

Ethnic Incongruence and Quality of Parent-Teacher Relationships:  
Teachers' and Parents' Perspective

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### **Abstract**

This study regarded a mixed methods design about the parent-teacher relationship (PTR) in the current multi-ethnic school context. Study 1 examined the effect of ethnic incongruence and student-teacher relationship (STR) quality on PTR quality, based on data of 32 native Dutch teachers of native Dutch majority (N = 85) and ethnic minority (N = 130) students in grade 4-6. It was to be expected that ethnic incongruence had a negative effect on PTR quality and that STR quality influenced PTR quality positively. Results showed that ethnic incongruence affected PTR quality negatively, but STR quality and control variables explained this effect. STR quality indeed influenced PTR quality positively. In study 2, interviews about parents' perspective on the PTR were conducted with mothers (N = 13) of children in grade 4-6. No hypotheses were formed. Results showed that parents see the PTR as mainly supportive to child development and they spoke about their own practices, teacher practices and appreciated aspects of parent-teacher interaction.

*Keywords:* parent-teacher relationship, ethnic incongruence, student-teacher relationship.

### Ethnic Incongruence and Quality of Parent-Teacher Relationships: Teachers' and Parents' Perspective

Quality of parent-teacher relationships (PTR), as experienced by teachers, involves a high level of trust, mutual respect (Hughes, Gleason, & Zhang, 2005) and shared parenting goals (Hughes et al., 2005; Lasky, 2000). Furthermore, a high-quality PTR is related to more parental involvement (Nzinga-Johnson, Baker, & Aupperlee, 2009): research has shown that parental involvement with school (Anderson & Minke, 2007; Hughes & Kwok, 2007) is related to higher academic achievement, for example through more student engagement.

However, these effects were less visible for ethnic minority children, as was found in American studies (Hughes et al., 2005; Hughes & Kwok, 2007). Hughes and colleagues (2005) found a more negative PTR regarding African American parents. African American and Hispanic parents were also less involved at kindergarten, compared to White parents (Nzinga-Johnson, Baker, & Aupperlee, 2009). Furthermore, teachers found it harder to understand parents with a different cultural background, resulting in less profound relationships (Lasky, 2000). This is regrettable, because cultural minority students generally show lower academic achievement (Glock, Krolak-Schwerdt, Klapproth, & Böhmer, 2013; Hughes et al., 2005), so an education gap between ethnic minority and ethnic majority children arises. Lower achievements of ethnic minority children can partially be explained by low education levels among minority parents, but there is a lack of additional explanations (Heath, Rethon, & Kilpi, 2008; Sociaal Cultureel Planbureau, 2012). It is possible that differences in ethnic background lead to less shared parenting goals and mutual understanding, resulting in a lower PTR quality for ethnic minority parents.

However, it is not clear whether PTR quality is lower for Dutch minority students than for native Dutch students and what can explain this effect. Present study examines whether teachers report lower quality PTR for ethnic minority and which factors could explain this effect. Based on previous research, it is to be expected that ethnic incongruence is related to a more negative PTR, as experienced by the teacher. Besides this, an explorative qualitative study was conducted to investigate how parents view PTR quality.

#### **Student Problem Behaviour and PTR Quality**

Student problem behaviour is a reason for teachers to have more contact with parents: teachers contact parents whose child displays behavioural problems. Within this contact, two important aspects of the PTR are agreement concerning values and understanding each other's emotions (Lasky, 2000). Ethnic incongruence between a teacher and student/parents means more misunderstanding, less shared beliefs and

values, and therefore a less solid foundation for building trust (Lasky, 2000; Saft & Pianta, 2001). Therefore, it is possible that there is disagreement about values and expectations (Cochran-Smith, 1995; Lasky, 2000), resulting in a lower PTR quality.

Moreover, previous studies show that teachers are likely to report more problem behaviour in ethnic minority children (Stevens et al., 2003). Also, when teachers have positive expectations regarding student academic achievement and the absence of behaviour problems, students will perform better at school and are less likely to show problem behaviour (Hamre & Pianta, 2006). From the Social Identity Theory ([SIT], Tajfel & Turner, 1979), these findings can be explained. Namely, people have the tendency to hold a more positive attitude to people who belong to their (ethnic) in-group. Applying the SIT to findings regarding student problem behaviour reported by teachers, this could mean that ethnic majority teachers are negatively biased in their judgments about ethnic minority students' behaviour and expectations regarding their behaviour. Vice versa, these negative expectations could result in actual more problem behaviour in ethnic minority students. Combining the fact that teachers report more student problem behaviour in ethnic minority children and that they have more problems in forming a high quality PTR with ethnic minority parents, it is to be expected that student problem behaviour explains the negative effect of ethnic incongruence on PTR quality .

### **STR Quality and PTR Quality**

The STR functions as a secure base for children to develop within the school environment: it offers resources for social and academic development (Hughes & Kwok, 2007). From the teacher's perspective, a negative view of the child is related to the initiation of negative interactions by the teacher (Hamre & Pianta, 2006). Results of Hughes and colleagues (2005) confirm this: when teachers valued their relationship with a child negatively, they also saw the child as lower-achieving, even when researchers controlled for actual achievement. STR quality is also examined the other way around: when children experience a good STR, this leads to higher academic achievement (Hughes & Kwok, 2007). According to Hamre and Pianta (2006), improved academic achievement can lead to a more positive teacher perception of the child.

However, results show that teachers are more likely to report negatively about STR quality with ethnic minority students. Results showed that Luxembourgish teachers made more negative judgments about Portuguese children, even if their achievements were as high as results of Luxembourgish children (Glock et al., 2013). This is in line with American studies: teachers reported a more negative STR with African American children (Hughes et al., 2005) and more negative judgments about them compared to Hispanic and White children (Hughes et al., 2005; Irizarry, 2015; Pigott & Cowen, 2000). A meta-analysis showed that these judgments were more negative for both Hispanic and African

American children and that teachers had lower expectations about them (Tenenbaum & Ruck, 2007). Results of one Dutch study confirm this: the STRs with cultural minority children were seen as less positive by teachers (Thijs, Westhof, & Koomen, 2012), while especially ethnic minority children could benefit from a positive STR as a support for their academic development (Irizarry, 2015).

From these results, it is evident that a positive STR is related to higher academic achievement, but ethnic minority students are more likely to be evaluated negatively by teachers. Unfortunately, although it is assumed that it will be of added value for children's development when both relationships are of high quality, not much is known about the link between STR and PTR quality. A positive relationship between parents' engagement and STR quality was found (Hughes & Kwok, 2007). Even stronger, Hughes and colleagues (2005) noted that the teachers' perception of the PTR was stronger related to their perception of the child's academic abilities than actual parent involvement. These findings show a positive relationship between the STR and parental involvement with school. Thus, it is to be expected that STR quality has a positive effect on PTR quality and explains the effect of ethnic incongruence on PTR quality.

### **Parents' Perspective on the Parent-Teacher Relationship**

Parents' perspective on the PTR has not been extensively been studied. Parents were more involved with school when they experience a positive PTR (Nzinga-Johnson et al., 2009). Parents with a lower socioeconomic status, however, often experienced teachers as distant. According to them, teachers did not adjust their way of communicating to the parents' needs (Crozier, 1999). Furthermore, Anderson and Minke (2007) found that parents were more involved with their child's academic development when they were invited specifically by the teacher. Moreover, negative teacher judgments towards are not necessarily shown to parents (Smith, as cited in Glock & Krolak-Schwerdt, 2014), which means that they are not necessarily influencing PTR quality in a negative way. In two experiments, it became clear that teachers did not show their negative attitudes about minorities (Glock et al., 2013). However, parents' perspective has to be investigated to explore this. Based on the theory and previous results, it is relevant to do qualitative research this relatively unexplored field of parents' perspective on PTR quality.

### **Present Study**

The main goal of this study is to investigate whether PTR quality differs between ethnic groups in the Dutch context and how this can be explained. Based on previous research, it is to be expected that teachers experience lower quality PTRs with ethnic minority students. Furthermore, it is hypothesized that student problem behaviour has a negative effect on PTR quality. It is also to be expected that STR quality has a positive

effect on PTR quality. Furthermore, because of the gap in research regarding parents' perspective on PTR quality, no hypotheses are formed about the qualitative research.

### Study 1

#### Methods

**Participants and procedure.** Data collection took place in the first three months of 2014. In total, 32 native Dutch teachers ( $M_{age} = 42.28$  years,  $SD = 12.46$ ; 75% female) participated. The average teaching experience was 16.73 years ( $SD = 13.25$ ) and teachers worked at their current school for 12.15 years on average ( $SD = 10.00$ ). Teachers filled in a survey about eight selected students from their own class, partly on paper and partly online. Informed consent was given actively by teachers. Parents were informed by letter about the research and they could contact the teacher if they refused their child's participation.

At first, elementary schools were selected based on the ethnic composition of the student population. 489 ethnically diverse schools were contacted by email and phone for a participation request. Eighteen schools confirmed to participate (a 4% response rate). Within these schools, teachers were asked to fill in questionnaires about eight individual students, who were selected via stratified random sampling. The first six non-native Dutch students on the class' attendance list and the first two native Dutch students were selected. If the class did not contain six ethnic minority students, other students were randomly selected. Information on students' ethnic background was initially based on teachers' assessment. This resulted in teacher reported information about 256 students. However, due to missing values and incorrect information about students' ethnic background, eventually data was included about 215 students ( $M_{age} = 10.94$  years,  $SD = 1.00$ , 48.84% female) from 17 schools, of whom 130 students had a non-native background (60.47%).

#### Measures.

**Parent-teacher relationship quality.** PTR quality was measured with 5 items, derived from the Alliance Scale (Hughes et al., 2005), like 'I can talk and be heard by this parent'. Answers were measured on a 5 point Likert scale, ranging from 1 ('definitely does not apply') to 5 ('definitely applies'). Exploratory factor analysis indeed led to one factor (factor loadings between .53 and .87) and Cronbach's alpha was .87.

**Ethnic (in)congruence.** Students provided information about their ethnic background by answering questions about the country of birth of themselves, their father and mother. Several common countries of birth were given as options, but there was also an open-ended option, to fill in another country of birth. Students were described as native Dutch (coded 0) when the student and their parents were both born in the Netherlands. When the student, father or mother was not born in the Netherlands, they

were categorized as non-native (coded 1). Because all teachers were native Dutch, labelling a student as non-native automatically implicated ethnic incongruence between teacher and student.

**Student-teacher relationship quality.** To measure STR quality, a shortened version of the Student-Teacher Relationship Scale ([STRS], Pianta, 2001) was used. A total of 10 items covered teacher's perception of STR on two domains, *STR closeness* and *STR conflict*. STR closeness included 5 items like 'I share an affectionate, warm relationship with this child'. STR conflict included 5 items like 'This child and I always seem to be struggling with each other'. Answers were measured on a 5 point Likert scale, ranging from 1 ('definitely does not apply') to 5 ('definitely applies'). Factor structure of both dimensions were validated by principal axis factoring (factor loadings between .63 and .86). Cronbach's alpha was sufficient for both scales: .88 for STR closeness and .91 for STR conflict.

**Control variables.** Besides students' and teachers' age (measured in years) and gender (0 = male, 1 = female), we also controlled for student problem behaviour, which was reported by teachers using the Dutch version of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997, 2001). We included the subscales for conduct problems, hyperactivity and emotional problems, each consisting of 5 items, measured on a 5 point Likert scale, ranging from 0 ('completely not true') to 4 ('completely true').

Scales for conduct problems and hyperactivity were constructed as one subscale for measuring *externalizing problem behaviour*, validated by principal axis factoring analysis (factor loadings between .34 and .78). Only one item ('steals at home, at school or at other places') had a low factor score, but removing this item did not lead to a stronger factor. The scale consisted out of 10 items such as 'often fights with other children or bullies them' and 'thinks before acting'. Cronbach's alpha for this scale was .87. Furthermore, the emotional problem scale ('worries; often seems preoccupied with things') was used for *internalizing problem behaviour*. It was validated by principal axis factoring (factor loadings between .45 and .78) and it had a Cronbach's alpha of .78.

Finally, we took into account *parental socioeconomic status (SES)*, which was reported by teachers. In line with Van Ewijk and Sleegers (2010), parental SES was measured by two essential characteristics, namely parental education (0 = elementary education, 1 = high school/lower vocational education, 2 = higher vocational education/university) and parental employment (0 = both unemployed, 1 = one working parent, 2 = two working parents). These scores were added to create a composite score for parental SES, ranging from 0 to 4.

**Data analytic strategy.** All analyses were conducted using SPSS version 24.00 (see Attachment 3). For descriptive purposes, differences (in characteristics and mean

scores on all used scales) between ethnic majority and ethnic minority students were tested, using ANOVA of difference. Subsequently, a Pearson correlation test was used to estimate correlations between all student level variables.

Regarding main analyses, multilevel regression models were estimated. Because of the fact that students were nested within teachers, a multilevel analysis was needed to take any dependency of student data into account. An intercept only model was estimated to differentiate the amount of variance at the student level from variance at the teacher level. Next, ethnic incongruence was added as a to test the hypothesis about the effect of ethnic incongruence on PTR quality. As a second step, student and teacher level control variables were added (age and gender), as well as parental SES. To estimate the third model, student externalizing and internalizing problem behaviour were included. Finally, STR closeness and STR conflict were added to test the hypothesis about STR quality effecting PTR quality. The order of adding variables is based on the hypothesis about the effect of ethnic incongruence on PTR quality being explained by other variables, STR quality in particular.

## Results

**Preliminary analysis.** Teachers filled in questionnaires about 215 students ( $M_{age} = 10.94$  years,  $SD = 1.00$ , 48.84% female). All variables regarding the STR, PTR, and student problem behaviour had a skewed distribution. However, according to q-q plots, residuals were equally distributed, so variables could be included in the analysis. Prior to main analyses, the ethnic minority and ethnic majority sample had to be compared indicate whether there were relevant differences that had to be taken into account when interpreting results. To compare mean differences between the ethnic majority group and the ethnic minority group, an ANOVA analysis was conducted (see Table 1). To estimate effect size, partial eta squared was computed.

Some significant differences were found, but mostly with a little effect: first, teachers reported a closer STR with ethnic majority students,  $F(1, 213) = 8.11$ ,  $p = .005$ ,  $\eta^2 = .037$ . Second, teachers reported a higher quality PTR with parents of ethnic majority students,  $F(1, 213) = 4.98$ ,  $p = .027$ ,  $\eta^2 = .023$ . Third, ethnic majority students were older than ethnic minority children,  $F(1, 213) = 9.07$ ,  $p = .003$ ,  $\eta^2 = .041$ . Fourth, parental SES was significantly higher for ethnic majority students,  $F(1, 213) = 63.00$ ,  $p < .001$ ,  $\eta^2 = .228$  (the only large effect found). Fifth, ethnic majority children displayed more internalizing problem behaviour according to teachers,  $F(1, 213) = 4.08$ ,  $p = .045$ ,  $\eta^2 = .019$ .

Also prior to the multilevel regression analysis, a Pearson correlation analysis was conducted between all student-level variables (see Table 2). The analysis shows that the PTR had a strong positive correlation with STR closeness,  $r(213) = .463$ ,  $p < .001$ . PTR



quality was also negatively related to STR conflict,  $r(213) = -.420, p < .001$ . Furthermore, parental SES was negatively related to ethnic incongruence  $r(213) = -.478, p < .001$ , and to STR conflict,  $r(213) = -.142, p = .038$ . Parental SES was positively related to STR closeness,  $r(213) = .254, p < .001$ , and to PTR quality,  $r(213) = .313, p < .001$ . Finally, student problem behaviour (internalizing and externalizing) had significant relationships with the PTR, the STR, and ethnic incongruence. Externalizing problem behaviour was negatively related to PTR quality  $r(213) = -.271, p < .001$ , and to STR closeness  $r(213) = -.347, p < .001$ . Also, externalizing problem behaviour was related to more STR conflict  $r(213) = .691, p < .001$  and female students displayed less externalizing problem behaviour,  $r(213) = -.249, p < .001$ . Internalizing problem behaviour was associated with less STR closeness,  $r(213) = -.147, p = .031$ , more STR conflict,  $r(213) = .232, p = .001$ , and more externalizing problem behaviour,  $r(213) = .310, p < .001$ . Also, teachers reported less internalizing problem behaviour about ethnic minority students,  $r(213) = -.137, p = .045$ . Resulting from the ANOVA and Pearson correlation analysis, it can be concluded that all covariates were related to PTR quality. Therefore, all covariates were included in the multilevel regression analysis.

**Effects on PTR quality.** To examine the connection between ethnic incongruence and PTR quality, a multilevel regression analysis was conducted with standardized variables. First, an intercept-only model was used to estimate explained variance at the teacher and students level. Resulting from the intercept-only model (Model 0, Table 3), the intraclass correlations for PTR quality was 0.163 ( $p = .036$ ). This means that 16.3% of the variance in PTR quality was explained at the teacher level. Furthermore, variance in PTR quality was also strongly related to differences at the student level ( $p < .001$ ). Thus, differences at both levels were related to variability in PTR quality and it was of added value to apply a multilevel regression analysis.

In our first model, effects of ethnic background were estimated (Model 1, Table 3). Dissimilarity regarding ethnic background had a small negative effect on PTR quality ( $p = .024$ ). This means that teachers experience a slightly less positive PTR with parents of ethnic minority children. However, this ethnic incongruence effect explained only 2.4% in the variance of PTR quality, so only a small effect was observable.

In the consecutive, student and teacher background variables (gender, age and parental SES) were added to the model (Model 2, Table 3). Out of these five covariates, only parental SES had a significant effect on PTR quality ( $p < .001$ ): teachers reported a better PTR if parental SES was higher. Adding these background variables to our models as covariates accounted for 9% of explained variance in PTR quality. Moreover, the effect of ethnic incongruence on PTR quality appeared to be non-significant, when controlled for student and teacher background variables. This means that parental SES (the only

significant added variable) presumably explained the significant ethnic incongruence effect in Model 1 (Table 3), causing the non-significant effect of ethnic incongruence in Model 2 (Table 3). Explained variance at the teacher level became non-significant as well.

Subsequently, externalizing and internalizing problem behaviour were added to the third model (Table 3). Externalizing problem behaviour had a negative effect on PTR quality ( $p < .001$ ). This means that teachers reported a less positive PTR with parents of children who exhibit externalizing behaviour. Together, added covariates explained 5.9% of the variance in PTR quality. Furthermore, all previously added covariates retained their significant effect on PTR quality. Only parental SES had a smaller effect on PTR quality ( $p = .002$ ) compared to the previous model.

Finally, STR closeness and STR conflict were included as covariates (Model 4, Table 3). STR closeness had a positive effect on PTR quality ( $p < .001$ ), and STR conflict was negatively related to the PTR ( $p = .001$ ). Compared to model 3, STR Closeness and STR conflict together accounted for 20.3% of the explained variance in PTR quality. Moreover, when controlled for both STR dimensions, no significant effect from externalizing problem behaviour on PTR quality was observable. Also, by including these variables, 13.1% of variance in PTR quality is explained at the teacher level ( $p = .017$ ), compared with the third model.

Thus, it is clear from the results that ethnic incongruence appeared to have no significant negative effect on PTR quality when controlled for other factors. Parental SES explained the effect of ethnic incongruence, and when STR quality was eventually added to the model, the effect was almost zero. STR quality affects PTR quality positively, even when controlled for ethnic incongruence, student and teacher background variables, parental SES and student problem behaviour.

Table 1

*Descriptive statistics and analysis of variance of difference between ethnic majority and -minority students.*

	Range	Ethnic majority N=85		Ethnic minority N=130		Difference ( $\eta^2$ )
		M	SD	M	SD	
STR closeness	0-4	2.99	.83	2.65	.87	.037**
STR conflict	0-4	.64	.85	.85	1.10	.010
PTR quality	0-4	3.64	.49	3.45	.65	.023*
Female	0-1	.53	.50	.46	.50	.004
Age	9-13	10.69	.94	11.12	1.01	.041**
Parental SES	0-4	3.19	.96	2.02	1.11	.228***
Externalizing problem behaviour	0-4	.89	.76	.88	.81	.000
Internalizing problem behaviour	0-4	1.12	.94	.87	.82	.019*

Note. ANOVA with ethnic majority as reference group. \*p < .05, \*\* p < .01, \*\*\* p < .001 (two-sided).

Table 2

*Bivariate correlations between student level variables.*

	1.	2.	3.	4.	5.	6.	7.	8.
1. STR closeness	-							
2. STR conflict	.465***	-						
3. PTR quality	-.463***	-.420***	-					
4. Ethnic minority	-.192**	.101	-.151*	-				
5. Female	.258***	-.272***	.052	-.066	-			
6. Age	.041	.063	.018	.202*	.017	-		
7. Parental SES	.254***	-.142*	.313***	-.478***	-.053	-.005	-	
8. Externalizing problem behaviour	-.347***	.692***	-.271***	-.006	-.249***	-.082	-.093	-
9. Internalizing problem behaviour	-.147*	.232**	-.108	-.137*	.107	-.046	-.082	.310***

Note. \*p < .05, \*\* p < .01, \*\*\*p<.001 (two-sided).

Table 3  
*Effects of ethnic incongruence, background variables, student problem behaviour and the STR on the PTR.*

	Model 0	Model 1	Model 2	Model 3	Model 4
<i>Student level</i>					
Minority		-.325*	-.074	-.124	.003
Female			.127	-.022	-.248*
Age			.033	.028	.098
Parental SES			.288***	.232**	.169*
Externalizing problem behaviour				-.276***	-.007
Internalizing problem behaviour				-.003	.033
STR closeness					.393***
STR conflict					-.284**
<i>Teacher level</i>					
Female			.163	.114	.151
Age			.066	.082	.152
<i>Variance</i>					
Level 1 (student)	.837***	.817***	.800***	.714***	.531***
Level 2 (teacher)	.163*	.159*	.088	.122	.131*
Total variance (% explained vs. pry. model)	1	.976 (2.4%)	.888 (9.0%)	.836 (5.9%)	.662 (20.8%)

Note. \*p < .05, \*\* p < .01, \*\*\* p < .001 (two-sided).

## Study 2

### Methods

**Participants and procedure.** Study 2 concerned qualitative design, parent interviews. Data collection took place in the first three months of 2017. In total, 13 mothers ( $M_{age} = 39.00$  years,  $SD = 2.58$ ) were interviewed for approximately half an hour about the quality of the relationship with their child's teacher. Because some children were in the same class, some interviews regarded PTR quality concerning the same teacher. In total, seven different teachers were subject of the PTR quality interviews. All participants gave actively informed consent prior to the interview. Besides the interview, all mothers filled in a short form regarding personal characteristics about their child. If participants had more than one child in grade 4-6, the form and the interview were focused on their oldest child, to prevent confusion. The children were on average 10.00 years old ( $SD = .82$ ). Furthermore, two children had learning problems and two children had a disorder in the autistic spectrum.

In October 2016, all schools who participated in the quantitative study were called with a request for participation in the qualitative study. Through snowball-sampling, seven additional schools were contacted. These schools were labelled as ethnically diverse by their school principals. Three out of 25 (12%) schools confirmed to participate. Within these schools, all parents from grade 4-6 were requested by letter to participate in an interview. Parents who were interested in participation, responded with a short application form, after which an appointment was made. Because of the large student population, one school selected participants on its own, and gave contact information of parents willing to participate.

The interview topic-list (see Attachment 1) is based on the Relationship with Child's School Scale (Barbarin, as cited in Nzinga-Johnson et al., 2009). This scale includes five themes pertaining to parent-teacher relationships, namely contact, trust, clarity of communication, degree of agreement and level of satisfaction, all of which were included in the topic-list. Because theoretical foundation for parents' view of the PTR was small, the interviews had an interpretative approach, implying semi-structured interviews (Bryman, 2015). This means that the interview style was open, with mainly open-ended questions and the possibility for parents to mention new topics.

Because of standards of validity and reliability in qualitative research, several decisions have been made regarding style of interviewing. First, the researcher had to adopt a neutral attitude towards participants, which implies asking as much open questions as possible and ask further when an answer was ambiguous. This is related to a second aspect of following scientific standards in qualitative research: participants were asked to give the definition of central concepts (i.e. PTR). Sometimes, participants were provided with additional information about these concepts to create a common

understanding, a condition for deepening the interview. Third, participants were asked for general background information to understand the context of their perspective on the interview subject. By explicating scientific practices towards parents, research methods met criteria for *confirmability*, *credibility*, and *transferability* (Lincoln & Guba, as cited in Bryman, 2015).

**Data analytic strategy.** After conducting the interviews, transcripts were made based on the audio recording. All transcripts were analysed with QSR International's NVivo 11 Software. No hypotheses were formed prior to this and the results were integrated based on the concept of grounded theory (Bryman, 2015). This means that analysis was conducted from an inductive and iterative approach. At first, interviews were analysed by open coding: after coding 11 interviews, no new codes were constructed and saturation took place. Then, in a process of axial coding, all codes were reorganized, controlled and revised. Finally, through a process of selective coding, five main themes were constructed (see Attachment 2).

## Results

As a result of qualitative data analysis, five main themes regarding parents' perspective on the PTR were constructed (see Table 4). *Parent-teacher contact* contains frequency of and reasons for parent-teacher contact, indicating when and why PTRs occur. *STR quality* is about parents' view on their child's STR, including desirable teacher practices, which are seen as contributing to a higher quality PTR. *Parental influence on PTR quality* concerns parental practices, which are helpful in maintaining a good PTR. Participants also spoke about supportive teacher practices for a good PTR, explained in *Teachers' influence on PTR quality*. Finally, important aspects of the interaction between parents and teachers are explained in *Nature of parent-teacher interaction*. This last section describes how parents and teachers as interacting actors can together contribute to a good PTR.

Table 4

*Main themes, resulting from qualitative analysis of parent interviews.*

Main theme	Description
Parent-teacher contact	When does parent teacher contact occur?
STR quality	What is, according to parents, a good STR?
Parental influence on PTR quality	How can parents contribute to a good PTR?
Teachers' influence on PTR quality	How can teachers contribute to a good PTR?
Nature of parent-teacher interaction	How can parents and teacher work together to maintain a good PTR?

**Parent-teacher contact.** Parent-teacher contact appeared to consist of two dimensions: *informative meetings*, aimed at getting informed about the child's progression, and *need-based contact*, which occurred only if parents or the teacher felt the need to discuss any problems that had occurred. 'Problems' is an umbrella term for

incidents with classmates, special circumstances (i.e. death of a family member) and student learning or behavioural problems.

Informative meetings were found to take place in two forms. For instance, all mothers indicated that they attended parent-teacher conferences to get informed about their child's academic progression. These meetings took place two or three times a year. Besides these scheduled meetings, frequency of contact regarding academic development depended of the child's age. Five mothers said they had less contact with the teacher, compared to years before. This development mainly had to do with the fact that their children are able to go to school on their own now. In earlier years, they had a chat with the teacher when they took their child to school, causing them stay updated in an informal way.

Another factor that played a role in the frequency of parent-teacher contact, was the number of problems that were going on, causing need-based contact. Five mothers, whose child had no problems at the time of the interview, said that they would have more contact with the teacher if their child would have problems. Two mothers explicitly mentioned the fact that they currently have more contact with the teacher, because of their child's learning problems. This contact was mainly aimed at staying updated about the daily routine of their child, as well getting informed as well as informing the teacher themselves about their child. In one occasion, the family had just moved to the city and their child attended the current school for only a couple of months. In order to make her get used to her new school, there was more parent-teacher contact. However, when it appeared that she fitted well into the class, frequency of contact diminished.

During the first weeks, we had mail contact three times a week and also at school, when I picked her up. Just to take a look, how she is doing, how she's getting used to her new school. They [the teachers] would also give me a summary about their observations. However, nowadays we have less contact, she can bike to school, so she goes to school, she comes home, she does it all on her own.

*Mother of an 11-year old girl, 6<sup>th</sup> grade*

Overall, it appeared that parents attended scheduled meetings to stay updated about their child general progression, but frequency of contact got higher when problems occurred. Parents had mainly contact with the teacher in light of their child's development.

**STR quality.** As appeared from the section above, frequency of contact was based on the need for contact, mostly following from problems that occurred at school. Thus, parent-teacher contact was child-centered, emphasizing the importance of child development. This was also noticeable in the interviews, which would only concern PTR

quality in advance. However, when mothers were asked questions about teachers' practices in the PTR, they often spoke about teachers' practices towards their child. Thus, STR quality appeared to be strongly associated with PTR quality. This general observation indicated that these mothers approach the teacher and the PTR in an instrumental way: parent-teacher contact and the PTR is supportive for their child's development. Several subthemes regarding the STR were constructed: *offering structure, fairness, responsiveness, and trust*. All subthemes can be seen as desirable teacher practices within the STR, as stated by mothers.

Eleven mothers mentioned the importance of offering a structured learning environment to children, of which eight mothers explicitly stated that teacher did so. Offering structure meant having clear rules in class, clarity about deadlines and content of homework and tests, and calling children to account when they do not follow this structure. Some mothers added that especially for children of this age, more strict rules and structure is appropriate. However, other mothers said they appreciated that children had autonomy within the framework of rules. Thus, it is about a balance between setting up class structure, make children follow the structure and giving freedom within the structure.

Yes, but meanwhile, there is a lot of structure, but also a lot of freedom. And I think that is very clever too, that you can give them a sense of freedom, but meanwhile everything is divided in clear parts, learning goals [...]. And that is quite special, I think.

*Mother of an 11-year old girl, 6<sup>th</sup> grade*

Furthermore, six mothers talked about the importance of fair treatment of all children. Fair treatment meant that the teacher had no favourites in class, solved arguments fair and punished children who did something wrong. Four mothers explicitly stated that the teacher treated all children fairly. However, none of the mothers said they had a feeling that children were treated unfairly. Moreover, one Turkish mother said she liked that the teacher made no distinction between children based on ethnicity.

Regarding responsiveness, three mothers typified the teacher as responsive and two mothers stressed the importance of it. Responsiveness in the STR was defined by them as no threshold for the child to ask for help and the teacher taking initiative in having personal contact with the child. One of the mothers explained how the teacher's investment in the STR led to a qualitative better STR.

Between my daughter and the teacher. They are super spontaneous, she [the teacher] is very open. Both of them are, but we also had a conversation about



this, that she had to be open... my daughter is quite withdrawn, but we had a conversation, that she really has to say everything, and that helped.

*Mother of 10-year old girl, 5<sup>th</sup> grade*

The last aspect of the STR, trust, was mentioned by two mothers. Both stated that they appreciated the fact that their child trusted the teacher so much and shared personal feelings with the teacher. According to them, their child trusting the teacher is a sign of a good quality STR.

Additionally, eight mothers talked about their conversations with their child about school in general and more specific about the teacher. Interestingly, four mothers told that their children do talk about daily class routines with peers, but not explicitly about the teacher. As an explanation, they said their child had no problems at school, nor with the teacher. Four other mothers said they did talk at home with their child about the teacher. In general, all of them said their child was very happy and satisfied with the teacher. Thus, it appears that talking about the teacher at home was not strongly related to the quality of the STR. In the aggregate, it can be stated that mothers appreciate teacher practices that result in a secure STR. Within this relationship, the teacher offers clear expectations about children's behaviour, without losing responsiveness to the child's individual needs.

**Parental influence on PTR quality.** Besides describing frequency of parent-teacher contact and STR quality, all mothers mentioned how they are involved with school and how this is related to PTR quality. Parents' influence on PTR quality regarded two subthemes: *parent initiative* and *involvement with school activities*. Parent initiative can be defined as involvement directly aimed at supporting their child's development through initiating parent-teacher meetings. Involvement with school activities concerns involvement with class activities, like group projects or excursions.

Ten mothers stated that they take initiative if they feel that their child needs support in some way. In general, the initiative of contacting the teacher was aimed at quickly solving a minor problem, like incidents with classmates. Another given reason was to stay updated about their child's development, especially when the child had some problems regarding academic development or well-being. Taking initiative in parent-teacher contact did not cause a better PTR, according to the mothers. Actually, mothers indicated that the PTR was already good, or they did not care whether they had a good PTR, because their first priority was to support their child.

If there is something, or there was an incident, I am somebody who shows up on your doorstep, but I will not talk for her. I will stand by my daughter, and I will tell her that she has to talk about what happened [...] So, if she has something to

worry about, I will come to school. And this does not happen every week, but I will not wait until there is a scheduled regular meeting.

*Mother of a 10-year old girl, 5<sup>th</sup> grade*

Furthermore, 12 mothers were in some way involved with school activities. One mother did not participate in school activities, mainly because the family just had moved to the city. Involvement with school activities was found to take place in various forms. For instance, some mothers were class parent, an assistant at class activities and excursions of their child's class during one year. Other mothers sometimes assisted at events like Christmas or day trips, and some were member of the school parent council. Regarding the link between her involvement and PTR quality, only one mother stated that her involvement was not related to PTR quality. Six mothers stated that the PTR was more close, due to their involvement with school.

You know, one of the teachers has become grandmother a couple of months ago, you congratulate her then, because you see her more often. As a parent, if you are not involved with school, you do not have anything to do with that, you do not know that she became a granny. You know, those kinds of things. I think you have to be involved with school as a parent. You have to know what kind of place you child is in, what sort of environment, you have to know something about the teachers. Then you have another kind of relationship, you can feel the difference.

*Mother of a 10-year old girl, 5<sup>th</sup> grade*

Some mothers stated explicitly that their involvement with school activities was also indirectly aimed at keeping an eye on their child's well-being. By attending school activities, they feel that they can monitor their child and use their informal contact with the teacher to maintain an accessible relationship.

They know exactly who they can count on. So yes, and when something is wrong, it is probably not the case, but it does feel that way, I get the idea that they will do something extra for me. Maybe it is not like that, because I do not know how they deal with other parents and other children, but it does feel that way.

*Mother of a 12-year old girl, 6<sup>th</sup> grade*

Overall, it can be stated that parents' influence on PTR quality is closely related to their main goal of maintaining a good PTR: by taking initiative in parent-teacher contact and being involved in class activities, they hold a close relationship with the teacher. This

is directly aimed at supporting their child's development, or indirectly aimed at having teacher support in the future, when needed.

**Teachers' influence on PTR quality.** In addition to their own contribution to a good PTR, mothers spoke about teachers' influence on PTR quality. The most frequently named and most important subthemes were *clarity in communication*, *responsiveness*, *equal treatment of ethnic minorities* and *expertise*. All subthemes regarded teacher practices, experienced in parent-teacher contact. Mothers both spoke about the current teacher's practices and desirable teacher practices in general.

A first aspect of teacher practices was clarity in communication, which can be defined as an easy understandable and unambiguously communication style, with straightforward messages. Eleven mothers stated that the teacher communicated clearly and that they understood their messages in parent-teacher conferences and/or emails. Furthermore, some mothers said they appreciated the fact that teachers showed initiative when they thought they had to inform parents about something.

Clarity in communication. When something happens, I receive an email, when something happens in our family regarding our son, we send him back an email. If necessary, appointments are made for parent-teacher conferences and he says things as they are and I like that.

*Mother of a 10-year old boy, 5<sup>th</sup> grade*

Furthermore, 11 mothers stated that clarity in communication is a prerequisite for a good PTR. Some of these opinions were based on negative experience with previous teachers. However, mothers who had negative experience, all said that current teachers did a better job.

Yes, I had an incident last year, [...] the teacher said 'You have to get your child read educational books'. So I thought, every book is educational. I said this to him, and he did not like that. Eventually we had a time-out, because when we would have continued to talk, we would have had an argument. [...] I thought, what does he mean with educational, every book is educational, as long as my child reads, I think it is educational. I do understand she can't just read a flyer or a magazine. [...] But he was talking about the level of reading, every child has to read on its own level, or just a step above, for the purpose of education. [...] I also said to him, you know, if you mean something, say it like that. Because if you name something vaguely, I will think about other things.

*Mother of a 10-year old girl, 5<sup>th</sup> grade*

Additionally, eight mothers of all participating schools explicitly mentioned the various means of communication that were being used. Two schools provided parents with general information through an online newsletter. One of these schools also used a mobile application. The other school used the newsletter on paper, but had also a mobile application. All mothers stated that the newsletter presented information the clearest. Furthermore, two mothers stated they had regularly contact by Whatsapp with the teacher, mainly to discuss upcoming class activities (both mothers where closely involved with all sorts of class activities). These means of communication were mostly used to send a general message to all parents, instead of personal contact. Nevertheless, according to mothers, it contributed to clarity in communication.

Responsiveness was often mentioned as a second aspect of teacher practices. Responsiveness had to do with an accessible attitude, listening to parents' input and reacting accurately to parents' questions and desires. According to nine mothers, responsiveness contributed to a positive PTR. They described teachers as open and responsive to their thoughts and concerns.

Yes, she makes time for me, or she arranges an appointment. If something is wrong, she is always willing to talk about it after school. Just before Christmas holidays, I heard my father had lung cancer, so these were intense weeks. Or, when we had been to the hospital again, I send her a message about what we had discussed, or anything. So, if my daughter would have questions at school, or if she would be sad for a moment, she could also go to the teacher.

*Mother of a 9-year old girl, 4<sup>th</sup> grade*

Furthermore, equal treatment of ethnic minorities was also mentioned as important. It can be defined as treating all parents and children equally, regardless of ethnic background. Two mothers from a non-native background (Turkish and Nigerian) talked about teachers' respectful attitude towards cultural diversity. Both said they did not feel treated differently than other parents. Moreover, they thought that the teachers were respectful to ethnic and cultural diversity by teaching children about having respect for each other. One of them had found a way to integrate her tradition regarding food (halal cooking) with Christmas:

I like it, because, when I make lunch here, I always make a lot of halal food, that every child can eat, because there are quite a lot children from abroad. [...] This is also the case with Christmas: I coordinate the Christmas lunch, but only Turkish mothers make lunch.

*Mother of a 10-year old girl, 5<sup>th</sup> grade*

Lastly, expertise was mostly associated with adequate knowledge about the individual child and problem-solving skills. Eight mothers emphasized the importance of agreement about their impression of the child's behaviour and said they experience this agreement. By having the same impression of the child, mothers had the feeling that the teacher was really involved with their child and was sensitive to the development of the individual child. Furthermore, four mothers added that they and the teacher have the same expectations in general about the child.

I know from the beginning that she runs up against certain things, and this keeps coming back, so that is true. If every teacher says so, I cannot say it is not true. And from what I hear, I think, yes, it fits her. For example, she works a bit slowly, but most teachers say that is because she wants to do her job superprecisely. So, sometimes they say, it probably does not matter if she would be a little sloppier, that are the kind of things she runs up against.

*Mother of a 10-year old girl, 4<sup>th</sup> grade*

Two mothers explained the agreement between teacher and parent follows from their child developing normally, causing no need for extra parent-teacher conferences. Next to knowledge about individual children, problem-solving skills were also named as an important aspect of teacher expertise. For example, three mothers talked about teachers' problem-solving skills: teachers took their concerns seriously and made a child-specific plan. Also, ten mothers stated that teachers noticed a lot about their child's behaviour and reported their observations to them. This attention was experienced as very pleasant. Moreover, they said they felt like the teacher was well prepared and had read up on their child prior to a parent-teacher conference.

Yes, and every time, it was like, 'no, everything is going well'. Until the last school report [...]. Then he said I had to raise the alarm about her, go to the GP, because there is someone who can help her. Because she dreams a lot, she is a child and she is too wise, she has her mind on other things. And that is not how it is supposed to be with a child. And I am glad he approached me about this.

*Mother of a 9-year old girl, 4<sup>th</sup> grade*

As a consequence of teachers' expertise, seven mothers said they have a lot of confidence in the teacher. In general, they said that teachers' knowledge about their child led to much confidence in teachers' view on a specific approach or decision.

Especially when parents did not really expect this involvement and initiative from the teacher, they explicitly expressed their trust in the teacher.

During conversations, I also notice that he knows exactly how my son is. And that is nice, you just notice he sees things, and we do too. And how he estimates things, yes, because he is very involved, he can also estimate things. And that is positive for our trust in him. Then we can think, yes, if you see it like that, fine. We therefore trust that it will be fine.

*Mother of a 10-year old boy, 5<sup>th</sup> grade*

In summary, it appeared from the results that parents appreciate an understandable way of communication and responsivity to their needs, where no distinction is made based on ethnicity. Additional to this, teachers' knowledge about the individual child and problem-solving skills contribute to trusting the teacher.

**Nature of parent-teacher interaction.** Following from parent and teacher practices contributing to a good PTR, all mothers spoke about how the nature of parent-teacher interaction contributed to a good PTR. The nature of parent-teacher interaction can be defined as the way parents and teacher relate to each other. It has two subthemes: *equality* and *shared parenting values*.

Equality was mentioned by eight mothers, defining it as mutual respect for and appreciation of each other's thoughts and desires, dependent of both parents' and teacher's receptive attitude. For example, one mother emphasized the importance of mutual respect: parents, as well as teachers, have to show respect regarding each other's opinion and insights about the child's development. Other mothers emphasized the teacher's receptivity more strongly: they said their insights are taken seriously by the teacher, although this implies they have an open attitude themselves towards input from the teacher.

Equality in parent-teacher interaction was explained by three mothers, who stated that the role of the PTR is mainly supportive: both parents and teachers share the responsibility to support the child's development as well as possible. Although parents and teacher can differ in vision, preferences, or personality, at the core this was mentioned as the most important.

[...] because you raise a child together. And the children have a continuous schedule, so you bring them at half past eight and pick them up at a quarter to three, so they are at school a big part of the day. And time you have afterwards, if you pick them up at a quarter to three, they come out around three, and they already go to bed at half past seven. So, it is such a short time, most of these five

days they are at school. So, actually you really raise a child together. And you are doing it together with school. A parent makes a child what it becomes later, how it will be in life.

*Mother of a 9-year old girl, 4<sup>th</sup> grade*

The extent to which this cooperation works out, is related to *shared parenting values* between parents and teachers, the second subtheme. Mentioned aspects had to do with mutual respect and individual child development. Regarding mutual respect, nine mothers emphasized the importance of respecting others, peers and adults. Five mothers explicitly mentioned they had the feeling that the teacher endorsed their point of view, and only one parent had the feeling that the teacher was not supportive: she observed children using inappropriate language and she did not see the teacher correcting them. Another mother saw that their parenting goal was shared with the teacher, for example, when an incident with bullying occurred:

I received an email from the teacher, that there were some things going on in the class, that the atmosphere was not that good. She asked us to discuss this with our child, like, "Do you participate in this behaviour?" Well, luckily she [the daughter] did not participate in this behaviour, I would not have expected it, and I would not have tolerated it. Because, we do not tolerate this at home, so neither at school.

*Mother of a 10-year old girl, 4<sup>th</sup> grade*

Furthermore, six mothers stressed the importance of individual development. Aspects of individual child development were self-worth, perseverance and room for failure at the same time, and standing up for yourself. Some mothers explicitly said they had the feeling that these goals were endorsed by the teacher, some did not say anything about teacher's endorsement. Most important, none of the mothers said they felt the teacher thought differently about these parenting goals.

But they accept her as she is, and I think that is very important, and they know her well, because she can cry in a heart-breaking way and she can laugh very loud, there are a lot of emotions in the child, and that is okay.

*Mother of an 11-year old girl, 6<sup>th</sup> grade*

To me, I do not care at what level she is, but I do think, do your best, although she is young. [...] And that is why I always say, you cannot do anything but your best, but I do want to see that you have done your best.

*Mother of an 11-year old girl, 6<sup>th</sup> grade*

Yes, all children were there [at a parent-teacher conference regarding choosing further education], and they could say something when they did not agree with something. Yes, I think you send out a very good signal, you do not always have to agree with someone's opinion about you. So, I think that's a good signal.

*Mother of an 11-year old girl, 6<sup>th</sup> grade*

In summary, parents valued equal roles within the parent-teacher interaction positively and the PTR was seen as a cooperation, supporting the child's development. Within this cooperation, shared parenting goals contributed to a good PTR, because agreement was seen as helpful in supporting the child. Most important parenting goals were having mutual respect and encouraging individual development.

### **Discussion**

This study investigated whether PTR quality differed for parents of ethnic majority and ethnic minority students and whether this effect could be explained by other factors, namely student problem behaviour and STR quality. Furthermore, in a qualitative explorative study, parents' perspective on PTR quality was investigated.

As a first conclusion, it is clear that ethnic incongruence had a negative effect on PTR quality. This is in line with previous American studies (Hughes et al., 2005; Lasky, 2000; Nzinga-Johnson et al., 2009). However, it explained only a small part of variance in PTR quality, and parental SES explained the effect of ethnic incongruence on PTR quality. In previous experimental research, it appeared that teachers have a more negative view of low SES children (Auwarter & Aruguete, 2008). Integrating this literature with the present study, this could mean that SES has more effect on teacher perceptions of PTR quality, than ethnic background. After all, children from the ethnic minority group had a lower SES in this study.

Furthermore, externalizing problem behaviour also appeared to have a stronger effect on PTR quality than ethnic incongruence. It cannot be said that externalizing problem behaviour totally explains differences in PTR quality, because parental SES also had an effect. Nevertheless, externalizing problem behaviour had a negative effect on PTR quality. However, these effects appeared to be less of influence when STR quality was finally added to our model. This is in line with previous research, in which problem behaviour was negatively related to STR quality (Pianta & Stuhlman, 2004). In the study of Pianta and Stuhlman, problem behaviour was measured by the teacher and mother report of the Child Behaviour Checklist (Achenbach, as cited in Pianta and Stuhlman, 2004), different from the SDQ (Goodman, 1997, 2001) but also of good quality. STR quality was measured the same way as in this study, and research was done among first-



grade students, somewhat younger than students from the current sample. Although there are some differences in design, it could be derived from the integration of these studies that STR quality and externalizing problem behaviour are confounding aspects of effects on PTR quality.

In the end, it has been found that STR quality has the largest effect of all variables on PTR quality, which is in line with previous research (Hughes et al., 2005; Hughes & Kwok, 2007). According to previous research, it is possible that this effect has been found because teachers value STRs with ethnic minority children more negatively, explaining the effect of ethnic incongruence on PTR quality (Glock et al., 2013; Hughes et al., 2005; Irizarry, 2015; Piggott & Cowen, 2000, Tenenbaum & Ruck, 2007; Thijs et al., 2012).

Regarding study 2, the aim was to explore and understand parents' perspective on PTR quality. In general, it can be said that all participating mothers saw the PTR as supportive in light of their child's development. Within this approach, parent-teacher contact found place at scheduled meetings to inform each other, and when incidents or problems occurred. This is in line with previous research, in which teachers also indicated that parent-teacher contact was mainly supportive for children's development (Lasky, 2000).

Because of the central position of the child, mothers spoke a lot about STR quality. Overall, offering a structured learning environment and adopting a fair, responsive and trustworthy attitude, were important teacher practices contributing to STR quality. Regarding their own practices within the PTR, taking initiative in contacting the teacher and being involved with class activities were named as important. These characteristics were also named with the purpose of supporting their child. This means that parents see these aspects of the PTR as their own influence on PTR quality: by adopting these practices, they can contribute to a good PTR.

Teacher practices such as clear communication, responsiveness, equal treatment of minorities and expertise were named as important and appreciated within the PTR. Previous quantitative research also showed that a good quality of communication contributed to trust in a parent-teacher relationship, by enhancing trust in each other (Adams & Christenson, 2000). However, our participants named trust mainly as a consequence of teachers' expertise. Nevertheless, it can be stated that these aspects are related. Furthermore, Lasky (2000) reported that teachers felt empowered when parents acknowledged their expertise, so this is probably a reciprocal process. Thus, in line with previous research, it can be stated from this study that teacher practices as named by parents, contribute to a good PTR.

Finally, equality and shared parenting values were the most important aspects regarding parent-teacher interaction. Contrary to results of Crozier (1999), none of the

participants saw the PTR as very hierarchical. However, it is not clear how these contrary results can be explained: after all, research has been done in different countries, among hardly comparable samples and in a different period of time. As a consequence, equality in the PTR has to be further examined. According to prior qualitative research, teachers appreciate shared values as well: shared value systems contribute to a high-quality PTR (Lasky, 2000). This shows that the PTR is a reciprocal process, in which equal parent-teacher interaction based on shared parenting values can contribute to enhancing and maintaining the quality of the PTR. This is possibly also relatable to the role of ethnic incongruence in PTR quality: as long as teachers hold an open and respectful attitude towards parents, ethnic incongruence has no negative influence on PTR quality, according to parents.

### **Practical Implications**

Given the results of this study, some practical implications could be considered. From the quantitative results, it is clear that STR and PTR quality are linked. On a daily basis, teachers can use this to work within a context of interrelated actors: parents, teacher and children are three actors within a system with children's academic development as its main goal. So, working together could enhance the process through which this goal is pursued.

Furthermore, it is important for teachers to be aware of 'the façade of ethnicity': ethnic incongruence appears to be a predictor of PTR quality, but there are many other underlying factors that are more important. Especially within the context of social information processing, stereotyping and judgment (Glock & Krolak-Schwerdt, 2013; Tajfel & Turner, 1979), it is important to be aware of a deeper meaning of the quality of a specific PTR. On the one hand, it is possible that ethnic incongruence is seen as causing differences in PTR quality, but other factors, like STR quality explain this main influence. On the other hand, it is possible that ethnic incongruence interacts with other factors related to PTR quality, resulting in a complex relationship between all factors, caused by stereotyping and prejudices.

Also, from the explorative qualitative research can be derived that parents see themselves as an actor in the teacher-parent-child system, aiming at supporting their child's development. This understanding creates a solid basis for working together with parents, because the qualitative results contribute to an understanding of parental practices concerning the PTR. By explicitly sharing the goals of supporting child development and creating a cooperative atmosphere with space for everyone's input, teachers can achieve the best conditions for a child to develop in- and outside the classroom.

### **Limitations and Directions for Future Research**

There are some limitations that should be taken into account. Regarding the quantitative study, all teachers had a native Dutch background. Thus, no conclusions can be drawn about ethnic incongruence the other way around: a native Dutch student and a non-native teacher. Also, both STR quality and student problem behaviour were measured by teacher reports. It is reasonable to assume that teacher reported more negatively about students with whom they had a less positive PTR, resulting in less valid results regarding the effect of STR quality and student problem behaviour on PTR quality. Further research could compare teacher reports of problem behaviour with parental reports of problem behaviour to partially solve this problem. Finally, the cross-sectional design of this study limits the possibility to conclude about the direction of effects. Alternatively, a longitudinal design could answer questions about direction of effects.

Regarding study 2, a lot of limitations can be named concerning generalizability, because participants were only female and they were selected through snowball-sampling and voluntary participation. However, given the explorative nature of this study, these limitations are not of our main concern. According to standards of validity and generalizability (Lincoln & Guba, as cited in Bryman, 2015), the criterium of *dependability* could not be met: due to circumstances of research, too little discussion has taken place to reach intersubjectivity regarding the process of coding. Besides a critical research attitude, more discussion aimed at reaching consensus about coding the transcripts would have been of added value. Although both studies face some limitations, the integration of both teacher perspective and parent perspective on PTR quality, combined with the focus on ethnic incongruence, is of added value to previous research.

### **Overall Conclusion**

STR and PTR quality are important factors for children's development that are closely connected. Ethnic incongruence does play a role in PTR quality, but it seems that other factors are underlying in this relation. Future research could unravel the link between STR and PTR quality, in order to contribute to knowledge about creating the best learning environment for children of all ethnic backgrounds. Furthermore, a small start has been made regarding parents' perspective on PTR quality and their own influence in this relationship. Future research could further examine their view and role, especially from a more cultural diverse perspective, to help us understand how all parents can be involved with school, for the purpose of optimal academic development.

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Attachment 1: Topic-list

**Start**

Name three words you associate with your relationship with the teacher.

**PTR in General**

What do you think is meant with the term PTR?

What do you think is important for a high-quality PTR?

How would you describe your relationship with the teacher?

What do you appreciate in this teacher?

What can be improved regarding the teacher in contact with you?

**Amount of Parent-Teacher Contact**

How often do you have contact with the teacher?

At what kind of occasions do you have contact with the teacher?

How do you experience the parent-teacher contact in general?

Do you get invitations to help at class activities? What does such invitations contain?

How important is parent involvement with school, in meetings or helping at class activities?

**Trusting the Teacher**

To which extent do you trust the teacher?

What causes trust and/or what could improve trusting the teacher?

**Communication with the Teacher**

Do you have the feeling that the teacher listens to you?

Do you have the feeling that the teacher respects you?

Do you always understand what the teacher means?

**Degree of Agreement**

What does the teacher think of your child?

Do you think the same about your child?

Do you have the same expectations as the teacher, regarding your child/the PTR?

**Satisfaction**

What does a teacher have to do to be a good teacher?

Does this teacher meet these standards?

Are you satisfied with this teacher? Why?



Attachment 2: Codebook

**Parent-teacher Contact**

Informative meetings

*Minder contact met leerkracht door bovenbouw*

Need-based contact

*Hoeveelheid contact positief gerelateerd aan mate van problematiek*

**STR Quality**

Offering structure

*Typering leerkracht: biedt structuur*

*Wenselijke eigenschappen leerkracht: bidet structuur*

Fairness

*Typering leerkracht: rechtvaardig*

*Wenselijke eigenschappen leerkracht: rechtvaardig*

Responsiveness

*Typering STR: laagdrempelig*

*Wenselijke eigenschappen leerkracht: benaderbaar*

Trust

*Typering STR: vertrouwd*

Talking about the teacher at home

*Thuis wordt wel gepraat over de leerkracht*

*Thuis wordt niet gepraat over de leerkracht*

**Parental Influence on PTR Quality**

Parent initiative

Involvement with school activities

*Informeel contact met leerkracht*

*Oorzaak goede PTR: betrokkenheid bij schoolactiviteiten*

*Betrokkenheid bij school t.b.v. welzijn kind*

*Betrokkenheid bij schoolactiviteiten geen oorzaak betere PTR*

**Teachers' Influence on PTR Quality**

Clarity in communication

*Typering leerkracht: duidelijk in communicatie*

*Typering leerkracht: openheid van zaken geven*

*Wijze van informeren ouders*

Responsiveness

*Probleemoplossend vermogen*

Equal treatment of ethnic minorities

*Interculturaliteit vormt geen drempel*

Expertise

*Overeenkomstig beeld van het kind*

*Vertrouwen in expertise van de leerkracht*

*Overeenkomstig beeld kind*

*Signalerend vermogen van leerkracht*

**Nature of Parent-Teacher Interaction**

Equality

*Wederzijds respect*

*Gezamenlijke opvoedtaak leerkracht en ouders*

*Gelijkwaardigheid leerkracht en ouders*

Shared parenting values

*Sociale ontwikkeling*

*Respect voor elkaar hebben*

*Individuele ontwikkeling*

*Eigenwaarde*

*Inzet tonen*

*Mondigheid*

## AND CULTURAL MISMATCH

## Attachment 3: SPSS Syntax

## 1. Selecteren variabelen

```

FILTER OFF.
USE ALL.
SELECT IF (genderSt > -999 & ageTch> -999 & genderTc> -999 & SD2T1E> -999 &
SD3T1I> -999 & SD5T1E>
-999 & SD6T1E> -999 & SD7T1I> -999 & SD9T1E> -999 & SD10T1E> -999 &
SD11T1I> -999 & SD12T1E> -999
& SD13T1I> -999 & SD15T1E> -999 & SD18T1E> -999 & SD19T1I> -999 &
SD20T1E> -999 & eduPar> -999 &
empPar> -999 & ageStT2> -999 & STR_CL_1> -999 & STR_CL_2> -999 &
STR_CL_3> -999 & STR_CL_4> -999
& STR_CL_5> -999 & STR_CO_1> -999 & STR_CO_2> -999 & STR_CO_3> -999
& STR_CO_4> -999 & STR_CO_5>
-999 & relParSt1> -999 & relParSt2> -999 & relParSt3> -999 &
relParSt4> -999 & relParSt5> -999 &
coBirth> -999 & coBirthM> -999 & coBirthF> -999 &
SD17T1E_NIETomgepoold > -999).
EXECUTE.
DATASET ACTIVATE DataSet5.

```

## 2. Variabelen construeren

## 1) Factoranalyse PTR + betrouwbaarheid + gemiddelde

```

FACTOR
/VARIABLES relParSt1 relParSt2 relParSt3 relParSt4 relParSt5
/MISSING LISTWISE
/ANALYSIS relParSt1 relParSt2 relParSt3 relParSt4 relParSt5
/PRINT INITIAL EXTRACTION
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PAF
/ROTATION NOROTATE
/METHOD=CORRELATION.

```

## RELIABILITY

```

/VARIABLES=relParSt1 relParSt2 relParSt3 relParSt4 relParSt5
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA.

```

```

COMPUTE PTR_M=(relParSt1+relParSt2+relParSt3+relParSt4+relParSt5)/5.
EXECUTE.

```

## 2) Factoranalyse STR closeness, Betrouwbaarheid, Gemiddelde

```

FACTOR
/VARIABLES STR_CL_1 STR_CL_2 STR_CL_3 STR_CL_4 STR_CL_5
/MISSING LISTWISE
/ANALYSIS STR_CL_1 STR_CL_2 STR_CL_3 STR_CL_4 STR_CL_5
/PRINT INITIAL EXTRACTION
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PAF
/ROTATION NOROTATE
/METHOD=CORRELATION.

```

## RELIABILITY

## AND CULTURAL MISMATCH

```

/VARIABLES=STR_CL_1 STR_CL_2 STR_CL_3 STR_CL_4 STR_CL_5
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA.

```

```

COMPUTE STRCLO_M=(STR_CL_1+STR_CL_2+STR_CL_3+STR_CL_4+STR_CL_5)/5.
EXECUTE.

```

**3) Factoranalyse STR conflict, Betrouwbaarheid, Gemiddelde**

FACTOR

```

/VARIABLES STR_CO_1 STR_CO_2 STR_CO_3 STR_CO_4 STR_CO_5
/MISSING LISTWISE
/ANALYSIS STR_CO_1 STR_CO_2 STR_CO_3 STR_CO_4 STR_CO_5
/PRINT INITIAL EXTRACTION
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PAF
/ROTATION NOROTATE
/METHOD=CORRELATION.

```

RELIABILITY

```

/VARIABLES=STR_CO_1 STR_CO_2 STR_CO_3 STR_CO_4 STR_CO_5
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA.

```

```

COMPUTE STRCON_M=(STR_CO_1+STR_CO_2+STR_CO_3+STR_CO_4+STR_CO_5)/5.
EXECUTE.

```

**4) Factoranalyse Externalizing Problem Behaviour, Betrouwbaarheid, Gemiddelde**

```

RECODE SD17T1E_NIETomgepoold (0=4) (1=3) (2=2) (3=1) (4=0) INTO
SDQ_17E_omgepoold.
EXECUTE.

```

FACTOR

```

/VARIABLES SD2T1E SD5T1E SD6T1E SD9T1E SD10T1E SD12T1E SD15T1E
SDQ_17E_omgepoold SD18T1E SD20T1E
/MISSING LISTWISE
/ANALYSIS SD2T1E SD5T1E SD6T1E SD9T1E SD10T1E SD12T1E SD15T1E
SDQ_17E_omgepoold SD18T1E SD20T1E
/PRINT INITIAL EXTRACTION
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PAF
/ROTATION NOROTATE
/METHOD=CORRELATION.

```

RELIABILITY

```

/VARIABLES=SD2T1E SD5T1E SD6T1E SD9T1E SD10T1E SD12T1E SD15T1E
SDQ_17E_omgepoold SD18T1E SD20T1E
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA.

```

COMPUTE

```

Externalizing_M=(SD2T1E+SD5T1E+SD9T1E+SD6T1E+SD10T1E+SD12T1E+SD15T1E+SDQ_17
E_omgepoold+
SD18T1E+SD20T1E)/10.
EXECUTE.

```

**5) Factoranalyse Internalizing Problems, Betrouwbaarheid, Gemiddelde**

FACTOR

```

/VARIABLES SD3T1I SD7T1I SD11T1I SD19T1I SD13T1I
/MISSING LISTWISE
/ANALYSIS SD3T1I SD7T1I SD11T1I SD19T1I SD13T1I
/PRINT INITIAL EXTRACTION

```

## AND CULTURAL MISMATCH

```

/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PAF
/ROTATION NOROTATE
/METHOD=CORRELATION.

```

## RELIABILITY

```

/VARIABLES=SD3T1I SD7T1I SD11T1I SD19T1I SD13T1I
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA.

```

```

COMPUTE Internalizing_M=(SD3T1I+SD7T1I+SD11T1I+SD19T1I+SD13T1I)/5.
EXECUTE.

```

## 6) Ethnic incongruence construeren

```

RECODE coBirthM coBirthF coBirth (1=0) (2=1) (3=1) (4=1) (5=1) (6=1) (7=1)
(8=1) (9=1) (10=1) INTO
    EthInM EthInF EthInCh.
EXECUTE.
COMPUTE Eth_step2=EthInM+EthInF+EthInCh.
EXECUTE.
RECODE Eth_step2 (2=1) (3=1) (0=0) (1=1) INTO EthInDEF.
EXECUTE.

```

## 7) SES construeren

```

COMPUTE SES_ouders=eduPar+empPar.
EXECUTE.

```

## 3. QQ-plots bekijken

```

EXAMINE VARIABLES=EthInDEF Inernalizing_M Externalizing_M STRCLO_M STRCON_M
PTR_M SES_ouders
    ageStT2 ageTch genderTc genderSt
/PLOT BOXPLOT HISTOGRAM NPLOT
/COMPARE GROUPS
/STATISTICS DESCRIPTIVES
/CINTERVAL 95
/MISSING LISTWISE
/NOTOTAL.
EXECUTE.

```

## 4. Descriptives: ANOVA

```

MEANS TABLES=Inernalizing_M Externalizing_M STRCLO_M STRCON_M PTR_M
SES_ouders genderSt ageStT2 BY
    EthInDEF
/CELLS=MEAN STDDEV COUNT
/STATISTICS ANOVA.

```

## 5. Variabelen standaardiseren

```

DESCRIPTIVES VARIABLES=ageTch Inernalizing_M Externalizing_M STRCLO_M
STRCON_M PTR_M SES_ouders
    ageStT2
/SAVE
/STATISTICS=MEAN STDDEV MIN MAX.

```

## 6. Pearson Correlation

```

CORRELATIONS
/VARIABLES=ZSTRCLO_M ZSTRCON_M ZPTR_M EthInDEF genderSt ZageStT2
ZInernalizing_M ZExternalizing_M
    ZSES_ouders
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE.

```

## AND CULTURAL MISMATCH

## 7. Hiërarchische regressieanalyse

## 1) Intercept only

```
MIXED ZPTR_M
  /CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1)
SINGULAR(0.000000000001) HCONVERGE(0,
  ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)
  /FIXED=| SSTYPE(3)
  /METHOD=ML
  /PRINT=SOLUTION TESTCOV
  /RANDOM=INTERCEPT | SUBJECT(teachnr) COVTYPE(ID).
```

## 2) Ethnic incongruence toegevoegd

```
MIXED ZPTR_M BY EthInDEF
  /CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1)
SINGULAR(0.000000000001) HCONVERGE(0,
  ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)
  /FIXED=EthInDEF | SSTYPE(3)
  /METHOD=ML
  /PRINT=SOLUTION TESTCOV
  /RANDOM=INTERCEPT | SUBJECT(teachnr) COVTYPE(ID).
```

## 3) Teacher/Student Age + Gender, Parental SES toegevoegd

```
MIXED ZPTR_M BY EthInDEF genderSt genderTc WITH ZageTch ZageStT2
ZSES_ouders
  /CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1)
SINGULAR(0.000000000001) HCONVERGE(0,
  ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)
  /FIXED=EthInDEF genderSt genderTc ZageTch ZageStT2 ZSES_ouders |
  SSTYPE(3)
  /METHOD=ML
  /PRINT=SOLUTION TESTCOV
  /RANDOM=INTERCEPT | SUBJECT(teachnr) COVTYPE(ID).
```

## 4) Student problem behaviour toegevoegd

```
MIXED ZPTR_M BY EthInDEF genderSt genderTc WITH ZageTch ZageStT2
ZSES_ouders ZInernalizing_M
  ZExternalizing_M
  /CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1)
SINGULAR(0.000000000001) HCONVERGE(0,
  ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)
  /FIXED=EthInDEF genderSt genderTc ZageTch ZageStT2 ZSES_ouders
  ZInernalizing_M ZExternalizing_M |
  SSTYPE(3)
  /METHOD=ML
  /PRINT=SOLUTION TESTCOV
  /RANDOM=INTERCEPT | SUBJECT(teachnr) COVTYPE(ID).
```

## 5) STR quality toegevoegd

```
MIXED ZPTR_M BY EthInDEF genderSt genderTc WITH ZageTch ZageStT2
ZSES_ouders ZInernalizing_M
  ZExternalizing_M ZSTRCLO_M ZSTRCON_M
  /CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1)
SINGULAR(0.000000000001) HCONVERGE(0,
  ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)
  /FIXED=EthInDEF genderSt genderTc ZageTch ZageStT2 ZSES_ouders
  ZInernalizing_M ZExternalizing_M
  ZSTRCLO_M ZSTRCON_M | SSTYPE(3)
  /METHOD=ML
  /PRINT=SOLUTION TESTCOV
  /RANDOM=INTERCEPT | SUBJECT(teachnr) COVTYPE(ID).
```