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When style meets pattern in mentoring talk: implications for student teacher community learning environments in practice teaching

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ABSTRACT

This study investigates how mentor talk unfolds in a community of learners during an entire school year in the context of practice teaching in university teacher education. Specifically, it focuses on how emergent styles and patterns of mentor's talk shaped power relations in the discourse, promoting different kinds of learning environments. Data collection included 23 video-recorded meetings of the learning community of 11 student teachers and a university mentor and 25 semi-structured interviews with all participants including the mentor. Findings show that styles and patterns of mentor talk are central to how a particular learning environment in a community develops. Implications for pre-service mentors' roles in the context of student teacher learning in a community are discussed.

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Talk patterns; talk styles; mentor roles; learner communities; learning environment

1. Introduction

Mentored learning communities of practice have become, today, integral to teacher education curricula (Feiman-Nemser & Carver, 2012; Hadar & Brody, 2012). This comes as a response to recent views calling for learning to teach to become a more 'situated social practice' (Douglas, 2014), one that creates relevant links between academic preparation and school-based experiences (Feiman-Nemser & Carver, 2012). To this end, various learning community frameworks have been developed to create such links (Carroll, 2005; Goodwin, Del Prete, Reagan, & Roegman, 2015; Wing-mui So, 2012). This is a welcome development, although there is still much uncharted terrain. For example, we need to better understand how participants learn in the communities (Hairon, Wee Pin Goh, Siew Kheng Chua, & Wang, 2017) and, more specifically, how mentors' mediating actions operate to promote particular kinds of learning environments for student teachers. To date, several important studies have focused on the discourse that develops in teacher learning communities and how it shapes participants' development (Eteläpelto, Littleton, Lahti, & Wirtanen, 2005; Hadar & Brody, 2012). Studies have also investigated the knowledge that develops and the conditions conducive for learning in a community (Lewis & Ketter, 2004). Less research, though, has been conducted on the processes that unfold in mentored learning interactions

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and on how these create particular learning environments for student teachers' learning in collaborative school-based practice teaching settings. This paper attends to this missing lens. It presents part of the findings of a larger study in the context of practice teaching in ITE in Israel, which focused on the discursive features that characterise mentor mediation of student teachers' learning in a community over time (an entire academic year) (Rachamim, 2014). Specifically, we look at how particular discursive features shaped the power relations that emerged and how these, in turn, promoted particular forms of learning environments.

2. Mentoring conversations

Mentoring conversations as professional interchanges are regarded as central to the practice of mentoring. The form and content that a mentoring conversation takes depends largely on the approach to mentoring espoused, often informed and directed by contextual, curricular, population and school culture factors (Wang, 2001). By and large, research on mentoring conversations has focused on conversations conducted between student teachers and school-based mentors during practice teaching in the context of pre-service education. The focus of research has been mostly on the way in which conversations are structured and organised and what participants talk about (pupils, the class or subject-matter talk) (Hennissen, Crasborn, Brouwer, Korthagen, & Bergen, 2008; Sundli, 2007; Timperley, 2001; Wang, 2001). Studies also suggest that mentoring conversations tend to focus mostly on specific performances and behaviours rather than on critical exploration of ingrained beliefs or assumptions about teaching, learning and education (Timperley, 2001). A few studies also emphasise the content and the forms that mentoring conversations take. In terms of content, findings point to teaching strategies and to instructional and organisational competence as the most predominant topics in mentoring conversation (Helgevold, Næsheim-Bjørkvik, & Østrem, 2015). In terms of form, studies suggest the need to structure conversations around more collaborative forms of discourse whereby both mentor and mentees engage in shared reasoning towards joint problem-solving of core pedagogical and educational issues at stake (Helgevold et al., 2015; Timperley, 2001). Cognitive coaching is another form of conversation examined, pointing to the potential of mentors' use of indirect suggestions to encourage novices to produce more elaborated responses (Strong & Baron, 2004). Adhering to a focus on form, our study sought to identify the forms that mentoring conversations take as reflected in the mentor's pattern and styles of talk. We then looked at how different forms of mentoring conversation influence the learning environment that is created in a community of learners.

3. Collaborative learning environments in practice teaching

A 'learning environment' is defined as the interplay between physical conditions and the interpersonal social interactions that promote learning opportunities (Smith, Smith, & De Lisi, 2001). The concept of collaborative learning environments in the context of practice teaching is rooted in the premise that learners' beliefs, assumptions and enacted practices are best challenged and refined when they are articulated, heard and appreciated by others. Combining dialogue with reflection with the support of a mentor, participants are encouraged to construct professional knowledge towards meaningful change (Daloz, 1999; Orland-Barak, 2014). Such environments promote the exploration of similarities and differences among views and standpoints; they allow for personal stories to be heard while

acknowledging the value of adopting a critical stance towards learning to teach; they also encourage the re-examination of participants' beliefs, assumptions and educational visions, while being sensitive to cultural differences (Eteläpelto et al., 2005; Orland-Barak, 2010). Taken together, different learning environments can promote different kinds of professional discourse.

4. Professional discourse

Professional discourse is regarded as a powerful channel through which knowledge is constructed. It allows participants to acquaint themselves, to interpret and to respond to challenges in their professional work (Clark, 2001). In many cases, it can lead to conceptual change and construction of new meanings (Orland-Barak, 2006). Potential contributions to learning through professional discourse are increased as the range of opinions expressed is broader, bearing a crucial effect on the depth of examination of the particular issue at hand, and on the development of what is often coined as collective knowledge (Engeström, Engeström, & Suntio, 2002). Conflicts that arise from differences of opinion are seen as sources of positive confrontations, creating opportunities for reconstructing relationships and understandings. In the process, participants confront ideas and beliefs, examine the pros and cons of their perspectives, are exposed to alternative perspectives, and engage in suggestions for alternative behaviours which can be implemented in practice (Lewis & Ketter, 2004). Discourse is also encouraged when certain norms of behaviour are implemented within the group such as shared responsibility, commitment to the process and a relationship of trust, respect and equality among the participants (Timperley, 2001). The mediating role of the mentor is, thus, crucial to the kind of professional discourse that develops in community (Orland-Barak, 2014).

4.1. Role of the mentor in mediating professional discourse in a community

There is vast evidence to suggest that the mentor plays a key role in promoting student teacher learning in a community (Feiman-Nemser & Carver, 2012; Orland-Barak, 2010; Wang & Odell, 2002). To this end, mentors have a crucial function in encouraging student teachers to engage in collaborative exploration, while critically reviewing their conceptions and beliefs (Edmondson, 2003). The interaction and the discourse that develops in these mentored collaborative settings is also highly determined by how mentors position themselves in relation to participants' attitudes, responsibilities and accountabilities (Bullough & Draper, 2004). Specifically, the professional discourse that develops is strongly influenced by the quality of mentors' support and challenge (Daloz, 1999; Orland-Barak, 2010); by the connections established between different kinds of knowledge (Gore, Griffiths, & Ladwig, 2004); and by the way in which student teachers are encouraged to critically examine practice, while challenging taken-for-granted assumptions and surfacing gaps between theory and practice (Wang & Odell, 2002). The different conceptions of mentors' roles represent different forms of knowledge validation, affecting the kind of positioning mentors adopt and, consequently, the nature of the discourse that develops (Vanassche & Kelchtermans, 2014). In cases where the mentor's authority dominates the discourse, participants are positioned subordinately in regard to their knowledge. By contrast, in cases where participants'

knowledge is validated, the discourse is characterised by cooperative activity in community amongst participants, the mentor being one of them (Zellermayer & Tabak, 2006).

4.2. Patterns and styles of talk in professional discourse

Mentors' mediation of student teacher learning in community is strongly shaped by the patterns and styles of talk that characterise their discourse. 'Patterns of talk' operate as framing structures for the diverse styles of talk, i.e. the norms, exchanges, transactions and relationships that emerge and unfold in interaction while mediating participants' discourse (Rachamim, 2014). Our larger study distinguished three types of patterns of talk: 'Monologue', 'Star' and 'Switchboard'. In the 'Monologue Pattern' the mentor uses the floor time unilaterally, establishing hierarchical power relations that stress asymmetry between him/her and the student teachers. In the 'Star Pattern', none of the participants holds a privileged position, and the discourse is characterised by equal power relations more as an egalitarian dialogue (Rachamim & Orland-Barak, 2016). In the 'Switchboard Pattern' (Philips, 1972) participants' 'speaking turns' are interspersed with the mentor's 'speaking turns' and all interactions are channelled through the mentor. This pattern also creates hierarchical power relations, although by contrast to the Monologue, there is a two-way conversational platform between the mentor and the student teachers (Rachamim, 2014). See Table 1 for differences between discourse patterns.

'Styles of talk' reflect the diverse norms, exchanges, transactions and relationships that characterise the mentor's mode of mediation in discourse. Few studies have investigated styles of talk in teacher social discourse. Tracy's study (2003), for example, identifies argumentative and dilemmatic discourses as two styles that operate in social communication. In argumentative discourse, participants use language to justify or refute a position in order to influence and persuade others to adopt a certain position. In dilemmatic discourse, participants engage in intellectual talk while also sharing emotions. In the context of in-service professional communities of learning, Orland-Barak (2006) identifies three styles of talk amongst participants: Convergent dialogues whereby participants arrive at shared solutions to specific problems; divergent dialogues around how practices compare; and parallel dialogues where participants engage in personal, internal dialogue. Drawing on the above studies as a starting point, our larger study (Rachamim, 2014) identified eight styles of talk in the context of a pre-service learning community of student teachers. Three of these styles were found to support former studies: The '*dilemmatic-confronting style*', i.e. critical examination of an ethical issue from a variety of angles; the '*argumentative style*',

Table 1. Differences between discourse patterns.

	Monologue	Star	Switchboard
Definition	Unilateral use of the floor time by the mentor	Egalitarian dialogue where none of the participants holds a privileged position	Participants' speaking turns are interspersed with the mentor's speaking turns. All interactions are channelled through the mentor
Visual representation			
Power relations Framework	Hierarchical and asymmetrical	Symmetrical and egalitarian	Hierarchical and asymmetrical

i.e. mentor and participant argue over a disputable issue; and the '*participatory style*', i.e. clarifying together a particular problem or dilemma. The present study surfaced five additional styles of talk. We referred to these as: The '*adaptive style*', whereby the mentor uses the conversational floor to attend to personal or group needs; the '*constructing knowledge style*', characterised by joint examination of a particular issue through a variety of perspectives, positions and counter-arguments; the '*empathetic style*' where the mentor encourages identification and solidarity with participants' feelings and with cultural differences and values; the '*informative style*', characterised by the mentor's delivery of information related to organisational and daily aspects of their schedule at school; and the '*authoritative style*' whereby the mentor emphasises his/her expertise and authority to instruct and educate student teachers-as-novices. See Table 2 for a comparison of the different styles of talk as related to roles and functions.

4.3. Patterns and styles of talk in a teacher learning community

The mentor's mediation of student teacher learning in a community is strongly shaped by the way in which patterns and styles of talk play out in the discourse, operating synergistically to create a variety of learning environments. Our larger study (Rachamim, 2014), found 13 possible combinations of styles and patterns of talk yielding different learning environments (see Table 3).

The table underscores two major points regarding the kind of learning environment that is shaped by the way in which styles and patterns of talk operate simultaneously in the discourse. First, not every style of talk is evident in every pattern of talk (for example, the adaptive style is not evident in the monologue pattern). Furthermore, styles of talk which are evident in more than one pattern of talk seem to shape similar kinds of learning environments, even if the mentor positions him/herself more hierarchically or more symmetrically in relation to the participants (see, for example, the 'empathetic style' of talk, which is evident in both the star and switchboard pattern). Two, whereas the monologue and the star pattern yielded learning environments geared to knowledge transfer (the former) and reflective

Table 2. Differences between styles of talk as related to roles and functions.

Style of talk	Mentors' roles and functions
Adaptive	The mentor uses the conversational floor to address personal or group needs. She/he is flexible as to how the content of the conversation develops
Constructing knowledge	The mentor challenges participants to jointly and critically examine a particular issue through a variety of perspectives, positions and counter-arguments
Dilemmatic-confronting	The mentor encourages sharing emotions and open discussion to critically examine an ethical issue from a variety of angles. He/she avoids using his/her authority to control the discourse
Participatory	The mentor shares her/his experience and that of others in the group in order to clarify a particular problem or dilemma and encourages participants to re-evaluate events
Empathetic	The mentor encourages identification and solidarity with participants' feelings and with cultural differences and values. He/she prompts participants to voice concerns, feelings, cultural clashes or misunderstandings
Informative	The mentor delivers information related to organisational and daily aspects of the schedule at school without opening them to critical examination
Authoritative	The mentor emphasises her/his expertise and authority, positioning student teachers as novices
Argumentative	The mentor engages in argument with another participant over a disputable and contested issue. He/she uses his/her authority to gain the floor and establish the boundaries of the discourse

Table 3. Combinations of styles of talk, patterns of talk and learning environments.

Mentor's style of talk / Mentor's pattern of talk	Monologue pattern	Star pattern	Switchboard pattern
Adaptive		Learning environment that promotes equal power relations allowing participants to surface, discuss and connect personal needs and experiences	Learning environment characterised by hierarchical power relations whereby the mentor creates opportunities for sharing personal experiences and needs
		The content of learning is emergent	The content of learning is emergent
Constructing knowledge			Hierarchal power relations
			Learning environment whereby the mentor initiates opportunities for reflective thinking and re-examination of assumptions and beliefs
Dilemmatic-confronting		Equal power relations.	
		Learning environment characterised by negotiation of meaning and critical confronting of ethical and identity issues amongst group members; towards re-thinking of their roles and practices	
Participatory	Hierarchal power relations	Equal power relations.	Hierarchal power relations
	Learning environment that exposes experiences, knowledge and expertise of the mentor towards desired models of practice	Learning environment that promotes dialogue and open sharing of experiences and knowledge towards joint construction of new understandings on a particular issue	Learning environment whereby the mentor promotes sharing of experiences and knowledge towards joint construction of new understandings on a particular issue
Empathetic		Equal power relations.	Equal power relations.
		Learning environment that that promotes cultural sensitivity, tolerance of differences, respect and legitimisation of feelings	Learning environment whereby the mentor actively encourages cultural sensitivity, tolerance of differences, respect and legitimisation of feelings amongst participants
Informative	Hierarchal power relations.		
	Learning environment that is focused on transfer of knowledge and exposes participants to information about the system		
Authoritative	Hierarchal power relations and emphasis on the asymmetric mentor–mentee relations		Hierarchal power relations and emphasis on the asymmetric status of the mentee in relation to the mentor as professional expert.
	Learning environment devoid of critical questioning		Learning environment focused on knowledge deliberation, devoid of critical questioning
Argumentative			Hierarchical power relations.
			Learning environment featured by dispute between the mentor and one of the participants

thinking (the latter), the 'switchboard' pattern evidenced the broadest variety of learning environments, according to the style of talk espoused by the mentor (e.g. environments that promote reflective thinking, transfer of knowledge or joint exploration of a common issue).

5. Methodology and methods

5.1. Research question

The framework presented in Table 3 synthesises the findings of the larger study for the question: How do mentors' styles and patterns of talk operate in the discourse to shape a community learning environment? In this paper we focus specifically on two predominant styles of mentor talk within one recurrent pattern: the switchboard pattern of talk. We chose the switchboard pattern because it was the most recurrent pattern in the discourse and because it exhibited the largest variety of styles of talk (as presented in Table 3). We selected the authoritative and constructing knowledge styles to exemplify contrastive learning environments that developed within the same pattern.

5.2. Study design

The study examined one of nine collaborative learning environments that were integrated into a university teacher training programme in Israel in the context of practice teaching. The studied learning community was selected for three major considerations:

(1) It constituted a representative example of the population in the different learning communities.
(2) The mentor was strongly recommended by the head of the teacher education department for the following reasons: He had over 10 years of experience both as a civics teacher and as a mentor. He had also served in various roles in the education system, exhibiting a strong combination of rich experience and a broad professional profile, along with being highly articulate and motivated to participate in the study. The mentor was previously unknown to the researcher and had no previous acquaintance with any of the participants. The mentor gave his full consent to participate in the study.
(3) The university and the department had held a long-term collaboration with that particular high school. All participants gave their formal consent to participate in the study. Anonymity was fully granted and ethical regulations were carefully followed. Full approval of the study was granted by the Chief Scientist from the National Ministry of Education and by the university ethical committee.

5.3. Participants

The group consisted of 11 students from Civics, Geography and Sociology. The group met weekly for a 90-min group conversation throughout the academic year, for a total of 23 sessions. The sessions were held at the school where the student teachers practised. The sessions were part of the daily practice teaching schedule at school. At the end of the day,

the student teachers assembled for one and a half hours to analyse the day's experience as a developing community of learners. The university mentor led the weekly regular meetings.

5.4. Data collection

To attend to trustworthiness, data were collected and triangulated from a variety of sources: all 23 sessions at the school were observed, video recorded and transcribed. The videoed meetings were the main source of data analysis. Three semi-structured interviews were conducted with the mentor before, in the middle and at the end of the year. The interviews aimed at learning directly from the mentor about his perception of role as a mentor in a learning community, his views concerning desired learning communities and his interpretation of the development of the learning community over time. Two semi-structured interviews with each student were conducted, in the middle and at the end of the year, for triangulation processes. The interviews served to consolidate findings from the video analysis and to gain deeper understanding of the patterns and styles of talk identified. The researcher's reflective diary, which documented thoughts, impressions, questions and insights that came up during the meetings, were constantly probed through formal and informal conversations with the participants throughout the study.

5.5. Analytic procedures

The study drew on theories of collaborative learning in practice and social and critical theories of language. By the very essence of its context (as part of the mandatory requirements for obtaining a teaching certificate), the discourse can be described as institutional discourse. Institutional discourse embodies two unique characteristics defined by Drew and Heritage (1992): asymmetry and goal orientation. Asymmetry is created by the institutional role (teacher, administrator, mentor, guide, etc.) which grants its owner the privilege of managing the discourse, allocating the floor and setting the discourse boundaries. Goal orientation is reflected in the way in which the group leader determines the content of the discourse.

The discourse was analysed through Institutional Conversation Analysis-ICA (Drew & Heritage, 1992) and Critical Discourse Analysis-CDA (van Dijk, 2003; Gee, 1992). ICA emphasises the contexts created during the discourse, the interaction sequence between the speakers and the relationship between linguistic structure and the organisation of the conversation. CDA focuses on how the relationship between text and society is mediated, and how power relations play out in the discourse as reflective of social, cultural and ideological issues (Chouliaraki & Fairclough, 1999). The combination of these two approaches allowed for explaining how events during the discourse reflected and shaped the social framework and the power relations generated in the group, triggering different kinds of learning environments.

The data included 23 meetings, which were analysed quantitatively and qualitatively, and 25 semi-structured interviews. First, each meeting was analysed separately, both qualitatively and quantitatively, adhering to ICA and CDA categories. We used CDA categories in the qualitative analysis to identify expressions indicating hierarchical power relations between the mentor and the participants (such as 'expressions of control', 'status', 'authority', 'interrupting turns' and 'instruction roles'). We also searched for moves and expressions that denoted egalitarian power relations (such as 'encouraging participants to be active',

'sharing feelings and emotions', or 'refraining from determining or controlling the direction of the discourse'). In parallel, we used ICA categories to identify connections between interaction sequences (i.e. 'speaking turns' and 'order of speakers') and linguistic structures in the discourse (such as 'metaphors' and 'personal pronouns'). These connections were then classified according to thematic categories of power relations ('egalitarian' and 'hierarchical'). The ICA categories were also used to analyse the quantitative data. The quantitative analysis included examination of the number of participants that were active in the discourse and of the cumulative 'stage time' of each participant. It enabled graphical representation of the formal dimensions of the discourse as related to time (division of segments according to time spent on topics, stage time for each participant and time division of the group meetings in relation to patterns and styles of talk). We then combined the qualitative and quantitative analysis, which included the categories of CDA and the categories of ICA, to consolidate the segments of discourse that characterised hierarchical and egalitarian power relations between the mentor and the student teachers. Data were triangulated while connecting insights from the quantitative and qualitative analysis.

The interviews were analysed according to the same CDA categories used to analyse the meetings. In each interview, we identified the expressions that related to power relations between the mentor and the student teachers. These expressions were added to the subcategories that were created during the first stage of the analysis process.

During the second stage, we created two folders for the hierarchical and egalitarian power relation segments as identified in the entire data corpus. Within each category we further identified the framing structures of each discourse segment (monologue, switchboard or star). We referred to these structures as 'patterns of talk'. In parallel, we identified styles of discourse within each segment, which evidenced recurrent norms and social habits (i.e. argumentative, authoritative, adaptive) (see Table 2).

During each of the two stages data were cross-validated by two independent readers/researchers, one of whom had no direct contact with the studied group.

One researcher functioned as non-participant observer avoiding intervention and interference throughout the entire research process, including the semi-structured interviews.

6. Results

As mentioned before, we chose to focus on two styles of talk exhibited by the mentor ('authoritative' and 'constructing knowledge'), which were evidenced in the same pattern ('switchboard') and yielded different kinds of learning environments (knowledge transfer and reflective thinking). We chose to present selected segments from the conversations and the interviews where we identified aspects of ICA and CDA as shaping power relations in the discourse and, consequently, the kind of learning environment that was created.

6.1. Mentor's authoritative style within a switchboard pattern: knowledge transfer learning environment

The switchboard pattern is characterised by the mentor's control in the discourse sphere, stressing the asymmetrical character of the expert–novice interactions. He uses his authority to grant permission to speak and set students' speaking turns with limited dialogue amongst students. In the following example we show how the mentor's authoritative style

of talk stressed an institutional discourse, i.e. one which accentuated hierarchical power relations between the mentor and the student teachers, yielding a learning environment characterised by knowledge transfer and limited reflective thinking.The following excerpt is taken from the third session. The group discussed the differences between memorising and understanding learning. Limor, one of the students, claimed that: 'In order to succeed in the test pupils need to write what they memorised, what's written in their notebook.' The group conversation that took place following her claim developed as follows:

(1) Alon: 'But this is an incorrect assumption. That's one of the mistakes. They
(2) write down larger chunks of material when they understand them.'
(3) Limor: 'I don't think so. When I was tested in Humanities-related subjects,
(4) there was a question and I just spewed out the material.'
(5) Alon: 'That's irrelevant! Good learning cannot rely on our experiences only ...
(6) This is what gets you stuck.'
(7) Limor: 'This is what I know.'
(13) Adi: 'There are things that you have to memorise like...'
(14) Alon: 'I do not accept this approach where students recite terms dictated to
(15) them without understanding them... Do you want to relate to this?'
(16) Mahmoud: 'Yes, a question ...'
(17) Alon: [interrupts Mahmud] Yes, hold on, Adi do you want to relate to
(18) something?"
(19) Adi: 'No.'
(20) Alon: 'You don't have to; I owe you a turn, yes' [turns to Mahmud]

In terms of CDA, in this segment of talk we can see how the mentor stresses the asymmetrical character of the expert–novice interaction, positioning himself at the centre of the interaction: He uses expressions such as: 'This is an incorrect assumption'; 'That's irrelevant!' denoting his authority and status in the discourse.

From the perspective of ICA, the mentor does not encourage direct verbal exchanges between participants. Rather, their speaking turns are interspersed by his speaking turns, positioning them asymmetrically in relation to what he has to say on the issue. He also uses his authority to determine who may speak. Even when the invitation to participate in the discourse is addressed to all students and one student begins to respond, the mentor interrupts (line 17) and directs the question to another student who did not express a desire to comment. Control over granting floor time and determining the speaking order reflects his positioning in the management and organisation of the discourse, which we found to characterise this pattern.

As the discourse progressed, the mentor continued to stress this positioning, eventually creating a learning environment that was predominantly one of knowledge transfer:

(24) Alon: 'Achievements do not attest to abilities. You need to remove the
(25) "disk" that says that a student who has low achievements is slow.'
(26) Nili: 'I was that way at school ...'
(27) Alon: 'That's not the point. Everyone was that way [raising his voice and
(28) weaving his hand]. We need to break away from the preconceived
(29) notions we have about the children....'

This segment of the discourse also illustrates how the mentor creates an authoritative discourse. From a CDA perspective, we notice that the mentor foregrounds his position as

expert. He asks students to express their opinion on an interesting argument regarding the connection between achievements and abilities (line 24). However, instead of allowing them to critically address the claim, he immediately presents his position on the matter (line 24–25). Even when Nili tried to associate her experiences as a student with the mentor's argument (line 26) she was interrupted by the allusion: 'Everyone was that way.' The mentor, thus, exhibits control over the floor time, reflecting his positioning in the management and organisation of the discourse within the switchboard pattern.

We wondered whether our interpretations of such a kind of positioning were eventually consistent with those of the participants, and whether, indeed, they often refrained from expressing different views for fear of hurt and public embarrassment in the community (Edmondson, 2003; Eteläpelto et al., 2005). Two of the student teachers commented on this style during the interviews:

> Limor: 'At the beginning of the year Alon said: "Listen carefully to what I say and don't argue too much". This created many intrigues and I just said I'll keep my ideas to myself.'

> Hiba: 'At the beginning of the year there was a feeling that you can't express anything, if what you say is different from the mentor, there is no place for it or he will translate it to what he thinks.'

Interestingly, the mentor himself also alluded to this aspect of his talk at the beginning of the year interview:

> Alon: 'I know that I am very dominant and assertive. I use this as a technique. On the one hand I can make students go after me. On the other hand, I can create alienation and students will refrain from participating. I think it's OK at this point to do that even if at this stage they cannot understand this fully.'

The mentor's control over the discourse sphere, characteristic of the 'switchboard pattern' within an 'authoritative style', was evident when we examined the ICA categories quantitatively in terms of 'stage time' and number of 'speaking turns'. In the above segment, for example, the total time for this part of the discourse was 11:38 min. Figure 1 shows participants' 'stage time' and Figure 2 participants' 'number of 'speaking turns' for this part of the discourse.

Figure 1 illustrates that the 'stage time' taken up by the mentor was 84% of the time of the entire discourse. By contrast, the 'stage time' taken by all other participants in the discourse was 16% of the total time. The mentor's 'stage time' was more than nine times longer than any single participant in the discourse. Even when considering the number of 'speaking turns', Figure 2 shows that the mentor's number of speaking turns (24) was much higher than that of the other participants. Cross-referencing data between the two diagrams strengthens the conclusion that the discourse was characterised by the mentor's control over the public sphere. This assertion is accentuated when considering the character of Adi's participation. Her number of speaking turns in the discourse (15) was high relative to the other participants and to the mentor. Seemingly, we would expect her 'stage time' to be long. However, examination of the cumulative amount of time she spoke reveals that she only spoke for one minute (about one-tenth of the mentor's time). This suggests something about the nature of her participation. Her statements were characterised by short sentences that did not develop reasoning or a well-founded position, for which longer 'stage time' would be required.

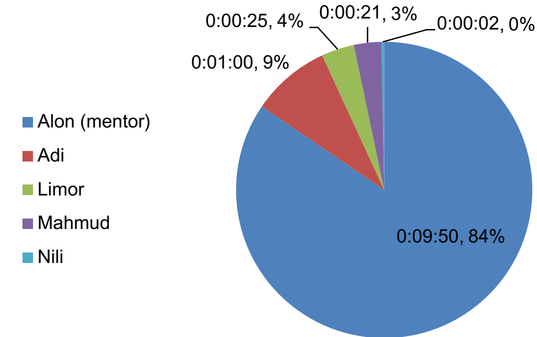

Figure 1. Participants' 'stage time' in a section of the discourse (third session).

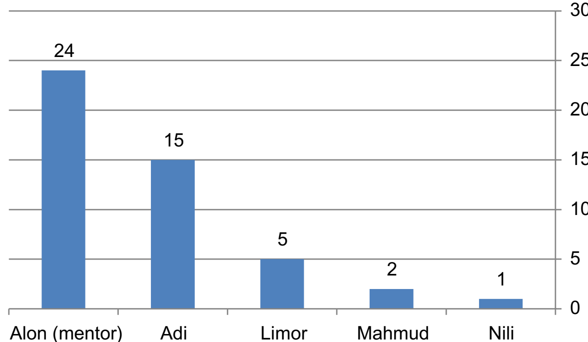

Figure 2. Number of 'speaking turns' for a section of the discourse (third session).

6.2. Mentor's constructing knowledge style within a switchboard pattern: reflective thinking learning environment

In the following excerpt we illustrate how the mentor's constructing knowledge style of talk operated within a switchboard pattern. We show how, although the mentor positioned himself hierarchically, the constructing style of talk which he adopted encouraged a learning environment that promoted reflective thinking. Such an environment provided opportunities for the re-examination of assumptions and beliefs, for voicing multiple angles of interpretation of a particular situation, and for a variety of responses and claims made by participants.The following example is taken from the first part of session six that dealt with ways of testing students' understanding. The discourse in this part of the meeting lasted 17:56 min. We first show how the 'switchboard pattern' framed the discourse and then how the constructing knowledge style of talk eventually directed the conversations towards refinements of initial claims made by the students:

(1) Samir: 'I wanted to ask what you [the mentor] suggest about checking pupils'
(2) understanding in class.'
(3) Alon [mentor]: 'How do you suggest testing that?'
(4) Mahmoud: 'Things that I had taught before, I repeat them, unless I see that
(5) they are stuck ... then I have to go over it all again.'

(6) Saeid: 'There are all kinds of methods …'
(7) Alon: 'One moment … yes, Noor?'
(8) Noor: 'When there is complete silence in the classroom, it actually means
(9) that there are many who did not understand. Therefore, I would test
(10) students by asking them questions.'
(11) Alon: 'What do you think about what Noor said, Mahmoud?'
(12) Mahmoud: 'I don't like it. I used it last year but it's a terrible method….
(13) I saw that a student was not paying attention, and I knew ahead of time
(14) that if I asked him he wouldn't be able to answer. I made him feel tense
(15) and afraid. I felt it was bad for him.'
(16) Alon: 'You are putting into words what the pupil feels.'
(17) Noor: 'There is something to this [laughs]. Honestly, I remember
(18) myself at school and also as a student, I would not want the teacher or
(19) the lecturer to suddenly ask me a question.'
(20) Alon: 'What Mahmoud is suggesting to you is that you
(21) have your students sitting all tense, with the fear of a surprise attack
(22) that you will test them. Do you agree Hiba?'

In this short segment, we can see the switchboard pattern of talk whereby the mentor positions himself in a central place in the discourse. Analysis of the segment in terms of ICA categories reveals that the mentor is the first responder to any statement and he uses his authority to decide who will speak and when. Both of these actions give him control over the organisation and management of the discourse (see lines 7, 11 and 22). In line 7, he changes the order of speakers. In line 11, the mentor poses a question to all students but immediately turns to a specific student for reference. In line 22, the mentor again addresses a specific student, deciding who will speak. The mentor's control was reinforced by our examination of the participants' 'stage time' throughout the entire discourse (Figure 3) and their number of 'speaking turns' (Figure 4).

Figure 3 shows that the 'stage time' taken by the mentor was 55% of the total time of the discourse. This is about four times longer than the time taken by the most active students in the discourse (Saeid 14%, Mahmoud 13%, and Samir 9%) and ten times more than the rest of the students. Figure 4 shows that the mentor's number of turns to speak, which stands at 30, is three times the number of turns of the other participants. Cross-analysis of data from the two diagrams clearly demonstrates the presence and control of the mentor in the discourse.

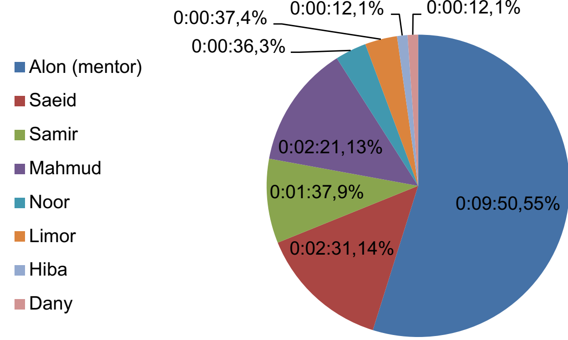

Figure 3. 'Stage time' of participants in the discourse (on assessing students' understanding).

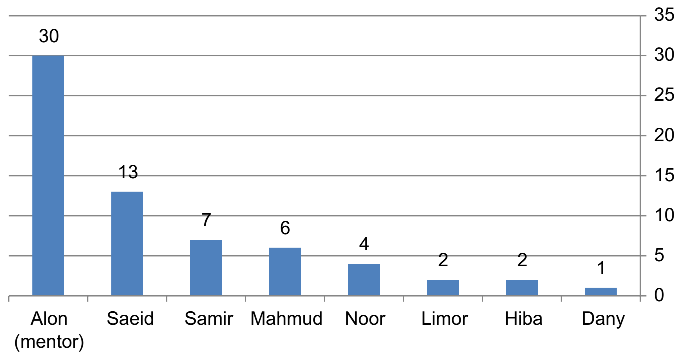

Figure 4. Number of 'speaking turns' in discourse (on assessing students' understanding).

But let us now examine the above excerpt from the lens of 'style of talk' according the CDA categories. Through this lens, however, we obtain quite a different picture. Despite the mentor's hierarchical positioning within the switchboard pattern of talk, his style of talk actually seems to have encouraged involvement, participation and the articulation of a variety of perspectives and ideas. At times it initiated involvement, as we showed earlier, which, on the one hand, emphasised the hierarchical power relations yet, at the same time, encouraged students (especially those who did not regularly participate actively in the meetings (like Noor and Hiba) to take a stance and become involved in the discourse. Encouraging involvement was also promoted by inviting particular students to consider the claim made by a participant in the discourse (see line 11). The various modes in which the mentor initiated active involvement in the discourse evidence his central role in the group, this time, though, to create an open sphere that encouraged involvement and promoted expression of a variety of opinions and ideas in the discourse (Eteläpelto et al., 2005; Orland-Barak, 2010). This allowed for speaking out openly and frankly (Edmondson, 2003).

An additional mode that promoted constructing knowledge was asking questions that encourage clarification and argumentation. When one of the students presented a position, for example, that anxiety among children keeps them on their toes and is an impetus for learning, the mentor probed: 'Why might anxiety be a motivating force as compared to other forms of motivation?' (Alon, Session 6). This question made the student confront his own statement, encouraging him to re-examine it: '[laughing] … I don't know, let me think about it…'. In another case, a student suggested that it is impossible to lead discussions in the classroom without raising hands for permission to speak because it interferes with authentic dialogue, to which the mentor responded by probing: 'What evidence do you have for concluding that hand-raising is a barrier?' Such probing promoted learning in two ways. For one thing, it helped the mentor identify individual perspectives (Edmondson, 2003) that he could challenge in order to promote critical examination. As Nili and Saeid commented:

> Nili: 'In the group conversation I often find myself thinking about ideas that I hadn't thought of before. This is mainly because of Alon and other students' questions. For example, when we discussed today about questions that encourage pupils' thinking Alon asked: "What can be problematic about asking too many guiding questions?' I didn't have a readymade answer then but the discussion that developed stressed the importance of how you frame questions to the pupils without imposing certain answers.' (Nili, mid-year interview)

> Saeid: 'I think we sometimes changed our views due to the controversial ideas that Alon allowed for in the discourse. For me personally, it is interesting to be exposed to controversial views. It's refreshing and challenging on an intellectual level.' (Saeid, mid-year interview)

Furthermore, the mentor's questions encouraged students to justify and explain their arguments. As Alon commented at the beginning of the year interview: 'My role as a mentor is to challenge students' thinking and push them to take as stance, and not try to be OK with everyone'. Exposing and confronting different opinions in professional conversations are known to be conditions that can promote the development of participants' professional identity (Lewis & Ketter, 2004). This is supported in Sima and Adi's comments in the half-year interviews:

> Sima: 'The fact that different opinions are expressed in the group fosters learning. It opens me up to a lot of things I had not thought about. I take all this home with me, and integrate the opinions I was exposed to.... Even when I hear opinions that I definitely oppose, which sound like complete nonsense, still, there's something very exciting because they [the different opinions] are very well established, intelligent and well-argued.... I feel very much at ease to express my opinion and attitudes, even if they conflict with opinions of others.'

> Adi: 'Alon allows us to express any opinion and he makes you doubt ... conflicting opinions and dealing with people that I don't feel comfortable with makes me think.... I learn from the listening process that he makes us go through.... It makes me think and understand what I like and don't like about myself and the society I live in.'

The mentor's style of talk evidenced from the above excerpts eventually led participants to critically examine a situation from various perspectives, encouraging them to raise ideas for new courses of action in class.

Taken together, the findings suggest that when an 'authoritative style' predominated within a 'switchboard pattern' of talk, there was silencing of opinions leading to a learning environment that promoted knowledge transfer. Such a combination of style and pattern of talk creates mentoring relationships that are built on hierarchical roles, positioning the mentor as expert and main source of knowledge and support for the novice (Ambrosetti & Dekkers, 2010; Wang & Odell, 2002). However, when a 'constructing knowledge' style was evident within the same 'switchboard pattern', participants were encouraged to talk and argue, creating a learning environment characterised by a variety of perspectives and competing viewpoints, often leading to defying and re-thinking ingrained perceptions, beliefs and possible misconceptions (Awaya et al., 2003; Helgevold et al., 2015; Timperley, 2001; Wang & Odell, 2002). The learning environment was, thus, characterised by the mentor's efforts to engage novices in meaning-making processes, while critically re-examining their ingrained beliefs concerning teaching and learning to teach, in an effort to challenge them to construct new images of practice (Awaya et al., 2003; Helgevold et al., 2015; Timperley, 2001; Wang & Odell, 2002).

7. Discussion

Our study investigated the processes that unfold in mentored learning interactions and examined how such processes might create particular learning environments for student teachers' learning in collaborative school-based practice teaching settings. An important methodological contribution of the study pertains to the identification of styles and patterns

of talk in mentoring conversations as new dimensions for examining mentors' discourse. These dimensions offer new understandings of how particular roles, norms of conduct and power relations in mentoring conversations are promoted and empowered to shape particular forms of learning environments. Our findings support extant research that underscores the centrality of the mentor's mediation for promoting student teacher learning in mentoring conversations (Daloz, 1999; Feiman-Nemser & Carver, 2012; Helgevold et al., 2015; Orland-Barak, 2010; Wang & Odell, 2002). To this end, our study adheres to the growing research literature on mentoring conversations from the perspective of how mentors' roles, professional discourse and power relations shape learning environments in communities of learners (Edmondson, 2003; Eteläpelto et al., 2005; Feiman-Nemser & Carver, 2012; Orland-Barak, 2010; Wang & Odell, 2002). Specifically, it further supports findings on the importance of promoting mentor roles such as providing support and challenge (Daloz, 1999; Orland-Barak, 2010); establishing connections between different kinds of knowledge (Gore et al., 2004); encouraging a reflective stance; promoting collaborative exploration of a particular pedagogical issue; and challenging taken-for-granted assumptions and surfacing gaps between theory and practice (Wang & Odell, 2002).

The present study also adds to our understanding of the above mentoring roles by exposing how such roles develop and unfold within a variety of patterns and styles of talk in the discourse. Examining mentoring conversations through the lens of how patterns and styles of mentor talk unfold in the discourse can lead to more refined understandings of how these operate to influence the kind of learning environment that is accessed by student teachers while learning in a community (see Figure 5 for a visual representation).

The finding that any one conversation can exhibit a variety of styles and patterns of talk also underscores the versatile character of mentors' roles. Thus, by adopting different combinations of style and patterns of talk the mentor can promote particular roles in the discourse for particular purposes. Drawing on our findings we argue, then, that different combinations of the mentor`s actions and moves create particular patterns and styles of talk, which eventually direct the form and quality of the specific learning environment that is promoted. Consider, for example, a core mentoring role described in the literature such as encouraging a reflective stance and promoting collaborative exploration of a particular pedagogical issue. Examining how this role operates in action implies identifying the moves exhibited by the mentor during the conversation. Based on our study, we would

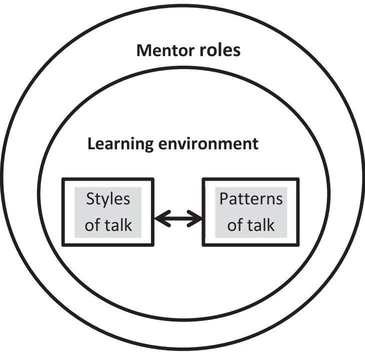

Figure 5. Relationship between patterns and styles of talk, learning environments and mentor's roles.

argue that such a role would be promoted when combining a 'switchboard pattern' of talk and a 'constructing knowledge' style of talk. Functioning within this combination, the mentor's actions and moves would be characterised by challenging participants to jointly and critically examine a particular issue through a variety of perspectives and by promoting a reflective learning environment that encourages re-examination of assumptions and beliefs.

Our study also reinforces previous studies (Clark, 2001; Engeström et al., 2002; Lewis & Ketter, 2004; Orland-Barak, 2006; Timperley, 2001) which point to the centrality of norms that are established in a learning community for the quality of professional discourse. In this respect, our study extends this finding by suggesting that the way in which mentors' styles of talk unfold within framing patterns of talk in group conversations shapes particular norms of behaviour and approaches to mentoring in a learning community. For example, a combination of a 'constructing knowledge' style of talk and a 'switchboard' pattern of talk can empower norms of behaviour such as shared responsibility and commitment to the process (Timperley, 2001). By contrast, an 'authoritative' style combined with a 'switchboard' pattern will emphasise hierarchical relationships between the mentor and the student, leading to norms of behaviour such as avoidance of participating in the conversation.

With regard to power relations, our findings suggest that examining the discourse through the lens of patterns and styles of talk opens an additional window onto understanding how power relations are created and sustained during mentoring conversations in a learning community. To this end, we argue that the style of discourse adopted by the mentor will be a crucial determining factor influencing the power relations that are established in the group. Although institutional discourse (as in the case of our study) is by its very definition a hierarchical discourse (Drew & Heritage, 1992), we argue that, even within such discourse, if the mentor adopts a more egalitarian discourse style (such as 'constructing knowledge') differences in status will eventually be reduced, yielding a more open and collaborative learning environment.

8. Implications for practice

In view of the trend to integrate collaborative learning environments in teacher education, it has become necessary to examine the process by which complex learning environments are created and sustained (Kuusisaari, 2014). Our study suggests that mentors need to learn how different moves in the discourse can promote different kinds of learning environments; in our particular case, in the context of an institutional discourse with a defined hierarchy of roles. Our findings can be used to help mentors examine their own styles and patterns of talk through questions such as:

- What are the predominant patterns and styles of talk that characterise my mentoring?
- How do these promote or hinder learning in community and when?
- How can I maximise participation and exchange of ideas within a hierarchical discourse pattern?

Bringing these questions into awareness in the context of a curriculum for learning to mentor can help in the design of mentoring approaches in communal learning environments.

Disclosure statement

No potential conflict of interest was reported by the authors.

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