USA, Australia, the Netherlands and Belgium (Flanders), and research audits in place to measure the quality and quantity of communal and individual research in countries including the UK, New Zealand and Australia. These are 'regimes of calculation' (Dean, 1999: 18) and compliance, which offer rival forms of knowledge and expertise, and sometimes claiming authority over longer-established professional practices of research and professional learning. This is important in that the ways in which knowledge of research is generated are contingent, at least in part, on the 'organised practices through which we are governed and through which we govern ourselves' (Dean, 1999: 18). Individual and communal senses of agency are also important here in navigating and negotiating the complexities of work as a teacher educator within performative, institutional cultures. We thus argue that, in order for research capacity-building initiatives to achieve degrees of success and sustainability, a number of variables need to 'line up', or rather to make sense individually and communally for the participants.

We have already acknowledged that the three projects described here are of different scales and have some different intentions and results. Yet, they also share some communalities: in each project, for example, the aims included building capacity

to strengthen teacher education research and to deploy that research to improve or change the quality of teacher education programmes. Each initiative includes a focus on essential areas of research learning, for example, the development of robust research designs and conventions of academic writing. Teacher educators' voices are valued in structuring the programme and relevant and personally relevant research foci are developed. Learning with and from a peer group or cohort is an integral factor of the programme, although the social dynamics and micropolitics within the groups varied. In each initiative, there are face-to-face opportunities for developing communal learning about research, with senior researchers acting as academic facilitators. In each project face-to-face learning is supplemented by online discussion or phone calls. Each project therefore contains similar design elements which might be recognised as 'good examples of practice' (Kelchtermans, 2012) in the 'opportunities' provided within these programmes. But we do not promote these cases as 'good practice', since as Vanassche and Kelchtermans (2015: 20) caution, 'straightforward principles or rules of thumb cannot, by definition, do justice to the complexities of designing and supporting processes of professional development'.

6. Conclusion

This article starts from the premise that initiatives to build research capacity in teacher education remain of crucial importance to the on-going health and stamina of the field. We have used contextualised analyses of three 'local' capacity-building initiatives to exemplify the factors influencing enactments and outcomes. Our guiding question has been: what can be learned from these cases about how to build research capacity, in order to make future initiatives sustainable and effective – broadly defined – for individual teacher educators, the higher educational institutions in which they work, and the national systems to which they contribute?

We began our research by stating Desforges' equation that capacity = expertise × motivation × opportunities, but our subsequent analyses of the three cases have amended this. Whilst high quality opportunities – perhaps including many of the design elements we have identified above – will always be vital, we fully recognise that these cannot and do not create recipes for 'good practice'. This is not least because any capacity-building initiative is necessarily framed by deep-rooted institutional factors and by the contemporary discourses and practices of the field. Certainly, the term 'motivation' needs to be re-conceptualised to encompass a broader understanding of what participating individuals' dispositions to research are, and how their senses of personal and professional agency enable them to negotiate the micropolitics of their current working lives and their future aspirations. We argue that, in order for research capacity-building initiatives to achieve degrees of success and sustainability, all these elements need to be lined up - and in ways which make sense individually and communally for the participants.

In the longer term, we look forward to hearing more about the continuing development of NAFOL and its ambitious aims to transform Norwegian teacher education by equipping new cohorts of teacher educators to engage their students in high quality, research-informed learning. It is also envisaged that these teacher educators will contribute internationally to the body of original research in and on teacher education. This large-scale project then has the potential to be both local and global – that is truly 'glocal' – in its multiple impacts, and evidence the potential for research in and on teacher education to successfully meet its double research agenda of constructing meanings and understandings which are useful for the (institutional, professional, national, etc.) contexts within which these are generated, but also carry relevance beyond those local contexts.

A key piece of the puzzle here, as further exemplified in the UK and Flemish cases, is the development of successful partnerships between teacher educators and experienced researchers. In many ways, research is a craft – the craft metaphor suggesting the need for curiosity, wonderment and criticality, but also implying conceptions of knowledge and skills (for example, a careful understanding of theoretical frameworks and concepts to clearly frame and situate one's research interest, to make sense of data and report on findings), and thus specific training and mentoring. As evidenced in the three initiatives above, this continuous dialogue between teacher educators' 'lived' experiences of practice and the theoretical and methodological expertise of the research experts (or mentors) is best conceptualised as a broader, 'public' experience, embedded in groups of teacher educator researchers.

In our own practices as educators of teacher educators (Lunenberg et al., 2017), including as research mentors, we will endeavour to deploy the learning gained from writing this article in our own institutions and national contexts. And our current pan-European project, InFo-TED (https://info-ted.eu/), brings us ongoing opportunities to work with like-minded colleagues in ensuring that research capacity-building initiatives remain a central and vital element of European teacher education. This project currently operates with broader purposes and different scales from NAFOL but, even at its current (small) scale, it still offers powerful research capacity-building potential. We look forward to a time when such pan-European initiatives might be expanded and fully funded; then the potential for truly 'glocalised' research capacity-building in teacher education will be immense.

References

Cochran-Smith, M., & Zeichner, K. (Eds.). (2006). *Studying teacher education: The report of the AERA panel on research and teacher education*. Washington, DC: AEA and Lawrence Erlbaum Associates.

Davies, S., & Salisbury, J. (2008). *Researching and learning together: inter-institutional collaboration as a strategy for capacity building*. Paper presented at the British Educational Research Conference (BERA), Edinburgh, September 2008.

Dean, M. (1999). *Governmentality: Power and rule in modern society*. London: Sage.

Gardner, J. (2009). *External evaluation of the Teacher Education Research Network (TERN) 2008–09*. ESRC Project Report. http://www.esrc.ac.uk/ESRCInfoCentre accessed 18 November 2009.

Kelchtermans, G. (2015). Learning from 'good examples of practice'. *Teachers and Teaching*, *21*(4), 361–365.

Lunenberg, M., Murray, J., Smith, K., & Vanderlinde, R. (2017). Collaborative Teacher Educator Professional Development in Europe: Different Voices, One Goal. *Professional Development in Education, 43*(4), 556–572.

Loughran, J. J., Hamilton, M. L., LaBoskey, V. K., & Russell, T. L. (Eds.). (2004). *International handbook of self-study of teaching and teacher education practices*. Dordrecht, The Netherlands: Kluwer Academic Publishers.

Menter, I., Hulme, M., Murray, J., Campbell, A., Hextall, I., Jones, M., Mahony, P., Procter, R., & Wall, K. (2010). Teacher education research in the UK: The state of the art. *Swiss Revue of Educational Research*, *32*(1), 121–140.

Murray, J., Jones, M., McNamara, O., & Stanley, G. (2009). Capacity = expertise × motivation × opportunities: Factors in capacity building in teacher education in England. *Journal of Education for Teaching*, *35*(4), 391–408.

Murray, J., Jones, M., McNamara, O., & Stanley, G. (2011). Institutional re-orientation attempts and their effects on academics in teacher education: A case study from England. In R. Adamson, J. Nixon & F. Su (Eds.), *The Reorientation of Higher Education: compliance and defiance* (pp. 65–92). London: Springer.

Murray, J., & Mahony, P. (2011). *On learning from the research successful: Report on the higher education academy grant number* 546/7. ESCalate: Bristol.

Murray, J. (2012). Performativity cultures and their effects on teacher educators' work. *Research in Teacher Education*, *2*(2), 19–23.

Murray, J., & Kosnik, C. (Eds.). (2013). *Academic lives and identities in teacher education*. London: Routledge.

Murray, J. (2016). Trends in teacher education across Europe. In I. Falus & J. Orgovanyi-Gajdos (Eds.), *New aspects in European teacher education* (pp. 6–17). Eger, Hungary: Eszterhazy Press.

Newmann, F., Bruce King, M., & Youngs, P. (2000). Professional development that addresses school capacity: lessons from urban elementary schools. *American Journal of Education. 108*(4), 259–299.

Pollard, A. (2008). Towards new strategic initiatives for research capacity in education: A discussion paper. *Building Research Capacity*, 13, 1–5.

Ritter, J. K., Lunenberg, M., Pithouse-Morgan, K., Samaras, A. P., & Vanassche, E. (Eds.). (2018). *Teaching, learning, and enacting self-study research*. Dordrecht, The Netherlands: Springer.

Smith, K. (2015). *NAFOL: Empowering Researching Teacher Educators at a National Level.* Presentation at the European Educational Research Conference, Budapest, 2015.

Tack, H., & Vanderlind, R. (2016). Measuring teacher educators' researchly dispositions: Item development and scale construction. *Vocations and Learning 9*(1), 43–62.

Ulvik, M., & Smith, K. (2019). Teaching about teaching: Teacher educators' and student teachers' perspectives from Norway. In J. Murray, A. Swennen & C. Kosnik (Eds.), *International research, policy and practice in teacher education: insider perspectives* (pp. 123–137). Switzerland: Springer Nature

Vanassche, E., & Kelchtermans, G. (2015a). The state of the art in self-study of teacher education practices: A systematic literature review. *Journal of Curriculum Studies*, *47*(4), 508–528.

Vanassche, E., & Kelchtermans, G. (2015b). Facilitating self-study of teacher education practices: Toward a pedagogy of teacher educator professional development. *Professional Development in Education*, *42*(1), 100–122.

Vanassche, E., & Kelchtermans, G. (2016). A narrative analysis of a teacher educator's professional learning journey. *European Journal of Teacher Education*, *39*(3), 355–367.

Wenger, E. (1998). *Communities of practice: learning, meaning and identity*. New York: Cambridge University Press.