Chapter 5

5.
Internship, interpersonal profilesand self-images[5]

An important purpose of internships in teacher preparation programmes is to develop competence through experience.

The research questions of this chapter concern student teachers' interpersonal profiles (i.e., patterns of their interpersonal behaviour as perceived by students) and the accuracy of their self-images on the interpersonal relationship with students at the beginning and end of the internship. Also, the relation between interpersonal profiles and the accuracy of self-images was investigated.

Participants were student teachers (N=34) of a one-year teacher education programme. At the end of the internship there were less student teachers with preferable interpersonal profiles than in the beginning. Accuracy of self-images at the beginning indicated that the majority of student teachers were underestimating themselves; at the end of the internship most of them were overestimating. About two-third had more accurate self-images at the end than at the beginning of the internship. Overestimating oneself seemed negatively related to more accurate self-images at the end and student teachers with more preferable profiles had more accurate self-images.

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5.1 Introduction

An important purpose of internships during teacher education programmes is to offer student teachers a (sometimes first) experience as a teacher through which they can develop specific competences. One of these competences is the ability to build a positive teacher-class relationship. Educational researchers have repeatedly shown the importance of the teacher-class relationship for learning achievement and motivation of students (Cornelius-White, 2007; Davis, 2003; Pianta, 2006; Pianta & Hamre, 2009; Wubbels, Brekelmans, den Brok, & van Tartwijk, 2006). A good relationship with students is a prerequisite for professional growth from a beginning to an experienced teacher (Beijaard, 1995) and negative teacher-class relationships were found to have a negative impact on teacher stress, teacher well-being and teacher confidence (Spilt, Koomen, & Thijs, 2011). Particularly student and beginning teachers report difficulties in establishing and maintaining a positive classroom climate (Ghaith & Shaaban, 1999; Liston, Whitcomb, & Borko, 2006, Veenman, 1984), in this these operationalized as consisting of the teacher-class relationship and discipline strategies. Unfortunately, in both educational research and teacher preparation programmes, little attention has been paid to classroom management, discipline strategies and the teacher-class relationship (Evertson & Weinstein, 2006). In the Netherlands a number of teacher education programmes has adopted the Model of Teacher Interaction (Créton & Wubbels, 1984) to guide student teachers in learning to develop positive teacher-class relationships.

Most teacher preparation programmes pay explicit attention to reflecting on (self-) beliefs and how these beliefs relate to behaviour (Pajares & Schunk, 2002). As Caires, Almeida and Vieira (2012) described, since the 1990s emotional and social intelligence, relationships and empathy with others, and perceptions of emotions have become more and more important values in teacher education. According to Caires et al. (2012), teaching practice is a period of intense search and exploration of others, new scenarios, and *self*. Because of the research interest of this thesis, the focus is on self-images that were related to the teacher-class relationship.

5.2 Theoretical framework

In this section, the concepts of this study will be more elaborately introduced, resulting in three research questions.

INTERPERSONAL PROFILES

In this thesis the teacher-class relationship is described with a model, originally developed by Leary (1957), and since then extensively investigated (Kiesler, 1983; Tracey, 1994, 2004; Wiggins, 1991). According to this model, the relationship can be described with two independent dimensions, a control and an affiliation dimension (Moskowitz, Ringo Ho, & Turcotte-Tremblay, 2007; Tiedens & Fragale, 2003; Tracey, 1994). In the Netherlands, researchers (Créton & Wubbels, 1984; Wubbels, Brekelmans, den Brok, Ley, Mainhard, & van Tartwijk, 2012) applied this model to interpersonal teacher behaviour. The control dimension describes the extent to which the teacher determines what happens in the classroom (from submissive to dominant) and the affiliation dimension describes the emotional distance between teacher and students (from hostile to warm). Affiliation refers to behaviours such as listening to students, asking what they want, encouraging them and generally being responsive; whereas control refers to leadership and pursuing high standards (Mainhard, Brekelmans, den Brok, & Wubbels, 2011).

In the context of educational research the two dimensions are recognised as a valuable tool for describing the quality of the teacher-class relationship (Ertesvåg, 2011; Walker, 2009; Wentzel, 2002; Wubbels et al., 2006). The optimal teacher-class relationship is characterised by a combination of high levels of control and affiliation (Ertesvåg, 2011; Walker, 2009; Wentzel, 2002): teacher control is found to be positive related with cognitive learning outcomes, and affiliation with affective learning outcomes (Brekelmans, 1989; Walker, 2009; Woolfolk Hoy & Weinstein, 2006). According to Brekelmans et al. (2005), in terms of affiliation teachers' behaviour hardly changes in the first twenty years of the career, while according to both students and teachers, teachers' behaviour in terms of control on average increases in the first six (mainly first three) years of the teaching career.

Brekelmans and colleagues developed a typology of interpersonal profiles (Brekelmans, 1989; Brekelmans, Levy, & Rodriguez, 1993), describing the behavioural patterns of the teacher as perceived by students. These profiles are called Directive; Authoritative; Tolerant-authoritative; Tolerant; Uncertain-tolerant; Uncertain-aggressive; Repressive and Drudging. Both teachers and students view the authoritative interpersonal style as the ideal interpersonal style (Brekelmans et al., 2005), in this thesis all profiles where high control and high affiliation are combined are called preferable (i.e., directive, authoritative and tolerant-authoritative). According to the study of Brekelmans et al. (2005), with data available of over 2000 student teachers, according to their students 69% of student teachers did not have one of these preferable profiles; 7% had a directive, 10% an authoritative, and 14% a tolerant-authoritative profile at the end of the teacher education programme. It is unknown with which profiles student teachers start the internship and if and how they change from one profile to another during the internship.

SELF-IMAGES

According to Pajares and Schunk (2002), rather than a global perception of self, self-images relate to how individuals perceive their selves in different contexts and situations. As a consequence, self-images differ across different domains of functioning; for instance, a person's self-belief as a volleyball trainer, teacher, sister and colleague are plainly different. We were concerned with participants' self-images as a teacher in the context of the class. In addition, based on Cooley's notion of the *looking glass self* (Yeung & Martin, 2003), self-images are viewed as teachers' beliefs on how they think they will be perceived by their students in a particular class. The notion of the looking glass self implies that people rely on social processes to shape their selves, seeing themselves as they imagine others will see them (Yeung & Martin, 2003). Specifically, student teachers will rely on social processes in the classroom, since their self-as-a-teacher is still developing. Therefore, we defined self-images as beliefs about how student teachers think they are perceived by their students.

Self-images with regard to control describe the extent to which teachers believed they were perceived by their students as in control, while self-images with regard to affiliation describe how emotionally close teachers believed they were seen by their students. According to Brekelmans et al. (2005), during the teaching career teachers believe their behaviour on control and affiliation is higher than as students perceive it. Wubbels, Brekelmans and Hooymayers (1993) found that about two third of teachers overestimations how they will be perceived by their students, another one third of teachers believes their behaviour is less warm and dominant than it was according to their students, a so called underestimation. Research (Kolar, Funding, & Colvin, 1996) has shown that self-images are less associated with actual behaviour than are rating of others (students in our case). In that sense over or underestimations might hinder student teachers' development: unaware of their actual behaviour they might not acknowledge the need to change. For instance, student teachers who believe to have more control in the classroom than they have according to students, might not see the necessity to change their behaviour.

It remains unclear to what extent differences between teacher self-images and student perceptions may be related to teacher experience or cultural background. Studies with regard to this matter unravelled mixed results (Wubbels et al., 2006). However, it seems that higher student perceptions of control and affiliation of the teacher are positively related to smaller differences between between teacher self-images and student perceptions (Brekelmans & Wubbels, 1991).

RESEARCH QUESTIONS

In this chapter, the following questions will be examined:

1. How are student teachers' interpersonal profiles different at the beginning and end of the internship?
2. How is the accuracy of student teachers' self-images on their own interpersonal behaviour at the end of the internship different from their accuracy at the beginning? Do student teachers have improved accuracy of self-images at the end of the internship?

3. Do student teachers with preferable interpersonal end profiles have more accurate self-images on control and affiliation at the end of the internship?

5.3 Method

SAMPLE

Participants were 35 student teachers (20 female, 15 male) of a University Graduate school of Teaching in the Netherlands. Their age ranged between 22 and 49 (M = 28.5 years, SD = 7.0), fifteen (43%) were going to teach social studies, thirteen (37%) mother tongue and foreign languages, six (17%) science and mathematics, and one (3%) the arts. Student teachers already hold a master degree in the subject they are going to teach once they enrol at the teacher education programme. The one year programme included an internship that starts right from the beginning of the education programme. Per week, student teachers spent one day at the teacher education institute and two to three days at the school, where they were engaged in observations, teaching and other assignments. All participants were teaching at least two classes. They were supervised by a university supervisor at the teacher education institute and a co-operating teacher at the school. The programme takes a year full-time and starts either in September or February. In this sample all participants started in September, which coincides with the beginning of the school year.

The majority of the participants (28 = 80%) had little or no experience teaching in secondary education, six (17%) had one to three years' experience. One participant had more than six year's experience and was omitted from further analysis because in terms of experience she differed too much from other participants in this sample.

INSTRUMENTS

For all participants data were gathered on their self-images and student perceptions about the teacher-class relationship. Both teachers' self-images and student perceptions about the teacher-class relationship were examined with the Questionnaire on Teacher Interaction (QTI, Créton & Wubbels, 1984), consisting of 50 items. Examples of QTI items are "This teacher is friendly." or

"This teacher is a good leader." The items are answered on a five-point Likert scale *(*never to always) both by students and by teachers. Teachers were instructed to reply by indicating how they think they will be perceived by their students of a particular class. We analysed teachers' self-images on the basis of dimension scores on control and affiliation.[6] The higher the scores, the more the teacher believes he/she is perceived by their students as in control and emotionally close. The reliability (Cronbach's α) was .88 on control and .88 on affiliation.

Results can be reported on the basis of dimensions scores or as interpersonal profiles. In case of the first, the higher the class mean scores on control and affiliation, correspondingly the more dominance or warmth students perceive in the relationship with the teacher. The reliability (Cronbach's α) was .91 on control and .94 on affiliation. The interpersonal profiles (Brekelmans, 1989; Brekelmans, et al., 1993), are based on composite scores of affiliation and control in eight so called sections of the interpersonal circle. Reliabilities for these sections ranged from .75 to .88. Table 1.1 shows the representations of the eight interpersonal profiles along with a short description of the classroom climate. In the representations part of a section is shaded so that the degree of shading is a measure of the height of the dimension-scores.

At the end of the internship the first author conducted an open ended interview with a number of student teachers to get a better understanding on their view on the teacher-class relationship during the internship.

PROCEDURE

Participants were asked to answer the QTI with the class in mind where student perceptions were gathered as to be sure that students' perceptions and self-images were related to the same teacher-class relationship. They administered

[6]In scales based on circumplex models, the items represent two dimensions (Tracey, 1994); here the dimensions are called control and affiliation. To reflect the position of an item within the circumplex model weights are applied to the items (i.e., theoretical factor loadings; for a comprehensive discussion of the model used here please refer to den Brok et al., 2006). As a result, scores of Control and Affiliation dimensions range between -2.6 and +2.6.

the questionnaire to their students and answered the questionnaire themselves at the same time or very soon after.

The QTI was administered after student teachers had taught a particular class for at least two months. During the development of an instrument to capture teachers' interpersonal expectations (de Jong, van Tartwijk, Verloop, Veldman, & Wubbels, 2012) it was found that data on teacher-class interaction differentiated more between teachers when gathered in least favourite instead of favourite classes. Since all student teachers taught at least two classes, they were asked to select a class for the student questionnaire that was their least favourite in terms of interaction. One class of each student teacher participated in the study, with on average 22.1 students per class; the smallest class consisted of twelve, the largest of 35 students. Of these classes, 34.2% were the first two classes of secondary education; the other 65.8% were higher classes. The majority (93.6%) were classes in the higher levels of secondary education.

5.4 Analyses

To answer the first research question, the number of preferable interpersonal profiles at the beginning was compared with the number of preferable profiles at the end of the internship.

For the research question on accuracy of student teachers' self-images on control and affiliation, student perceptions were subtracted from self-images so the difference scores indicated whether the self-belief was an overestimation (positive difference scores, so self-belief higher than student perception) or an underestimation (negative difference scores, so self-belief lower than student perception). Self-images that remained within the range of measurement error from student perceptions were regarded as accurate self-images (see Brekelmans, Mainhard, den Brok, & Wubbels, 2011). To determine whether or not the accuracy of self-images had improved, difference scores at the beginning and end were compared.

To answer the third research question, the mean accuracy scores of student teachers with a preferable and less preferable end profile were compared. Besides that, a correlation was computed between student perceptions of the

level of control and affiliation, and the accuracy of teachers' self-images at the end of the internship.

5.5 Results

INTERPERSONAL PROFILES AT THE BEGINNING AND END OF THE INTERNSHIP

The first research question was if and how student teachers' interpersonal profiles were different at the beginning and end of the internship. Table 5.1 describes interpersonal profiles of student teachers at the beginning and end of the internship as it was perceived by students in a particular class, at two moments in time (same class for both moments). As was the case with the sample of student teachers reported by Brekelmans et al. (2005) there were no teachers with a repressive profile. At the end of the internship there were less student teachers with a preferable profile (i.e., directive, authoritative, and tolerant-authoritative) than at the beginning: sixteen versus 12 respectively. The number of student teachers with less preferable, but for student teachers typical profiles such as uncertain-tolerant or uncertain-aggressive (compare Brekelmans et al., 2005), grows or remains stable. The number of student teachers with an uncertain-tolerant profile actually doubles (from six to twelve).

Table 5.2 depicts in the rows student teachers' begin profiles, and in the columns the end profiles. This way it is possible to show how, starting with a certain profile, one changes or not. For example in the row with 'dir' in it, we see that of three student teachers who started with a directive profile, two of them also had a directive end profile, and one changed to an uncertain-aggressive (so less preferable) profile.

Of the sixteen student teachers who had a preferable begin profile (first three rows of Table 5.2), ten of them still had a preferable profile at the end of the internship (first three columns of Table 5.2). Student teachers, who started with preferable profiles but ended with less preferable profiles, did so because they were perceived as having less control at the end of the internship.

Table 5.1. Interpersonal profiles of student teachers at the beginning and end of the internship

	Phase in internship	
Interpersonal profile	Beginning	End
Directive	3 (8.8)	6 (17.6)
Authoritative	10 (29.4)	4 (11.8)
Tolerant-authoritative	3 (8.8)	2 (5.9)
Tolerant	5 (14.7)	5 (14.7)
Uncertain-tolerant	6 (17.6)	12 (35.3)
Uncertain-aggressive	6 (17.6)	4 (11.8)
Repressive	0	0
Drudging	1 (2.9)	1 (2.9)
Total	34 (100%)	34 (100%)

Table 5.2. Interpersonal profiles of student teachers at two moments in the internship

		End profiles								
		Dir	Auth	Tol-auth	Tol	Unce-tol	Unce-ag	Repr	Dru	Total
Begin profiles	Dir	2				1				3
	Aut	2	3	1	2	2				10
	Tol-auth		1	1	1					3
	Tol				2	1	2			5
	Unce-tol					5	1			6
	Unce-ag	1				2	2		1	6
	Repr									0
	Dru	1								1
	Total	6	4	2	5	11	5	0	1	34

Note. Dir = Directive; Auth = Authoritative; Tol-Auth = Tolerant-authoritative; Tol =Tolerant; Unce-tol = Uncertain-tolerant; Unce-ag = Uncertain-aggressive; Repr = Repressive; Dru = Drudging

Of the eighteen student teachers with a less preferable begin profile (last five rows of Table 5.2), almost all (sixteen) also ended with a less preferable profile (last five columns of Table 5.2). Let us have a closer look at the two largest groups of less preferable profiles (twelve begin and sixteen end profiles): the uncertain-tolerant and uncertain-aggressive profiles. An uncertain-tolerant teacher is according to students very cooperative, but displays little leadership. The classroom atmosphere is unstructured, and although students are not provocative, they are not task-oriented. An uncertain-aggressive teacher behaves unpredictable, unbalanced, and often not reasonable according to students. Classes are characterised by an aggressive kind of disorder: teacher and students regard each other as their opponents, students are provocative, and the teacher spends most of the time trying to manage the class.

In Table 5.2 we can see that all but one student teacher with an uncertain-tolerant begin profile was still uncertain-tolerant at the end of the internship. Unfortunately, the student teacher who did change, ended with an uncertain-aggressive profile, which is actually less preferable than an uncertain-tolerant profile. Thus, starting from an uncertain-tolerant profile, it seems quite difficult to get to a profile that is associated with more leadership.

Three student teachers with uncertain-aggressive begin profiles ended with another less preferable profile, however, a change from an uncertain-aggressive begin profile to an uncertain-tolerant end profile might be seen as an improvement. Here, according to students the student teacher still does not display much leadership, but on the other hand is perceived as cooperative (which is not the case with uncertain-aggressive profiles).

Only two student teachers who started with a less preferable profile, managed to have a preferable profile at the end of the internship. One started with an uncertain-aggressive and the other with a drudging profile. Across the teacher career, these profiles make up around 10% of all profiles (Brekelmans, et al., 2005), probably because the teacher behaviour and the accompanying classroom situations are rather unpleasant and tiring. In our case, both teachers ended with directive profiles, so they still were not very close to students, but they did manage to have more well-structured lessons.

ACCURACY OF SELF-IMAGES AT THE BEGINNING AND END OF THE INTERNSHIP

Research question 2 was about the accuracy of student teachers' self-images at the beginning and end of the internship. At the beginning of the internship, on average student teachers' self-images for control (M = -.05, Sd = .44) were lower than student perceptions (M = .05, Sd = .43) . For affiliation, self-images (M = .60, Sd = .39) were slightly higher than students' perception (M = .57, Sd = .56). At the end of the traineeship, self-images were higher than student perceptions, both for control (teacher M = .12, Sd = .40 versus student M = -.03, Sd = .38) as for affiliation (teacher M = .75, Sd = .23 versus student M = .54, Sd = .39).

Table 5.3 shows frequencies and (between brackets) percentages of under-, over- and accurate estimations for control and affiliation at the beginning and end of the internship.

Table 5.3. Student teachers' self-images on control and affiliation at the beginning and end of the internship

	Control			Affiliation		
	Over-estimations	Under-Estimations	Accurate estimations	Over-estimations	Under-Estimations	Accurate estimations
Begin internship	8 (23.5)	17 (50.0)	9 (26.5)	13 (38.2)	16 (47.1)	5 (14.7)
End internship	20 (58.8)	7 (20.6)	7 (20.6)	23 (67.7)	7 (20.6)	4 (11.7)

N=34

At the beginning of the internship there were more student teachers who under- than overestimated themselves, both on control (seventeen versus eight, respectively) as on affiliation (sixteen versus thirteen). Mindy, a 24 year old social science student teacher had according to her students an authoritative, so preferable begin profile. However, her self-images were actually lower than student perceptions. She was rather unsure about herself, as is illustrated by this statement:

> *"Yeah, I never had to lead a group of people before, so how to address them, how do I motivate them, how do I get them to listen to me? Do I have enough authority? Those were the issues. Am I creative enough? Will I have enough ideas?"*

At the end of the internship this is the other way around: there were more student teachers who over than underestimated themselves (twenty versus seven on control; 23 versus seven on affiliation). Monica, a 27 year old science student teacher with an uncertain-tolerant end profile, believed that she had higher levels on control and affiliation than it was according to her students. She started with an uncertain-aggressive profile and ended with an uncertain-tolerant profile, so according to students Monica did have higher levels of affiliation at the end, but her amount of control in the classroom did not change so much. Monica said about control:

> *"I think that for a while it [being in control] was just about enough, but by that time [Christmas] I thought, well, I give you guys a chance, I stay friendly, but if you push it, it is over. Since that time it improved slightly, and I think the last couple of weeks, it really went a whole lot better."*

Overestimations at the end of the internship might also be an indication of improved confidence. Marc, a 24 year old biology student teacher who had a tolerant begin and end profile, underestimated himself at the beginning, and overestimated himself at the end of the internship:

> *"I mean, they also now that it was different here [at the beginning of the internship] and you cannot at once turn that around. I think it is now acceptable, I teach the way I want to. But I still know it can be better, but at least it is better than at the beginning of the year."*

Overall, on both moments the number of accurate self-images was higher for control than for affiliation, so apparently student teachers found it more difficult to accurately judge the level of affiliation, than the level of control.

SELF-IMAGES: IMPROVED AND DECLINED ACCURACY

Average differences and the range are depicted in last row of Table 5.4. The difference between teachers' self-images and student perceptions on control at the beginning of the internship ranged from -1.00 to .44; at the end of the internship, the range was from -.51 to 1.40. On affiliation, difference between teachers' self-images and students' perceptions ranged from -.86 to 1.33; at the end of the internship this was from -.73 to 1.33. The range was larger for affiliation than for control, and this is in line with what Wubbels et al. (1993) reported for in-service teachers: teachers and students differed more on affiliation than on control. The mean difference score for control was -.10 at the beginning and .14 at the end of the internship. For affiliation, the mean difference score was .03 at the beginning and .21 at the end. For control and affiliation, both the highest scores as well as the positive mean at the end of the internship, indicate that student teachers became more confident.

Table 5.4. Student teachers' self-images on control and affiliation at the beginning and end of the internship, comparison of accuracy begin versus end of internship

	Self-images control			Self-images affiliation		
Resp.nr	Begin	End	Begin vs End	Begin	End	Begin vs end
1	Under (-.54)	Under (-.10)	Improved	Over (.24)	Acc (.03)	Improved
2	Under (-.29)	Under (-.24)	Improved	Under (-.28)	Over (.14)	Improved
3	Under (-.25)	Acc (0.0)	Improved	Under (-.77)	Under (-.28)	Improved
4	Under (-.39)	Under (-.24)	Improved	Over (.97)	Over (.12)	Improved
5	Acc (.02)	Acc (.02)	Improved	Over (.58)	Over (.27)	Improved
6	Under (-.47)	Over (.06)	Improved	Under (-.25)	Over (.17)	Improved
7	Over (.36)	Over (.21)	Improved	Under (-.22)	Over (.18)	Improved
8	Over (.14)	Acc (-.02)	Improved	Under (-.55)	Under (-.51)	Improved
Mindy	Under (-.56)	Over (.25)	Improved	Under (-.17)	Under (-.06)	Improved
10	Acc (.03)	Acc (-.02)	Improved	Over (1.33)	Over (1.32)	Improved
11	Over (.44)	Over (.25)	Improved	Over (.91)	Acc (.04)	Improved

12	Under (-.18)	Over (.14)	Improved	Under (-.29)	Over (.38)	Declined
Marc	Under (-1.01)	Over (.10)	Improved	Under (-.09)	Over (.26)	Declined
14	Over (.25)	Over (.14)	Improved	Over (.27)	Under (-.31)	Declined
15	Under (-.37)	Under (-.19)	Improved	Over (.10)	Over (.23)	Declined
16	Under (-.09)	Acc (0.0)	Improved	Over (.07)	Over (.42)	Declined
17	Under (-.14)	Over (.06)	Improved	Under (-.07)	Over (.21)	Declined
18	Under (-.16)	Over (.10)	Improved	Acc (.04)	Over (.48)	Declined
19	Over (.20)	Over (.44)	Declined	Under (-.45)	Over (.18)	Improved
20	Acc (-.02)	Over (.27)	Declined	Over (.27)	Over (.11)	Improved
21	Over (.06)	Under (-.07)	Declined	Under (-.34)	Under (-.09)	Improved
22	Under (-.36)	Under (-.52)	Declined	Over (.50)	Over (.06)	Improved
23	Over (.19)	Over (.37)	Declined	Under (-.50)	Under (-.12)	Improved
24	Over (.06)	Over (.39)	Declined	Under (-.09)	Over (.38)	Declined
25	Under (-.19)	Over (.32)	Declined	Under (-.20)	Over (.29)	Declined
Mary	Under (-.13)	Over (.34)	Declined	Under (-.86)	Over (1.00)	Declined
Mia	Over (.12)	Over (1.4)	Declined	Over (.11)	Over (1.18)	Declined
28	Under (-.20)	Under (-.44)	Declined	Under (-.13)	Under (-.35)	Declined
Monica	Acc (0.0)	Over (.38)	Declined	Over (.12)	Over (.43)	Declined
30	Acc (0.0)	Over (.10)	Declined	Acc (0.0)	Over (.39)	Declined
31	Under (-.20)	Over (.28)	Declined	Under (-.25)	Under (-.73)	Declined
32	Over (.25)	Over (.29)	Declined	Over (.18)	Over (.37)	Declined
33	Acc (.05)	Over (.44)	Declined	Over (.77)	Over (.89)	Declined
34	Acc (.04)	Over (.34)	Declined	Acc (.04)	Over (.11)	Declined
	Mean -.10 Range 1.44	Mean .14 Range 1.91		Mean .03 Range 2.19	Mean .21 Range 2.06	

To determine the change in accuracy of self-images, we compared the difference scores on control and affiliation at the beginning and end of the internship. The columns of table 5.4 show self-images at the beginning, the end, and a comparison of the accuracy between begin and end (improved or

declined). For control this is depicted in columns 2-4 and for affiliation in columns 5-7.

Eleven student teachers had an improved accuracy of self-images on their behaviour in terms of control *and* affiliation; twelve student teachers improved their accuracy on *either* control or affiliation. This implies that for eleven participants their accuracy on both control and affiliation declined: for these student teachers, the difference between self-images and student perceptions was actually larger at the end than at the beginning of the internship.

Out of eighteen student teachers who had improved accuracy of self-images on control, only four had overestimations at the beginning. For improved accuracy of self-images on affiliation this is more or less the same: of sixteen with an improved accuracy, seven had overestimations in the beginning. Of eleven student teachers with a declined accuracy on both dimensions, at the end of the internship ten of them were overestimating their level of control, and nine were overestimating how close they were according to students. Mia is a 37 year old social science teacher who already had some experience working with groups. According to her students, she started with an uncertain-tolerant interpersonal profile, and this was still the same at the end of the internship. She overestimated herself on control and affiliation in the beginning and overestimated herself even more at the end. About how she started, she said

> *"[...] so for me, the feeling of standing in front of a group, was never any problem to me. I never felt any nervousness. Well, of course, in my class undoubtedly there will be students, as my supervisor indicated once, who are not paying attention and that I did not notice that or whatever, but overall, yeah I always had the idea that it always quite, yeah, that it came naturally to me."*

Since overestimations in the beginning were underrepresented in the group with improved accuracy, and overestimations at the end were overrepresented in the group with declined accuracy, we might conclude that there is a negative

relation between overestimating oneself and the improvement of accuracy of self-images (on control and affiliation).

INTERPERSONAL PROFILES AND THE ACCURACY OF SELF-IMAGES

The last research question was: do student teachers with preferable interpersonal end profiles have more accurate self-images on control and affiliation at the end of the internship? The average accuracy score for the twelve student teachers with a preferable end profile was -.05 (*SD* = .20) for control and -.05 (*SD* = . 37) for affiliation. On average, they were slightly underestimating their relation with students in terms of control and affiliation. However, they were clearly more accurate than the 22 student teachers with a less preferable end profile: their accuracy of self-images at the end of the year was 0.25 (*SD* = .34) for control and .35 (*SD* = .41) for affiliation. These teachers were overestimating themselves. Mary, a 23 year old history student teacher, had an uncertain-aggressive end profile and overestimations on both dimensions at the end of the internship. In the interview, she appears not to be aware of the discrepancy between her self-images and how she is perceived by students. With regard to control, she said:

> *"I think that to them [the students] that it was always clear, even though I was a trainee, that I was their teacher. […] I think it has been relatively stable throughout the year. Positive, maybe a little bit less here, but positive."*

Unfortunately for Mary, in spite of her efforts, students did not perceive her in control, nor emotionally close. With regard to affiliation, Mary told that she tried to become more close to students, for instance by having small personal conversations. When asked for the effect of her attempts to improve this aspect of the relationship with students, she replied:

> *"I once had a conversation, two girls were talking about clothes, or they had to work independently but they were talking about clothes, and I know that I then did not put them to work straight away, like I would have done earlier. I said well ladies, and then I said something about fashion or*

> *something, and then they asked "Well, but what do you like then, miss?" And I know that my boyfriend, whom I told about this later that day, he said, but that's none of their business, is it. I thought, well, yeah, it is not that I told them where I buy my clothes or something, but I noticed that this girls, yeah, it felt kinda' good or something."*

Interpersonal profiles are composed of specific combinations of scores on control and affiliation. To get a more precise understanding of the relation between the teacher-class relationship and the accuracy of self-images we decided to correlate student perceptions of control and affiliation at the end of the internship with student teachers' accuracy of self-images at the end of the internship. The relation between accuracy of self-images on affiliation and student perceptions proved to be significant: the higher the student perception of control and affiliation, the more accurate the teachers' self-belief on affiliation: $r = -.36$, $p < .05$ for control, and $r = -.38$, $p < .05$ for affiliation. Since accuracy is calculated as a difference score, the correlations are negative, indicating that the difference between self-images on affiliation and student perceptions was smaller for student teachers who were according to students more in control and more close to them. Accuracy of self-images on control was not related to student perceptions on either one of the dimensions.

5.6 Discussion

In this chapter we raised three major questions with regard to student teachers at the beginning and end of their internship in a one year teacher education programme. The first question was about interpersonal profiles, the second about accuracy of self-images, and with the last research question we hoped to learn more about the relationship between interpersonal profiles and the accuracy of self-images at the end of the internship.

Brekelmans et al. (2005) reported that 31% of student teachers had a preferable profile at the end of the internship. In our sample 35% of student teachers had a preferable end profile, however 47% started with a preferable profile. This seems to be a disappointing result, especially since in the teacher

education institute where this study was conducted,the teacher-class relationship was an explicit element of the programme. However, to tone down this finding, we must bear in mind that student teachers were asked to select their *least favourite* class. Brekelmans (1989) found small but significant differences for in-service teachers in their best or worst classes: in their best class teachers were perceived as more emotionally close than in their worst class. For beginning teachers, differences between profiles in different classes are even more prominent than for experienced teachers (Levy, Créton, & Wubbels, 1993). Taking this into account, it is very likely that the end profiles of the student teachers in this sample were like a worst case scenario whereas in their favourite classes their profiles could be more positive.

Another important result was that starting with a preferable profile was highly related to having a preferable end profile, and that it seemed not so likely to end with a preferable profile once started off with a less preferable profile. This might be because once students formed their impression of a teacher, they do not easily change their perceptions, as was underlined by Mainhard, Brekelmans, den Brok and Wubbels (2011), who found that also for in-service teachers it was unlikely that they would increase on perceived level of control and affiliation once they started the school year with low levels of control and affiliation. Therefore, like Mainhard (2009) suggested for in-service teachers, we would advise switching classes half way the internship for those student teachers who set off with a less preferable profile in the beginning of the internship. Of the student teachers who started with a preferable profile but ended with a less preferable profile, this was because according to students they exerted less control at the end of the internship. An explanation might be that in the beginning the student teachers were given the benefit of the doubt, or maybe student teachers lost their natural way of behaving and became overly conscious of acting as a teacher, be strict, control classroom procedures. Either way, it is important that teacher educators, university supervisors and co-operating teachers at school keep a close eye on student teachers who started off well in terms of their relationship with students.

With regard to the second research question on self-images it is interesting that in the beginning of the internship, student teachers were likely to underestimate their level of control and affiliation, whereas at the end of the internship, the majority were overestimating themselves. Overestimating could be the effect of the conflict between how the student teacher feels he or she is perceived, and how he or she wants to be perceived. This process is a typical example of cognitive dissonance (coined by Festinger in 1957): if a person holds two cognitions that are inconsistent with one another, this so called cognitive dissonance will cause pressure which the person will try to remove. One of the ways to remove this pressure is to alter one of the two "dissonant" cognitions. In our case: the teacher unconsciously adjusts his or her thinking on how he/she is perceived so that it is less distinct from how he/she wants to be perceived. Underestimating oneself could have the function of self-protection against potential disappointment when confronted with students' perceptions, in particular when the teacher expects these perceptions will not be too positive. These two ways of not accurately estimating one's own behaviour (Wubbels et al., 2006) apparently occur at different moments in the internship. It seems plausible to expect more underestimations in the beginning of the year, since the student teacher is not sure about the challenges he/she is facing and his/her own capabilities within that specific situation. The internship is part of a one year training programme, in which the student teacher understandably expects to learn and develop oneself. Therefore, if student teachers' self-images at the end of the internship are not perfectly accurate, overestimations of one's own behaviour would not come as a surprise.

Interestingly, there were twice as many accurate self-images on control as on affiliation. This was also found for in-service teachers, and we share the explanation that Brekelmans et al. (2011) provided, namely that the teacher-class relationship is more clearly defined for control than for affiliation. When it comes to improvement of accuracy of self-images, accuracy on control and affiliation seemed to be related: two third had improved or declined accuracy on both dimensions. It might be that accuracy of self-images has to do with other person-bound variables, such as emotional intelligence. Based on results of this study, improving the accuracy of self-images was less likely for student

teachers who were overestimating themselves in the beginning of the internship. Besides emotional intelligence, self-confidence or overestimating oneself might also be variables to take into account in future research on accuracy of self-images.

The research question on accuracy of self-images of the teacher-class relationship was rather innovative for the population of student teachers, so that it was not possible to compare results with other samples of student teachers. In that sense, this study was explorative. Nevertheless, results, in line with theory-driven hypotheses, were encouraging enough to continue with further research on this matter. It might for instance be interesting to have a closer look at possible predictors of accuracy of self-images, such as emotional intelligence and self-confidence.

Interpersonal profiles of student teachers were related to accuracy of self-images: student teachers with preferable profiles had more accurate self-images on both control as affiliation than student teachers with less preferable profiles. Furthermore, the accuracy of student teachers' self-images on affiliation was higher, when the student perception of the teachers' level control and affiliation was higher. This was not found for accuracy of self-images on control. This is in line with results of Brekelmans et al. (2011), who reported for in-service teachers that the association for affiliation and accuracy of self-images was stronger than for control and accuracy of self-images.

LIMITATIONS

The sample size was not very large and as a result findings should be generalised with caution. On the other hand, results such as student teachers' interpersonal profiles were comparable to interpersonal profiles in larger samples of student teachers (Brekelmans et al., 2005) and in that sense seemed to be representative.

With regard to the research question on the relation between interpersonal profiles and accuracy of self-images, it is important to bear in mind that based on these results we cannot say anything about causality of the relations. It remains unclear whether more accurate self-images influence more preferable teacher behaviour, or that more preferable teacher behaviour has a positive

effect on teachers' self-images. Either way, results provide some interesting clues for future research and for the practice of teacher education.

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