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ADAPTING MENTORING TO INDIVIDUAL DIFFERENCES IN NOVICE TEACHER LEARNING; THE MENTOR'S VIEWPOINT²

Abstract

Being adaptive to the individual novice teacher is considered a condition for effective teacher mentoring. The aims of this study are therefore to explore 1) mentoring activities through which mentors intend to adapt to the individual novice teacher, and 2) characteristics of adaptive mentors. Information was collected through on-site, post-mentoring conversation interviews with 18 mentors holding different mentoring conceptions, from different programs for Initial Teacher Education in the Netherlands. Four adaptive mentoring activities were identified: 1) aligning mutual expectations about the mentoring process, 2) attuning to the novice's emotional state, 3) adapting the mentoring conversation to match the reflective capacity of the novice teacher, and 4) building tasks from simple to complex relative to the novices' competence-level. Adaptive mentors were 1) more likely to mention activities intended to support construction of personal practical knowledge and 2) less likely to mention activities intended to create a favourable context for novice teacher learning.

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Suggestions for using findings to enhance mentor adaptiveness are discussed.

3.1 Introduction

The match between mentors and novices has come into focus as a vital ingredient for the establishment of successful mentoring relationships in teacher preparation and induction (Bullough, 2012; Hale, 2000). Mentoring relationships are now broadly accepted as a significant factor in helping novice teachers to survive their initial teaching experiences, develop their teaching competencies, and define their teaching lives (Fairbanks, Freedman, & Kahn, 2000; Marable & Raimondi, 2007). Novice teachers in successful mentoring relationships tend to develop more positive outlooks on teaching and tend to stay in teaching longer (Long, McKenzie-Robblee, et al., 2012). However, current research is also becoming more and more attentive to the potential negative effects of mentoring relationships gone wrong (Ehrich, Bransford, & Tennent, 2004; Long, Hall, et al., 2012). It is within this context that the match between mentor and mentee is seen as a vital element in making mentoring work (Bullough, 2012; Hobson, Ashby, Malderez, & Tomlinson, 2009).

Matching in this sense refers to match-making (how mentors and mentees are matched), as well as to adaptation (how mentors adapt their mentoring to match individual differences in novice teachers' learning). Match-making in programs for teacher preparation is typically a formal affair; mentor-mentee dyads are formed by the teacher preparation program, as opposed to informal matching in which mentor and mentee choose each other based on mutual affiliation. This formal match-making tends to be limited to appointing novices to the teacher that is available as a mentor in school (Bullough, 2012). As far as any further matching goes, this may be based on matching by subject area (Waterman & He, 2011) and proximity in work location (Carter & Francis, 2001), but generally does not extend to matching based on learning styles, teaching beliefs or specific levels of development (Bullough, Young, Hall, Draper, & Smith, 2008). As a result, much of the responsibility for any further matching defaults to the mentor teacher, and therefore to his/her ability and disposition for adaptation to the individual novice (Rajuan, Beijaard, & Verloop, 2010). In doing so, mentors are expected to accommodate a vast array of individual differences in their support of novice teacher learning, such as learning styles, concerns, needs, stages of development, images and beliefs about teaching, and goals and expectations concerning the mentoring relationship (Hobson et al., 2009). Similarly, models of mentoring and supervision (Fritz & Miller, 2003; Maynard & Furlong, 1994; Ralph & Walker, 2013b) as well as studies of novice teacher learning (Kagan, 1992; Oosterheert, 2001) also tend to place the responsibility for matching primarily on the mentor, providing prescriptions and suggestions of how mentors should accommodate and adapt to such differences between novice teachers. There is however limited insight into how mentor teachers' themselves understand the meaning of 'adaptation to novice teacher learning', and how that understanding may differ between mentors who are highly adaptive, and those that are less adaptive to individual differences in novice teacher learning.

The aims of this study are therefore to 1) describe the mentoring activities through which mentors intend to adapt to the individual novice teacher that they articulate in talking about their mentoring practice and to 2) explore what distinguishes adaptive mentor teachers from non-adaptive mentors. Consequently, our research questions for this study are:

- (1) What mentoring activities to support the learning process of novice teachers do mentor teachers articulate in talking about their mentoring practice?
- (2) Which of these mentoring activities can be identified as adaptive mentoring activities?
- (3) What are the distinctive features of adaptive mentor teachers?

In this study we define adaptive mentoring activities as those activities in connection to which mentors express an intention to adapt the mentoring process to the individual novice teacher and his/her learning process. Adaptive mentors in this study are mentor teachers that mention relatively many such adaptive mentoring activities in talking about their mentoring practice. In exploring distinctive features of adaptive mentors, we will focus on the overall pattern of mentoring activities that adaptive mentors articulate, in comparison to mentors who are non-adaptive in the abovementioned sense.

Insight into how mentor teachers understand adaptation of mentoring to individual differences in novice teacher learning may provide a step towards bridging prescriptive mentoring models and realities in the field (Cain, 2009). It can provide a sense of what mentors view as possible within the practical limitations of mentoring in schools, and thereby inspire discussion among teacher educators, both school-based and institute-based, of how mentoring could become more adaptive to novice teacher learning. It might also contribute to understanding the knowledge base behind mentoring, in which knowledge of teachers as adult learners is a prominent component (Achinstein & Athanases, 2005; Jones & Straker, 2006).

The literature on novice teacher mentoring distinguishes three ways in which mentors can be adaptive to individual differences between novice teachers; matching expectations of mentoring, being versatile in mentoring style, and reframing teaching with novices.

3.1.1 Matching expectations of mentoring

When asked to report on the help that mentors provide, mentees tend to provide overall affective reactions to the relationship itself (Allen & Poteet, 2011). Mentoring is first and foremost a personal relationship in which the mentor performs a variety of helping functions or roles (Abell, Dillon, Hopkins, McInerney, & O'Brien 1995; Roberts, 2000). Rajuan, Beijaard, and Verloop (2007; 2008; 2010) analysed the match between mentors' and novices' expectations of the roles of the mentor teacher in twenty novice-mentor pairs. They found that novices in either highly matched or highly mismatched pairs reported limited quality of learning, because of an imbalance between the degree of challenge and support that the novice teacher experienced. Novices in mixed matched pairs (where novices and mentors held both similar and different expectations) reported experiencing more balanced amounts of support and challenge, and a higher quality of learning.

In order to match novices' expectation, supervisors in Stephens and Waters (2009) provided novices with a choice of supervisory approach at the start of supervision, ranging from more structured to less structured. They found that complicating factors were novice teachers' ability to understand different approaches to supervision, and novices' level of competence and confidence. The adaptive mentorship model (Ralph & Walker, 2013b) assumes a more moment-to-moment matching between the support that novices expect and which mentors

provide. In this model, novices indicate their levels of competence and confidence regarding a specific task, and mentors try to 'match' the degree of taskoriented direction and person-oriented support they provide in supporting the novice to master this task. There is a general expectation that good mentors invite mentees to articulate their preferences and expectations about mentoring, negotiate possibilities to meet these expectations, and revisit and revise mutual expectations regularly (Hobson et al., 2009). The above research evidence suggests that highly matched expectations may be problematic for the quality of learning experienced through mentoring, and that explicit negotiation sets high demands on mentee self-awareness and knowledge of possible mentoring approaches. Such explicit negotiation also assumes that mentors are versatile enough in their approach to accommodate the different choices that novices may make.

3.1.2 Being versatile in mentoring style

In a year-long study of 18 mentors, Young, Bullough, Draper, Smith, and Erickson (2005) found that one-third of the mentor teachers shifted their mentoring style to accommodate characteristics of their novice teachers, in the course of the one-year mentoring relationship. While the majority of the mentors remained either responsive, interactive or directive in style throughout the year, others shifted their style, sometimes using one style for one mentee, and another for a second mentee. Studies that have found mentors to be consistently overly prescriptive, directive, informative, or non-directive (Ben-Peretz & Rumney, 1991; Strong & Baron, 2004; Williams et al., 1998) have been critical of the ability of mentor teachers to accommodate to both individual differences in novice teacher learning, and to novice teacher development over time. It is because of this perceived lack of versatility in style that programs and methods have been developed to train mentors to be more versatile. More versatile mentors are able to use directive as well as non-directive skills in mentoring conversations, and to be reactive to novice input as well as to actively initiate topics in the conversation (Crasborn, Hennissen, Brouwer, Korthagen, & Bergen, 2008; Timperley, 2001).

3.1.3 Reframing teaching with novice teachers

Achinstein & Barrett (2004) used the term 'reframing' to indicate how mentor teachers helped novices to talk about teaching not only within a managerial frame, but also in a human relations and a political frame. They found that the mentors struggled to respect novice teachers' existing values while trying to connect them to ways of seeing teaching. While some mentors had different repertoires of framing that allowed them to use different frames with different novices, others used one dominant frame across different novices teachers they mentored. Mentors that are skilfully adaptive in this sense find productive openings for constructing and reframing problems of practice (Bradbury, 2010; Feiman-Nemser, 2001b), 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). Reframing requires mentors to have an end-in-sight in working with novices, as well as an ability to 'read a mentoring situation' (Orland-Barak, 2001) to judge what is possible in guiding novices toward that goal. Being adaptive in this sense goes beyond matching the expectations of the novice, or adapting the mentoring style to the degree of direction the novice needs. It places novice teachers' learning in a larger view of what constitutes essential knowledge and values for novices to develop (Achinstein & Athanases, 2005).

Of these three ways of being adaptive to individual novice teachers and their learning, it is especially versatility and reframing that have been related to the mentoring conceptions that mentors hold and that inform their mentoring practice. This relationship is not the focus of this study. Rather, we draw on these findings to select mentor teachers that may be either more or less adaptive, and we therefore discuss this existing research work before moving on to our research method.

3.1.4 Mentoring conceptions related to being adaptive

Being able to reframe teaching with novices requires mentors to hold a 'bifocal' view of what constitutes good teaching for pupil learning, as well as good mentoring for novice teacher learning (Achinstein & Athanases, 2005; Athanases

& Achinstein, 2003; Feiman-Nemser, 2001b). Holding such a bifocal view has been associated with holding a developmental mentoring conception. Mentors holding such a mentoring conception orient themselves to mentee learning and professional development (Orland-Barak & Klein, 2005), but they also try to get novice teachers to take pupils' perspectives, thinking and sense-making into consideration (Feiman-Nemser, 2001b). They see novice teacher learning mainly in terms of developing understanding and awareness about interrelations between teaching and learning (Feiman-Nemser, 2001b; Graham, 2006), and in terms of constructing personal theories of teaching (Graham, 2006). They 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 attempt to provide novices with different perspectives on teaching (Franke & Dahlgren, 1996; Graham, 2006). Mentors holding this conception 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).

However, many mentors operate from an 'instrumental' conception, in which such a bifocal view is underdeveloped. Mentors holding such an instrumental mentoring conception, orient themselves mainly to concerns for effective teaching practice (Orland-Barak & Klein, 2005). They see classroom management as a paramount goal for novices, and try to secure novice teacher proficiency in the mechanics and routines of teaching so they can 'go it alone' without mentor support as soon as possible (Graham, 2006; Norman & Feiman-Nemser, 2005: Young et al., 2005). They focus mentoring discussions on their evaluations of observed teaching behaviours, and on novice teachers' feelings about their teaching (Franke & Dahlgren, 1996). Mentors in this conception see themselves mainly as 'maestros' (Graham, 2006), and they see novice teacher learning mainly in terms of performance improvement (Orland-Barak & Klein, 2005). Holding such an instrumental conception has been associated with being non-adaptive both in the sense of being versatile (Williams et al., 1998) and of reframing teaching with novices (Achinstein & Barrett, 2004).

3.2 Method

3.2.1 Participants

Individual interviews were conducted with 18 mentor teachers in secondary and vocational education in the Netherlands, associated with eight different teacher education institutes. Because we wanted to maximize the chances of finding highly adaptive as well as non-adaptive mentors in a relatively small sample, we chose to select mentors holding strong as well as weak developmental mentoring conceptions, and mentors holding strong as well as weak instrumental mentoring conceptions. Based on our discussion above of being the relationship between adaptiveness and mentoring conceptions, we assumed that mentors holding a developmental mentoring conception would be more likely to articulate adaptive mentoring activities, and mentors holding an instrumental mentoring conception would be less likely to articulate adaptive mentoring activities. Mentors were therefore selected based on their responses to a survey questionnaire, which measured the degree to which they held an instrumental mentoring conception and a developmental mentoring conception (see section 2.2.3.2). Of the 726 respondents, 245 (34%) indicated a willingness to participate in a follow-up study. The 18 participants in this study were selected from these 254 mentor teachers. Mentors were divided according to the mean scores for all 726 respondents on both mentoring conception scales. This resulted in four groups: mentors scoring above-average on both scales, below average on both scales, and either a combination of above/below or below/above the average on the two mentoring conception scales. From all four groups, equal amounts of mentors were selected at random and invited to participate in a follow-up study. Due to uneven response to the invitation in each group, the final sample included 6 mentors scoring above average on both scales, 3 mentors scoring below average on both scales, 4 mentors scoring below average for developmental mentoring conception and above average for instrumental mentoring conception, and 5 mentors scoring the opposite.

The final sample thus consisted of 18 mentor teachers, 11 males and 7 females. Age in years ranged from 26 to 59 years (M= 47.8 years, SD= 9.7). Teaching experience ranged from 3 to 37 years (M= 23.5 years, SD= 9.5). Mentoring experience was highly varied, and ranged from 3 to 30 years (M= 11.3

years, SD= 9.0) and 6 to 60 mentees mentored (M= 18.0 mentees, SD= 13.3). 7 mentors (39%) reported not having had any training for their role as a mentor teacher, and 11 (61%) reported having had one training, or more. In the total questionnaire sample these percentages were 46% and 52% respectively, suggesting that the training level of the 18 mentors in the final sample was slightly higher than that of the average mentor.

3.2.2 Context

Mentor teachers in the Netherlands are considered to be school-based teacher educators. In the last decade in the Netherlands, mentoring has increasingly become part of broader professional development efforts centred on collaborative school-institute partnership schemes, which have been actively supported through government funding, and which have raised demands for training and professional development opportunities for school-based teacher educators. At the national level, teacher educators are organized in the 'Dutch Association for Teacher Educators VELON'. The association has developed competence standards and a knowledge base for teacher educators, and provides teacher educators the possibility of certification according to these standards (Snoek, 2013). Currently only a small fraction of teacher educators have completed certification (European Commission, 2013). Consequently, certification hardly plays a role in mentor teacher selection and training. Mentor teachers tend to be selected mainly according to availability and subject matter matching, and most mentors only complete one basic mentor training which lasts several days, up to a week. Such basic training generally involves skill training for observing and performing mentoring dialogues with novice teachers (Crasborn et al., 2008), an orientation on program standards and competence-based training and assessment, and a clarification of the concomitant expectations for the mentor role.

3.2.3 Interviews and interview guide

In order to elicit mentor thinking about practice close to their actions and intentions, interviews were conducted on-site, directly following a post-lesson conversation with one of the mentor teacher's 'own' mentee teachers, that the mentor teacher had just observed teaching a full lesson. The mentoring conversation was audio-taped with a wireless microphone and mini-disc, with the interviewer following the conversation real-time in an adjacent room or hallway. This way, the interviewer was able to use specific probes in the subsequent interview, by referring to observed activities in the mentoring conversation, such as in the following interview fragment between the interviewer (I) and a respondent (R):

(I): I noticed that the first twenty minutes of the conversation were spent on talking about what went well.
(R): Yes.
(I): Do you do that intentionally?
(R): Yes.
(I): Why do you do that?
(R): I believe that everyone has a right to experience success. I try..... (transcript 10309, lines 147-159)

The interviews were semi-structured, and conducted according to a topic list, starting with questions about the observed mentoring conversations, and widening out to more general topics. This was done to address the 'here-and-now' as well as 'there-and- then' aspects of mentor teachers' professional practice (Baynham, 2011), and to provide mentors with a specific and concrete reference point, with which to compare their mentoring practice in general. The interview consisted of two parts; a task-based section, and a general section. Appendix 1 presents the topic list. Interviews lasted on average 67 minutes, ranging from 42 minutes to 132 minutes, and were transcribed verbatim from audio files.

3.2.4 Analysis

3.2.4.1 Analysis of interview fragments

Interview transcripts were analysed using Template Analysis (TA) (King, 2004; Brooks & King, 2012), within OpenCode 4.0 (ICT Services and System Development and Division of Epidemiology and Global Health, 2013), a software program that supports basic code-and-retrieve functionalities. A two-level hierarchical coding template was developed to describe mentor teachers' mentoring activities. At the lowest level, twenty-nine activities were identified. At the highest level, these activities were organized into four overarching mentoring functions, derived from a synthesis of literature on mentoring. The coding template is presented in the results section in answer to the first research question.

3.2.4.2 Coding template development

Coding started with four cases scoring the most 'extreme' on the questionnaire scales. After coding these four interviews in parallel by two researchers, an initial coding template was developed. Seven additional interviews were coded by one researcher leading to refinement and adding of codes in the template, and selected coded interviews and interview fragments were checked by the second researcher. Where there was disagreement on coding, code meanings and coding of fragments were discussed until consensus was reached, and the coding template was revised; code descriptions were refined and clarified and coded mentoring activities in the coding template were grouped according to the intentions in the combination of intention and activity in each coded mentoring activity. This was repeated with the remaining seven interviews. Complete saturation occurred only when all interviews were analysed, with the last interview adding a single new activity code. The coding template was again revised until consensus was reached, and previously coded interviews were recoded based on the final coding template.

In the final coding template, each code was denoted by a verb to indicate the core of the mentoring activity, and accompanied by a lengthier description indicating the activity and the intention involved in the activity. Although for reasons of briefness the code label only expresses the activity, the code was assigned to the combination of activity and intention mentioned in the full code description. The concept of a mentoring activity was thus made operational as the articulation of a combination of activity and intent; an articulation by the mentor of a specific activity that the mentor performs, and of what the mentor intends to achieve with regard to the learning process of the novice teacher through this activity. Codes were therefore assigned to interview fragments only if the activity and accompanying intentionality were explicitly articulated in the transcript. Codes were not assigned in case 1) a mentor articulated an intention without clarifying an action with which to realise that intention, or 2) articulated an action without clarifying an intention behind that action.

3.2.4.3 Final scoring of interviews

After coding of interview fragments, each participant was given a score for each mentoring activity, based on their articulation of this activity in the interview transcript as a whole. Mentors were scored either a 1 (articulated in interview transcript) or a 0 (not articulated in interview transcript) for each mentoring activity in the final coding template. Based on these scores for individual activities, each participant was given a combined score for each group of activities, based on the sum of scores of the activities in this group.

3.2.4.4 Identification of adaptive mentoring activities

Mentoring activities were identified as adaptive where the code description of the mentoring activity included an intention to match or adapt an aspect of the mentoring process to characteristics of the individual novice teacher and how he or she learns, or to differences between novice teachers and how they learn in general. This was done during the final coding phase of recoding based on the final coding template.

3.2.4.5 Scoring of mentor adaptiveness

Mentors were assigned a score for adaptiveness based on the sum of scores on the identified adaptive activities. Mentors with an adaptiveness score of 0 (mentioning no adaptive activities) were defined as non-adaptive, and mentors with an adaptiveness score of 3-4, (mentioning 3-4 adaptive activities, 4 being the maximum score), were defined as highly adaptive.

3.2.4.6 Analysis of distinctive features of adaptive mentors

To explore distinctive features of adaptive mentors, correlation coefficients were calculated between participants' adaptiveness score and both their combined scores for groups of activities (excluding the adaptive activities), and their scores for individual mentoring activities. We used Kendall's tau-b; this is a nonparametric measure, suitable for ordinal data and small data samples with a large number of tied ranks, which was the case in our sample.

In addition, patterns of mentoring activities articulated by highly adaptive mentors were contrasted with patterns of mentoring activities articulated by non-adaptive mentors. In doing so we looked at contrasts where at least 25% of the mentors had a different score on a mentoring activity. These contrasts are presented in answer to the third research question.

3.3 Results

3.3.1 Mentoring activities articulated by mentors

Mentor teachers articulated twenty-nine different mentoring activities. Based on the intentions involved in these activity-intention combinations, we distinguished four groups of activities, namely mentoring activities oriented at A) providing emotional and psycho-social support for learning, B) supporting construction of personal practical knowledge of teaching, C) creating a favourable context for novice teacher learning, and D) changing novice teacher behaviour (Box 3.1).

Individual mentors articulated 6 to 14 mentoring activities (M = 10.6, SD= 2.2). Corresponding to the numbers in Box 3.1, mentoring activities articulated most frequently were (B.14) initiating and (A.1) affirming, closely followed by (B.13) encouraging, (C.19) facilitating and (D.26) imposing. Mentoring activities articulated least frequently were (B.9) providing novice teachers access to mentor thinking and (B.11) addressing novice teachers' motivation (Figure 3.1).

Box 3.1. Mentoring activities articulated by mentors in this study.

A. Providing emotional and psycho-social support

- 1. **Affirm:** indicating specifically what a novice teacher did or does well, to make him/her aware of strengths and capabilities
- 2. Attune: attuning the mentoring approach to what a novice can handle emotionally, to prevent anxiety, nervousness or withdrawal due to emotional over-taxing
- 3. **Be there**: being there and actively available for the novice teacher, to lower the threshold for help-seeking and involvement in mentoring
- 4. **Buffer feedback :** sequencing positive feedback and discrepancy feedback to buffer the effect of the latter and communicate positive intent
- 5. **Indicate growth:** comparing current and previous performance of the novice, to ensure novice awareness of progress and prevent over-dwelling on weaknesses
- 6. **Orchestrate success:** creating a setting that evokes for the novice an experience of success as a teacher, to confirm their sense of competence and self-confidence
- 7. **Reassure:** reassuring the novice and putting experiences in perspective, to take away anxiety and doubts about their level of competence
- 8. **Share:** sharing personal experiences, to make the novice feel personally connected with the mentor and prevent feelings of isolation and alienation

B. Supporting construction of personal, practical knowledge about teaching

- 9. Access thinking: stimulating the novice to discuss the mentor's teaching with him/her after observation, to provide access to mentor thinking about teaching
- 10. Adapt: adapting the form of mentoring conversation to match the novice teacher's capacity for reflecting about teaching
- 11. Address: addressing the novice's motivations and drives for teaching, to rekindle enthusiasm and help them make a conscious and engaged choice for teaching

Box 3.1. (continued)

- 12. **Build:** building tasks from simple to complex in relation to novice teacher capacity level, to prevent mental overload of mentees
- 13. Encourage: encouraging novices, through questioning, to think through topics they bring in, to attend to their concerns and promote ownership of solutions
- 14. **Initiate:** stimulating novices, through questioning, to think through topics initiated by the mentor, to check/stimulate awareness and promote ownership of solutions
- 15. Link: linking back/forward to a previous/next conversation, to ensure a sense of continuity and prevent one-shot sessions
- 16. **Structure:** structuring the mentoring conversation according to a sequence of steps, to ensure completion of a specific process of reflection

C. Creating a favorable context for novice teacher learning

- 17. Align: informing about or responding to the novice teacher's expectations, to align the mentoring process with the novices teacher's expectations and needs
- 18. **Bound:** keeping mentoring interactions bounded to specific moments, to maintain informal and collegial interactions with mentees, alongside the mentoring relationship
- 19. **Facilitate:** organizing access to learning experiences for the novice teacher, to broaden the learning experience beyond the mentor-mentee relationship
- 20. **Give status**: stepping back, staying away, not observing or not intervening in order to give the novice the status of 'real teacher' vis-a-vis the pupils
- 21. **Induct:** introducing the novice teacher as a participant in non-teaching professional activities, to induct him/her into working as a teacher beyond the classroom
- 22. **Intervene:** intervening directly in the relationship between the novice teacher and pupils on behalf of the novice, to prevent escalation of potentially volatile situations

Box 3.1. (continued)

- 23. **Make responsible**: making the novice teacher responsible for an authentic product or task, to let them learn through risk-taking, doing or making in a real setting
- 24. **Protect:** intervening in the organization of the novice teachers' placement, to eliminate potential obstacles for optimal novice teacher development.

D. Changing novice teacher behavior

- 25. Advise: giving advice, tips or suggestions on topics novices bring in, to attend to novice concerns and to provide them with solutions to adopt or choose from
- 26. **Impose:** telling novices what was good or problematic, and imposing solutions for problems, to ensure subsequent desired thinking and behavior
- 27. **Model:** modeling/showing novices ways of doing or being, to provide them with alternative courses of action and images of how to teach or be a teacher
- 28. **Monitor:** monitoring novice teacher progress on realizing intentions developed in mentoring conversations, to ensure attempts are made to realize learning goals.
- 29. **Orchestrate challenge:** creating a task or setting that forces the novice to stretch beyond current dispositions, to help develop professionally more appropriate ones

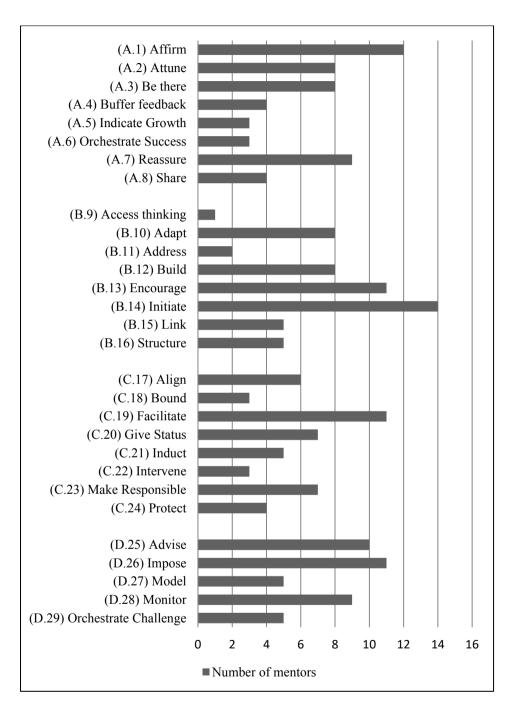


Figure 3.1. Mentoring activities by frequency of articulation.

3.3.2 Adaptive mentoring activities

Mentors articulated four activities that involved an intention to adapt mentoring to how novice teachers learn. Corresponding to the numbers in Box 3.1, these were: (A.2) attuning to the emotional state of the mentee and what the mentee can handle emotionally, (B.10) adapting to the novice teacher's' capacity for reflection, (B.12) building tasks from simple to complex to match novice teacher's competence level and (C.17) aligning mentoring to mentees' expectations. These adaptive mentoring activities were spread across three of the four groups of mentoring activities: no adaptive activities were oriented at changing novice teacher behaviour, and two were oriented toward supporting novice teacher construction of personal practical knowledge (Table 3.1). Attuning, adapting and building were articulated by eight mentors, and aligning was articulated by six mentors (Figure 3.1).

Mentoring activity group	Adaptive mentoring activities in this group							
A. Providing emotional and psycho-social support	2.Attune: attuning the mentoring approach to what a mentee can handle emotionally, to prevent anxiety, nervousness or withdrawal due to emotional over-taxing							
B. Supporting construction of personal, practical knowledge about teaching	10. Adapt: adapting the form of mentoring conversation to match the mentee's capacity for reflecting about teaching							
	12. Build: building tasks from simple to complex in relation to mentee capacity level, to prevent mental overload of mentees							
C. Creating a favorable context for novice teacher learning	17. Align: informing about or responding to the mentee's expectations, to align the mentoring process with the mentee teacher's expectations and needs							
D. Changing novice teacher behavior	(none articulated)							

Table 3.1. Adaptive mentoring activities by group of mentoring activity.

Note: Numbers in parentheses correspond to numbers in Box 3.1.

Attuning to what mentees can handle emotionally was articulated in connection to mentor teachers' views of novices being anxious, lacking confidence, being highly sensitive in receiving comments, being tired and drained from teaching, crying and being confused, being reluctant to talk about a difficult personal background, and unpredictable moments of emotion where a deeper kind of 'breakthrough' occurred. This led to attuning by being more careful in providing comments, postponing observations to give the novice room to adjust, engaging mentees in talk about their inner workings, and setting aside more time to talk with mentees, or indicating that the occurring emotional problems were beyond the scope of mentoring.

Adapting the mentoring conversation to mentee's level of reflective capacity was articulated in connection to mentors' views of novices being either easy talkers or unaccustomed or unwilling to talk about themselves, being either independent in thinking or complacent and unconcerned, being able or unable to come up with solutions for problems, being at a beginning or advanced level of thinking about teaching, and being unaware or highly aware of their behaviours or weaknesses. This led to starting with open talk to find openings in novices' personal backgrounds to connect to teaching, talking more loosely or more actively monitoring the mentee's talk in the conversation, trying to get mentees to come up with solutions for problems or providing them with solutions, and confronting novices by providing problematic observations or by making them watch and analyse videotapes of themselves teaching.

Building tasks from simple to complex was articulated in connection to mentor teachers' views of how novices develop as teachers. It involved incrementally working on learning goals in small steps one at a time, starting to teach part lessons in working towards teaching whole lessons, and working on group management before moving on to advanced work such as independent design of teaching units, attention for individual pupils or experimentation with more complex teaching strategies.

Aligning with novices' expectations was articulated in connection to starting the mentoring relationship with discussions of novices' willingness to be mentored, views of teaching, desired frequency of mentoring, desired mentoring style, and mutual timetables and obligations, and to responding to novices that ask for more frequent mentoring sessions during the mentoring process.

3.3.3 Distinctive features of adaptive mentors

Individual mentors articulated up to three adaptive mentoring activities (M=1.7, SD=1.2). Six mentors articulated a total of three adaptive activities each (Figure 3.2). In line with our previous definition of highly adaptive mentors as mentors that articulate many adaptive mentoring activities, we will refer to these six mentors as highly adaptive mentors. The correlation between the overall number of mentoring activities that mentor teachers articulated, and the number of adaptive activities they articulated was not statistically significant ($\tau = .24$, (one-tailed) n.s.), which suggests that the number of adaptive activities that mentors articulated was not an artefact of mentors' tendency to verbalize mentoring activities.

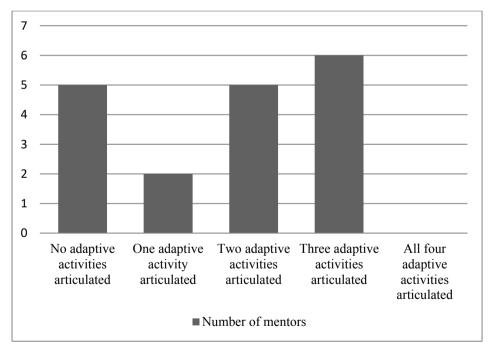


Figure 3.2. Number of mentors by number of adaptive activities articulated.

Correlations showed two major distinctive features of adaptive mentors: 1) that they articulated relatively more activities oriented at construction of personal practical knowledge by novice teachers (activities 13 through 16, Table 3.2), and 2) that they articulated relatively fewer activities oriented at creating a favourable context for novice teacher learning (activities 18 through 24, Table 3.2). The correlations between mentors' adaptiveness score and their combined score for these two groups of activities were statistically significant. On average, the more adaptive mentoring activities oriented at supporting construction of personal practical knowledge ($\tau = .42$, p < .05), and the less likely they were to articulate mentoring activities oriented at creating a favourable context for novice teacher learning a favourable construction of personal practical knowledge ($\tau = .42$, p < .05), and the less likely they were to articulate mentoring activities oriented at creating a favourable context for novice teacher learning a favourable context for novice teacher learning a favourable construction of personal practical knowledge ($\tau = .42$, p < .05), and the less likely they were to articulate mentoring activities oriented at creating a favourable context for novice teacher learning ($\tau = .63$, p < .01).

A third distinctive feature of adaptive mentors was their articulation of the mentoring activities (B.13) encourage, (C.20) give status, (C.22) intervene and (D.28) monitor: the correlation between mentors' scores on these activities and their adaptiveness score was statistically significant. So on average, the more adaptive mentoring activities mentors articulated, the more likely they were to articulate the activities of (B.13) encouraging novices to think through topics they bring in ($\tau = .59$, p < .01) and of (28) monitoring progress on learning goals ($\tau =$.63, p < .01). Also, the less likely they were to articulate the activities of (C.20) stepping back in order to give novices the status of 'real' teacher vis-a-vis pupils $(\tau = -.74, p < .01)$, and of (C.22) intervening directly in the novice teacher-pupil relationship to prevent problematic situations ($\tau = -.54$, p < .05). Inspection of the patterns of articulated mentoring activities of the six highly adaptive versus the five non-adaptive mentors showed a similar pattern. Corresponding to the numbers in Table 3.2, all of the highly adaptive mentors articulated the mentoring activities (B.13) encouraging and (D.28) monitoring, and none of them articulated the activities (C.20) giving status and (C.22) intervening.

A fourth distinctive feature of adaptive mentors was their articulation of the mentoring activities (A.3) be there, (B.16) structure and (D.29) orchestrate challenge. This was based on the patterns of articulated mentoring activities of the six highly adaptive versus the five non-adaptive mentors (Table 3.2). With a difference of at least 1 in 4 (25%), highly adaptive mentors articulated more (A.3) being there and available for novice teachers, more (B.16) structuring of mentoring conversations to complete a specific process of reflection, and less

(D.29) orchestrating challenge to force novices to stretch beyond current dispositions. The correlations between mentors' adaptivity scores and their scores on these activities were not statistically significant, however.

Finally, within the highly adaptive mentors, more 'cognitively adaptive' and more 'emotionally adaptive' mentors could be distinguished, based on the comparison of patterns of articulated mentoring activities between these two groups. With a difference of at least 1 in 3 (33%), these two groups differed in their articulation of the mentoring activities (A.2) attuning to what mentees can handle emotionally, (B.10) adapting to novice teachers' reflective capacity, (A.5) indicating growth, (B.15) linking mentoring conversations, and (C.18) keeping mentoring bounded to specific moments. The more cognitively adaptive mentors (mentors A1-A3 in Table 3.2) articulated more (B.10) adapting to novice teachers' reflective capacity, (A.5) indicating growth and (B.15) linking mentoring conversation. The more emotionally adaptive mentors (mentors A4-A6 in Table 3.2) articulated more (A.2) attuning to what mentees can handle emotionally and (C.18) keeping mentoring bounded to specific moments. The two subgroups were also different according to gender. The more adapting, 'cognitively adaptive' mentors (mentors A1-A3; Table 3.2) were all male; the more attuning, 'emotionally adaptive' mentors (mentors A4-A6; Table 3.2) were all female.

	Highly adaptive mentors					Non-adaptive mentors					
Mentor	A1	A2	A3	A4	A5	A6	N1	N2	N3	N4	N5
Mentor gender	F	F	F	М	М	М	М	М	М	F	F
Adaptive mentoring activities											
2. Attune				Х	Х	х					
10. Adapt	х	Х	х	х							
12. Build	х	х	х	х	Х	х					
17. Align	х	х	х		Х	Х					
A. Providing emotional and psycho-social support											
1. Affirm	Х	х	х	Х	Х		Х	Х	х		
3. Be there	х	х	х	х		х			х	х	
4. Buffer feedback			х				х	х			
5. Indicate Growth	х	х							х		
6. Orchestrate Success								х			
7. Reassure	х					х		х		х	
8. Share										Х	Х
B. Supporting construction of personal, practical knowledge about teaching (*)											
9. Access thinking											Х
11. Address											х
13. Encourage (*)	х	х	х	х	Х	х				х	
14. Initiate	х	х	Х	х	Х				х	Х	Х
15. Link	х	Х	Х						х		
16. Structure	Х			Х	Х						
C. Creating a favorable conte	xt for	· novie	ce tea	cher	learn	ing (*	*)				
18. Bound				х		х			х		
19. Facilitate	х		х		Х			х	х	Х	Х
20. Give Status (*)							х	х	х	Х	Х
21. Induct			х				х		х		Х
22. Intervene (*)							х	х	х		
23. Make Responsible							х	х			
24. Protect			х					Х		Х	Х
D. Changing novice teacher b	ehavi	ior									
25. Advise		х	Х		Х	Х			Х	Х	
26. Impose	х	х		х	х		х	х	х	х	
27. Model						х	х	х			
28. Monitor (*)	х	х	х	Х	х	х					х
29. Orchestrate challenge							Х	Х	Х		

Table 3.2. Patterns of articulated mentoring activities for highly adaptive and non-adaptive mentors.

Note: Numbers for mentoring activities correspond to numbers in Table 1.

(*) indicates single activities or groups of activities that correlated statistically significant with mentor adaptiveness scores.

Contrasts between highly adaptive and non-adaptive mentors. Contrasts between 'cognitively adaptive' and 'emotionally adaptive' mentors.

3.4 Discussion

The aims of this study were to describe the adaptive mentoring activities that mentor teachers articulate in describing their practice, and to explore characteristics of adaptive mentors.

Mentor teachers articulated four adaptive activities: 1) aligning mutual expectations of mentoring, 2) attuning to mentees' emotional states, 3) adapting to mentees' capacities for reflecting, and 4) building tasks to match mentees' levels of development. These ways of being adaptive to individual differences in novice teacher learning reflect current notions in research work on novice teacher mentoring of what it means to be adaptive: matching mutual expectations (Rajuan et al., 2010), shifting style (Crasborn et al., 2008) and helping novices to reframe teaching (Bradbury, 2010).

Adaptive mentors were more likely to mention activities oriented at supporting construction of personal practical knowledge, such as encouraging novice teachers to think through problems they bring in, and structuring mentoring conversations to complete a process of reflection. These characteristics are relevant for stimulating novice teachers to adopt a meaning-oriented learning orientation, similar to what expert teacher educators in Bronkhorst, Meijer, Koster, and Vermunt (2011, p.1127) define as "learning to teach by developing an informed, personal theory of practice." When novices adopt an open-meaning orientation to learning to teach, they try to improve their practice as well as develop their frames of reference for understanding teaching, and use a variety of internal and external sources to regulate their learning (Oosterheert, 2001). However, recent findings suggest that many novice teachers may regress towards less favourable learning orientations in their initial years (Vermunt & Endedijk, 2011). Further research should therefore focus on how adaptive mentors might not only match the mentoring process to novice teachers' ways of learning, but also help novice teachers to grow as learners. Such research should be longitudinal, to see how novice teachers' ways of learning might change over time, and how mentor teachers might play a role in their shifts towards more developed ways of learning.

Adaptive mentors were either more oriented toward the emotional aspects of novice teacher learning or more to the cognitive aspects. The more cognitively oriented adaptive mentors mentioned more adapting to reflective

capacity, linking of mentoring conversations and indicating growth. These are mentoring activities that may function to enhance novice teachers' sense of continuity and growth in learning to teach. The more emotionally oriented adaptive mentors mentioned relatively more attuning to emotional capacities, and bounding; keeping mentoring interactions bounded to specific moments, to maintain informal collegial interactions alongside the mentor-mentee relationship. The latter activity may function to make mentoring interactions safer for novices, by creating a specific place and time to discuss more emotionally laden matters, while simultaneously protecting mentors from being over-taxed in providing emotional support. These findings are in contrast to previous findings that a focus on feelings may lead mentors to create a community of compassion, rather than one of inquiry with novices (Young et al., 2005). There is no indication that the emotionally adaptive mentors in our study provide such emotional support simply as a buffer while trying to get novices to 'go solo' in teaching as quickly as possible. They do not mention a focus on giving novices the status of 'real' teacher vis-à-vis pupils, intervening directly in novices' relationships with pupils or setting tasks to force novice teachers to change their dispositions. Rather, these emotionally adaptive mentors combine their focus on emotional aspects of novice teacher learning with attention for encouraging novice teacher reflective thought, and for progressively developing novice teacher competence. We suggest that in light of recent concerns about the level of emotional intelligence of novice teachers (Corcoran & Tormey, 2012) future research should pay special attention to how such emotionally adaptive mentors might help novice teachers with the development of emotional skill in teaching and learning to teach. We also suggest that such future research should attend to mentor gender, as we found that the emotionally adaptive mentors were all female, whereas the cognitively adaptive mentors were all male. This is consistent with research on gender in mentoring, which has found that female mentors tend to engage more in psychosocial support, whereas male mentors tend to engage more in career development support (O'Brien, Biga, Kessler & Allen, 2010).

A limitation of this study is that mentors' accounts of practice were collected at one point in time. Mentors' capacity for talking about their practice and explicating their activities is necessarily limited. Their articulation of activities may also have been influenced by the context of the specific mentee and the mentoring issues connected to this novice/mentee teacher. Collecting multiple records over time would have made it possible to collect a larger sample of articulated activities across mentors' practice. To some degree, this was compensated for by asking for comparison of the conversation with other conversations with this and other novice teachers, and for examples of how these were comparable or different. The transcripts showed many mentors engaging in significant storytelling about other cases and their own approach in those cases, shifting into performed direct speech (directly performing speech as a mentor, novice or pupil), and co-constructing the narrative with the interviewer, similar to teachers in interviews analysed by Baynham (2011). That study used a similar interview protocol addressing 'here-and-now' as well as 'there-and- then' aspects of professional practice, and connected the aforementioned features to solidarity features between interviewer and interviewee. The narrative quality of much of the interview data therefore suggests to us that within the limitations of a single interview, significant information on mentors' activities is likely to have surfaced.

A second limitation is of course the limitation to mentor teachers' point of view. For instance, from the mentors' point of view, being available for novice teachers was not linked to specific differences in novice teachers. However, from the point of view of the novice teacher, being available when needed may be seen as being adaptive to their needs. Novice teachers in Carter and Francis (2001) evaluated the effectiveness of their mentoring relationships mainly in terms of proximity and availability of the mentor, regardless of differences in age and experiences. Mundane as this may seem, structured timetables and busy school environments may pose serious threats to being sufficiently available just when a mentee is in need of support (Brooks, 2000). We therefore suggest that for a fuller understanding of the concept of adaptiveness, further research work should include and contrast the perspectives of mentors as well as novice teachers.

Mentoring, as school-based teacher education, requires the development of 'second-order competences', concerning knowledge about how teachers learn and become competent teachers, as about teachers as adult learners and associated pedagogy (European Commission, 2013). This includes knowledge of individual differences in novice teacher learning and ways to accommodate to such differences in mentoring. The findings of this study could be used to help mentor teachers develop such knowledge, in learning communities of teacher educators or in seminars and training for mentor teachers (Hobson et al., 2009). We suggest two ways in which the results of this study may be used to help mentors develop knowledge about adaptive mentoring, as well as a more adaptive disposition towards novice teachers.

First, simply presenting mentors with the list of activities developed in this study may help them to see alternative courses of action they had not envisioned, but ones that they recognize as providing additional repertoire to be more flexible in their response to novice teachers. Mentor teachers often work in isolation and with limited opportunities to observe and learn from the mentoring practices of their peers. As a substitute, the list of mentoring activities provides mentors access to the practical knowledge and practices of their peers, in a condensed form. After presenting mentors with this list, they can be asked to identify which activities would be most suitable for what kind of situations. In the interviews, mentor teachers identified how certain activities were appropriate for some situations and not for others. Conversely, mentors may also be asked to first identify differences between novice teachers from previous experience, and subsequently be presented with the list of activities in order to identify which activities would most productively be used for which novice teacher. Such activities may help mentors to make connections between differences in novice teacher learning and appropriate activities in mentoring. The interviews showed most mentors to be able to recall differences between mentees and one or more mentees they found difficult to mentor. Most mentors discussed such cases as examples of where and how they would draw or had drawn a line in accepting sub-par performance or dispositions of novice teachers. The adaptive mentors also discussed such cases as examples of how the mentor had adapted the mentoring process to match the learning process of the mentee. We therefore suggest more specifically that a fruitful opening might be to start by having mentors identify those characteristics they find acceptable and unacceptable in novice teachers, in light of the goals of novice teacher preparation. This may help to 'stretch' mentor thinking into how mentoring might even be adaptive in cases where they might previously have drawn the line, but also to collectively discuss the boundaries of being adaptive, and of when and where it might also be appropriate to terminate mentoring relationships.

Second, specific activities on the list may be discussed with mentors to stimulate them to take a more adaptive perspective toward mentoring. One set of

activities to focus on would be the contrast between a) attuning to novice teachers' emotional states and making mentoring conversations a 'safe haven' separate from other collegial interactions, and b) adapting to the capacity of the novice to reflect on their teaching and stimulating novice teacher awareness of personal growth and continuity in learning. The interviews showed that the highly adaptive mentors differed especially with respect to these adaptive activities. Highlighting this contrast may allow mentor teachers to also address their own individual style and preference in how they want to be adaptive. A second activity to focus on would be to discuss the feasibility of and reasons for making time to discuss mutual expectations of mentoring with novice teachers. This is a fairly distinct adaptive activity, but one that very clearly communicates a willingness to be adaptive on the part of the mentor. This may directly challenge mentors to consider the preferences novice teachers might have, and how they may need to shift their style of mentoring to accommodate to such preferences. A third set of activities to focus on would be to help mentors to think through ways to encourage novice teacher input and thinking in mentoring conversations, and to monitor novice teacher progress on learning goals developed through mentoring conversations, as well as to help them think through the reasons behind such activities. In our study, such activities were emphasised by the more adaptive mentors, and discussing such activities may help mentors to adopt a more overall adaptive stance to mentoring. Discussing such specific activities that may help make mentoring more adaptive should also address how mentors might feasibly incorporate such activities into their mentoring practices, what might hinder them to do so and how they might overcome these hindrances. Doing so may lower the threshold for mentors to actually engage in such activities and make their mentoring practices more adaptive to individual differences in novice teacher learning.