THE ROLE OF TEACHING COURSES AND TEACHER COMMUNITIES IN STRENGTHENING THE IDENTITY AND AGENCY OF TEACHERS AT UNIVERSITY MEDICAL CENTRES

CHAPTER 5
ABSTRACT 6

Many teachers who work at university medical centres struggle with the poor reputation of teaching compared to research and patient care. Although formal and informal professional development activities have been shown to contribute to a strengthened identification with teaching, the underlying processes remain unclear. In this qualitative dominant mixed-methods study, the ways in which teacher communities and teaching courses strengthen teachers’ identity were investigated. The results showed that both strengthen teachers’ sense of competence and their sense of agency. Additionally, while teaching courses also strengthen teachers’ identification with the profession, teacher communities strengthen a sense of connectedness. Both teaching courses and teacher communities therefore strengthen medical teachers’ identity, albeit in different ways.

6 Resubmitted for publication
INTRODUCTION

THE TEACHING ROLE AT UNIVERSITY MEDICAL CENTRES
This paper is concerned with teachers who work at university medical centres. University medical centres have a triple responsibility: providing high-level patient care, conducting scientific research and educating future generations of physicians. Over the last few decades, these medical centres have faced increasing pressure to meet clinical productivity standards, increased competition for research grants and increasing administrative requirements regarding education (Smith & Bunton, 2012). Studies have revealed widespread disillusionment and a high turnover rate among medical centre faculty members, as well as a decline in interest in academic medical careers among graduating medical students and residents (Dornan, 2009; Pololi, Krupat, Civian, Ash & Brennan, 2012; Smith & Bunton, 2012). It is the teaching task in particular that faces the risk of becoming less attractive to faculty members, since at many medical centres teaching is not recognised as a criterion for advancement or promotion, but rather is implicitly expected as a service to the profession (Paslawski, Kearney & White, 2013; Steinert & Macdonald, 2015). Although many medical teachers enjoy the energising interactions with their students and the opportunities teaching provides for their own continuous professional development, they also struggle with the poor reputation of teaching when compared to research and patient care, which leads to a lack of self-esteem and a reluctance to identify as a medical teacher (Hu et al., 2015; Sabel & Archer, 2014; Steinert & Macdonald, 2015; Van Lankveld et al., 2016b). It is thus important to reinforce the energising and motivating factors inherent in teaching in order to increase continuity on the part of medical teaching staff, which should eventually lead to a better quality of medical education and, therefore, a better quality of patient care in the future.

AN IDENTITY PERSPECTIVE
It is useful to approach this problem from an identity perspective, since teacher identity has been shown to be related to motivation, job satisfaction, self-efficacy and commitment (Flores & Day, 2006). Drawing on a socio-cultural perspective, we define identity as “a
self-understanding to which one is emotionally attached and that informs one’s behavior and interpretations” (Holland & Lachicotte, 2007, p. 104). Medical teachers who strongly see themselves as teachers and who feel emotionally attached to the teaching role construct their ideas of ‘how to be’ and ‘how to act’ in light of this teacher identity. The category of ‘teacher’ then becomes a structural part of their thinking and reasoning (Akkerman & Meijer, 2011; Beauchamp & Thomas, 2009; Holland & Lachicotte, 2007).

Developing a teacher identity is characterised as a dynamic and difficult process (Beijaard, Meijer & Verloop, 2004). In our earlier review of studies concerning the identity of university teachers, we identified four psychological processes involved in developing a teacher identity (Van Lankveld, Schoonenboom, Volman, Croiset & Beishuizen, 2016c). First, teacher identity is strengthened when university teachers feel a sense of appreciation for their work. This does not require an appreciation of their personal merits, but rather of the teaching task in general. Second, the teacher identity is strengthened when teachers experience a sense of connectedness to other teachers, which implies a sense of mutual trust and of a shared enterprise. Building collegial relationships with like-minded colleagues is thus an important way to contribute to a stronger identity as a teacher. Third, teachers identify with the teaching role when they experience a sense of competence in that role and when others recognise this competence. Finally, teacher identity is strengthened when teachers are able to imagine their future career trajectory as a teacher. That is, when they can envision themselves advancing their career based on their educational merits.

**The role of professional development activities**

Professional development activities can play an important role in strengthening teacher identity, since they can serve to bring like-minded teachers together, and provide opportunities to build collegial relationships with other teachers and hence develop a sense of connectedness and engagement, as well as offering a sense of appreciation. Furthermore, in professional development activities, teachers can build a sense of competence and can meet role models which might stimulate their imagining of a future career trajectory as a teacher. Marsick and Watkins (2001) distinguished between formal and informal approaches to professional development. Formal
approaches involve planned and structured programmes such as workshops, seminars or longitudinal certificate programmes, which are typically institutionally sponsored, classroom-based and structured by a teacher or course leader. In informal approaches, control over learning primarily rests in the hands of the learners. While informal approaches are intentional, they are not usually highly structured and they do not follow a predefined curriculum (Marsick & Watkins, 2001). The informal approaches include, for example, teacher communities: groups of teachers who voluntarily gather on a regular basis in order to develop and share knowledge by exchanging experiences in a self-organised way (Gercama, Van Lankveld, Kleinveld, Croiset & Kusurkar, 2014).

Prior research has shown that both formal and informal approaches to professional development contribute to a strengthened sense of identification with teaching. Explorative studies have found that participants in formal approaches, for instance teaching courses and postgraduate programmes, increasingly come to see themselves as teachers (Lieff et al., 2012; Skelton, 2013; Starr, Ferguson, Haley & Quirk, 2003; Warhurst, 2006). Similar results have been found for informal teacher communities (Macdonald, 2001; Van Lankveld et al., 2016a). It remains unclear however how formal and informal approaches to professional development strengthen teachers’ identification with teaching and what processes are involved. Several authors have argued that research on professional development activities should move away from a focus on effects and towards a focus on understanding the underlying processes and working mechanisms so as to capture the complexity of what occurs during and following professional development interventions (Steinert et al., 2006). In order to more effectively support medical teachers, it is necessary to understand these processes and develop insight into the separate contribution(s) of both formal approaches such as teaching courses and informal approaches such as teacher communities. Therefore, the research question that informed this study was: In what ways do teacher communities and teaching courses strengthen teacher identity?
Chapter 5

CONTEXT

In this study, we investigated two groups of medical teachers involved in a teaching course and two groups of medical teachers involved in teacher communities, both of which were located at the same Dutch medical centre. This centre is the result of a recent merger between the university medical school and a large local academic hospital. Like other university medical centres in the Netherlands, it provides high-standard patient care, scientific research and education (that is, bachelor’s, master’s and postgraduate degrees in medicine). That is not to say all medical teachers are involved in all three tasks, since many teachers are often only involved in two: (1) research and teaching or (2) patient care and teaching. Additionally, a growing number of medical teachers are focused on teaching only and hence do not combine it with other tasks. Teaching tasks can include, for example, acting as a tutor on the bachelor’s programme, which involves guiding small groups of students in their learning process; developing course material; conducting bedside teaching at the hospital during the first stage of the master’s programme; or educating residents or junior doctors in the hospital during the postgraduate stage. The educational work undertaken at the medical centre is characterised by a hierarchical culture and a strong division of labour; course design, assessment design and actual interaction with students are often the responsibility of different people. Some staff members are also involved in the bachelor’s and master’s degrees in health sciences or biomedical sciences taught at the associated university.

THE TEACHING COURSE

The teaching course investigated in this study aimed to support beginning medical teachers and addressed the complete educational process: designing learning situations, classroom teaching and assessment. The teaching course was part of a teaching qualification programme for university teachers that leads to a nationally recognised university teaching qualification (VSNU, 2008). Spread over a period of five months, the course consisted of eight meetings, each of which lasted for three hours. The eight meetings were characterised by active collaborative learning assignments, role plays, reflection and provision of feedback on participants’ teaching
materials, as well as collegial feedback on videos of participants’ teaching performance. Short video clips of teaching situations were often used for observation and discussion assignments. The course leader played an active, leading role and used a diversity of educational methods.

Two successive groups that participated in the course were involved in this study: one attended the course from February to July 2012 and the other from September 2012 to February 2013. The first group consisted of ten participants, the second of 11. The tasks undertaken by the participants were varied; some of them were tutors on the student-centred bachelor’s programme in medicine or else taught small groups as part of one of the other bachelor’s or master’s programmes, while others mainly worked on developing course material and coordinating courses. Four participants supervised residents or junior doctors at the academic hospital, although most of the participants did not because they only taught on undergraduate or graduate programmes (bachelor’s and master’s phases). Attending the course was voluntary for most of the participants. In general, the participants were highly motivated and eager to invest in their professional development as teachers. Both groups were taught by the same course leader.

THE TEACHER COMMUNITIES
The teacher communities involved in this study focused on the role of tutors in the bachelor’s programme in medicine, whose task it is to support and guide the joint learning process of students in small groups of 12 students and assess both their professional behaviour in the group and their presentation skills. Over a period of 20 weeks, five meetings of one hour and 15 minutes each were organised for the tutors during lunchtime. In these meetings, the tutors discussed common problems, collaboratively explored solutions and exchanged experiences. The problems they discussed were usually directly related to their working practice.

The two groups that were followed in this study were both active from September 2012 to February 2013. One group consisted of six participants, the other group of ten. The participants in the first group all were tutors on the first year of the bachelor’s programme, while most participants in the second group were tutors
on the second year of the programme. Participation in the teacher communities was voluntary. The two teacher communities were guided and chaired by two different experienced tutors.

The exchanges in the first group were centred around themes and questions raised by the participants, for example, about ‘difficult’ groups or ‘difficult’ students and about their approaches to enacting the tutor role. In the discussions of the second group, actual questions were sometimes lacking, which led to an intense though rather superficial exchange of views rather than an exploration of the background to a question and consideration of possible solutions. On two occasions, the facilitator of the second group asked the tutors for feedback regarding educational procedures in order to submit it to the educational organisation for quality improvement.

METHODS

In this qualitative dominant mixed-methods study, we investigated two groups of medical teachers involved in a teaching course and two groups of teachers involved in teacher communities. Qualitative-dominant mixed-methods research is characterised by a reliance on a constructivist/poststructuralist/critical research paradigm, while also recognising that the addition of quantitative data is likely to benefit the study (Johnson, Onwuegbuzie & Turner, 2007). In order to understand the processes that take place during both approaches to professional development, as well as to understand the way in which the teachers give meaning to these processes, we gathered observational data in addition to interview, logbook and questionnaire data for the four groups. Ethical approval for the study was granted by the ethical review board of the Dutch Association for Medical Education [NVMO reference number 169]. The participants were informed about the aims, methods and confidentiality of the study prior to participation and they all provided written informed consent. The names reported in this article are pseudonyms.

PARTICIPANTS

In total, 37 teachers participated in the teaching course and teacher communities. Twenty-three of them (equally divided over the four
groups) agreed to voluntarily participate in this study (see Table 1). Most participants were involved in small group teaching on one of the bachelor’s or master’s programmes. Most of the teachers had only limited experience of teaching, especially the participants in the teacher communities. Only one participant was a specialist medical practitioner who combined teaching during the postgraduate phase with patient care. All the others either combined teaching with research or else were primarily involved in teaching. The groups were comparable in terms of age, gender and the proportion of time spent teaching (see Table 1).

Table 1. Research participants’ demographic information.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pseudonym</th>
<th>Gender</th>
<th>Age</th>
<th>Position</th>
<th>Teaching experience (in yrs)</th>
<th>% time spent teaching</th>
<th>Phase</th>
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<th>Group</th>
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<th>Age</th>
<th>Position</th>
<th>Teaching experience (in yrs)</th>
<th>% time spent teaching</th>
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<td></td>
<td>Esther</td>
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<td>0</td>
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<td>BA</td>
</tr>
<tr>
<td>2</td>
<td>Margriet</td>
<td>F</td>
<td>35</td>
<td>Teacher</td>
<td>5</td>
<td>80</td>
<td>BA, MA</td>
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<tr>
<td></td>
<td>Leon</td>
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<td>Teacher</td>
<td>0.5</td>
<td>100</td>
<td>BA</td>
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<td></td>
<td>Patricia</td>
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<td></td>
<td>Leonie</td>
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<td>26</td>
<td>Teacher</td>
<td>2</td>
<td>100</td>
<td>BA, MA</td>
</tr>
<tr>
<td></td>
<td>Lotte</td>
<td>F</td>
<td>25</td>
<td>Teacher</td>
<td>1</td>
<td>100</td>
<td>BA</td>
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<tr>
<td></td>
<td>Jos</td>
<td>M</td>
<td>62</td>
<td>Researcher</td>
<td>8</td>
<td>90</td>
<td>BA</td>
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</table>
DATA COLLECTION
To study the activities and interactions undertaken during the teaching course and teacher communities, the groups’ meetings were observed. Three of the groups were video recorded. Due to the objections of one participant in one of the teaching course groups, the meetings of that group were audiotaped. Furthermore, two interviews were held with each of the teachers who agreed to participate in the study in order to investigate identity development and reflect on the contribution of the professional development activity on this development. The first interview was held after the first group meeting, while the second was held two to four months after the final meeting (Figure 1).

![Figure 1. Data collection timeline.](image)

In between the two interviews, the participants kept a logbook regarding their experiences as a teacher, first on a weekly basis and later on a two-weekly basis. The first interview focused on the participants’ experiences of being a teacher and their reasons for participating in the course or community. In the final interview, the participants reflected on the development of their identity as a teacher and the way the course or community had contributed to this development. In order to help focus the interview, we asked the participants to complete a short questionnaire (Table 2), which included two general items about their teacher identity and five items representing aspects that contribute to identity. The aim of the questionnaire was to provide initial insight into the contribution(s)
of the teaching course or teacher community on the medical teachers’ identity. During the interview, we asked the participants to further explain and elaborate on their answers to the questionnaire (Pawson & Tilley, 1997). We also asked the participants to elaborate on relevant instances from their logbooks, as selected by the first author. The interviews were conducted by the first author, an educationalist with experience of qualitative research methods. The interviews were audio recorded and transcribed fully.

Table 2. Questionnaire.

<table>
<thead>
<tr>
<th>Questions in questionnaire</th>
<th>(Self-concept)</th>
<th>(Positive image of the profession)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher identity</td>
<td>The [teaching course/teacher community] has made me view myself less / equally / more as a teacher.</td>
<td>The [teaching course/teacher community] has made me think more negatively / the same / more positively about the teaching profession.</td>
</tr>
<tr>
<td>Sense of appreciation</td>
<td>The [teaching course/teacher community] has made me feel less / equally / more appreciated.</td>
<td></td>
</tr>
<tr>
<td>Sense of connectedness</td>
<td>The [teaching course/teacher community] has made me feel less / equally / more connected to the local teaching community within the medical centre.</td>
<td>The [teaching course/teacher community] has made me feel less / equally / more connected to the teaching community in general.</td>
</tr>
<tr>
<td>Sense of competence</td>
<td>The [teaching course/teacher community] has made me feel less / equally / more confident as a teacher.</td>
<td></td>
</tr>
<tr>
<td>Imagining a future trajectory</td>
<td>Now that I have participated in the [teaching course/teacher community], I see myself less / the same / more as a teacher in the future.</td>
<td></td>
</tr>
</tbody>
</table>

**Data Analysis**

First, the questionnaire data were analysed in frequency tables. This provided a first impression of the contributions of the teaching course and teacher communities to teacher identity. The psychological processes for which eight (65%) or more of the participants recorded a positive contribution then formed the basis for a qualitative analysis of the interview and observation data in
which we further studied the contributions of the professional development activities to teacher identity. The interview and observation data were coded in Atlas.ti in two phases: initial coding and focused coding (Charmaz, 2014). In the first round of initial coding, we coded the interview data, since these data appeared to provide the most detailed information about the way the teachers had experienced the contributions of the different professional development activities. We began with the four psychological processes derived from our literature review as sensitising concepts (i.e., sense of appreciation, sense of connectedness, sense of competence, imagining a future trajectory), although we made sure to remain open to other contributions and added new inductively generated codes. We also paid attention to changes from the first to the second interviews in terms of teacher identity. In cases where we identified a clear change from the first to the second interview, we made a separate case description of the relevant participants. In order to obtain a lively picture of the activities and interactions involved in the teaching course and teacher communities, we then watched and listened to the video- and audiotapes of the meetings. Episodes that seemed relevant to the participants’ identity were transcribed. By rereading and constantly comparing the data and visualising relations in diagrams, we were able to interpret the contributions of both approaches to professional development. This resulted in the identification of four processes involved in strengthening teacher identity, which were partly changed and partly more specific than the processes we had started with as sensitising concepts. These four processes were: strengthening a sense of competence, coming to think more positively about being a teacher, increased visibility as a teacher, and developing a sense of connectedness. In the second round of focused coding, we then returned to the original data and checked the coded data. Finally, an audit was performed in which someone from outside the research team checked the conclusions of the study against the accompanying data. In the final description of the results, both the data from the frequency tables and the qualitative data were combined.
FINDINGS

We found that both the teaching course and teacher communities strengthened the participants’ identity as a teacher, albeit in different ways. First, both approaches to professional development contributed to a sense of competence. Additionally, we identified two contributions of the teaching course that we did not encounter in the teacher communities: coming to think more positively about being a teacher and recognition of competence by others. In the teacher communities, on the other hand, we identified one additional contribution that was not encountered in the teaching course: developing a sense of connectedness. We found participants’ sense of appreciation and their imagination of a future career trajectory to only be strengthened to a limited extent in both the teaching course and the teacher communities (Table 3).

Table 3. Frequency contributions of the teaching course and teacher communities to teachers’ identity.

<table>
<thead>
<tr>
<th>Contribution of teaching course (n=12)</th>
<th>Contribution of teacher community (n=11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher identity</td>
<td></td>
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<tr>
<td>(Self-concept)</td>
<td>1 2 9 0 6 5</td>
</tr>
<tr>
<td>(Positive image of the profession)</td>
<td>0 4 8 0 6 5</td>
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<tr>
<td>Sense of appreciation</td>
<td>0 10 2 0 5 6</td>
</tr>
<tr>
<td>Sense of connectedness</td>
<td></td>
</tr>
<tr>
<td>(Local community)</td>
<td>0 6 5 0 1 10</td>
</tr>
<tr>
<td>(Professional community)</td>
<td>0 8 4 0 1 10</td>
</tr>
<tr>
<td>Sense of competence</td>
<td>0 1 11 0 3 8</td>
</tr>
<tr>
<td>Imagining a future trajectory</td>
<td>1 6 5 0 7 4</td>
</tr>
</tbody>
</table>

Note. - negative contribution; 0 no contribution; + positive contribution.

We will now further describe those contributions for which 65% or more of participants recorded a positive contribution, complemented with findings from the interviews and logbooks (particularly from the interviews).
1. **Contribution of Both the Teaching Course and the Teacher Communities**

We found that both the teaching course and teacher communities contribute to a strengthened sense of competence.

*Strengthening sense of competence*

The majority of participants (19 out of 23) indicated in the questionnaire that they feel more confident and competent due to attending the teaching course or teacher community (Table 3). In the interviews, they claimed to feel more secure in the classroom after joining the course or community, as well as to better understand what they were aiming for. Several aspects were mentioned as having contributed to this strengthened sense of competence: new insights and suggestions for further improvement, in addition to confirmation of earlier insights. In the case of the teaching course, reading the literature was also mentioned. The participants compared themselves to their fellow participants and to the standards explicated in the literature. This provided them with confirmation of their own choices and the things they have been doing well:

*I had never been a tutor before and I didn’t know how to go about it. I felt supported by others [in the teacher community] because you don’t know whether [what you’re experiencing] is normal. You actually want to hear from as many people as possible that your choices are correct. (...) Simply to feel that people are behind you.* (Bente, 27, participant teacher community, final interview)

*I always had this feeling that at some point people would notice I was making mistakes. But because of the teaching course, I now have all the basic skills necessary to be a competent teacher. That gives you more confidence and self-esteem. Now I know what I’m talking about.* (Will, 41, participant teaching course, final interview)

2. **Specific Contributions of the Teaching Course**

We identified two contributions of the teaching course that we did not encounter so strongly in the teacher communities: coming to think more positively about being a teacher and the teaching profession and recognition of competence by others.
Coming to think more positively about being a teacher and the teaching profession

The majority of participants in the teaching course indicated in the questionnaire that they had come to think more positively about the teaching profession and also more strongly saw themselves as a teacher after the course (Table 3). In the first interviews, several teachers commented that they hesitated to introduce themselves to others as a teacher, particularly those who had stopped being involved in patient care or research and who had made a career change to fulltime teaching. However, in the final interviews, these teachers claimed to feel proud about being a teacher and hence they had dared to ‘come out’:

I remember that in the first interview you asked me how I would introduce myself at a party and I said: “I am a doctor but I work as a teacher” … an anti-climax. Now I would just say: “I work as a teacher for medical students”, I feel fine saying that now. It’s funny, I’m just more proud of being a teacher. (Vivian, 31, participant teaching course, final interview)

It’s a profession that you can be proud of. Not everybody can be a teacher. It’s not a second-choice job. (Ben, 53, participant teaching course, final interview)

Many participants mentioned that during the teaching course they had come to realise that teaching is truly a profession. They had recognised that teaching is not only broader in scope than they had expected, but also more complex. They realised that it is not simply a matter of telling an interesting story to a group of students, but rather it implies thorough consideration of the linkages between education and assessment, as well as about the place of one’s course in relation to the complete curriculum. Through the role-plays and by watching videos of colleagues and hearing their stories, the participants learned that there are many different educational roles within the medical centre (e.g., tutoring, bedside teaching, teaching practicals, lecturing, small group teaching) and what these different roles look like, whereas prior to the course they were only aware of their own role. As a consequence, they realised that the teaching job was more challenging than they had initially considered it to be, which represented a positive realisation:
I have a sense that a door has opened to a whole new world. In the beginning, I might have had the naïve idea that once I had a teaching qualification, I’d be qualified and that was that, [laughs]. Now I realise that it’s a real profession and that there’s always much, much, much more to learn. I have more and more respect for good teachers. (Lieke, 34, participant teaching course, final interview)

The course leader also appeared to be an important role model in this respect.

I have come to see teaching more positively. The course leader is very inspiring and she shows you that teaching is fun, so she is good influence on me. (Frances, 32, participant teaching course, logbook after meeting 6)

One of the recurring themes we observed in the discussions during the teaching course was the participants’ frustration at having only limited control over, for example, assessment and educational materials. Many participants in the course were in a position where they had to follow protocols and so did not have ownership of materials and assessment. In the discussions, the participants often said to feel powerless. During the teaching course, the participants were invited to analyse the lack of congruence between teaching, learning, assessment and educational material, which helped them to recognise possible ways to change the situation. In the interviews, the participants remarked that this made them feel empowered to take action to address this incongruence and take the initiative to discuss mal-aligned aspects of the teaching process with the colleagues responsible for those aspects, even if that meant they had to deviate from the institutional protocols. This helped make the teaching role more interesting for them:

I’m starting to enjoy teaching more and more, since I’m increasingly seeing how I can make it my own. Before I used to think that it was all about closely following the protocols and that I had to stick to that, like “this is the literature list and it can’t be changed”. But I can actually change that list. I mean, then I would need to change a lot of other things too, so I would have to think about how the practicals would need change and so on…
but I actually like that! Before I thought I had to stay within those confines, but it's actually not like that. (Frances, 32, participant teaching course, final interview)

Notably, for those teachers whose first interview seemed to have a tone of complaint, their tone changed to being a more optimistic and constructive one in the final interview. An example of this change of tone can be seen in Lieke, whose case is described in Box 1.

**Box 1. Case description of Lieke.**

During the first interview, Lieke (34) was quite frustrated with the fact that there were no meetings concerning educational matters in her department. The only person who Lieke had contact with in her role as a teacher was the administrative staff member responsible for the logistic organisation of the courses.

I have been leading this study group for three years now and I have never had any contact with the course coordinator about the content and what the goals are supposed to be. No one from that course comes to tell us “This is the aim, these are the learning objectives”. I find it so strange that the course coordinator doesn’t contact the people who actually teach the lessons. Because there can never be proper coordination between the lectures, the practicals and the study groups, everybody simply does their own thing! (…) I feel as though teaching is not really appreciated. They just don’t appear to understand the importance of good teaching… it’s as if the only goal is to get those hours filled up [in the timetable]… It doesn’t matter who does the job, how it’s done, or what gets done. (Lieke, 34, participant teaching course, first interview)

During the final interview after the course, Lieke indicated that she had started to create opportunities for the informal discussion of education matters herself:

I talk about education more often now (…) It's nice to tell others [what you're learning] and you do see that there's actually a lot of ignorance. So you try to share your knowledge and hope that you can improve the situation a little. So I do have more discussions about it now.

How have you come to have more discussions?

Because I see that the priorities are actually out of balance in our department. There is so little focus on the quality of teaching, so I decided I would try to generate more awareness myself.

And has your new approach produced any results so far?
Well, not that much, I think [laughs]. I guess I can’t expect to make progress that quickly, it’s a slow process that people need to become aware of. (Lieke, 34, participant teaching course, final interview)

Here, Lieke attributed the lack of discussion regarding education to ignorance on the part of her colleagues, rather than to a lack of recognition of teaching, as she did in the first interview, which is considered to be less blameworthy and something she can address herself. When her contribution to the knowledge development of her colleagues did not lead to immediate results, she did not get frustrated (like she did in the first interview), since she recognises that it will require a gradual transformation.

A negative case: Willy

One participant in the teaching course indicated in the questionnaire that the teaching course had actually negatively contributed to her self-concept as a teacher and to her imagining herself a future career trajectory as a teacher. This participant was Willy, one of the few educators attending the course who was a specialist at the academic hospital (and the only such participant in the study) responsible for the postgraduate training of residents and junior doctors on the ward. She explained her answers to the questionnaire as follows:

I felt a bit like an outsider.
In what way?
Well..., often I had to tear myself away from my work with patients, rush to get my things together and then run over [to attend the course]. And then suddenly it was all about teaching and I had to flick a sort of switch in my mind. I didn’t notice that with the others, who were simply involved in education much more [than I am]. (...) The teaching course is more like... you learn a lot about education and course development and so on, which is a bit too in-depth and too detailed for us, in practice. Because you don’t really want to be a teacher really, but you do want to pass on your professional knowledge properly. (Willy, 46, participant teaching course, final interview)

Willy claimed to not really feel ‘at home’ on the teaching course and hence she experienced a divide between herself and her colleague participants, who seemed to be much more involved in teaching
than she was. In the first interview, Willy stated that she primarily saw herself as a doctor rather than a teacher. She considered teaching to be a minor part of her work as a specialist, even though she spent 50% of her working hours teaching. The way she supports and supervises residents and junior doctors on the ward could be considered to be teaching, although she primarily experiences it as patient care. Apparently, the way the teaching course appealed to the professional practice of teachers did not fit with her practice. This might indicate that the teaching course strengthens the identity of those who already identify with the teaching role, but not of those who do not identify with it, to some extent at least, from the start.

**Recognition of competence by others**
The second contribution we identified is that, according to the participants, since they engaged in the course, they were believed to be more of a pedagogical expert by their colleagues.

>This morning, for example, there was a colleague who has to give a lecture next week and she asked: “Could you have a look at it? Because you are more familiar with that aspect of teaching.” That’s the kind of thing they say, it’s so funny [laughs]. (Mark, 27, participant teaching course, final interview)

The teachers believed that participation in the course, and in particular the formal qualification that goes with it, made their commitment to teaching visible to others, whether they be colleagues, management or potential future employers. In their departments, gaining a university teaching qualification was one way for the participants to present themselves as someone with a teaching profile, since it was recognised by colleagues and management as a sign of competence. Almost all participants mentioned that this was one of the key reasons to complete the course.

### 3. Specific Contributions of the Teacher Communities
We found one contribution to be unique to the teacher communities: developing a sense of connectedness.
Developing a sense of connectedness

In the questionnaire, the majority of participants in the teacher communities (ten out of 11) indicated that they experienced a strengthened sense of connectedness to the local teacher community (Table 3). In the interviews, they said to experience a sense of solidarity in the teacher communities and had a feeling they belonged to the local community of teachers, particularly the local community of tutors. In the teacher communities, the participants experienced a shared responsibility for the undergraduate programme:

*You are with a group of people who are all working on the same things at the medical centre. You are all working with first-year students, so in that sense you feel a kind of togetherness. You know exactly what the others are talking about.* (Irene, 27, participant teacher community, final interview)

Many participants in the teacher communities were inexperienced in the role of tutor. As tutoring is quite a challenging task that tutors typically have to face alone, they often felt insecure. By exchanging their experiences and asking questions, they obtained support from each other due to discovering that they are not the only one struggling:

*It was the first semester for me [as a tutor], so I did come across new things. Do I do it well? At first, you think you’re doing things on your own, but then it turns out that they’re very common and that many people are dealing with the same things.* (Jos, 62, participant teacher community, final interview)

In the second group we observed, the participants discussed their concerns about a new procedure that had been introduced by the educational organisation into the second year of the bachelor’s programme. Many students, as well as the tutors, opposed this procedure. In the teacher community, it turned out that the majority of the tutors (about 75%) had decided not to follow the procedure with their student groups. Although a minority felt that they were not listened to due to their different points of view, the others felt reassured that their fellow tutors were facing the same problem and had resolved it in a similar fashion. During the discussion, the
participants collectively reached a consensus about a useful solution, thereby defining a new common approach, even though this new approach was not in line with the institutional protocols. This collective process of searching for solutions also contributed to the sense of connectedness among the participants:

I found it very helpful to be able to vent my frustrations in quite an impolite way about all the experimenting [the new procedure]; “What are they dreaming up in that ivory tower and why don’t they check and communicate with the teaching staff?” (...) It was good to hear that others had the same point of view, like, “What am I supposed to do with this now?” I think we have found a good solution now and at least we have made a consistent plan between the ten of us here. (Leon, 27, participant teacher community, final interview)

CONCLUSIONS AND DISCUSSION

To sum up
This study showed that both formal and informal approaches to professional development contribute to the teacher identity of medical teachers. However, they do so in different ways. While teaching courses particularly strengthen participants’ identification with the teaching profession, teacher communities particularly strengthen their identification with the teaching community. Additionally, both approaches strengthen teachers’ sense of competence.

Discussion: Strengthening teacher identity
In an earlier literature review (Van Lankveld et al., 2016c), we found that teacher identity can be strengthened by enhancing teachers’ sense of appreciation, sense of connectedness and sense of competence, as well as by offering role models that stimulate teachers’ imagining of a future career trajectory as a teacher. In this study, we found some of them to be strengthened in the professional development activities, and some not. We will discuss all four aspects below.

First, in the current study, we found participants’ sense of appreciation to be strengthened by the formal approach, although only on the basis of the interviews, not the questionnaire data. Due to the
teaching course, the participants mentioned having come to think more positively about the teaching profession. During the teaching course, the participants came to realise that the teaching profession is broader and more complex than they had expected it to be. Even though they had some teaching experience, the participants had apparently not easily recognised this complexity prior to attending the teaching course. Coldron and Smith (1999) argued that the craft tradition provides an influential model for the identity construction of teachers. The idea that teaching is complex may have contributed to participants’ higher regard for teaching, thereby making the teaching role more interesting to identify with, especially when there is a simultaneous process of growth in participants’ sense of competence. The example of the one participant who did not recognise herself in her fellow participants of the teaching course, however, shows that this process only occurs when an initial teacher identity is already present.

Second, we found participants’ sense of competence to be enhanced by both the formal and informal approaches to professional development. Furthermore, we identified an increased recognition of that competence to be experienced by the participants of the formal approach. Bourdieu (1992) argued that specialist knowledge and formal qualifications provide an important form of what he calls cultural capital. According to Bourdieu (1992), in knowledge-based organisations, specialist knowledge defines to a great extent how much prestige one has. Since much of the practical knowledge involved in teaching is tacit (Kelly, 2006), the recognition of teachers’ pedagogical knowledge is problematic, which leads to a certain vulnerability on the part of teachers in this respect. In our study, we found the construction of professional knowledge to make an important contribution to teacher identity, with the participants comparing their own experiences to this body of knowledge. For the teaching course, an additional contribution was found, namely the nationally recognised university teaching qualification. In our study, the qualification structure of the teaching course facilitated the recognition of teachers’ professional expertise, which led to increased visibility among colleagues, management and potential future employers. The qualification therefore provided cultural capital to participants.
Third, participants’ sense of connectedness was found to be particularly strong in the informal approach to professional development. This finding is in line with earlier research suggesting that teacher communities allow teachers to create connections with colleagues from other departments and share their concerns (Macdonald, 2001). Wenger (1998) argued that participation in a community constitutes an individual’s identity, since participation in a community allows teachers to compare themselves to others and therefore define their sense of competence. In our study, we found additional processes to be involved, since the teachers also experienced collegial support and a sense of connectedness and solidarity with like-minded colleagues. While previous research has shown that teaching courses can also enable teachers to meet colleagues (Lieff et al., 2012; Starr et al., 2003; Warhurst, 2006), we found this sense of connectedness to only a limited extent among the participants in the teaching course.

Finally, we found participants’ ability to imagine a future career trajectory to only be strengthened to a limited extent. Some participants did mention that the teaching course did affirm their thoughts regarding a career in education, for example, Lieke and Frances. However, this was not the case for the majority of participants. It seems likely that envisioning for oneself a further career in education might be a comprehensive process, with more factors being involved than mere participation in a professional development activity.

**IDENTITY AND AGENCY**

Overall, we found that both approaches to professional development nurtured the teachers’ identity, except for the case of one participant. At the start of both activities, several teachers wrestled with the limited appreciation for teaching when compared to research and patient care. After completing the activities, the participants had rediscovered their intrinsic motivation for teaching. Moreover, they also seemed to have found a new way to relate to their professional activity. Several of them felt empowered to solve problems and felt more confident to deviate from the institutional protocols when necessary. These two examples are related to the notion of agency, which we define as taking responsibility for one’s role in a situation, taking the initiative to enact that responsibility.
and taking responsibility for one’s interpretation of the situation (cf. Edwards, 2015). After both the teaching course and the teacher communities, the teachers felt more confident to take responsibility for their role and to take the initiative to enact that responsibility, even if it implied breaking away from the given frame of action and taking the initiative to transform it (Sannino, Engeström & Lemos, 2016). Agency also concerns taking responsibility for one’s interpretation of a situation and, therefore, the ‘tone’ of people’s engagement with situations (Biesta & Tedder, 2007). In our study, the change of tone on the part of some of the teachers after having participated in a professional development activity was striking, changing from a rather frustrated and complaining tone in the beginning to a more optimistic and constructive tone after the activity had ended.

In our study, we saw agency and identity develop simultaneously in our participants, which suggests that agency and identity are closely intertwined and dialectically related. This is in line with the suggestion of Holland and Lachicotte (2007), who argued that the particular choices teachers make when interpreting and responding to a situation are related to their identity, since identity is a structural part of teachers’ thinking. When teachers make choices in light of what they think the category of ‘teacher’ would do, identity serves as a touchstone for action, leading to a stronger sense of agency as a teacher. Conversely, through enacting the teaching role in their own way and showing agency, teachers shape, construct and negotiate their identity as that of a teacher.

The importance of strengthening teachers’ agency and stimulating them to take responsibility for their work has increasingly been recognised (Eteläpelto, Vähäsantanen, Hökkä & Paloniemi, 2013). Edwards (2015) argued that teacher agency is achieved through working relationally and, further, that professional development activities play a strong role in connecting teachers with the purposes of education. As professional development activities provide opportunities for educators to engage in sustained dialogue and interaction, they operate as structures that foster professional agency (Quinn & Mittenfelner Carl, 2015). Our study suggests that both formal and informal approaches to professional development can increase medical teachers’ sense of agency, albeit in different ways. While the teaching course stimulated the teachers to think
individually about ways to solve a problem, this was achieved collectively in the teacher communities. It therefore appears that the teacher communities strengthened collective agency, whereas the teaching course strengthened individual agency.

LIMITATIONS
In terms of the limitations of our study, it is important to recognise that the groups we investigated consisted of a relatively large number of teachers with little experience, who might still have been tentatively exploring the identity of teacher. In order to investigate the influence of formal and informal approaches to professional development on experienced teachers’ identity, further research is needed. Additionally, the participants in all four groups came from the same medical centre, requiring us to be cautious regarding generalisations. Further research is necessary to determine which identity processes will be found in other contexts.

Furthermore, it is important to note that the teacher communities included in our study consisted of teachers sharing a joint practice of being tutors in a student-centred curriculum. Such a joint enterprise is likely to be one of the constituting factors that make possible informal learning and thus the development of a common teacher identity (Wenger, 1998). Additional research is needed to determine whether different identity processes will be found in teacher communities with a more diverse composition.

IMPLICATIONS
To conclude, this study showed that formal and informal approaches to professional development can be used in complementary ways to empower medical teachers and strengthen their identification with teaching. The study found that formal approaches can be used to strengthen teachers’ identification with the teaching profession and their individual agency, while informal approaches can be used to particularly strengthen teachers’ identification with the teaching community and their collective agency. This is not to say that elements of formal learning cannot be present in informal situations or that elements of informality cannot be present in formal situations (Eraut, 2004; Malcolm, Hodkinson & Colley, 2003). For example, in formal approaches to professional development, opportunities can be created for informal discussion
and relationship building, while informal approaches can result in the awarding of certificates.

This study has not only shown that professional development activities can contribute to a strengthened teacher identity, but has also highlighted the separate contributions of formal and informal approaches, as well as the underlying working mechanisms involved. Insight into these working mechanisms should help to effectively support medical teachers in the struggles they face due to the poor reputation of teaching when compared to research and patient care. The study showed that this can be achieved in four ways. First, by stimulating them to develop and share knowledge and exchange experiences, since such activities contribute to increased confidence. Second, by demonstrating the complexity of the profession and modelling professional enjoyment, since that contributes to a stronger sense of pride in the profession. Third, by institutionalising a formal qualification programme, since that leads to external recognition of competence. Fourth, by encouraging collegial learning and support, since such community activities lead to an increased sense of connectedness. Furthermore, the study also showed that the agency of medical teachers can be strengthened by creating space for sharing problems and identifying solutions. As such, a complementary use of both formal and informal approaches to professional development seems most appropriate for nurturing medical teachers’ intrinsic motivation for teaching and supporting their identity and agency as a teacher. Hopefully, such professional development activities will thus prevent medical teaching staff from quitting their teaching posts and continuing to enhance the education of the next generation of physicians.
REFERENCES


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