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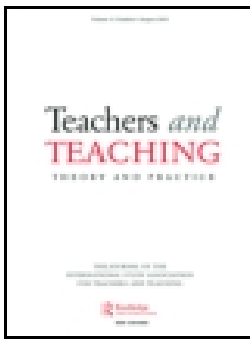**118** PUBLICATIONS **2,960** CITATIONS

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Why mentor? Linking mentor teachers' motivations to their mentoring conceptions

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Current mentoring models for teacher preparation and induction emphasize the need to engage novice teachers' learning through collaborative professional learning communities. Mentors in such communities are expected to engage in joint knowledge construction with novices, and to be 'co-thinkers' who enact a developmental view of mentoring, as well as 'co-learners' who are willing to engage in mutual learning with their novices. These two aspects are assumed to be associated in mentor thinking. The aim of this questionnaire study was, therefore, to explore the relationship between mentors' mentoring conceptions and their mentoring motives. Participants were 726 secondary education mentor teachers, associated with 13 institutes for teacher preparation in the Netherlands. Results showed that a motivation to mentor for personal learning was more strongly associated with a developmental conception of mentored learning to teach than with an instrumental mentoring conception. The same was found for a motivation to mentor for contributing to the profession, but less pronounced. These findings suggest potential strategies for the selection and preparation of mentor teachers for programs that intend to foster collaborative inquiry approaches for novice teacher support.

Keywords: mentoring; teacher beliefs: motivation; motives; teacher education

Introduction

Mentoring has become the mainstay of novice teacher support in programs for teacher preparation and induction, since the 1980s. Mentor teachers, or school-based teacher educators, are recognized as playing a vital role in novice teacher learning (Hobson, Ashby, Malderez, & Tomlinson, 2009). Providing educative mentoring for novice teacher learning is defined as 'individualized professional development' that blends showing and telling, asking and listening (Norman & Feiman-Nemser, 2005). It involves helping novices to survive their initial experience and define their teaching lives, and establishing and building professional relationships based on dialogue and reflection (Fairbanks, Freedman, & Kahn, 2000). Such a mentoring process involves conversations that allow students and mentors to uncover and share meanings (Ben-Peretz & Rumney, 1991). It requires mentors to avoid the pitfalls of imposing their own style or being too laissez-faire. Mentors should instead construct

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the mentoring process as one of the 'co-thinking' (Feiman-Nemser, 2001), creating a zone of 'pedagogical construction' that allows novice teachers to reconstruct their teaching experiences and to situate these experiences within their personal theories of teaching (Graham, 2006). Good mentors do so from a professional stance of collaborative inquiry into practice (Feiman-Nemser, 2012; Orland-Barak, 2010), in which the mentor is willing to engage in mutual learning about teaching with novices during the mentoring process. Ideally, mentors are more than local guides and educational companions, but also agents of change that foster norms of collaboration and shared inquiry (Wang & Odell, 2002). The current image of educative mentoring thus expects mentors to be 'co-thinkers' as well as 'co-learners' with their novices (Feiman-Nemser, 2012).

Co-thinking in terms of supervisory skill includes the ability of the mentor to use indirect conversation techniques such as probing, summarizing and responding to novice teacher input and concerns (Crasborn, Hennissen, Brouwer, Korthagen, & Bergen, 2008). Skilful mentors find productive openings for constructing and reframing problems of practice (Bradbury, 2010; Feiman-Nemser, 2001), they engage novice teachers' personal theories of learning (Graham, 2006; Timperley, 2001) and are able to 'articulate principles of teaching as they arise in practical contexts for the student teachers (..) in ways that facilitate student teacher learning about their own practice and how to improve it' (Timperley, 2001, p. 112). Enacting such a co-thinking/co-learning approach is seen as more than a supervisory skill, however, skilful mentors do so on the basis of a conception of professional learning as a process of knowledge construction through joint inquiry into practice (Feiman-Nemser, 1998, 2001; Franke & Dahlgren, 1996; Hall & Davis, 1995). Not as an end in itself, but because of the recognition that learning to teach is a process of integrating different forms of knowledge into a personal, practical, professional knowledge base for teaching; a process that requires reflection and dialogue for the (inter-)active (re)construction of knowledge about teaching and learning over an extended period of time (Hudson, 2013; Wang & Odell, 2002). Teacher preparation and induction, therefore, need to welcome novices into a collaborative professional learning community (Feiman-Nemser, 2012; Hargreaves, 2000). For novices, the primary relationship in such communities is often with their mentors (Malderez, Hobson, Tracey, & Kerr, 2007; Staton & Hunt, 1992; Su, 1992) and therefore especially mentors should engage in collaborative and reciprocal learning with novices (Hall & Davis, 1995; Wang & Odell, 2002).

It has been an implicit assumption in studies of teacher mentoring so far that the two aspects of (1) mentors conceiving of mentoring as co-thinking with novice teachers, and of (2) mentors co-learning with novices and using mentoring as a site for professional learning for themselves, constitute intertwined aspects of enacting a collaborative inquiry approach in mentoring. If this is so, one would expect mentor teachers, who adhere to a co-thinking view of mentored learning to teach, to exhibit a motivation for mentoring that recognizes the potential benefits of the mentoring process for mentor learning. So far, the link between mentor teachers' motivation for mentoring and their views of mentored learning to teach has not been studied extensively. The central aim of this study is to examine the relationships between mentor teachers' mentoring motives and their mentoring conceptions. Insight into these relationships may inform efforts at cultivating collaborative professional learning communities for novice teacher support within partnership programs for teacher preparation and induction, by suggesting additional strategies for the preparation and selection of mentor teachers.

Mentoring motives: generative outcome and personal learning

Mentoring motives in this study are defined as the reasons mentor teachers give for engaging in the mentor role; why they consider it important to become a mentor for novice teachers. Mentor teachers generally volunteer for the role and work with limited training, formal knowledge of supervision, support and facilitation for their task (Hobson et al., 2009). While at the level of the school or the school-institute partnership level it can be mandated to provide placements and support for student teachers, being a mentor is generally not mandated as an integral part of the job of being a teacher. Although being a mentor is more and more recognized as a separate professional role and position within school in itself (Achinstein & Athanases, 2005), it remains mostly a voluntary activity that goes above and beyond teachers' formal job requirements; a role chosen by some, not by others.

It is because of this voluntary nature of novice teacher mentoring that personal motives are likely to have a high influence on the decision to become a mentor. The concept of motives implies the assumption of goal-directed forces within the individual (Batson & Shaw, 1991). Choosing to become and remain a mentor teacher can thus be seen as a form of goal-directed behaviour: as behaviour that is driven by some internal representation of a desired outcome or state (Austin & Vancouver, 1996). This view constitutes a functional analysis of mentoring as volunteerism; one in which serving as a mentor is explained by the personal goals – or functions – it fulfils for the individual (Clary et al., 1998).

Empirical studies of mentor's motives are rare, but suggest that mentors hold two dominant motives: other-oriented motives and motives oriented at self-development. Allen, Poteet, and Burroughs (1997), for example, classified motives to mentor reported by experienced mentors as other-focused and self-focused. Other-focused motives included a desire to help and pass along information to others and to build a competent workforce. Self-focused motives included a desire to increase learning and to feel gratification. Earlier, Stout (1982) identified motives teachers reported for accepting student teachers. She found that the dominant motive was professional obligation to contribute to the profession, and opportunity to learn and re-examine personal practice was second. More recently, Lopez-Real and Kwan (2005) showed that mentors identified learning through self-reflection as the most important source of professional development in being a mentor and Sinclair, Dowson, and Thistleton-Martin (2006) reported that dominant motives were wanting to share knowledge of teaching, helping student teachers learn about the real world of teaching, and ensuring adequate quality of entrants into the profession. Secondary motives were for personal development as a teacher and a supervisor.

These empirical studies that point to the existence and significance of other-focused and self-focused motives, align with current conceptualizations of becoming a mentor. Becoming a mentor is generally conceptualized in mentoring theory as a form of fulfilling the need for 'generativity', or 'generative concern' which is a concern for and an interest in guiding the next generation (Merriam, 1983). Generative actions include keeping traditions alive and passing along what one has created (Hofer, Busch, Chasiotis, Kartner, & Campos, 2008) and generative concern refers to a desire for 'generative outcome', or 'to invest one's substance in forms of life and work that will outlive the self', which includes succeeding in transmitting cultural values to the next generation (Kotre, 1995, p. 35). Becoming a mentor has, however, also been conceptualized as entering into a reciprocal relationship with a

protégée or mentee, in which the potential for mentor development is not only a serendipitous by-product, but an integral constituent of the mutuality of the relationship (Healy & Welchert, 1990). In sum, current empirical evidence of mentor teachers' motives, as well as conceptual work on becoming a mentor, provides support for the existence of two dominant mentoring motives: generative outcome motives and personal learning motives.

Returning to our initial argument that mentoring motives and mentor teachers' mentoring views are likely to be linked, we will now discuss mentor teachers' conceptions of mentored learning to teach, or mentoring conceptions for short.

Mentoring conceptions: developmental and instrumental

A mentoring conception is defined in this study as an internally coherent set of beliefs about the goals, sources and nature of mentored learning to teach. Much like the way student teachers form conceptions of teaching during their own schooling as pupils, cooperating teachers form their conceptions of mentoring during their own student teaching, through their experiences as teachers with supervision, pupils and colleagues (Hall & Davis, 1995; Koerner, O'Connor-Rust, & Baumgartner, 2002; Richardson-Koehler, 1988; Rikard & Veal, 1996), and also as an extension of their personal conceptions of teaching (Martin, 1997).

Research on novice teacher mentoring identifies two main distinct mentoring conceptions: an instrumental conception and a developmental conception (Franke & Dahlgren, 1996; Orland-Barak & Klein, 2005), similar to the distinction between teacher-centred/content-oriented and student-centred/learning-oriented conceptions of teaching (Donche & Van Petegem, 2011). Such mentoring conceptions are not either/or constructs; instead, mentors draw on different conceptions simultaneously (Franke & Dahlgren, 1996), but tend to work from one or two dominant conceptions mainly (Clarke & Jarvis-Selinger, 2005). Our conceptualization of mentoring conceptions is based on the research on teachers' conceptions of teaching, which shows that teachers do not draw on one monolithic or coherent belief system, but on different – and sometimes competing – sets of beliefs (Kane, Sandretto, & Heath, 2002; Pratt, 2002). A mentoring conception is not the same as a mentoring approach or a mentoring style. Styles or approaches refer to the typical forms of behaviour, acting or typical strategies that mentors employ. Conceptions, on the other hand, refer to the mental models and beliefs about mentoring and learning that mentors draw upon in thinking about practice (Aguirre & Speer, 1999; Donche & Van Petegem, 2011; Evans & Kozhevnikova, 2011; Fang, 1996).

Mentors holding an instrumental mentoring conception, orient themselves mainly to concerns for effective teaching practice (Orland-Barak & Klein, 2005). They consider it important that in the 'game' of student teaching, novice teachers come to be perceived by pupils as real teachers with control over classrooms (Rikard & Veal, 1996). They see it as an important goal for novices to learn to control and manage pupil behaviour as soon as possible. In order to get novices 'up and running', mentors focus on securing quick proficiency in the mechanics of teaching, so that novices can quickly 'go it alone' without mentor support (Graham, 2006; Norman & Feiman-Nemser, 2005; Young, Bullough, Draper, Smith, & Erickson, 2005). They try to discuss observed lessons from start to end, focused on their evaluations of observed individual teaching behaviours, and on novice teachers' feelings about their teaching (Franke & Dahlgren, 1996). The mentoring relationship

is seen as asymmetrical (Hall & Davis, 1995), and mentors in this conception see themselves mainly as 'maestros' (Graham, 2006); as a model, corrective master teacher and assistant teacher (Franke & Dahlgren, 1996), and they view observation of other teachers as functional for copying effective practices (Graham, 2006). Novice teacher learning is seen mainly in terms of performance improvement, and on providing novices with 'ready-made' tools and routines for effective and efficient teaching (Orland-Barak & Klein, 2005). Teaching in this conception is assumed to be ultimately a solitary act (Young et al., 2005). This emphasis on quick mastery of the 'mechanics' of a subject and on a need for control, has been linked to implicit the views of learning as determined by innate ability, or an 'entity theory' of ability (Dweck, 1999; Stipek, Givvin, Salmon, & MacGyvers, 2001), and to the belief that such ability is expressed by quick learning (Schommer, 1990).

Mentors holding a developmental mentoring conception, orient themselves mainly to concerns about mentee learning and professional development (Orland-Barak & Klein, 2005). They try to get novice teachers to take pupils' perspectives, thinking and sense-making into consideration (Feiman-Nemser, 2001). Mentors in this conception focus on discussing underlying and integrating principles of teaching and ideal forms of classroom communication. They try to address novice teachers' reasons behind their teaching performance, and see it as an important goal for novice teachers to promote pupil autonomy in learning (Franke & Dahlgren, 1996). They attempt to provide novices with different perspectives on teaching (Graham, 2006). In this conception, mentors see themselves as creative partners in dialogue and cooperation about teaching (Franke & Dahlgren, 1996; Graham, 2006). They view the mentoring relationship as collaborative (Orland-Barak & Klein, 2005), and symmetrical and reciprocal (Hall & Davis, 1995). Novice teacher learning is seen mainly in terms of developing, understanding and awareness about interrelations between teaching and learning (Feiman-Nemser, 2001; Graham, 2006), and in terms of constructing personal theories of teaching (Graham, 2006). This emphasis on constructing personal understanding of a subject has been linked to implicit views of incremental learning, or an 'incremental theory' of ability (Dweck, 1999; Stipek et al., 2001).

Research questions and assumptions

If a mentor holds a strong personal learning motive for mentoring, this would suggest that he or she sees mentoring as a process that enables such personal learning. A mentor holding a developmental mentoring conception sees learning to teach as a process of continuous and ongoing development, and the mentoring relationship as a reciprocal exchange. This would enable them to see mentoring and the mentee as sources of learning about teaching, and hence, mentors holding a developmental conception may be more readily motivated by the desire to realize that potential for personal learning through mentoring. On the other hand, mentors holding an instrumental mentoring conception see themselves more as 'maestros'. It would, therefore, seem less likely for them to view mentoring and the mentee as a source of learning about teaching. Hence, mentors holding an instrumental conception may be less readily motivated to mentor by the possibility for personal learning. On the other hand, a mentor may be motivated to accept mentees by a desire to contribute to the profession, regardless of how he or she conceives of the way this contribution is to be made: as a 'maestro' or as a 'co-thinker'. There appears, therefore, little reason

for mentors with a strong generative outcome motive for mentoring, to prefer either an instrumental or a developmental mentoring conception. Whether or not these assumed relations hold true is the focus of our empirical investigation. This study was focused on the following two research questions:

(1) To what extent do mentor teachers report generative outcome motives, personal learning motives, and instrumental and developmental mentoring conceptions?
(2) What is the relationship between mentor teachers' mentoring motives and their mentoring conceptions?

With regard to the first question, our assumption is that mentors will on average be more strongly motivated to mentor by a generative outcome motive than by a personal learning motive. This expectation is based on our previous discussion of mentoring as an inherently 'generative' act, and the discussed empirical evidence that mentors indeed tend to rank generative outcome motives the highest. We also assume that mentors will on average report a stronger belief in an instrumental than a developmental mentoring conception. This is based on previous empirical studies that have found a prevalence of instrumental conceptions among mentor teachers (Wang & Odell, 2002), and on the findings that Dutch mentors tend to hold instrumental views (Kroeze, 2014) and tend to perform mentoring roles that express instrumental views of mentoring (Crasborn et al., 2008). With respect to the second question, regarding the relations between motives and conceptions, we assume that a personal learning motive will relate differentially to a developmental and an instrumental mentoring conception. As indicated above, it seems more likely for mentors holding a strong developmental conception to view the mentoring process as a source for learning, and hence to be motivated by the potential for personal development, than for mentors holding a strong instrumental conception. We also assume that a generative outcome motive will not relate differentially to these mentoring conceptions, in line with our earlier argument that a desire to contribute to the profession does not inherently suggest a specific view of how such a contribution should be made. In order to test our assumptions, we conducted a survey with questionnaires, which included scales measuring both mentoring motives and mentoring conceptions. We have compared and correlated mentor teachers' scores on these scales to answer both research questions.

Answering these questions is relevant for the design of programs for teacher preparation and induction that wish to create collaborative professional communities across partnership organizations schools to support novice teacher learning (Feiman-Nemser, 2012). If mentoring motives and mentoring conceptions are indeed linked in mentor thinking, this may suggest additional avenues and strategies for the selection and preparation of mentor teachers in such programs.

Method

Research context

In the Netherlands, most programs for secondary and vocational initial teacher education feature substantial amounts of teacher preparation in schools: generally up to half of the total curriculum time. Mentoring relationships in these programs are

generally non-matched, formal and assigned; mentors and mentees generally do not choose each other and are not matched according to personal profiles. In the last decade, the Dutch Association for Teacher Educators has developed a professional standard for teacher educators, which includes mentor teachers as school-based teacher educators. Government funding in the last decade has stimulated the establishment of partnerships between schools and institutes for teacher preparation. Such funding is currently stimulating the further development of such programs to include the induction phases of teaching, and to address current complexities facing teaching such as teaching diverse populations of students and parent engagement with schools. In this sense, the professional landscape of teacher education in the Netherlands exhibits an awareness of the complexities of the 'postmodern' age of teacher professionalism described by Hargreaves (2000), and of the challenges this poses for programs for preparation and induction of novice teachers.

Participants and procedure

Questionnaires were distributed in a paper-and-pencil format to mentor teachers associated with 13 Dutch teacher education institutes, both vocational (eight institutes) as well as university level (five institutes). For 2296 distributed questionnaires, 726 respondents returned the filled out questionnaire (response rate = 32%). The sample consisted of 296 females (40.8%), average age was 45.4 years (SD = 9.09), the median level of education obtained was a four-year college degree and the median level of teacher license was an academic level license. Average organizational tenure was 13.9 years (SD = 9.14) and average teaching experience was 19.5 years (SD = 9.34). The majority of respondents, 67.4% (N = 489) was associated with a vocational level teacher education programme, the rest with an academic level programme. Average mentoring experience in years was 7.6 years (SD = 6.67). Average mentoring experience in number of mentees mentored was 10.8 mentees (SD = 12.50), and was thus heavily skewed. Experience ranged from none to 99 mentees; half of the mentors had mentored up to six mentees, ninety per cent had mentored up to 25 mentees, and only three per cent had mentored 50 or more mentees. These highly experienced mentors are likely to have reported their experiences with many short-term student placements at the start of the four-year vocational teacher education programs.

Measures

Mentoring motives

Because no existing instrument was available to assess mentoring motives, items on mentoring motives were developed through a pilot study, by asking mentors to reply to the open-ended question 'why it is important to me to mentor student teachers?' (Van Ginkel, Vermunt, Verloop, & Beijaard, 2005). These items were presented to mentors, as answers to the question 'why do I mentor student teachers?' Examples of response items that indicate a generative outcome motive are 'to give beginners a chance to prove themselves'; 'to transfer my enthusiasm for the profession'; 'to prevent attrition of newcomers'; 'to pass on my knowledge and experience'; 'because I want my subject to be taught by well-trained, competent teachers'. Examples of response items that indicate a personal learning outcome motive are; 'because it

deepens my understanding of my work as a teacher'; 'because I find it a challenging task'; 'because I enjoy working with novice teachers' and 'to stay informed of current developments in teaching'. Mentors could rate their agreement with these items on a seven-point Likert-scale (*strongly disagree, disagree, disagree more than agree, disagree as much as agree, agree more than disagree, agree, strongly agree*), thus higher scores indicate the motive to be a more important reason for mentoring student teachers.

As expected, two dimensions could be distinguished, based on Eigenvalues larger than 1, scree plot analysis, interpretability of component solutions and reliability analysis: a personal learning motive and a generative outcome motive. The scale for personal learning motive contained eight items, referring to personal learning and enjoyment. Internal consistency as assessed by coefficient alpha was .86. The scale for generative outcome motive contained eleven items referring to a desire to successfully induct newcomers into the profession, and to pass on personal knowledge and experience. Alpha reliability was .83.

Mentoring conceptions

Because no existing instrument was available to assess mentoring conceptions, we developed items through literature review and a pilot study (Van Ginkel et al., 2005). Respondents were presented with 48 statements, which assessed (1) mentoring goals and intentions, (2) beliefs about sources of learning to teach, and (3) beliefs about the nature and process of teacher knowledge and learning. For the instrumental conception scale, mentoring goal items referred to transmission of teacher-centred teaching routines, items on beliefs about sources of learning to teach referred to belief in learning from expert models, and items on teacher knowledge and learning referred to belief in a quickly assessable, fixed and routine teaching ability. For the developmental conception scale, mentoring goal items referred to principled understanding of pupil-centred teaching, items on beliefs about sources of learning to teach referred to belief in learning from peers and coping models, and items on beliefs about teacher knowledge and learning referred to belief in incremental understanding and awareness of teaching and learning. Examples of mentoring goal items referring to an instrumental mentoring conception are 'I try to teach students basic rules for structuring a lesson'; 'I try to teach students to maintain tight control over the course of a lesson', reflecting a focus on training skills for classroom management and control. Examples of mentoring goal items referring to an developmental mentoring conception are 'In mentoring conversations I try to let student teachers discover the principles behind a good lesson for themselves' and 'I try to let student teachers continuously reflect on their development', reflecting the intention to stimulate student teacher talk, thinking and reflection in mentoring dialogues. Examples of items on beliefs about sources of learning to teach referring to an instrumental mentoring conception are 'In order to be a good mentor I think you should be a good teacher first and foremost' and 'I think student teachers require help from experienced teachers to be able to interpret their teaching experiences', reflecting a view of mentors as 'maestros' from which student teachers should learn. Examples of items on beliefs about sources of learning to teach referring to an developmental mentoring conception are 'I think student teachers can support each other well'; 'I think student teachers learn to interpret teaching experiences better by analyzing them amongst each other' and 'I think it is very instructive for student

teachers to see each other making mistakes', reflecting a more collaborative view of participants in the learning process of student teachers. Examples of items on beliefs about teacher knowledge and learning referring to an instrumental mentoring conception are 'I think some people have a talent for teaching, and some just don't'; 'Students with talent will teach well quickly' and 'I think learning to teach is learning to apply all kinds of routines automatically', reflecting an entity theory of teaching ability, a belief in quick learning and a belief in learning to teach as learning skilful performance of routines. Examples of items on beliefs about teacher knowledge and learning referring to an developmental mentoring conception are 'I think learning to teach is becoming more and more aware of what you want to accomplish with pupils' and 'I think learning to teach is learning to integrate better and better the different kinds of knowledge you need for teaching', reflecting an incremental view of learning, and a belief in learning to teach as increasing awareness and understanding. Respondents could indicate their agreement with statements through a seven-point Likert-scale (*strongly disagree, disagree, disagree more than agree, disagree as much as agree, agree more than disagree, agree, strongly agree*). The meaning of scale points was reproduced at the top of each page.

As expected, two overarching dimensions could be distinguished, based on first- and second-order component analysis, interpretability of component solutions and reliability analysis: an instrumental mentoring conception and a developmental mentoring conception. Both scales consisted of 24 items each: nine items on mentoring goals, seven items on beliefs about sources of learning to teach, and eight items on beliefs about teacher knowledge and learning. Alpha reliability was .82 for the instrumental conception scale, and .85 for the developmental conception scale.

Analysis

In order to answer our first research question, we used descriptive statistics and paired-samples *t*-tests to test differences between mean scale scores for mentoring motives and mentoring conceptions, respectively. To answer our second research question, we conducted Pearson correlation analyses among all scales.

Results

Relative strength of mentoring motives and conceptions

We assumed that mentors would agree with a generative outcome motive more than with a personal learning motive. Descriptive statistics (Table 1) disconfirmed our assumption. A paired-samples *t*-test showed that on average, mentors reported significantly stronger agreement with a generative outcome motive ($M = 5.53$, $SD = 0.71$) than with a personal learning motive ($M = 5.45$, $SD = 0.89$, $t(716)=2.39$, $p < .05$, $r = .09$), but with a small effect size.

We also assumed that mentors would agree more with an instrumental than a developmental mentoring conception. Descriptive statistics (see Table 1) disconfirmed this expectation. A paired-samples *t*-test showed that on average, mentors reported significantly stronger agreement with a developmental conception ($M = 5.48$, $SD = 0.53$) than with an instrumental conception ($M = 5.12$, $SD = 0.55$), $t(714)=15.68$, $p < .001$, $r = .51$), with a large effect size (Cohen, 1992).

Table 1.   Descriptive statistics for mentoring motive and mentoring conception variables.

		Minimum	Maximum	Mean	SD
1	Generative outcome motive (G)	2.73	7.00	5.53	0.71
2	Personal learning motive (P)	1.13	7.00	5.45	0.89
3	Instrumental conception (I)	2.83	6.54	5.12	0.55
4	Developmental conception (D)	3.13	7.00	5.49	0.53

Note: *N*'s range from 715 to 724.

Relations between motives and conceptions

We assumed that a personal learning motive for mentoring would relate differentially to holding a developmental and an instrumental mentoring conception. Correlations among variables (Table 2) confirmed this expectation. Meng's *z*-test for differences between two correlation coefficients within the same sample (Meng, Rosenthal, & Rubin, 1992) showed that the correlation between a personal learning motive and a developmental mentoring conception ($r = .50$, $p < .01$) was statistically significantly stronger than the correlation between a personal learning motive and an instrumental mentoring conception ($r = .11$, $p < .01$, $z = 10.22$, $p < .001$). We also assumed that a generative outcome motive for mentoring would not relate differentially to holding a developmental or an instrumental mentoring conception. Correlations among variables (Table 2) disconfirmed this expectation. The correlation between a generative outcome motive and a developmental mentoring conception ($r = .49$, $p < .01$) was statistically significantly stronger than the correlation between a generative outcome motive and an instrumental mentoring conception ($r = .38$, $p < .01$, $z = 3.12$, $p < .01$). On average, mentors reporting agreement with one motive, were also more likely to report agreement with the other motive, as the correlation between both mentoring motives (Table 2) was statistically significant ($r = .42$, $p < .01$). Similarly, mentors reporting agreement with one conception were also more likely to report agreement with the other conception; the correlation between both mentoring conceptions (Table 2) was statistically significant ($r = .34$, $p < .01$). This suggests that while these two motive factors are distinct, mentor teachers also tend to report overall stronger or weaker levels of motivation across both motives.

Table 2.   Bivariate correlations for mentoring motive and mentoring conception variables.

		G	P	I	D
1	Generative outcome motive (G)	–			
2	Personal learning motive (P)	.42**	–		
3	Instrumental conception (I)	.38**	.11**	–	
4	Developmental conception (D)	.49**	.50**	.32**	–

Note: *N*'s range from 707 to 717.
**$p < .01$.

Discussion

The aim of this study was to empirically relate mentor teachers' mentoring motives with their conceptions of mentored learning to teach. A key finding is that mentors with a personal learning motive for being a mentor teacher also tend to hold a developmental conception of mentored learning to teach, more than an instrumental conception. The same was found for mentors with a generative outcome motive, but to a lesser degree. This supports the idea that mentors who hold a developmental view of learning to teach, tend to apply this view to themselves as teacher-learners as well. It supports the assumption that being a 'co-thinker' and being a 'co-learner' with novice teachers, tend to be associated in mentor thinking. In a theoretical sense, we propose that this contributes to our understanding of who mentors are as teachers of novices. It shows a specific connection between what Kelchtermans (2009) termed the domain of 'professional self-understanding' – which includes motives – and the domain of 'subjective educational theory' in teachers' professionalism. Where Kelchtermans (2009) paraphrased the importance of the person of the teacher in teaching as 'how I teach is the message', the paraphrase for mentoring might be, at least in part, 'how I study teaching is the message'. Further research should focus on the relationship of motives with mentor teachers' practices and the effects of such practices on student teachers. Recent research shows that (1) mentor beliefs and (2) the mentor-novice match are the two dominant factors that shape the process and outcomes of mentoring relationships (Kroeze, 2014). Given the relationships between mentoring motives and mentoring conceptions in mentor thinking, it therefore seems likely that mentoring motives will also be associated with mentoring practice. Mentoring practices are often seen to be haphazard (Hudson, 2013) and idiosyncratic (Hawkey, 1997). We would conjecture that mentors may choose to engage in those mentoring activities that fulfil their motives for mentoring best, which may provide part of the explanation for this seemingly haphazard nature of mentoring relationships. Such research would be informative for mentor professional development efforts to go beyond skill training, and also address mentor teachers' professional identity at 'deeper' levels (Korthagen, 2004). It would also help to start addressing the need for mentoring practices that are more responsive and adaptive to individual differences in novice teacher learning (Van Ginkel, Oolbekkink, Meijer, & Verloop, in press).

A second key finding in our study is the preference of Dutch mentor teachers for a developmental over an instrumental mentoring conception. This is in contrast to previous studies in Anglo-Saxon countries, in which mentors were often found to hold predominantly instrumental mentoring conceptions (Wang & Odell, 2002). At this point we can only speculate as to the cause of this difference. One explanation may be the influence that models of realistic teacher education as developed in the Netherlands (Korthagen, 2004) may have had on Dutch programs for teacher education, and the acceptance that several related practitioner-oriented publications on mentoring and supervision in teacher education have gained in Dutch schools. These models and publications tend to be oriented towards more person-centred and reflective mentoring approaches that bear resemblance to the developmental conception identified in this study. A limitation here is the absence of a shared standard to assess mentor teachers' mentoring conceptions. Previous studies have used different methods, samples, instruments and terminology to distinguish different mentoring views of mentor teachers. Although the strength of our study lies in the inclusion of

a large sample, rather than a small opportunity sample as employed in most studies, the trade-off is that our study relies only on self-report data of espoused beliefs through closed statements. Inclusion of more open-ended data as well as observational data to infer beliefs from, may have led to a different conclusion, as previous studies have shown mentors do not always enact espoused beliefs (Orland, 2001; Sinclair et al., 2006). Nevertheless, we propose that the empirical and conceptual research base that the survey content was developed from, the face-validity of the mentoring conception scales developed through the exploratory analyses, and the acceptable reliability indices, provide grounds for valid conclusions. Further research should explore differences in mentoring conceptions across different cultural and policy contexts.

A third key finding is the on average equal agreement of Dutch mentor teachers with personal learning and generative outcome motives. Previous studies have tended to report generative outcome motives as much more dominant. A possible explanation may be derived from our previous two findings that Dutch mentors report a preference for a developmental conception, and that such a conception is linked to a personal learning motive. This may predispose Dutch mentors to perceive potential benefits for personal learning from being a mentor, and they may thereby be more motivated to be mentors by the desire to realize that potential. A difference between our study and previous studies of mentor teachers' motives, however, is that the latter required mentors to rank the relative importance of motives, whereas mentors in our study were free to report motives as equally important. Mentors in our study may have given socially desirable responses, or forced rankings in other studies may have led mentors to underreport the importance of personal learning motives. With the limited research on mentoring motives in school-based teacher education, further research should develop deeper insight into the different motives and their relative importance for mentor teachers. With the continued importance of a well-trained workforce of school-based teacher educators, further research should also address the influence of mentor teachers' motives on mentor retention and attrition, similar to motivational research on beginning teachers. Different school and partnership contexts may provide different affordances for meeting mentoring motives, indirectly influencing school teacher's decisions to become or remain mentors. In the Netherlands, for instance, there is currently a surge of mentor professional development activities due to increased government funding for partnership programs. These activities may engender new motives for mentoring that have previously been underserved, such as contributing to the local partnership or expanding a personal professional network. Such research may uncover additional motive factors that play a role in mentor teachers' decisions to become, remain, or stop being a mentor, as well as motive factors that play a role in school teachers' decisions to refrain from becoming mentors. In a time where funds are limited and mentoring is seen more and more as a professional role of being a school-based teacher educator, one that requires considerable time and effort to master, it will become more and more relevant to retain mentor teachers as well as attract new teachers to mentoring. Further research should, therefore, focus on (1) discovering the full range of motives that influence teacher decision-making with regard to becoming or remaining a mentor, and (2) insight into the interplay of motives, mentor practice and context. The first may be accomplished in part through interview studies and instrument development such as the recent work by Clarke et al. (2012) on a mentoring profile inventory of mentors' motivators and challenges. This work sees motives as part of

a larger set of factors that may inhibit or assist teachers to become and remain as mentors. The second may be accomplished through longitudinal case studies and teacher-educator self-study. Such insights may inform policy and practice of ways in which partnership settings may help mentor teachers to build strong professional identities as school-based teacher educators (Bullough, 2005).

Finally, our findings point to practical implications for the selection and preparation of mentor teachers in programs for teacher preparation and induction. The main implication of our findings is that programs should take account of the motives that drive mentors in their decision to become mentors, and of ways in which they might provide working conditions for mentors that may match their motives. We suggest that programs do so as part of a broader awareness of the need to develop mentor teachers with strong professional identities as school-based teacher educators. Especially for those programs that intend to develop collaborative professional learning communities among partnership staff, to support novice teacher learning through an inquiry approach, we identify two key strategies. Based on our findings, these key strategies would be (1) to enlist mentor teachers that are motivated by a willingness to learn from mentoring, and (2) to further develop such a willingness in mentors, by discussing with mentor teachers ways in which the mentoring process could become more relevant for their own learning about teaching, or for instance by constructing activities for novices and mentors that include relevant opportunities for mentor teachers to experience personal learning. An example of such an activity is for instance the recent suggestion for mentors and novices to engage not only in retrospective reflection on lessons, but to also engage in prospective reflection through joint responsibility for lesson planning (Staub, 2013). Such an activity may trigger awareness in mentors of the potential for personal learning from the mentoring process, and thereby stimulate the adoption of a more developmental view of mentored learning to teach. It has already been shown to deepen mentoring conversations between mentors and mentees, and to stimulate mentors to adopt unfamiliar practices (van Velzen, Volman, Brekelmans, & White, 2012). In light of growing research interest in becoming a mentor, such activities would also provide opportunities for further research into the dynamics of how mentor teachers might come to change their views and develop their professional identities.

Disclosure statement

No potential conflict of interest was reported by the authors.

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