
Self-Study Research and the Development of Teacher Educators' Professional Identities

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ABSTRACT This article presents the results of a study on the project 'Teacher Educators Study Their Own Practices'. Nine teacher educators participated and conducted a self-study into their own practices. The leading question of this article is whether their self-studies contributed to the development of their professional identities. Data sources were digital logbooks, exit interviews, and follow-up questionnaires. The results show that conducting self-study research supports theoretical growth, ongoing development, the production of knowledge, and the enhancement of self-confidence. What these results could mean for the teacher educators themselves and their practices, and for the professional community of teacher educators, is discussed in the final section of this article.

Introduction

Since the 1990s, a growing number of teacher educators, especially in North America and Australia, have been studying their own practices. Developments in teacher education (such as the growing awareness of the need to connect theory and practice, and the increasing influence of constructivism) have led to the wish of teacher educators to study the processes involved in the new attempts to improve teacher education practices. In the tradition of teacher research (Corey, 1953; Stenhouse, 1975; Whitehead, 1989; McNiff & Whitehead, 2006), they started to focus their research on their own teacher education practices. Zeichner (1999) stated: 'The birth of the self-study in the teacher education movement around 1990 has been probably the single most significant development ever in the field of teacher education research' (p. 8).

There appears to be an important difference between what is required in teacher research and what is required in teacher educator research. While most teacher research focuses solely on improving the teacher's own practice, teacher educator research has the same focus, but also serves a second goal. As most teacher educators are also academics, they are expected to contribute to general knowledge development through publications in academic journals. Indeed, an analysis by Korthagen & Lunenberg (2004) showed that during the previous two decades, self-studies by teacher educators appeared to be productive both for the teacher educators themselves and for the development of formal knowledge on teacher education.

In conclusion, characteristics of this so-called self-study research by teacher educators are that (1) the research question is based on a fascination or problem rooted in the researcher's own practice; (2) the research subject is related to relevant literature; (3) the data collection and data analyses are carefully described; and (4) the significance of the findings to others is discussed (see for extensive descriptions of quality criteria for self-study research: Bullough & Pinnegar, 2001; LaBoskey, 2004). Self-study research on the part of teacher educators can thus be defined as systematic research and reflection on these teacher educators' own practices, leading to both an improvement of these practices and a contribution to the general knowledge base of teacher education (Zeichner, 1999).

Yet, in Europe, self-study research is still relatively unknown as a way of promoting teacher educators' professional development. Only in the UK, Scandinavian countries, Iceland and the Netherlands are small groups of teacher educators systematically exploring this approach. In the Netherlands, an important reason seems to be the fact that, in contrast to most other countries worldwide, more than 90% of the teacher educators are employed as teachers only, and have no research task. The idea of conducting systematic research, let alone research into one's own practices, is thus rather new to most Dutch teacher educators. At the same time, like elsewhere in Europe, in the Netherlands research is becoming more important in teacher education. Not only is there an increasing pressure on teacher education to become more 'evidence-based', teacher educators are also required to support their students' research projects. Taking this context into account, in 2007 we started the project 'Teacher Educators Study Their Own Practices', a project carried out twice. The authors of this article supervised the project and studied the participants' learning processes, as well as the critical issues emerging while supporting these learning processes (see for an extensive description Lunenberg, Korthagen & Zwart, 2010a,b). The participating teacher educators reported that the findings of their self-studies offered valuable insights into their practices, as well as ideas for improving these. Almost all of them have shared the results of their studies through presentations and publications. In this way, they have contributed to the knowledge base of teacher education. The data we collected on their learning processes also seem to suggest that conducting self-study research had stimulated the growth of the participants' professional identities as teacher educators. From that point of view, we have re-analysed our data. The main question we wished to answer through our analysis was: *Does conducting self-study research support the development of teacher educators' professional identities, and if so, how?*

By posing this question, we relate to the European debate on strengthening the identity of teacher educators, among others within the Association of Teacher Educators in Europe (ATEE). The core of this debate is the conviction that strong professional development will contribute to strengthening the status and position both of individual teacher educators and of the professional community of teacher educators.

In the next section, we will discuss the theoretical background to the concept of a teacher educator's identity.

Theoretical Background: a teacher educator's professional identity

Studies into the professional identity of teacher educators are hard to find. A review study by Beijaard, Meijer & Verloop (2004) on the professional identity of *teachers* showed that in most studies professional identity was not clearly defined. One of the exceptions is a study by Klaassen, Beijaard & Kelchtermans (1999), who describe professional identity as 'relatively stable views and reflection patterns on professional actions and self image' (p. 377). Professional identity can also be seen as the way in which teachers explain and justify their actions in relationships with others and the context (Coldron & Smith, 1999; Beijaard, Meijer & Verloop, 2004). According to Conway (2001), professional identity is embedded in a process of interpretation and re-interpretation. It is an ongoing process, dynamic, and not static. This concurs with Kelchtermans' view. He defines professional identity as *self-understanding* and writes: "The term "self-understanding" refers to both the understanding one has of one's "self" at a certain moment in time (*product*), as well as to the fact that this product results from an ongoing *process* of making sense of one's experiences and their impact on the "self" (Kelchtermans, 2009, p. 261). Nias (1996) emphasises that a teacher's professional identity involves emotional development. Day (2004) agrees, and states that a teacher's passion cannot be viewed as 'a luxury, a frill, or a quality possessed by just a few teachers', but is 'essential to all good teaching' (p. 11).

What does the above mean for the identity of teacher educators? In 1993, Ducharme described the identity of a teacher educator as 'Janus-like' and 'schizophrenic' (p. 4). He continues by saying that teacher educators even seem to have more than two faces: 'School person, scholar, researcher, methodologist, and visitor to a strange planet' (p. 6). The vagueness about what it means to be a teacher educator has not disappeared since then, as Cochran-Smith (2003) stresses. The shift in responsibilities related to the preparation of future teachers has added fieldwork supervisors and school-based personnel to the already broad range of part-time, adjunct staff or

clinical faculty. All of them now form the professional group called teacher educators. Nevertheless, in recent years there have been attempts at identifying critical elements of a teacher educator's identity.

Murray & Male (2005), for example, interviewed 28 teachers who had become teacher educators and concluded that the development of a personal pedagogy for teaching teachers in a higher education context, and the generating of research and scholarship emerged as key elements in achieving an identity as a teacher educator. The interviewees describe the development of a personal pedagogy as a journey from offering tips and tricks to student teachers to shifting the focus from school teaching to how student teachers learn to teach. Becoming a scholar proved to be even more complicated - for instance, because the interviewees found it difficult to set aside time for research.

Lunenberg & Hamilton (2008) conducted a collaborative self-study on their own development as teacher educators. They stress that the vagueness of the profession and the fact that there is no straight career path for becoming a teacher educator seem to make the influence of one's personal history more significant than in other professions. Lunenberg & Hamilton see this as a key element in the development of a pedagogy for teacher education, especially when it comes to intentionally modelling teaching behaviour and supporting reflection in student teachers. Like Murray & Male, they identify being scholars (i.e. knowledge consumers as well as knowledge producers) as another key element of their identity as a teacher educator.

Recently, Swennen, Jones & Volman (2010) analysed 25 articles relating to the development of teacher educators. On the basis of this analysis, they distinguish four sub-identities of teacher educators: as a (former) school teacher; as a teacher in higher education; as a teacher of teachers; and a sub-identity as a researcher. They stress that the sub-identity as a teacher of teachers is specific to the teacher educator. According to their findings, modelling teaching and values about teaching and explaining this modelling are key elements in the professional identity of teacher educators, and in distinguishing the teacher educator from the school teacher and the teacher in higher education. With regard to the sub-identity of a researcher, the authors explain that this also is a key element, because their analysis shows that most research carried out by teacher educators concerns teacher educators' own practices.

In sum, we see that from three different perspectives (interviews with teacher educators, a collaborative self-study, and a literature review) the development of a – personal – pedagogy for teacher education and the development of scholarship prove to be key elements in the identity of teacher educators.

Research Methods

Participants

Ten teacher educators (cohort 2007: five; cohort 2008: five) participated in the project 'Teacher Educators Study Their Own Practices'. Participation was voluntary. One of the participants in the second cohort was a young, beginning teacher educator. Rather early in the process, he concluded that conducting a self-study at this stage of his development was too much and he quit. He is not included in this study. The other participants (five females, four males) were experienced teacher educators aged between 40 and 57. Table I gives an overview of their professional context, the subject they teach, and the research questions they formulated for their self-studies.

One of the participants, Ron (pseudonym), had a PhD degree. The research experience of the others was limited to their own experiences as a student (for some of them this was a long time ago) or as a mentor of their students' research projects.

Project Format

The project started at the beginning of the calendar year (2007, 2008) with intake interviews with each of the participants. Next, eight monthly group meetings were organised, consisting of four main parts: (1) guided reflection; (2) information about research phases; (3) discussing and working on the individual self-studies; (4) attention to being part of a self-study community.

Name	Gender	Affiliation	Subject	Research question
Kathleen	Female	University teacher education, programme for secondary education	English (as a second language)	What interventions support students in developing a view on second language teaching? What is my role in this process?
Arthur	Male	University teacher education, programme for secondary education	Mathematics	Do mathematics teacher educators agree upon the views students should have with regard to teaching mathematics? And what are the implications of my findings for the assessment of my student teachers?
Ben	Male	University teacher education, programme for secondary education	Education	Does the introduction into the programme of core reflection and core qualities influence student reflection? And if so, what are the consequences for me as a teacher educator?
Kitty	Female	Teacher education in higher vocational education, programme for secondary education	Dutch (as a native language)	Why is there such a difference in the ways student teachers report on their practical experiences? How can I contribute to the deepening of their reflections?
Ron	Male	University teacher education, programme for higher education	Education	Which programme activities support a change in students' perspectives? What does this mean for my role as a teacher educator?
Ann	Female	University teacher education, programme for secondary education	Dutch (as a native language)	What helps and what hinders experienced student teachers to stay motivated during the programme? What can I contribute to a positive development?
Richard	Male	Teacher education in higher vocational education, programme for school-based teacher educators in primary education	Education	What is the influence of core reflection in a programme for school-based teacher educators? Which parts of my input did the school-based teacher educators experience as meaningful?
Fiona	Female	Teacher education in higher vocational education, programme for secondary education	Dutch (as a native language)	How do I practice 'teach as you preach'? What improvements are possible?
Karen		University teacher education, programme for secondary education	Second language teaching	What are the roles and actions of a successful mentor in a school-based second language group? What are my roles and actions as mentor?

Table I. Background information about the participants.

The reflection supported the switch from the daily teacher education practice to conducting research, offered emotional support and emphasised a team feeling. Factual information about research and discussing the progress of the studies characterised the second and third parts of the meetings. In order to emphasise that the participants were also part of an international community of self-study researchers, for the second meeting a key person of the international self-study community sent the group a message, and in the seventh meeting, a Flemish self-study expert was our guest and commented on the participants' self-study drafts. In addition, the participants were introduced to self-study literature. Table II gives an overview of contents and goals of the group meetings.

In addition to the group meetings, the participants also received individual support through one-on-one meetings and email feedback from the facilitators – for example, based on the participants’ digital logbooks. In these logbooks, the teacher educators reported on how they perceived their own development, and on the factors and critical incidents influencing this development.

One year after the start of the project, we conducted exit interviews. Not only were we as researchers eager to get more insights into the ways in which performing a self-study had enriched the teacher educators, but the exit interviews also created a reflective moment for the participants. Finally, we twice sent the participants a follow-up questionnaire (six and eighteen months after concluding the project).

When	What	Goals
April	Introduction	Getting to know each other; creating a safe learning environment; sharpening research questions.
May	Data collection	Sharpening research questions; discussing suitable research methods; creating the feeling of belonging to a research community; motivating (message from an international expert).
June	Data analysis	Sharpening research questions and methods of data collection; creating the feeling of belonging to a research community; motivating.
September	Presentations	Presentations and discussion of the ongoing studies. Focus on contents. Starting with outlining papers.
October	Presentations	Presentations and discussion of the ongoing studies. Focus on recognising the uniqueness of each study. Exchanging first experiences of writing a paper.
November	Writing	Discussing papers in progress. Focus on creating a positive and proud feeling about the progress being made.
December	Meeting with an international expert	Meeting with a Flemish critical friend. Focus on both contents of the papers and the feeling of being part of the international self-study community.
January	Evaluation and wrapping up	Deepening reflection on the process as a whole and stimulating the final step towards publication.

Table II. Overview of contents and goals of the group meetings.

Data Collection

We used the following three data sources:

1. *The digital logbooks.* In these, guided by a number of questions, the teacher educators reported on how they perceived their own development with respect to conducting research and becoming a scholar, and on the factors and critical incidents influencing this development. Examples of logbook questions were:

What have you gained during the last few weeks with regard to (a) the content of your research theme, and (b) research skills?

What has supported your progress and what has hindered it?

What are your plans for the next few weeks, and what do you need in order to be able to go on?

Every three weeks, we emailed these questions to the participants, who also answered by email.

2. *The exit interviews.* As noted before, a year after the start of the project, semi-structured exit interviews were held with the participants. As described above, the focus of the exit interviews was an in-depth evaluation of the process of conducting a self-study. As preparation, we asked the participants to re-read their logbooks. Moreover, we selected fragments from the intake interview, which we showed and discussed during the exit interview. In this manner, together with the participants, we constructed an overview of the participants’ learning processes.

Questions in the exit interviews were, for example:

How do you perceive your role as a teacher educator? How do you feel about research?

Next, we showed the fragment of the intake interview and asked: *Do you see similarities or differences?*

Other questions in the exit interview were:

What supported your progress (with regard to the group, our support, and/or other factors)?

What was inhibiting (with regard to the group, our support, and/or other factors)?

3. *The follow-up questionnaires.* In these questionnaires, we repeated some important questions from the exit interview and also asked the participants whether or not they had used their experiences with self-study during, respectively, the six and eighteen months since the conclusion of the project; what had supported or hindered a follow-up, and what we, as facilitators, could have done to remove any inhibiting influences.

Data Analyses

We analysed the data following a grounded theory approach (Strauss, 1987; Strauss & Corbin, 1998), adopting an inductive analysis (Patton, 2002). We opted for the grounded theory approach because of the absence of a clear definition of the concept of professional identity (see the Theoretical Background section). We used the following procedure: in the digital logbooks, the interviews and the follow-up questionnaires, statements were identified in which the participants refer to their self-understanding or describe a development - for example: 'Now I am ...', 'I now see myself as ...', 'I feel ...', 'I am more ...', 'Now I act differently when ...'. So, self-understanding as defined by Kelchtermans (2009; see the Theoretical Background section of this article) was used as a sensitising concept.

Building on individual coding of the texts, categories were developed in relation to the research question. To strengthen the internal validity of the analysis, two researchers independently conducted each analysis. The results obtained were then compared and differences were discussed and decided upon. In sum, we used triangulation of data sources and researchers (Yin, 1994; Patton, 2002).

Findings

The following four categories, representing four aspects of the development of a professional identity, emerged from the analyses:

- Theoretical growth
- Greater awareness of an ongoing development
- A shift towards the production of knowledge
- Growth in self-confidence.

Below, we elaborate on each aspect.

1. Theoretical Growth

Before participating in the project, reading literature was not at the front of the teacher educators' minds, among other things because it was not easy to decide upon what to read. Reading literature that was related to a self-chosen research question, however, helped the participants to connect their daily experiences to theory, to underpin their findings, or to put a question mark to the theory (Krol & LaBoskey, 1996). Focusing on a specific research question proved to be an excellent way of promoting the search for and studying of the literature, as the following statements show:

Reading articles helped. Often, I have the idea that I should be able to do it all. Then it is good to read how complex teacher education is. Moreover, it gives a good feeling to find theoretical grounds for one's own vague notions. (Kathleen, digital logbook)

I have a focus now and that makes it easier to stay up to date. It is easier to select what I want to read. Instead of broadening my knowledge, I am now deepening it and that improves my

teaching ... The idea of conceptual change was really an eye-opener: it helped me to name and understand what happens in my classes. [Ron, exit interview]

The participants also discovered that it is not self-evident that a theory exactly fits every practice. This is a characteristic of the development of a scholarly identity, according to Coppola (2007). Karen, for example, used four metaphors, developed in research by Van Gog (2006), for analysing her data, and concluded that they did not cover all aspects of her practice:

With regard to the use of metaphors for analyzing my data, I need to develop an additional one. (Karen, digital logbook)

The participants report that due to their conducting a self-study, reading theory has not only become a more regular part of their work, but they have also started to enjoy this reading. Two examples:

I always felt more of an acting than a learning person. I did read, but it did not really sink in. But now, last week I got a report on professional development from one of the facilitators, and one evening I started reading it and it felt like relaxation. (Karen, digital logbook)

Compared to last year, theory has become more important. ... I am much more involved in theory and I enjoy studying literature. (Arthur, exit interview)

Coppola (2007) describes being informed – that is, being knowledgeable about the problem at hand, about how to find literature, and about how the problem fits into the international research discourse - as another characteristic of scholarship. Our findings suggest that self-study research adds a subjective element to this description; that is, eight of the nine participants spontaneously reported that they also enjoyed the reading.

2. Greater Awareness of an Ongoing Development

During the project, the participants became more and more aware of the fact that every answer leads to new questions. The transition from reading and data collecting to writing was one of the moments that this became explicit, as the following statements show:

I am reading and writing at the same time. I have the feeling that I should read more, but the facilitators emphasize that although research is never finished, you have to deliver a product: a paper! (Karen, digital logbook)

I have learnt that sometimes I have to stop reading. That it can be enough for the moment and that you have to move on. (Ann, digital logbook)

The connection between findings and practice also showed that research does not offer final solutions, but can be a start for further development, as Kitty and Arthur both report:

I am still changing. Using students' experiences is complex, but I am getting better and better at recognizing what is important. I am not sure if I always ask the right questions, but I see what happens and that offers new possibilities to me as a teacher educator. (Kitty, exit interview)

My self-study showed that studying my own practice helps to better underpin what I do, to deepen my practice, so that my teaching becomes stronger and more coherent. (Arthur, exit interview)

Only Fiona had her doubts. She was sceptical about the connection between her study and her practice and she felt a tension between what she would like to do as a researcher and the room for manoeuvring she experienced in her practice:

I have read a lot, and I know from my study how my students think about inspiration, but I am not sure whether or not I can use this in my teaching. I could use a positive impulse here. Each day's work is so dominating and ideals are sometimes so far away. (Fiona, digital logbook)

The increasing awareness that development is an ongoing process also provoked a change in attitude. Ron describes this as follows:

Participating in the project forced me to make room for thinking, reading and writing. ... That has become more of an attitude now: taking the liberty to read, to formulate questions, to think and to document what you do. (Ron, follow-up after 6 months)

Karen notes:

I have discovered I like doing research! My ability to look at a situation from a research stance is growing. I can switch from a teacher educator to a researcher perspective and vice versa. (Karen, digital logbook)

Conducting self-study research also pointed the participating teacher educators towards the richness of data available in their practices, and the opportunities this offers for further development. Ben, for example, says:

It is the feeling that data are everywhere. For example, lying next to me is a pile of student papers about their learning. ... I will analyze these together with a colleague and discuss the outcomes with the students. The discussion will be videotaped, which is something I have learned from you. (Ben, follow-up after six months)

The answers to the follow-up questionnaires show that participation in the project has stimulated a continuing development. The participants have developed a research perspective, they read more, and recognise available data. The self-study approach stimulates them to relate the continuing development of theory and practice to their own learning and development. This is in line with Conway's (2001) view, as described in the Theoretical Background section of this article, that professional identity is embedded in a process of interpretation and re-interpretation, and that this is an ongoing process, dynamic, and not static.

The participants also emphasised the contribution to their development of working as a community. This is in line with findings from Coldron & Smith (1999) and from Beijgaard, Meijer & Verloop (2004), who point to the influence of relationships with others upon the development of a professional identity. The following quotations illustrate this point:

The group made the meetings more important. The chemistry between us was very pleasant. The openness, the fact that everyone was struggling, and that you all experience the trajectory in a comparable way. (Arthur, exit interview)

The joint reflections at the beginning and end of the meetings were extraordinary. At those moments, I really felt one with the others. Joint reflection on one's practice is very helpful. Everyone should have time for this. (Kitty, exit interview)

3. A Shift towards the Production of Knowledge

Another key aspect was the transition from being a knowledge consumer to also becoming a knowledge producer (Lunenberg & Hamilton, 2008). The participants (1) learnt how to generate knowledge; (2) used this knowledge to improve their practices; and (3) contributed to the public knowledge base of teacher education.

First, the participants learned the craft of doing research and discovered what they did and did not like about it. Ann writes in two subsequent logbooks:

Research asks for organizational talent and stamina to collect all questionnaires. I did lose my feeling of flow. (Ann, digital logbook)

Interviewing is my thing. I am content about my attitude, calmness, the way I continued asking questions, and so forth. (Ann, digital logbook)

The participants learned that carrying out research means organising and presenting your data systematically. In the project 'Teacher Educators Study Their Own Practices', they were expected to present their work to each other rather early in the process. This proved to be useful. Karen writes in her digital logbook:

Because I had to prepare the presentation, I had to structure all I had done thus far. I had to find the essence of the literature, of the video-analysis, of the questionnaires in relation to my leading question. This proved very useful. (Karen, digital logbook)

In the exit interview, Kitty emphasised that she had learned that research requires skills and patience:

I have made so much progress with regard to research. ... I know more about research skills, and about research as a craft. (Kitty, exit interview]

Second, the participants generated knowledge they could use in improving and further developing their own teacher education practices and pedagogical approaches. Carrying out a self-study supported the participants in more adequately using information sources available in their daily environment (evaluation forms, student views and student portfolios). Karen reports that her self-study had generated knowledge about her students' views and thinking. The following statement illustrates this:

I now know more about the learning processes of my students. I already knew a lot, but now I also know the literature on student learning. Moreover, I know how my students view me as a teacher. (Karen, exit interview)

Ronald, too, explicitly mentions how the results of his study help him in further improving his practices. He feels that he became more capable of deciding when to present what information to his students. In his logbook he writes:

I am more capable of making choices, of not offering too much information to the students, but to create time and space for them to internalize information and to learn how to use it in practice. (Ronald, digital logbook)

Summing up, conducting self-study research helped the participating teacher educators to clarify vague feelings, to underpin vague notions, to develop a language naming what is going on in their teacher education practices, and to use existing knowledge. Kitty summarises this as follows:

Now I can better explain why I teach the way I do; the 'teach as you preach' principle. (Kitty, digital logbook)

Third, the participants contributed to the existing knowledge base on teacher education. They presented their findings to colleagues at conferences, and wrote papers.

Karen, for example, presented her study several times, to, among others,

... a group of fifteen school principals co-operating with our teacher education institute, I presented our work as a school-based language group and my study into the facilitators' role. They were very interested. (Karen, digital logbook)

Ron also emphasises the importance of presenting his study to colleagues, as the following shows:

My presentation to colleagues has been received with huge interest, also by my manager. The result is that I got the opportunity to carry out a follow-up study. (Ron, follow-up after 6 months)

The participants have also made the results of the studies publicly available. The list numbering the conference presentations and publications, both national and international, exceeds 25 (see e.g. Thomas & Geursen, 2010; Rentrop, 2010; Geursen et al, 2010), and even more products are in the works. Hence, the participants have attained ownership of a language that allows them to share their knowledge with other academics. Stories have become substantiated research papers. Clandinin & Connelly (2000) name this a transition from practical writing to academic writing. According to Coppola (2007), providing the kind of documentation of your work that allows others to evaluate it without their being present is also characteristic of scholarship. The participants have made their work transparent, and in doing so, have also made it trustworthy to others.

4. Growth in Self-Confidence

Our study shows that carrying out a self-study enhanced the self-confidence of eight out of the nine participants. Fiona is an exception. We already mentioned above that she did not feel a connection between her self-study and her practice. She also discovered that she did not like to conduct research, as the following statement shows:

You always asked us if we were struggling, which presupposes that struggling means learning. But I don't want to struggle. I experiment and use what works, I don't struggle. It's too heavy for me. (Fiona, exit interview)

Her sense of duty, however, made her carry on, until we decided to speak to her and, on the basis of this meeting, she came to the conclusion that it was better to stop:

I had started so enthusiastically it made it difficult to confess to myself that I did not like it. And I am still surprised how it could have gone so wrong. It was difficult to let it go. Your permission was important, but after the decision had been made, my research immediately felt very far away. (Fiona, exit interview)

The other participants grew, both as teacher educators and as researchers. Ben reports an identity change from feeling a teacher into feeling a teacher educator:

I am more than a teacher-plus now ... I have the feeling that this year, I have become a teacher educator ... thanks to carrying out my self-study. I have worked with other teacher educators, who acted as a mirror to me; I now have a feeling of belonging. Now I know there is a shared base from which all of us work. (Ben, exit-interview)

Karen also reports increased self-confidence, as the following shows:

I know more about myself. There is no reason to be humble. I am allowed to recognize my own knowledge, and to share this with my students, because they appreciate this sharing. And I also allow myself to withhold information. (Karen, exit interview)

The participants say that carrying out a self-study has broadened their horizon and enables them to change perspective or role. As Anne writes:

My perspective has changed. Instead of thinking from the program perspective, I think from the students' perspectives. (Ann, follow-up after 6 months)

The participants' self-confidence as a researcher has also increased. Karen states:

My self-confidence has grown: I am able to do this, I am clear, I am able to analyze data. I conquered my fear of writing, because I discovered that everyone writes 24 drafts. (Karen, exit interview)

Our study confirms Nias' finding (1996) that the development of a professional identity implies emotional development, and it shows how far-reaching the process of enhancing self-confidence can be. Ben describes it as follows:

I have discovered that I am able to help myself get out of the quagmire. ... I have conquered myself: I have studied my own vision and now I am even capable of communicating about it. It has been a struggle, but now I am able to share my vision. (Ben, exit interview)

And Kitty states:

It is all about courage. It is about finding a personal way to use insights and models. Before participating in this self-study project, I was never on the screen, I kept myself outside. (Kitty, exit interview)

Conclusion and Reflection

In this article, we have tried to find an answer to the following question: Does conducting self-study research support the development of teacher educators' professional identities, and if so, how?

The amount of literature on teacher educators' professional identities is minimal, but the available sources suggest that the development of a personal pedagogy for teacher education and the development of scholarship are two key elements in the identity of teacher educators. From studies on the development of *teacher* identity, it becomes clear that identity development takes place in relationships with others, and that it is a process of interpretation and re-interpretation. Identity development involves emotional development, and leads to a better self-understanding.

Our study focused on the project 'Teacher Educators Study Their Own Practices', in which we supported teacher educators in conducting self-studies. In order to answer our research question, we analysed interviews with the participants in the project, their digital logbooks, and their answers to follow-up questionnaires. Following a grounded theory approach, we found four aspects pointing to a confirmative answer to the leading question of how self-study research supports the development of teacher educators' professional identities – namely, theoretical growth, greater awareness of an ongoing development, a shift towards knowledge production, and growth in self-confidence.

With regard to the first aspect (theoretical growth), conducting a self-study gave the participants a focus in their reading of the literature, because they wanted to become knowledgeable about the subject of their self-study, frame their research question, and underpin their findings. It is interesting that most participants also report that they have learned to enjoy the reading of literature. This finding has also taught us that it is not easy for busy teacher educators to find their way through the available literature. In this respect, support is needed. In the context of this project we offered this support, but we also concluded that it would be useful to develop a website that gives teacher educators access to the knowledge base of teacher educators. In March 2010, this website was launched in the Netherlands (for an impression in English, see <http://www.kennisbasislerarenopleiders.nl/english/index.html>). A current project is aimed at extending this initiative towards a European website.

With regard to the second aspect (greater awareness of an ongoing development), our study confirmed that teacher educators' identity development, like teachers' identity development, takes place through relationships with others and is an ongoing process, dynamic, and not static. Besides having our support as facilitators, in both cohorts it was also important that the participants worked as a community and shared the ups and downs of going through the research process. This shows that self-study research can contribute not only to strengthening the professional identity of individual teacher educators, but also offers possibilities to strengthen the status and position of the broader professional community of teacher educators.

With regard to the third aspect (a shift towards knowledge production), we found that the participants made a transition from being knowledge consumers to also being knowledge producers: not only did they learn how to produce knowledge, but almost all of them also produced knowledge that both supported the improvement of their practices, and contributed to the knowledge base of teacher education. So, in a bottom-up manner, they contribute to more evidence-based practices in teacher education.

With regard to the fourth aspect (growth in self-confidence), most participants have become more certain about their own capacities, and have started to show more self-understanding. This can help them to feel more self-assured when asked to support research projects of their students. The participating teacher educators, however, also stress that this process of becoming more self-confident is not self-evident, for it implies an emotional struggle demanding courage.

In conclusion, our study shows that conducting self-study research supports the development of teacher educators' professional identities. The focus of the project 'Teacher Educators Study Their Own Practices' was on supporting the participants in conducting research. Taking this into account, it is understandable that the project supported the development of this key element of a teacher educator's identity. The production of knowledge related to one's own practices, and the growth in self-confidence, however, also supported the development of the other key element of a teacher educator's identity – namely, the development of a personal pedagogy of teacher education.

Self-study research appears to be far-reaching. It requires from teacher educators the courage to be vulnerable. As Austin & Senese (2004, pp. 1235-1236) write:

When I reframe my research as self-study, I enter through another door, the door of the self. ... It requires that I put myself, my beliefs, my assumptions, and my ideologies about teaching (as well as my practice) under scrutiny. ... The impact lies in the belief that how one teaches and what one teaches is a product of who one is and what one believes to be true.

Self-study research also appears to support ongoing professional development. Six and eighteen months after finishing their self-studies, the participating teacher educators filled in a follow-up questionnaire. The answers showed that the participants had developed a research perspective,

kept up to date with the literature, and continued to collect data, and to write. Not only they themselves but also their environment had observed they had changed, which led to promotion, to getting facilities to continue their research, to getting more requests from students to support their writing of research papers, or to being asked to teach a research class.

Methodological Remarks

The outcomes of this study seem rather positive. It has to be noted, however, that we were the facilitators as well as the researchers of the project 'Teacher Educators Study Their Own Practices'. We organised the process and the learning community, and in so doing introduced values and norms about conducting self-study research. We also supported the participants when needed. Hence, in a way we had quite some influence on the outcomes of the study.

Another critical remark that can be made is that self-reports of the participants form an important part of our data, which can lead to subjective misrepresentations. However, we have had many opportunities for closely observing the learning processes of the participants, something that enhances the validity of the self-reports. Moreover, the participants' presentations and publications illustrate the reported learning results. The answers in the follow-up questionnaires also confirm the positive results.

Finally, this was a rather small-scale study. Supporting teacher educators in carrying out a self-study is an intensive and-time consuming activity, so the group had to be small. This leads to the important question of how more teacher educators can be supported in conducting self-studies. We feel that it would be important to start variations on our project, in other countries also, and to study the key issues for supporting the development of teacher educators' professional identities through self-study research.

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