

The effects of an intervention in student teachers' classroom management learning processes

T. Adams, B. Koster and P. den Brok

Summary Classroom management learning of student teachers for secondary education at the workplace is often unfocused as they tend to struggle with the effective use of theoretical knowledge and how to use their teacher educators or others during their internship. As a consequence, student teachers lack efficiency in their classroom management learning process. In the present study, we present the development and implementation of an intervention with the ambition to add more focus and direction to student teachers' classroom management learning by offering them activities they can use in their interpersonal learning process. Participation in this intervention was voluntary for student teachers. The intervention consisted of three activities: lesson observations, planned conversations and unplanned conversations.

The results show that student teachers mainly use a combination of unplanned conversations and lesson observations to promote their learning, and that the intervention is helpful for student teachers to structure their learning process. The main conclusion of this study is that the intervention was effective for student teachers and it had impact on developing their knowledge and beliefs/attitudes, and differences in their interpersonal behaviour. However, the student teachers perceived no differences in their pupils' behaviour in the classroom.

Keywords workplace learning, classroom management; teacher education

Artikelgeschiedenis

Ontvangen: 14 april 2023

Ontvangen in gereviseerde vorm:

17 januari 2024

Geaccepteerd:

7 februari 2024

Online: 4 maart 2024

Contactpersoon

Tom Adams,

t.adams@fontys.nl

Copyright

© Author(s); licensed under

Creative Commons Attribution

4.0. This allows for unrestricted

use, as long as the author(s) and source are credited.

Financiering onderzoek

This work was supported with a grant

from the Netherlands Organisation

for Scientific Research [grant number

023.011.014]

Belangen

De auteurs hebben geen

belangen te vermelden.

60

PEDAGOGISCHE
STUDIËN

[https://doi.](https://doi.org/10.59302/ps.v101i1.18784)

[org/10.59302/](https://doi.org/10.59302/ps.v101i1.18784)

[ps.v101i1.18784](https://doi.org/10.59302/ps.v101i1.18784)

2024 (101) 60-84

1 Introduction

The call for more attention to classroom management (CM) in teacher education curricula was a crucial topic in various studies a decade ago (van Tartwijk & Hammerness, 2011; Wubbels, 2011), with authors suggesting a mismatch between the CM research knowledge base and the content of teacher education programs (Freeman et al., 2014), lack of visibility of CM in the curriculum (O'Neill & Stephenson, 2011) and ineffective strategies taught for CM (Oliver & Reschly, 2010). As these studies mainly focused on the role of CM in the institutional part of teacher education, it remained unclear what role CM should play during the internship part of teacher education (Korpershoek et al., 2016).

In the Netherlands, a large part of most teacher education programs takes place at practice schools during an internship period, and many student teachers often indicate that this period is crucial for the development and mastering of classroom management (van Tartwijk & Hammerness, 2011). Since more than a decade, Dutch teacher education institutes and practice schools work more collaboratively in professional development schools (PDS). In a PDS, teacher education institutes and practice schools work collectively on educating student teachers. At a PDS, institutional courses are integrated in the context of the school. At non-PDS no teacher education curriculum components are taught in the school context. A recent study have provided indications that PDS as internship context in general show better results in terms of student teacher development than non-PDS (Helms-Lorenz et al., 2018).

Recently, more research has been done to bridge the gap between CM theory and teacher education practice, focusing on sufficient attention for CM during the internship/practice phase of the teacher education curriculum (Dicke et al., 2015; Hammerness & Kennedy, 2019). In our previous study we found that most student teachers' CM learning outcomes focused on developing (non-) verbal communication repertoire and improving interpersonal teacher behaviour (Adams, Koster, & den Brok, 2022). Moreover, our previous research also showed that student teachers' CM learning was mostly unfocused and ad-hoc, as they tend to struggle with the effective use of theoretical knowledge and their teacher educators or others during their internship. As a consequence, some student teachers had difficulties with finding structure in their learning process during their internship (Adams et al., 2022). The need for more training and support regarding student teachers' CM learning is also emphasized by Montaque and Kwok (2022). Therefore, in the present study, we developed and implemented an intervention with the goal to add more focus and direction to student teachers' CM learning, by offering them learning activities they could use in their interpersonal learning process during their internship.

61

PEDAGOGISCHE
STUDIËN

[https://doi.](https://doi.org/10.59302/ps.v10i11.18784)

[org/10.59302/](https://doi.org/10.59302/ps.v10i11.18784)

[ps.v10i11.18784](https://doi.org/10.59302/ps.v10i11.18784)

2 Conceptual framework

In teacher education there is an ongoing need for impactful CM training. More specifically, there is a need to clearly understand the most effective and efficient ways to provide CM training for both pre-service and in-service teachers (Montague & Kwok, 2022). In recent studies, researchers designed interventions and studied the effects on student teachers' CM learning at the workplace. Examples are using classroom simulation as a tool to train interpersonal teacher behaviour (Theelen, van den Beemt, & den Brok, 2022), the development of student teachers' professional vision as part of CM competence based on self-reflection and a feedback intervention (Weber et al., 2018) and CM competency enhancement using a fully immersive virtual classroom (Seufert et al., 2022). These studies described promising effects of the interventions for student teachers' CM learning. Although these examples were intervention studies of technology enhanced learning, they had similar goals as the present study: the development and implementation of an intervention to promote student teachers' CM learning. In these studies, and also in the present study, CM learning (see 2.1) and the internship as context (see 2.2) were two central elements. Below, these elements will be discussed in more detail, as well as the introduction and evaluation of the intervention (see 2.3).

2.1 Conceptualizing student teachers' interpersonal behaviour

In our previous research, we studied the attention for CM in theoretical sources, teacher education curriculum and in student teacher practice, by studying the attention for the specific CM-components in the chapters of the first and second edition of the Handbooks of Classroom Management (Evertson & Weinstein, 2006; Emmer & Sabornie, 2015) and investigating CM attention in curriculum materials of one teacher education institute and interviewing teacher educators who supervised student teachers during their internship (Adams et al., 2022). Moreover, we also studied student teachers' CM learning processes and outcomes, in which we created timelines of student teachers' internship periods in which a dominant role was found for the way student teachers used theoretical sources, the way how they needed others during their internship (as their peers, colleagues or their educators) and their own self-regulation (more specifically, how active they were in terms of planning and reflection) (Theelen et al., 2022).

These previous studies also showed that teacher-pupil interpersonal relationships played a central role in the student teacher CM development, hence the focus to teacher-pupil interpersonal relationships in the present study. Teacher-student relationships can be understood as the generalized interpersonal meaning students and teachers attach to their interactions with

The effects of an intervention in student teachers' classroom management learning processes

T. Adams, B. Koster and P. den Brok

62

PEDAGOGISCHE
STUDIËN

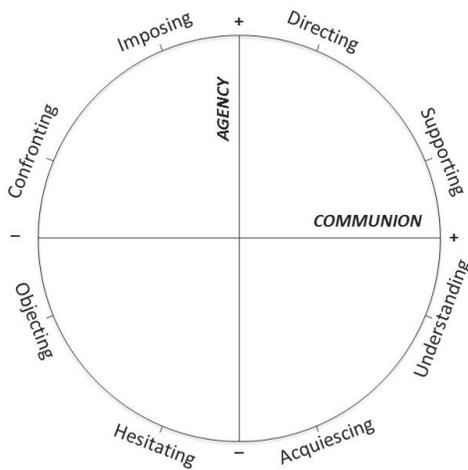
<https://doi.org/10.59302/ps.v10i1.18784>

each other.

In their research, Wubbels et al. (2015) conceptualized teacher-student relationships, by using the Teacher Interpersonal Circle. This model is the most widely accepted and commonly used instrument in teacher education in the Netherlands for gaining insight into student teachers' classroom management, which serves in this research as instrument to measure the impact of the intervention on student teachers' interpersonal learning process and their learning outcomes. The model consists of two dimensions: (1) the agency dimension, measuring the degree of influence of the teacher, and (2) the communion dimension, measuring the degree of interpersonal closeness versus interpersonal distance between teacher and pupils (see also Figure 1). Words at the circumference of the circle are typical descriptions of interpersonal teacher behaviour, each representing a specific blend of agency and communion. The top of the agency blend represents dominance, while the bottom represents submission. As for the communion blend, the right side is characterized as cooperation, the left side as opposition.

Figure 1

The Teacher Interpersonal Circle (Pennings et al., 2014)

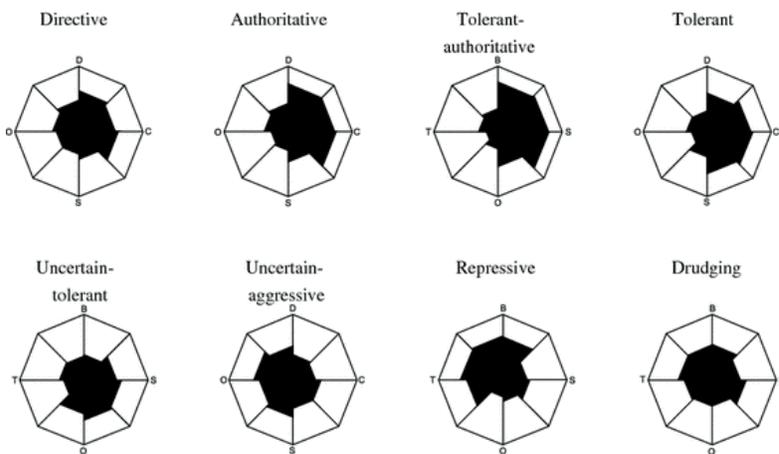


Based on the two dimensions and eight sectors, in research on interpersonal relationships in education eight teacher profiles have been distinguished (Brekelmans et al., 2005): Directive (classroom is well-structured and task-oriented), Tolerant (atmosphere is pleasant and supportive, and pupils enjoy

attending class), Tolerant-Authoritative (these teachers maintain a structure that supports pupils' responsibility and freedom), Authoritative (atmosphere is well-structured, pleasant and task-oriented), Uncertain-Tolerant (teachers are cooperative but do not show much leadership in the classroom), Uncertain-Aggressive (classroom is characterized by an aggressive kind of disorder), Repressive (pupils of Repressive teachers are uninvolved and extremely docile), and Drudging (these teachers constantly struggle to managing their class) (see Figure 2).

Figure 2

Profiles of teacher interpersonal behaviour (Brekelmans et al, 1993)



The profiles Authoritative, Directive, Tolerant, and Tolerant-Authoritative can be seen as effective teacher profiles (better teacher-pupil relationship and a classroom environment in which pupils learn more), the others are considered to be less effective teacher profiles. As indicated by Brekelmans et al. (2005), the profiles Tolerant, Tolerant-Authoritative, Uncertain-Tolerant, and Uncertain-Aggressive are the most common profiles for student and starting teachers. These profiles can be characterized by a high amount of communion but a neutral or low amount of agency.

Teachers' interpersonal styles are rather stable. Yet, different profiles can be found in different classes, especially for student teachers or beginning teachers, and teachers might change from type to type during their teaching career (Brekelmans et al., 2005; Wubbels et al., 2006).

2.2 The internship as context of CM learning

Learning at the workplace, as is the case during the internship, is authentic and collaborative in nature (Tynjälä, 2008). During their internship student teachers learn from field experiences and from coaching by mentor teachers and supervisors (Stough & Montague, 2015). Moreover, their supervising teachers and other colleagues at the workplace can serve as experts or role models for student teachers (Adams et al., 2022). Lecat et al. (2019) made an overview of the sources student teachers used for their learning during their internship, mentioning learning from others as one of the important aspects. Learning from others consist of speaking to colleagues (seeking feedback), talking to other people/non-colleagues (for instance people in the student teacher's personal domain) and observing colleagues' lessons (Lecat et al., 2019). These were also the main activities participants mentioned in our previous study (Adams et al., 2022). In the present study, these three aspects were used to design specific CM intervention activities.

2.3 The present study

The aim of the present study was to investigate the implementation and the effect of an internship intervention, focusing on the development of student teachers' interpersonal behaviour during their internship. The intervention consisted of a questionnaire and interview to measure and discuss student teachers' interpersonal learning goals, and three activities (lesson observations, planned conversations and unplanned conversations) to promote their interpersonal learning and give them more structure in their learning process.

For evaluating the intervention, the Learning Evaluation Model of Kirkpatrick (1994) was used. This model is intended as an accumulative process that builds on the data collected at each previous level, and aims to provide assessment at each successive level. The model is based on four successive levels, each suggesting a more impactful effect: (1) reaction, (2) learning, (3) behaviour, and (4) results. The first level in our context measures student teachers' reaction to the intervention. As this level questions what elements of the intervention student teachers mention as effective, it also determines how much they invested in the intervention, which might have implications for the next levels. The second level measures what the student teacher has learned from the intervention in terms of knowledge and beliefs/attitudes. The third level measures changes in student teachers' behaviour after the intervention, assuming that changes in cognition ultimately lead to changes in behaviour. Finally, level four measures the effect of changed teacher' behaviour due to the intervention on their pupils' behaviour in the classroom, as perceived by the student teachers.

The main research question of this study is: To what extent is an intervention in student teachers' CM learning process a contribution to improving student teachers' interpersonal learning?

This question is specified into the following four sub-questions:

- Which elements of the intervention were mentioned by student teachers as being effective?
- What did the student teachers indicate to learn from the intervention in terms of knowledge and beliefs/attitudes?
- To what extent did the intervention show differences in student teachers' self-perceived interpersonal behaviour, the perceptions of their pupils and perceptions of their school-based teacher educator?
- What effect did the intervention have on pupils in their classroom in the perception of student teachers?

This study aims to provide both scientific and practical insights about student teachers' CM learning at the workplace and the way this is supported by teacher educators from teacher education institutes and practice schools. More specifically, the added value of this research is the understanding how CM development of student teachers can be triggered and structured at the workplace of the practice school.

66

3 Method

PEDAGOGISCHE STUDIËN

<https://doi.org/10.59302/ps.v10i1.18784>

3.1 Participants

A group of nine student teachers participated in this study, who were in the fourth year of their bachelors of teacher education program for teaching in secondary education at a university of applied sciences and had their internship at a PDS. These student teachers all worked and studied during an entire academic year from September until June at different practice schools within the same PDS-network. The student teachers were asked to participate in the research, but were also free to refuse or stop cooperation at any time. There were 11 student teachers working and learning in this PDS. Nine of them participated in this study. Two student teachers refused corporation. The nine teacher educators of the student teachers also participated in this study. The data of the nine participants contained much detailed information about the way they described and documented their CM learning process and how the activities of the intervention were helpful for them. By studying the intervention on a limited scale, a proof of concept could be found in order to implement the intervention on a larger scale. Data was coded anonymously and stored in a digital data depository (see Instruments).

[The effects of an intervention in student teachers' classroom management learning processes](#)

shown? What aspects are inspiring for you and your own interpersonal teacher behaviour? Think of how these newly gained practical insights relate to your expectations and experiences and try to combine this with meaningful literature.

Search actively for colleagues which you might consider as an expert or role model in the school with whom you have an incidentally, in passing conversation, for instance at the coffee machine, during lunch break, in the hallway etc. Try to focus this conversation on your interpersonal challenges and find tips and suggestions. Think how these newly gained practical insights relate to your expectations and experiences and try to combine this with meaningful literature.

Organize a planned and focused conversation with colleagues you consider as expert or a role model. Try to define why this person is inspiring for you and describe what you would like to learn, what you are looking for in terms of interpersonal learning. After this conversation, think how these newly gained practical insights relate to your expectations and experiences and try to combine this with meaningful literature.

3.3 Instruments

In order to map student teachers' interpersonal learning process, the 24-items version of the QTI, which is the most widely accepted and commonly used instrument in teacher education in the Netherlands for gaining insight into student teachers' classroom management, was distributed by student teachers in two of their internship classes, mapping their pupils' perceptions of their interpersonal teacher behaviour. In numerous studies, this instrument has shown to be reliable and valid, e.g. scale/sector scores show Cronbach's Alpha coefficients between .80 and .90 and scales have shown to display a circular pattern (Wubbels et al., 2006).

The focus of the first interview was to discuss the outcomes of the QTI, the student teachers' CM needs and the intervention. The student teachers' school based teacher educator was also present during the interview, for discussing the outcomes of the QTI, to give suggestions about practical implementation of the intervention at the school and to verify student teachers' statements of the CM learning process.

In the first phase of the interview the QTI outcomes were discussed. The following questions were asked: What QTI sector is scoring higher or lower than expected?, What are differences in the various perspectives? What explanation does the participant have?, Other points of interest?, What is recognizable?, At what dimensions or sectors would the participant want to work?, What would be helpful? What is the recommended strategy?

Then, the student teachers' interpersonal needs in their internship practice were discussed in order to help the student teachers set specific interpersonal

learning goals. Finally, the potential activities of the intervention were presented in the interview, and discussed how the intervention could be beneficial for student teachers, working on their interpersonal learning goals.

In the second round of the interviews the focus was on effects of the internship intervention, using the elements of the Evaluation Model of Kirkpatrick (1994). The following questions were asked, supplemented with follow-up questions to get more explanation or illustration: (1) Which elements of the intervention did you consider effective? (How did you perceive the intervention, what was done with the various activities, how often, how many colleagues, what was most helpful etc.), (2) What did you learn from the intervention? (what was learned from the various activities in terms of gained insights), (3) To what extent did the intervention lead to differences in your behaviour? (development or growth in teacher behaviour, (non-)verbal teacher behaviour etc.), and (4) What effect did the intervention in your opinion have on the pupils in your classroom? (pupils' behaviour, classroom interactions etc.).

3.4 Analysis

All relevant interview fragments about student teachers' interpersonal teacher behaviour learning processes, and the potential and effects of the intervention, were placed in a case matrix. This matrix structured the information about student teachers' interpersonal goals, how the student teacher perceived the intervention, what was learned and the effects on their interpersonal teacher behaviour. Fragments were considered to be relevant when student teachers described an experience they had at the workplace, which they implicitly or explicitly related to the intervention and their learning process or learning outcomes. Explicit fragments were fragments in which student teachers made the connections themselves. Implicit fragments were fragments in which we as researchers saw a connection with other fragments, in which the student teachers, for instance, used similar terms or words, or described the same kind of experiences, but were unable to describe a pattern themselves. Irrelevant fragments were fragments in which student teachers described general learning experiences, activities in their process or learning outcomes, which were not related to their interpersonal learning and the intervention. For instance, student teachers sometimes described their school subject or the design or use of didactic materials. These fragments had no direct or clear connection to their interpersonal learning and our intervention, so were left out of the analysis.

In the analysis procedure, these relevant fragments were labelled in terms of categories based on the elements as described in the theoretical framework. The analysis was based on iterations of theory (Lecat et al., 2019; Kirkpatrick, 1994) and grounded in the data (Charmaz, 2014). For measuring elements on the first level, as articulated in the Kirkpatrick Model, the following labels were used: (1) Planned conversations, (2) Unplanned conversations, and (3) Lesson

observations. For gained insights and developed behaviour a large variation was found, which will be explained in the results section.

The first author conducted this coding process for all nine cases. The second author conducted this process for four cases. Then, the first and second authors discussed their coding (consensus based coding), and found that they had similar codes, only varying in 5% of the cases in which they had comparable words meaning a similar code. Eventually, for these four cases, the third author checked the whole coding process for its traceability and reliability. This step was followed by a discussion between all three authors in which they reflected on the coding process. This did not lead to any further questions or doubt.

4 Results

In the first part of the results section, the findings will be discussed concerning the implementation of the intervention, answering specifically the questions whether student teachers used the intervention and what elements they mentioned as effective (first level of Kirkpatrick). These details, as well as participants' fictional name, gender, and school subject are presented in the Table 1 (see below).

In the second part, the results of the three other levels of Kirkpatrick (1994) will be presented: the insights student teachers gained from the intervention, followed by the question whether the intervention led to differences in student teachers' behaviour, and the effect the intervention had on student teachers' pupils in the classroom.

70

PEDAGOGISCHE
STUDIËN

<https://doi.org/10.59302/ps.v10i1.18784>

Table 1

Student teachers' fictitious name, gender, and school subject, their main interpersonal challenge, the activities chosen and the effective elements of the intervention

Fictional name	Gender	School subject	Main interpersonal challenge	Activities chosen	Effective elements (1st level)
Peter	M	French language	Struggle with consistent teacher behaviour. Afraid to relinquish control. Looking for strategies to keep control.	Colleagues lesson observations (six colleagues; three of his own subject, three of other subjects)	Colleagues lesson observations
Rhea	F	Mathematics	Dealing with undesired pupils' behaviour, struggling how to intervene in those situations	All activities (two colleagues for unplanned conversations and lesson observations, one of her own subject, one of another subject / one planned conversation with a colleague-tutor)	Unplanned conversations and lesson observations
Julie	F	Mathematics	Struggle with consistent teacher behaviour	All activities (ten colleagues of her own subject for unplanned conversations and lesson observations, two planned conversations with experienced colleague teachers of her own subject)	Unplanned conversations and lesson observations
Michael	M	German language	Feels insecure in authoritative teacher behaviour when pupils show undesired behaviour	Planned conversation with four colleagues (three colleagues of other subjects and one with a school counsellor)	Planned conversation
Patrick	M	Geography	Feeling too tolerant and permissive towards pupils. Is keen on becoming more strict on setting and keeping boundaries	All activities (four colleagues for unplanned conversations and lesson observations, three of his own subject, one of another subject. one planned conversations with a head of department)	Unplanned conversations and lesson observations
Sofia	F	Mathematics	Struggles with consistent teacher behaviour, wants to follow up own directions but finds it difficult to do so	Planned conversations with colleagues (five colleagues, three of her own subject, two of other subjects)	Planned conversation

Rose	F	French language	Is struggling with finding a balance between being strict and being liked by her pupils	All activities (two colleagues of her own subjects for unplanned conversations and lesson observations, one planned conversation with a school counsellor)	Unplanned conversations and lesson observations
Jonathan	M	Chemistry	Is struggling with finding a balance between being strict and being liked by his pupils	All activities (four colleagues for unplanned conversations and lesson observations, one of his own subject, three of other subjects, one planned conversation with his school-based TE)	Unplanned conversations and lesson observations
Marc	M	Biology	Is seeking a more authoritative teacher behaviour, also wants to be more relaxed in interpersonal contact with pupils	Planned conversations with colleagues (one colleague, his school-based TE)	Planned conversation

4.1 The implementation of the intervention

72

PEDAGOGISCHE
STUDIEN

<https://doi.org/10.59302/ps.v10i1.18784>

In the intervention, three types of activities were mentioned by the student teachers in the interviews: lesson observations (6 student teachers), unplanned conversations (5 student teachers), and planned conversations (8 student teachers). The intervention gave them suggestions to set up and deepen this activity. Furthermore, student teachers were encouraged to combine the insights gained in this activity with literature. Except Peter, Michael, Sofia, and Marc, the other five student teachers indicated that they used literature to inform and support their approach. As mentioned previously, the student teachers who cooperated with this study were completely free to use the intervention or not. All student teachers claimed they used (parts of) the intervention. Peter only observed colleagues' lessons, Sofia, Michael, and Marc only had planned conversations with their colleagues. The other five student teachers did all three activities. All student teachers explicitly stated during the interviews that they regarded the content of the intervention as being effective, especially the combination of the information they got about the QTI and the ideas of activities suggested in the intervention. Michael:

"Without the intervention I would not have had the idea to have planned conversations with my colleagues, the suggested questions were really helpful. After all, these conversations helped me to find more routine in my contact with my pupils. In that sense, the intervention was a wake-up call."

Even Marc, despite experiencing a huge workload during his internship and having limited time to work with the intervention, regarded the relevance and the effectiveness of the intervention as high:

“My days at the school were quite full. I did not have the time to search for these activities myself. The intervention gave me concrete ideas and inspiration to work on the interpersonal issues I had, which were for me related to my attitude of a self-confident teacher in front of the classroom. I really believe that the intervention gave my learning process more structure”.

Concerning the question which of the activities of the intervention were mostly mentioned as being effective, six student teachers (Rhea, Julie, Patrick, Rose, and Jonathan) explicitly mentioned that the suggestions for unplanned conversations and lesson observations inspired them and put them in an active role to really undertake activities at the workplace in order to work on their CM challenges. Interestingly, they mentioned they used these activities in a mix, starting initially with unplanned conversations with colleagues they regarded as expert at the workplace, and lesson observations which followed after the conversations they had. This was a self-chosen combination of their interpersonal learning needs, as this was not part of the formal instruction of the intervention. Julie described this strategy as followed:

“In the beginning, I had this ‘problem class’. That was also what I found in the QTI’s, as pupils graded me low on being friendly and showing leadership. Thanks to the suggestions of the intervention I searched for more experienced colleagues who had this class under control and whom I and other colleagues regarded as an inspiring teacher. The suggested questions were helpful for the conversations I had with them. It really gave me more insights about our pupils, the way they behave, their needs, and how we as teachers can cope with them. I also combined it with lesson observation in the colleague’s lessons. As a result, I learned to understand the practice of the classroom better, and I got some useful tips-and-tricks from both the conversations and his approach.”

These five student teachers were also the student teachers who used theory thoughtfully and made links from theory to their practice, as was explicitly mentioned in the intervention. Patrick described this as followed:

“Different colleagues had different approaches, that was what I found so interesting of having these conversation and lesson observations. The conversations were more concrete, really to get tips, the lesson observations were more to get an idea of how you do it in practice. Afterwards, I combined it with literature to use these experiences more specifically for my pedagogical research courses.”

The activity which was least mentioned as being effective was the planned conversation. The lack of time and practical opportunity to speak with colleagues was mostly mentioned by the student teachers who did not use this activity. According to Sofia, Michael, and Marc who did mention this activity as valuable, these conversations were held with their supervising teacher educators from whom they got feedback on their CM and suggestions, which was from their perspective sufficient for their interpersonal learning. Sofia described the importance of this role as followed:

“My coach is very supportive. In our talks, she often gave me pedagogical tips, such as how to respond to pupils, or ‘what did you run into, what did you find difficult, what do you need’. Quite general. These conversation were also mostly scheduled, so basically not always at the moment you need it most.”

4.2 Effects of the intervention

In this part of the results section, the findings of what was learned in terms of gained insights (2nd level Kirkpatrick), whether the intervention led to differences in student teachers’ behaviour (3rd level Kirkpatrick), and the effect of the intervention on student teachers’ pupils in the classroom (4th level Kirkpatrick), will be presented. The second, third, and fourth level were regarded from the student teachers’ perspective, the third level also from pupils’ and school based teacher educators’ perspective.

74

PEDAGOGISCHE
STUDIËN

<https://doi.org/10.59302/ps.v10i1.18784>

What did the student teachers learn from the intervention in terms of knowledge and beliefs/attitudes?

All student teachers described insights they gained following on the use of the intervention. More specifically, a large variation of different forms of knowledge and insights were mentioned by the student teachers. Four student teachers (Rhea, Michael, Sofia, and Rose) gained knowledge about how to be consistent in their teacher behaviour towards their pupils and (non-)verbal interpersonal communication techniques. Sofia, for instance, struggled with finding an own interpersonal style and learned strategies to follow up her own directions. Michael gained knowledge about the impact of his teachers’ interpersonal behaviour on his pupils and, as a result, getting and keeping pupils’ attention. All of them consulted colleagues and teacher educators at the workplace. The impact of that was very well described by Rose:

“My main struggle is consistent teacher behaviour. I really find it hard to act strict when I said I would be. What helped me mostly were the lesson observations, as I saw the same pupils showing the same behaviour to my fellow colleagues and understand this was not personal to me. I also learned that my colleagues reacted strict, but with

[The effects of an intervention in student teachers’ classroom management learning processes](#)

humour. These insights helped me to be more relaxed about it and gave me strategies what to do, what to say and how to act.”

Julie and Patrick gained not only knowledge about teachers’ interpersonal behaviour, but also the impact it can have on the structure in the classroom, building up lessons, gaining dominance and pupils’ span of concentration. Peter and Jonathan gained knowledge about pupils’ behaviour and the interaction with them. Jonathan:

“Sometimes, I am too impatient and demanding towards pupils. I tried to find colleagues in whom I find recognition with my own beliefs and style. From the conversations I had with them, and especially the lesson I observed, I learned how more experienced colleagues have their things in order. That gave me some practical tips how to act during changeovers during my own lessons, such as finalizing a phase of the lesson only when you have complete attention of all pupils, summarizing or asking pupils to do that, and then go on to the next phase, still demanding complete attention. When you do so, pupils start to correct each other, but only if you are really consistent in that. That was a great insight, because before that, I only experienced rather chaotic changeover moments.”

Like Jonathan, Marc gained knowledge about changeover moments during his lessons. Furthermore, five student teachers (Rhea, Julie, Michael, Sofia, and Marc) explicitly mentioned that the intervention made them feel more self-confident in their interpersonal teacher behaviour.

To what extent did the intervention lead to differences in student teachers’ behaviour?

All student teachers indicated that the intervention was helpful in developing their interpersonal teacher behaviour. Peter, Michael, Patrick, Sofia, Marc, Julie, and Rose described developments concerning their own (non-)verbal interpersonal teacher behaviour. They mentioned differences towards their teacher behaviour as becoming calmer in (non-)verbal teacher behaviour and more predictive behaviour towards his pupils (Peter), becoming more anticipated on directing pupils’ behaviour (Michael), developing a more friendly and effective teacher style (Patrick), learning how to use eye-contact and hand gestures in her behaviour (Sofia), becoming more consistent in his teacher behaviour (Marc), and the tone of voice that became both more friendly and clear (Julie). These findings mostly related to themselves, as also Rose described:

“During this year, I learned that minor things can make an impact, like standing close to pupils, making eye-contact, or a hand gesture, it all can influence the dynamics with the pupils in the classroom. For me, especially making eye contact works the best,

when I do that, I immediately see response from my pupils, they become more calm immediately.”

Rhea and Jonathan reported outcomes which were not only related to their own (non-) verbal interpersonal behaviour, as the other student teachers described, but also focused on the interaction between student teachers and their pupils. They described aspects of their own (non-)verbal interpersonal behaviour and connected this to the challenging situations they experienced with their pupils and the classroom. For instance Rhea, who struggled with her time-management and pupils behaviour during changeovers in her lessons, learned how to use hand gestures to instruct her pupils, to manage these processes more effectively. Rhea:

“My main challenge was keeping order during changing moments. So I had to find structures, such as having good practices of effective didactic forms, combining the right pupils to each other and as soon as I started to know them better, I felt more equipped to address them during these moments. What worked for me as well were hand signals to gain order during moments of change. In a matter of time pupils knew what I expected from them.”

Furthermore, she described how her time-management and changeovers during her lessons improved.

Jonathan struggled with finding a balance between being strict and being liked by his pupils. He learned to be more persistent and less hesitant towards his pupils. Jonathan:

“As I gained experience and practical knowledge in terms on how to act and what to do, I noticed that I was having less order problems and I became more self-confident about my teacher attitude. I learned that both establishing and maintaining rules became a second nature to me, I became more persistent and less hesitant, stricter in my demands towards my pupils, but on the other hand also giving them more compliments.”

What effect did the intervention have on student teachers' pupils in the classroom?

There were no indications the intervention had an effect on student teachers' pupils in the classroom. Although Rhea, and Jonathan explicitly argued that, according to their own pupils, pupils' behaviour in the classroom improved, it remained unclear what specifically changed and how this was potentially related to the impact of the intervention. For Michael, Patrick, Sofia, and Julie it did not become clear what the effect of the intervention is on their pupils in the classroom. Marc and Peter were during their internship mostly focused on their own (non-)verbal teacher behaviour. Therefore, their outcomes were not directly related to changes in pupils' behaviour.

[The effects of an intervention in student teachers' classroom management learning processes](#)

5 Discussion

The main question of this study was: to what extent is an intervention in student teachers' interpersonal learning processes a contribution in improving student teachers' interpersonal behaviour? The ambition of the implementation of a designed intervention during student teachers' internship was to add focus and direction in student teachers' interpersonal learning, and to find out whether that was effective. The main results of this study showed that the participants regarded the intervention as being effective and the results indicated that the intervention provided the student teachers with opportunities to structure their interpersonal learning process. Concerning the interpersonal learning process, there were indications that the intervention indeed added focus and direction to student teachers' interpersonal learning process, as all student teachers used the intervention to structure their interpersonal learning process in a timeline of activities, already from the beginning of the internship, which is in contrast to our previous research whereby we have seen that student teachers required more effort to find a structure (Adams et al., 2022).

With regard to the use of the various activities of the intervention, the planned conversation was least mentioned. This activity was not desired or considered effective by the student teachers. The most used activity was the combination of unplanned conversations and lesson observation. Interestingly, as this was not suggested as a combined activity in the design of the intervention, this combination was probably what student teachers preferred in their interpersonal learning. Moreover, the student teachers who used this as such, explicitly stated this put them in an active role to work on their interpersonal challenges. This combined activity seems to indicate an added value of this study for promoting student teachers' interpersonal learning during the internship. This finding is in line with previous research about the importance of informal learning at the workplace (Lecat et al., 2019). By working with this intervention they all added structure to their interpersonal learning process, which is, in comparison to our previous study (Adams et al., 2022) a difference, as half of the participants of that study lacked focus, especially during the first four months of their internship, and experienced an unstructured start with negative consequences as to the quality of their interpersonal learning process. Another added value of our study is the variety in the consultation of different colleagues at the workplace, who did not have a formal status as teacher educator, but were usually daily colleagues.

Regarding what student teachers indicated they have learned from the intervention in terms of knowledge and beliefs/attitudes, results showed a large variation in gained knowledge and insights. Student teachers gained insights about (non-)verbal interpersonal teacher behaviour, pupils' behaviour, how to be consistent in their own teacher behaviour, the interaction between teacher and pupils, and changeover moments during their lessons. These topics of

knowledge and insights were helpful for them in finding their own interpersonal teacher style, using strategies to obtain control on classroom situations, gaining structure in the classroom, pupils' behaviour and getting their attention. Moreover, as five student teachers explicitly mentioned this (while it was not explicitly asked during the interviews), the intervention seemed to improve student teachers' self-confidence in their interpersonal teacher behaviour.

These findings are in line with other studies which tested an intervention to promote student teachers' CM learning, and found similar outcomes in terms of increased insights, having a deeper understanding of CM situations and their performance, and growth in self-confidence (Weber et al., 2018; Seufert, 2022; Theelen et al., 2022). Although the gained knowledge and insights had no statistically significant effect on student teachers' self-perception, there were two statistically significant differences found in student teachers' ideal-perceptions. These findings seem to indicate less preferred understanding and less cooperation. This is an interesting finding as previous research suggests that ideal perceptions tend to stay stable over time (Brekelmans et al., 2005).

As for the extent in which the intervention showed differences in student teachers' interpersonal behaviour, perceived by themselves, the perceptions of their pupils and perceptions of their school-based teacher educator, we only found self-perceived indications of differences. The teacher educators did not refer to this during the interviews. According to the student teachers themselves, however, they all described differences in their interpersonal teacher behaviour. These differences referred mainly to developed (non-) verbal teacher behaviour, as being calmer in front of the classroom, being more predictive for their pupils, being more friendly as the tone of voice changed, and using eye-contact and hand gestures. Jonathan and Rhea, who used the combination between unplanned conversations and lesson observations, not only described these kinds of outcomes, but also related this to the interaction they had with their pupils and the interest their learning had for them. Their interpersonal learning outcomes, in contrast to all other student teachers, show characteristics of expert teachers focus as they described classroom dynamics and interactions. Similar to the other student teachers in this research, novice teachers are mostly focused on pupils' behaviour or behavioural norms (Wolff, Jarodzka, & Boshuizen, 2021). These findings show that all student teachers benefit from the intervention, and the structure it provided in the promotion of their interpersonal learning process.

As for the fourth level of Kirkpatrick, no effects of the intervention on pupils in the classroom in the perception of the student teachers were reported. This can probably be explained by the focus of this study on student teachers' interpersonal learning which leads mostly to student teachers' centred outcomes. Verifying the impact of student teachers' use of the intervention on pupils' impact level would have entailed a larger method setup. Moreover,

another explanation could be that student teachers during their process of professional development are mostly focused on their own professional development rather than pupils' development (Fuller, 1969).

For future research we would recommend collecting more data from the pupils' perspective, by for example classroom observations or interviews with pupils. Our finding that most data was found in the first, second and third level of Kirkpatrick is in line with other studies to the effectiveness of Kirkpatrick. These studies also indicate that there is no valuable information found on Kirkpatrick's fourth level (Reio et al., 2017; Bates, 2004).

Finally, the main conclusion of this study is that the intervention was regarded as effective to student teachers. The combination of the activities unplanned conversations and lesson observations worked for student teachers. In order to structure this into the student teachers' learning process, the QTI played a helpful role. Furthermore, the added value of this research is that the interventions were helpful for student teachers to structure and promote their interpersonal learning process, considering the broad variety of gained knowledge and beliefs/attitudes, and to differences in their interpersonal behaviour.

Implications for teacher education practice

By offering student teachers an intervention to promote their CM learning, we addressed researchers' calls for more exposure of CM in the teacher education curriculum (O'Neill & Stephenson, 2011), and teaching effective strategies for developing student teachers' CM (Oliver & Reschly, 2010).

Looking at the design of this intervention, it is arguable the QTI and its theoretical basis play a key role, mostly for giving student teachers and their supervisors opportunities for student teachers' interpersonal learning development. By using this instrument in the intervention, and by measuring multiple perspectives (student teachers' self and ideal, their pupils and their school-based teacher educator), it gives the student teacher and the teacher educator insights concerning student teachers' interpersonal teacher behaviour. As a result, it directly confronts the student teacher with these multiple perspectives, leading to deepened conversations about how the various perspectives value their performance, which allows them also the opportunity to work on that directly. This is a significant gain in comparison to the practice of student teachers who were in the same stage of their teacher education, not having these meaningful insights, resulting in having an unstructured internship and experiencing interpersonal issues for an unnecessarily longer period of time.

As the QTI not only provided insights in the current situation, it also allowed student teachers to work on specific activities of the intervention to improve their interpersonal teacher behaviour. This element was rather important, as this was greatly valued by the student teachers, in particular the combination

between unplanned conversations and lesson observations. In their consultation of certain expertise, they found various colleagues within the context of the school. From a teacher educator perspective, that is a crucial element which does not need more guidance: the student teachers will find this expert in the school, and it is not necessary that this expert is a formal teacher educator. However, teacher educators do need to keep an eye on the importance of significant others who play an important role for student teachers' CM learning process and, by finding out if those informal processes in student teachers' learning are being planned and carried out (see also Lecat et al., 2019).

The researchers in this study recommend student teachers be stimulated in student teaching with activities such as seeking unplanned conversations with colleagues in the school who they regard as experts, and observing their lessons as well. This combination seems to be motivating for student teachers. The activity of planned conversations, on the other hand, did not seem to be very effective. The student teachers had these planned conversations generally with formal teacher educators and official experts in the school (e.g. counselling and management staff), who might be not as well positioned for discussing specific issues of student teachers' interpersonal learning.

However, considering the limited amount of participating student teachers and the voluntary basis and the freedom of the participants of the use of the activities of the intervention, we are not able to establish all the effects of the suggested activities.

More research at a larger scale would give more insights of the use and impact of the activities of the intervention.

Furthermore, as for the future use of the activities in the intervention, we also recommend tracking the interpersonal learning process more deeply by asking student teachers more frequently what activities they work on, with whom etc. By doing so, teacher educators can have a better understanding of the progress and decide whether it helps them, or any additional adjustments or any other help is needed. There is a possibility that some student teachers cannot oversee that for themselves. Therefore, the role of teacher educators is essential for keeping an eye on the progress of student teachers' interpersonal learning processes.

Limitations and opportunities for further research

Probably the main limitation of this study is the broader impact of the intervention on student teachers' interpersonal learning. With this study we mapped what was learned about elements of the intervention. What we (still) do not know is what would have been learned, with whom and at what pace, without the intervention. In our view, it was not ethical to split the group of participants and have a control group, which learned without the benefits of the intervention. Therefore, we could only compare our findings to our previous study.

In the data collection process of the second round of interviews, we asked the student teachers which activities they used and how many colleagues they consulted. However, we did not ask them how many times they did a lesson observation or had a conversation with a particular colleague or teacher educator. This could have given us more detailed data about the intensity of certain activities.

References

- Adams, T., Koster, B. & Brok, P. den. (2022). Patterns in student teachers' learning processes and outcomes of classroom management during their internship. *Teaching and Teacher Education, 120* (3), 103891. <https://doi.org/10.1016/j.tate.2022.103891>
- Bates, R. (2004). A critical analysis of evaluation practice: the Kirkpatrick model and the principle of beneficence. *Evaluation and Program Planning, 27*(3), 341-347. <https://doi.org/10.1016/j.evalprogplan.2004.04.011>
- Brekemans, M., Wubbels, T., & Levy, J. (1993). Student performance, attitudes, instructional strategies and teacher-communication style. In T. Wubbels & J. Levy (Eds.), *Do you know what you look like? Interpersonal relationships in education* (pp. 56-63). London: Falmer Press.
- Brekemans, M., Wubbels, T., & Tartwijk, J. van. (2005). Teacher–student relationships across the teaching career. *International Journal of Educational Research, 43*, 55–71. <https://doi.org/10.1016/j.ijer.2006.03.006>
- Charmaz, K. (2014). *Constructing Grounded Theory*. Los Angeles: Sage.
- Dicke, T., Elling, J., Schmeck, A., & Leutner, D. (2015). Reducing Reality Shock: The Effects of Classroom Management Skills Training on Beginning Teachers. *Teaching and Teacher Education, 48*, 1-12. <https://doi.org/10.1016/j.tate.2015.01.013>
- Emmer, E. T., & Sabornie, E. J. (2015). *Handbook of Classroom Management* (2nd edition). Routledge.
- Everton, C. M. & Weinstein, C. S. (Eds.) (2006). *Handbook of classroom management. Research, practice, and contemporary issues*. Lawrence Erlbaum Associates.
- Freeman, J., Simonsen, B., Briere, D. E., & MacSuga-Gage, A. S. (2014). Pre-service Teacher Training in Classroom Management: A Review of State Accreditation Policy and Teacher Preparation Programs. *Teacher Education and Special Education, 37*(2), 106–120. <https://doi.org/10.1177/0888406413507002>
- Fuller, F. (1969). Concerns of teachers: A developmental conceptualization. *American Educational Research Journal, 6*, 207-226. <https://doi.org/10.2307/1161894>
- Hammerness, K., & Kennedy, B. (2019). Teaching Practices Grounded in Foundational Knowledge, Visions, and Contexts. *The New Educator, 15*(1), 66-83. <https://doi.org/10.1080/1547688X.2018.1506070>
- Helms-Lorenz, M., Grift, W. van de., Canrinus, E., Maulana, R. & Veen, K. van. (2018). Evaluation of the behavioural and affective outcomes of novice teachers working in professional development schools versus non-professional development schools. *Studies in*

- Educational Evaluation*, 56, 8-20. <https://doi.org/10.1016/j.stueduc.2017.10.006>
- Kirkpatrick, D. L. (1994). *Evaluating training programs: the four levels*. San Francisco: Berrett-Koehler.
- Korpershoek, H., Harms, T., Boer, H. de., Kuijk, M. van., & Doolaard, S. (2016). A Meta-Analysis of the Effects of Classroom Management Strategies and Classroom Management Programs on Students' Academic, Behavioral, Emotional, and Motivational Outcomes. *Review of Educational Research*, 86(3), 643-680. <https://doi.org/10.3102/0034654315626799>
- Lecat, A., Raemdonck, I., Beusaert, S., & März, V. (2019). The what and why of primary and secondary school teachers' informal learning activities. *International Journal of Educational Research*, 96, 100-110. <https://doi.org/10.1016/j.ijer.2019.06.003>
- Montague, M., & Kwok, A. (2022). Teacher training and classroom management. In E. J. Sabornie & L. Espelage (Eds.), *Handbook of classroom management* (3rd edition, pp. 249-270). Routledge. <https://doi.org/10.4324/9781003275312-17>
- O'Neill, S., & Stephenson, J. (2011). Classroom Behaviour Management Preparation in Undergraduate Primary Teacher Education in Australia: A Web-based Investigation. *Australian Journal of Teacher Education*, 36(10), 34-52. <https://doi.org/10.14221/ajte.2011v36n10.3>
- Oliver, R. M., & Reschly, D. J. (2010). Special-education Teacher Preparation in Classroom Management: Implications for Students with Emotional and Behavioural Disorders. *Behavioural Disorders*, 35(3), 188-199. <https://doi.org/10.1177/019874291003500301>
- Pennings, H., Brekelmans, M., Wubbels, T., Want, A. van der., Claessens, L., & Tartwijk, J. van. (2014). A nonlinear dynamic systems approach to real-time teacher behaviour: differences between teachers. *Non-linear Dynamics, Psychology, and Life Sciences*, 18(1), 23-45.
- Reio, G., Rocco, T., Smith, D., & E. Chang. (2017). A Critique of Kirkpatrick's Evaluation Model. *New Horizons in Adult Education & Human Resource Development*, 29(2), 35-53. <https://doi.org/10.1002/nha3.20178>
- Seufert, C., Oberdörfer, S., Roth, A., Grafe, S., Lugin, J., & Latoschik, M. (2022). Classroom management competency enhancement for student teachers using a fully immersive virtual classroom. *Computers & Education*, 179, 104410. <https://doi.org/10.1016/j.compedu.2021.104410>
- Stough, L. M., & Montague, M. L. (2015). How Teachers Learn to Be Classroom Managers. In E. T. Emmer & E. J. Sabornie (Eds.), *Handbook of Classroom Management* (2nd edition, pp. 446-458). New York: Routledge.
- Theelen, H., Beemt, A. van den., & Brok, P. den. (2022). Enhancing authentic learning experiences in teacher education through 360-degree videos and theoretical lectures: reducing preservice teachers' anxiety. *European journal of teacher education*, 45 (2), 230 - 249. <https://doi.org/10.1080/02619768.2020.1827392>
- Tynjälä, P. (2008). Perspectives into learning at the workplace. *Educational Research Review*, 3(2), 130-154. <https://doi.org/10.1016/j.edurev.2007.12.001>
- Tartwijk, J. van., & Hammerness, K. (2011). The neglected role of classroom management in

The effects of an intervention in student teachers' classroom management learning processes

teacher education. *Teaching Education*, 22(2), 109-112. <https://doi.org/10.1080/10476210.2011.567836>

- Weber, K., Gold, B., Prolop, C., & Kleinknecht, M. (2018). Promoting pre-service teachers' professional vision of classroom management during practical school training: Effects of a structured online- and video-based self-reflection and feedback intervention. *Teaching and Teacher Education*, 76, 39-49. <https://doi.org/10.1016/j.tate.2018.08.008>
- Wolff, C., Jarodzka, H. & Boshuizen, H. (2021). Classroom Management Scripts: a Theoretical Model Contrasting Expert and Novice Teachers' Knowledge and Awareness of Classroom Events. *Educational Psychology Review*, 33, 131-148. <https://doi.org/10.1007/s10648-020-09542-0>
- Wubbels, T. (2011). An International Perspective on Classroom Management: What Should Prospective Teachers Learn? *Teaching Education*, 22, 113-131. <https://doi.org/10.1080/10476210.2011.567838>

Auteurs

Tom Adams werkt als docent onderzoeker bij Fontys Lerarenopleiding in Tilburg, waar hij betrokken is bij het onderwijs-pedagogische afstudeerproces en het werkplekcleren van aanstaande leraren. Tevens is hij als onderzoeker verbonden aan het Fontys-kenniscentrum Youth Education for Society. In september 2023 heeft hij zijn PhD afgerond dat gericht was op de ontwikkeling van het klassenmanagement van aanstaande leraren op de werkplek.

Bob Koster was als lector verbonden aan de Fontys Lerarenopleiding in Tilburg. Hij werkte meer dan 30 jaar als universitair lerarenopleider en onderzoeker aan de Universiteit Utrecht. Hij heeft gepubliceerd over onderwerpen als professionele standaarden voor lerarenopleiders, leren en ontwikkelen van leraren in opleiding, en leeromgevingen en innovatie in lerarenopleidingen.

Perry den Brok is als hoogleraar en voorzitter van de Education and Learning Sciences faculteit verbonden aan de Wageningen Universiteit. Hij heeft gepubliceerd over onderwerpen als het leren van leraren en professionele ontwikkeling, interpersoonlijk gedrag tussen leraar en leerlingen en klassenmanagement, leeromgevingen en innovatie in het voortgezet en hoger onderwijs.

Correspondentieadres: Tom Adams, Dr. Tom Adams, Fontys Lerarenopleiding Tilburg en Kenniscentrum Youth Education for Society, Prof. Goossenslaan 1, 5022 DM Tilburg | Gebouw P1. E-Mail: t.adams@fontys.nl

83

PEDAGOGISCHE
STUDIËN

<https://doi.org/10.59302/org/10.59302/ps.v10i11.18784>

Samenvatting

De effecten van een interventie op de leerprocessen van aanstaande leraren rond klassenmanagement

Het is bekend dat veel aanstaande leraren in het voortgezet onderwijs worstelen met de beheersing van het klassenmanagement op de leerwerkplek. Daarbij ervaren ze vaak moeite met het effectieve gebruik van theoretische kennis en hoe ze hun lerarenopleiders of anderen tijdens het werkplekleren gericht kunnen benutten. Als gevolg daarvan ervaren aanstaande leraren uitdagingen in het klassenmanagement leerproces. In deze studie presenteren we de ontwikkeling en implementatie van een interventie met de ambitie om meer focus en richting te geven aan het leerproces van aanstaande leraren over klassenmanagement door hen activiteiten aan te bieden die ze kunnen gebruiken in hun leerproces. Deelname aan deze interventie was vrijwillig. De interventie kon drie activiteiten omvatten: lesobservaties, geplande gesprekken en ongeplande gesprekken. De resultaten laten zien dat aanstaande leraren vooral een combinatie van ongeplande gesprekken en lesobservaties gebruiken om hun leren te bevorderen, en dat de interventie voor aanstaande leraren nuttig is om hun leerproces te structureren. De belangrijkste conclusie van dit onderzoek is dat de interventie effectief was voor aanstaande leraren en invloed had op de ontwikkeling van hun kennis en overtuigingen/attitudes en verschillen in hun interpersoonlijk gedrag. De leraren zagen echter geen verschillen in het gedrag van hun leerlingen in de klas.

84

PEDAGOGISCHE
STUDIËN

[https://doi.](https://doi.org/10.59302/ps.v10i1.18784)

[org/10.59302/](https://doi.org/10.59302/ps.v10i1.18784)

[ps.v10i1.18784](https://doi.org/10.59302/ps.v10i1.18784)

Kernwoorden werkplekleren, klassenmanagement, lerarenopleiding

The effects of an intervention in student teachers' classroom management learning processes

T. Adams, B. Koster and P. den Brok