The skilled mentor

Mentor teachers' use and acquisition of supervisory skills

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Summary

Context, aim and methods

Within school-based teacher education, the ability of mentor teachers to vary their supervisory approaches regularly and to choose during mentoring dialogues appropriate supervisory skills continually and actively, is crucial for student teacher learning. There is no single approach to mentoring that will work in the same way for every student teacher in every context. Most mentor teachers hardly vary their supervisory behaviour in response to student teachers' varying needs and stick to a certain supervisory approach. Developing versatility in mentor teachers' use of supervisory skills is therefore an important challenge. If one wishes to facilitate the development of the supervisory repertoires of mentor teachers, it is important to understand their use of distinct supervisory skills constituting these repertoires as well as how these skills develop as a result of education and training. Therefore, the main aim of the research project was to understand the use and acquisition of supervisory skills by mentor teachers.

To deepen our understanding of mentor teachers' use and acquisition of supervisory skills, both behavioural and cognitive components are examined. Behavioural aspects of mentor teachers' use and acquisition of supervisory skills were investigated empirically by means of observations of audio and/or video recordings of authentic mentoring dialogues, before and after mentor teachers were trained in supervisory skills. Cognitive aspects were investigated using a stimulated-recall technique in combination with a specially developed push-button device.

The entire research project sparked off a series of eight studies, reported in the three parts of this dissertation. The centre of attention in Part I and II were overt aspects of

mentor teachers' roles and their use of supervisory skills in mentoring dialogues. In Part III, the focus was on cognitive aspects of mentor teachers' use and acquisition of supervisory skills. In Table 1.2 an overview of the studies is presented. In column 1, the part and the chapter of the book in which each separate study is reported are identified. As is pointed out in column 2, the research project includes one review study and seven empirical studies. The specific research aims of the studies are described in column 3. An overview of the participant groups in the studies is presented in column 4.

The research project was carried out in the context of the implementation of a training programme aiming at broadening mentor teachers' supervisory skills repertoires in mentoring dialogues. The participants in the research project were mentor teachers in primary education from schools in the middle region of the province of Limburg, in the south of the Netherlands. They all guided a student teacher in his/her their final year of pre-service teacher education. In this phase of the teacher education programme, the student teacher carried out a teaching practice of half a year. In total, *100 participants* were involved: 70 mentor teachers and 30 student teachers. In distinct studies of the project, mentor teachers participated in four separate, but comparable, groups (group A, B, C and D). About these different groups, information that is more detailed will be presented in the various chapters. The student teachers (group E) participated in one of the studies. In total, 104 mentoring dialogues and 120 stimulated-recall interviews were recorded and analysed.

In column 5 of Table 1.2, an overview of the methods used for data collection is given. Behavioural aspects of mentor teachers' use and acquisition of supervisory skills were investigated empirically by means of *observations* of audio and/or video recordings of authentic mentoring dialogues, before and after mentor teachers were trained in supervisory skills. To clarify student teachers' cognitions and to uncover aspects of mentor teachers' interactive cognitions, a *stimulated-recall technique* was used, during which participants had to verbalise their conscious cognitions in response to watching video recordings of the mentoring dialogues they were involved in. Finally, to capture mentor teachers' reflective moments accompanying their use of distinct supervisory skills, an additional method, employing a *push-*

button device, was developed to register mentor teachers' reflective moments during the ongoing mentoring dialogue.

Table 1.2
Overview of the studies

Chapter & Part	Study Type	Research Aims	MTs				STs	OBS		SRI		Other
			GrA (20)	GrB (12)	GrC (30)	GrD (8)	GrE (30)	B	A	B	A	*Other*
1.	General introduction											
Part I		*MT roles*										
2.	Review	Mapping key aspects of MTs' supervisory behaviour in MD as a starting point for developing a conceptual framework										*Research review*
3.	Empirical	Exploring empirically a two-dimensional model of MT roles in MDs	x					20				
Part II		*MTs' supervisory behaviour*										
4.	Empirical *pilot study*	Describing MTs' use of supervisory skills in MDs, before and after training		x				12	12			
	Empirical *main study*	idem			x			30	30			
5.	Empirical	Clarifying ST perceptions of MTs' use of supervisory skills in MDs, before and after training			x		x	30	30	30	30	
Part III		*MTs' interactive cognitions*										
6.	Empirical	Capturing differential frequencies of mentor teachers' reflective moments as indicators of different levels of consciousness in mentor teachers' use and acquisition of supervisory skills			x			30	30	30	30	*Push-button device*
7.	Empirical *study1*	Uncovering contents of MTs' interactive cognitions in MDs, before and after training				x		8	8			
	Empirical *study 2*	idem			x			30	30	30	30	
8.	General conclusion											

MT = Mentor teacher; MD = Mentoring Dialogue; ST = Student Teacher; GrA to GrE = participant groups A to E.
OBS = Observation; SRI = Stimulated-Recall Interview;
B = number of observed MDs or SRIs *before* training; A = number of observed MDs or SRIs *after* training.

Part I: Mentor teacher roles

Based on overt aspects of mentor teachers' supervisory behaviour, the studies presented in Part I focus on developing a model to identify and analyse mentor teacher roles in mentoring dialogues.

The aim of the literature review study reported in *Chapter 2* was to map overt aspects of mentor teachers' supervisory behaviour in mentoring dialogues as a starting point for the development of a conceptual model to describe mentor teachers' supervisory behaviour in mentoring dialogues. From the 26 selected empirical studies in this review, five key aspects of mentoring dialogues emerged as frequent foci of empirical research, namely the mentor teacher's degree of input, degree of directiveness, the content of the discussed topics, the phasing of the mentoring dialogue, and the time used. Based on the aspect input, indicated by the degree to which topics are introduced into the dialogue by the mentor teacher, and the aspect directiveness, which indicates the degree to which the mentor teacher steers the course of the dialogue, a model, entitled MEntor teacher Roles In mentoring Dialogues (MERID) was constructed. The model distinguishes four basic mentor teacher roles in mentoring dialogues, i.e. initiator, imperator, advisor and encourager.

In the study reported in *Chapter 3,* the MERID model was put to a first empirical test, using a sample of 20 transcriptions of mentoring dialogues in which 112 topics were discussed and 440 mentor teacher utterances emerged. The results of the chi-square tests and the log linear analysis indicate that there is a beginning of empirical support for the model and the four different mentor teacher roles it distinguishes. In the model, accordingly, each dimension seems to describe a specific part of mentor teachers' supervisory behaviour. Through a cluster analysis, empirical support was generated for the existence of four mentor teacher roles in mentoring dialogues as distinguished in the MERID model. Most mentor teachers in the sample were positioned in the imperator group.

Part II: Mentor teachers' supervisory behaviour

In Part II, the reported studies focus on one behavioural aspect of mentor teachers' use of supervisory skills in mentoring dialogues, i.e. their degree of directiveness, visualised as the horizontal axis of the MERID model. The overall focus of these studies was to study the use of supervisory skills in mentoring dialogues by mentor teachers, before and after they were trained in supervisory skills from a twofold perspective: that of independent observers and that of student teachers.

The two empirical studies reported in *Chapter 4* portray mentor teachers' use of distinct supervisory skills in mentoring dialogues from the independent observers' perspective. In a pilot study based on audio recordings of 24 mentoring dialogues, instruments for gathering, transcribing and coding data were developed and tested. This resulted in five recommendations for data collection procedures in the main study, in which in total 60 video recordings of mentoring dialogues were analysed, 30 before and 30 after mentor teachers were trained in supervisory skills. In total, 2,285 mentor teachers' utterances were coded by three independent raters, using a category system covering 15 supervisory skills. The data from the main study indicate that the range of basic repertoires of mentor teachers' use of supervisory skills hardly changed after training. However, within their basic repertoires, statistically significant shifts were found in the duration of and in the frequencies with which they used specific supervisory skills during mentoring dialogues. Also, after training, mentor teachers on average used less of the dialogue time and took less conversational turns. Considerable inter-individual variability existed between mentor teachers.

In the empirical study reported in *Chapter 5*, mentor teachers' use of supervisory skills in mentoring dialogues is considered from the student teachers' perspective. The aim of this study was to clarify how student teachers perceive mentor teachers' use of supervisory skills during mentoring dialogues. The outcome of such an investigation can give insight into the impact of mentor teachers' use of supervisory skills on student teachers. In connection with a previously recorded mentoring dialogue, 60 stimulated-recall interviews with 30 student teachers were conducted, 30 before and 30 after mentor teachers were trained. In total 685 student teacher perceptions were coded. The findings indicate that during mentoring dialogues,

student teachers predominantly perceived six distinct supervisory skills as offering emotional support and five supervisory skills as offering task assistance. Shifts in frequencies of mentor teachers' use of distinct supervisory skills during mentoring dialogues, as observed by independent raters, correspond to a great extent with shifts in frequencies of student teacher perceptions of distinct supervisory skills as offering emotional support or task assistance.

Part III: Mentor teachers' interactive cognitions

In Part III, the focus of the reported studies was on investigating cognitive aspects of mentor teachers' use and acquisition of supervisory skills.

The aim of the study reported in *Chapter 6* was to capture differential frequencies of mentor teacher reflective moments before and after training in supervisory skills, as indicators of different levels of consciousness in mentor teachers' use and acquisition of supervisory skills. For each of the 30 mentor teachers, two mentoring dialogues and two stimulated-recall interviews were analysed, one before and one after training in supervisory skills. To capture mentor teachers' reflective moments, the stimulated-recall technique was combined with a specially developed push-button device to register reflective moments during mentoring dialogues. The findings indicate that each method registers a different number of reflective moments and, for a large part, at different points in time. The data of the study suggest the existence of different levels of consciousness in acquiring and using supervisory skills, the possibility of measuring reflectivity using concurrent and retrospective methods simultaneously, and the potential of such measurements to inform and improve professional development opportunities for mentor teachers.

The two consecutive studies reported in *Chapter 7* aimed at uncovering contents of mentor teachers' interactive cognitions during mentoring dialogues. In both studies, the stimulated-recall method was used, before and after training. In the first study, with eight mentor teachers, an instrument was developed to categorise contents of interactive cognitions. Four main content categories of mentor teachers' interactive cognitions were distinguished, i.e. discussed topic, use of supervisory skills, mentor teacher's role, and strategy during the dialogue. In the second study, with 30 mentor

teachers, the instrument was applied to uncover contents of mentor teachers' interactive cognitions, before and after training in supervisory skills. Based on 60 stimulated-recall interviews, 623 separate contents of interactive cognitions were coded. After training, we found a statistically significant decrease of contents of interactive cognitions in the category discussed topic and a statistically significant increase of contents in the categories use of supervisory skills and strategy during the dialogue. This indicates that after training in supervisory skills, mentor teachers demonstrated an increased awareness of their use of supervisory skills and were engaged in monitoring their own supervisory behaviour.

Theoretical and practical implications

The studies in this dissertation enlarge our understanding of mentor teachers' supervisory behaviour within mentoring dialogues. From our research, four theoretical implications emerge: improved conceptual order in the concepts used to describe supervisory behaviour in mentoring dialogues, detailed and fine-grained portrayal of pivotal supervisory skills, disclosure of cognitions accompanying mentor teachers' use of supervisory skills, and clarification of the initial stage in mastering supervisory skills.

The findings also offer tools and guidelines for designing and improving training programmes to support mentor teachers' professional development in the use of supervisory skills for the benefit of guiding student teachers' professional development. Four practical implications have emerged, namely use of the MERID model as an instrument for reflection, selection of pivotal supervisory skills for training, tools for reflection on mentor teachers' cognitions accompanying the use of supervisory skills during behavioural practice, and the necessity of training programmes for the development of mentor teachers' use of supervisory skills.

We hope that our findings will contribute to the improvement of the versatility of mentor teachers in the use of supervisory skills in the educational context of mentoring dialogues. After all, the availability of effective guidance by and cooperation with a mentor teacher is an essential condition for student teachers' learning in the workplace.