



Teachers' perceptions of remediation possibilities of Dutch students in special education

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Background. Research suggests that referral practices of teachers in regular education are not only affected by the level of learning difficulties but also by student behaviour and the level of students' parental involvement in education. It was hypothesized that teachers maintain a notion of the 'ideal' student, who has relatively good academic skills, is well behaved and has highly involved parents.

Aims. The main question of this study was whether special-education teachers' perceptions regarding remediation possibilities are similarly affected by student behaviour and the level of students' parental involvement.

Sample. Nineteen experienced Dutch school teachers in special education each evaluated four students: two with relatively high and two with relatively low academic performance.

Methods. Three questionnaires to assess learning difficulties, behavioural problems and the level of parental involvement were developed.

Results. Teachers' perceptions of remediation possibilities were related to the severity of the learning difficulties and academic skill. Academic skill, in turn, was strongly related to the perception of the children's behavioural problems and parental involvement, which, in turn, links the perception of remediation possibilities indirectly to children's behavioural problems and parental involvement.

Conclusions. Special education teachers may also hold an image of the 'ideal' student. Students with high academic achievement levels are perceived as having fewer behavioural problems and more highly involved parents than students with low academic achievement levels. Whether this is due to justified or unjustified teachers' perceptions is a matter for future research. What is important is that stereotyping of students (justly or not) poses a serious problem for the Dutch reintegration policy.

In 1901 the Dutch government enacted the 'compulsory education law'. Under this law all children in the Netherlands who were between 6 and 12 years of age had to attend school. Within two decades, a second educational law was passed. In 1920, the 'primary education law' was adopted. It entailed that children with a handicap (i.e. deaf and

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hard-of-hearing children, blind children and children with severe learning difficulties) had the right to be taught in special schools. Three years later, the law was extended to children with physical handicaps and children with severe behavioural problems. It was not until 1949 that the Dutch government decided on the establishment of five new types of special schools, namely, schools for children with epilepsy, children with tuberculosis, sick children, children in ward and children with learning difficulties. In 1999, the group of children with learning difficulties (specific as well as general) constituted the majority of children in special education (c. 70%), and the total number of children attending special education schools had risen from 24,000 students (c. 1.5%) in 1948 to 124,000 (c. 7.8%) in 1999 (Centraal Bureau voor de Statistiek, 2003; Van Rijswijk & Kool, 1999).

In the 1970s, the attitude in Dutch society towards special education changed. The fact that special education attendance had increased almost exponentially over the last few decades (with equally rising financial costs) as well as the view that children with difficulties should not be segregated from regular society led to the adoption of a new law. In 1985, the Primary Education Act (Ministerie van Onderwijs & Wetenschappen, 1985) was enacted. This new policy aimed at halting the number of children with learning difficulties being referred to special schools by guaranteeing that children were to receive education that suited their abilities, interests and learning pace, which involved no retention and, if possible, no referrals to special education. However, this new policy did not reduce the number of children being referred to special schools. In 1974, a mere 1.5% of children in primary education attended a school for children with general or specific learning difficulties. In 1990, this number had risen to more than 3% (Ministerie van Onderwijs & Cultuur en Wetenschap, 2000; Pijl, 1997). The failure of the Primary Education Act policy and doubts about the effectiveness of special education (Span, 1988) were important reasons for the Dutch government to introduce the integration policy 'Weer Samen Naar School' ['Together to school again'] in 1990 (Ministerie van Onderwijs & Wetenschappen, 1990).

Since then, schools for children with specific and general learning difficulties are part of regional networks of school clusters in which about fifteen regular schools cooperate with one special-education school. One goal of the new integration policy was to reduce the number of students receiving relatively expensive special education by means of more readily transferring the facilities and resources of special education to regular education. The other goal, more relevant for this study, was to optimize effective remediation of students who are referred to special education to enable them to return to mainstream education as quickly as possible (Ministerie van Onderwijs & Cultuur en Wetenschap, 2003; Smeets, 2003).

Referral practices have been a worry ever since special-education schools were called into being. The Amsterdam school doctor Herderschêe (1929) believed that teachers only sent students to a special education school because they wanted to get rid of the 'hard-to-raise' children. After Binet presented his intelligence test, Herderschêe had high hopes for the future because he thought that this instrument could stop what he called regular primary school teachers' irrational referral practices. Elisabeth Farrel, a school teacher and one of the pioneers of American special education around the 1900s, had similar thoughts. She also hoped that Binet's test would ban teachers' unfounded, subjective and emotional arguments for referring children to special education (Hendrick & MacMillan, 1989). But even in 1983 '... teachers tend to refer students who bother them', albeit '... different teachers may refer different students because different kinds of behaviour bother them' (Ysseldyke *et al.* 1983, pp.80-81).

The application and use of tests has not changed teachers' attitudes and referral practices. If teachers do not refer students on the basis of their academic performance only, the question that emerges is: what is the guiding principle of teachers' decisions to refer students to special education?

An interesting theoretical notion that could explain referral practices is the so-called image of the 'ideal' or 'model' student, a notion put forward by Becker (1952) and Leach (1977; see also Bakker, 1984). These authors maintain that teachers hold images of the prototypical ideal or model student. The ideal or model student has relatively good academic skills, is well behaved and has highly involved parents. Teaching students who approximate this ideal is more rewarding because teachers can readily recognize the fruits of their efforts. Students with learning difficulties do not obey the model of the ideal students because they display relatively low academic skill, but they do not necessarily have more behavioural problems or have less involved parents. Interestingly, however, students diagnosed with learning difficulties who are referred to special education do not differ, with respect to either intelligence or level of scholastic achievement, in a statistical sense from their low-achieving peers who remain in regular education (Ysseldyke, Algozzine, Shinn, & McGue, 1982). Instead, it appears that students' behaviour, particularly the behaviour of boy students, rather than academic achievement determines referral to special education (Drame, 2002; Gottlieb & Alter, 1994; Gottlieb & Weinberg, 1999).

Unlike girls with learning difficulties who are more likely to suffer from internalized behavioural problems, boys with learning difficulties generally display more task-commitment problems and disruptive behaviour than boys without learning difficulties (e.g. Wehmeyer & Schwartz, 2001). It does not mean that the behavioural problems of boys are the reason *per se* for referral because that seems to depend on the school context in which they are educated. Teachers' criteria for designating disruptive behaviour are dependent upon the percentage of boys in the classroom; tolerance towards disruptive behaviour is enhanced when the number of boys in the classroom increases (Maas, 2000; Maas & Meijnen, 1999). Moreover, independent observers in a study by Mehan, Hertweck, and Miehl (1986) revealed that teachers become more focused upon students whose behaviour they already expect to be negative, even when their behaviour does not significantly deviate from that of the other students in the class. The teachers in their study ascribed 46% of negative behaviour to students who they referred to special education, whereas they only attributed 13.9% to students who remained in mainstream education.

Behavioural problems are not only gender related but also depend upon socio-economic status. Teachers identify more problems in children from lower-class backgrounds than in children from higher-class backgrounds, particularly in boys (Childs & McKay, 1997, 2001). These studies showed that teachers identified two to three times as many behavioural problems in boys from low-income families than in boys from middle-income families, whereas no such difference was found for girls.

With respect to the parental-involvement aspect of the ideal student, Zellman and Waterman (1998) showed that teachers' assessment of their students' learning or behavioural problems is not just determined by their students' socio-economic status but also by the perceived level of parental involvement. Children with parents who are perceived to be highly involved have few learning and/or behavioural problems. If these children, notwithstanding their parents' involvement, displayed learning or behavioural problems, teachers tended to downplay them. The problems of children whose parents appeared to be less involved were exacerbated. These conclusions are corroborated by

data that show that teachers tend to refer children to special education when they experienced little or no support from the parents early in the students' school career (Mamlin & Harris, 1998). At this point, it is important to note that Stoep, Bakker, and Verhoeven (2002) found that teachers' perceived level of parental involvement was not related to parents' actual involvement. Teachers believed that the frequency of help with homework was larger for children who came from a higher-class background than for children who were from a lower-class background, when, in fact, the opposite was true. This discrepancy between teachers' perception and parents' reported frequency of help was even larger in the group of children from ethnic minorities. If referral from regular to special education of students with learning difficulties is not merely based on students' academic skill, the question that emerges is: is the extent to which students in special education appear to be remediable also partly determined by the students' behaviour and/or their parental involvement?

In the present research, we are not investigating the motives of teachers for referring students to special education. Instead our focus is on the opinions of special education teachers who teach students with learning difficulties and who also have to consider the possibilities for remediation with regard to possible reintegration into mainstream education; a relevant issue in light of the current policy of the Dutch government. More precisely, is the perception of teachers in special education with respect to the remediation possibilities of their students solely based on the academic achievement of the students? Or, is their assessment, like that of their colleagues in mainstream education, also affected by their perceptions of parental involvement and the students' behavioural problems?

If the special-education population is more homogeneous than the mainstream population, it might well be that academic achievement is the main variable affecting the assessment of remediation possibilities. If, however, the group of special-education students is as heterogeneous as the group in regular education, the same dynamics are expected to govern special education teachers' perceptions. A tentative answer is provided by the work of Bakker and Ubachs (1993). They showed that teachers in special education consider disruptive behaviour of their students to be an obstacle for successful remediation, irrespective of actual achievement level. Students who displayed unfavourable behaviour and students who came from a relatively lower-class background were less likely to be liked by the teacher and, in turn, were considered to be less remediable than students who showed favourable behaviour and came from a higher-class background. This finding suggests that teachers' perceptions of remediation possibilities are not just determined by the severity and type of learning difficulties. They are also affected by students' behavioural problems and teachers' impressions about students' social background. We chose to investigate parental involvement rather than the related socio-economic background because of the variation in parental involvement that exists within the same social class (Goldenberg, 2001).

The type of learning difficulty was investigated because we expected that general learning difficulties are perceived to be less remediable than specific learning difficulties (i.e. reading and arithmetic). Problems in more than one domain probably present more obstacles for the remediation process than one specific problem. The severity of the learning difficulty is also expected to negatively affect remediation possibilities. With respect to behavioural problems, we distinguished between externalized behaviour problems, task-behaviour problems and internalized behaviour problems. Teachers are expected to be more affected by externalized and task behaviour problems than by internalized behaviour problems. After all, students with externalized behaviour are

more disruptive with respect to the classroom climate than students with internalized behaviour problems. Because boys are more likely to suffer from externalized behaviour problems while girls are more likely to suffer from internalized behaviour problems, gender was also investigated.

The level of academic skill was assessed to investigate whether teachers in special education distinguish between their high-achieving and low-achieving students in a similar manner as teachers in regular education with respect to behavioural problems and parental involvement. The variable academic skill makes it possible to assess the theoretical notion of the image of the ideal student. Students with learning difficulties do not fulfil the image of the ideal student, which, in turn, may result in the perception of them being less well behaved and having a lower level of parental involvement. With respect to the educational practice, stereotyping students in special education may have detrimental consequences for the Dutch reintegration policy.

Method

Participants

The sample consisted of 19 highly experienced Dutch school teachers (14 women and 5 men). They were appointed in various different schools for special education in the middle (Gelderland) and in the south (Limburg) of the Netherlands and taught in Grades 4 to 8. All students who were evaluated by the teachers attended these schools because they were diagnosed with general or specific learning difficulties.

Materials and procedure

Three different questionnaires were developed. The first questionnaire concerned the type and level of learning difficulties. The items referred to three domains of learning difficulties distinguished by Sprik (1998), namely, 'general', 'reading' and 'arithmetic'. An example of an item from the general domain is 'Has difficulty automatizing'; an example of an item from the reading domain is 'Text comprehension is insufficient' and an example of the arithmetic domain is 'Has difficulty with place value of digits in a number'. The learning-difficulties questionnaire consisted of 16 statements with 4-point scale items: *fully agree*, *agree*, *disagree* and *fully disagree*, designated 4, 3, 2 and 1, respectively. Thus, a high mean score on the learning disability questionnaire indicates a high level of problems, whereas a low mean score indicates a low level of problems. The reliability (Cronbach's alpha) for the entire list was .96; it was .93 for the general scale, .89 for the reading scale and .92 for the arithmetic scale.

The second questionnaire concerned the type and level of behavioural problems. We used the Dutch version of the Teacher Report Form (Achenbach, 1991; Translation in Dutch by Verhulst, van der Ende, & Koot, 1997), an adaptation of the Child Behaviour Check List (CBCL) by Achenbach and Edelbrock (1981). The original list contained 120 behavioural descriptions and the teacher was asked to evaluate each description on a 3-point scale: not at all applicable: 0, slightly applicable: 1 and clearly applicable: 2. An example of an item is 'Does not appear to have feelings of guilt after misconduct'. Thus, a high mean score on the behavioural-problems questionnaire indicates a high level, whereas a low mean score indicates a low degree of behavioural problems. Three distinct scales referring to externalized behaviour, internalized behaviour and task behaviour could be distinguished in the present study. The externalized behaviour scale

consisted of 24 items and was highly reliable; Cronbach's α was .96. The internalized behaviour scale consisted of 15 items and was also reliable with Cronbach's α being .83. The task-behaviour scale contained 13 items and its reliability reached .90.

The third questionnaire concerned the level of parental involvement. The list contained items relating to Grolnick and Slowiaczek's (1994) concepts and referred to three dimensions of parental involvement, namely, 'cognitive', 'school' and 'home'. An example of an item from the cognitive dimension is 'Parents take their children to educational places, for example, a museum or a zoo'. An example of an item from the school dimension was 'Parents are aware of the strong and weak aspects of their child'. An example of an item from the home dimension is 'Parents invest time and money to support their child'. The parental-involvement questionnaire consisted of 32 statements with evaluations based on a 4-point scale: *fully agree*, *agree*, *disagree* and *fully disagree*, designated 4, 3, 2 and 1, respectively. Thus, a high mean score on this questionnaire indicates a high level of parental involvement, whereas a low mean score indicates a low level. After computing item-total correlations of the entire list and removing all items with item-total correlations lower than .40 (i.e. five items), the resulting reliability index, Cronbach's α , was .95. Subsequent reliability analyses of each of the scales showed sufficient levels of reliability: it was .87 for parental involvement_{cognitive}, .86 for parental involvement_{school}, and reached .88 for parental involvement_{home}.

Since we expected that teachers' willingness to cooperate with us depended on the amount of work, we decided to ask them to fill in all three questionnaires with respect to only four students. That is, two students who they considered to have relatively high academic skills and two students who they believed had relatively low academic skills. After they filled in all three questionnaires, they were asked to rate the extent to which the learning difficulties of the selected students were considered to be remediable, particularly with respect to possible reintegration of their students into mainstream regular education. This question had to be answered on a 6-point scale with 1 being the lowest level and 6 being the highest level.

Results

The analyses were based on 76 evaluation profiles (19 teachers evaluated 4 students each), and consisted of 23 girls and 53 boys. The number of girls and boys were equally distributed over the group of students the teachers believed to have high academic skills (11 and 27, respectively), and those they believed to have low academic skills (12 and 26, respectively). The skewed distribution of girls and boys represents the gender ratio in the population of special-education students in the Netherlands. The assumption of a close relationship between the level of remediation possibilities and academic skill was corroborated by the result of the Pearson's product moment correlation coefficient, which yielded a high, positive and significant value of $r = .69$, $p < .0001$. It needs to be emphasized, however, that the value of this correlation indicates that academic skill and remediation possibilities are not considered to be one and the same factor because their shared level of variance is only 48%.

Remediation possibilities

Three correlational analyses with Bonferroni corrections ($p < .05$) were performed between remediation possibilities and all domains of learning difficulties, behavioural

problems and parental involvement. The first correlational analysis concerned the expected relations between remediation possibilities and the scores of each of the learning-difficulties scales. Strong and substantial negative correlations emerged between remediation possibilities and general learning difficulties ($r = -.76$), reading difficulties ($r = -.60$) and arithmetic difficulties ($r = -.71$; all p values $< .0003$). Teachers thought that students had higher remediation possibilities in cases where they considered their learning difficulties to be relatively mild.

The second correlational analysis concerned the relations between remediation possibilities and the scores of each of the behavioural-problem scales. No significant relations between remediation possibilities and internalized ($r = -.02$) or externalized ($r = -.08$) behavioural problems emerged but there was a significant, moderately negative correlation between task behaviour and remediation possibilities ($r = -.28$, $p < .03$), indicating that higher levels of estimated remediation possibilities were associated with lower levels of task-behaviour problems. Since the correlation coefficients between remediation possibilities and the level of learning difficulties were high, a partial correlation was computed. After removing the effect of the level of overall learning difficulties from the correlation between remediation possibilities and task behaviour, the partial correlations dropped to a non-significant level, that is, $r = .09$. It seems that no relation between task behaviour and remediation possibilities exists and that severity of the learning problem is the actual variable related to remediation.

The third correlational analysis concerned the relation between remediation possibilities and the scores of each of the parental-involvement scales. Moderate correlations emerged between remediation possibilities and perceived parental involvement_{cognitive} ($r = .31$, $p < .03$) and perceived parental involvement_{school} ($r = .33$, $p < .03$), indicating that higher involvement was associated with higher chances of remediation. However, the relationship between remediation possibilities and parental involvement_{home} was not significant ($r = .27$). Since correlation coefficients between remediation possibilities and level of learning difficulties were high, partial correlations were computed. After removing the effect of the level of learning-difficulties variable from the correlation between remediation possibilities and all three scales of perceived parental involvement, all partial correlations dropped to a non-significant level, the cognitive scale dropped to $-.06$, the school scale to $-.09$ and the home scale to $-.13$. It seems that no relation between perceived parental involvement and remediation possibilities exists and that the severity of the learning problem is the actual variable related to remediation possibilities.

Academic skill

Table 1 presents the mean scores of the high-achieving and low-achieving students on all domains of learning difficulties, behavioural problems and perceived parental involvement. To assess the effect of academic skill and gender on the severity of learning difficulties, a 2 (academic skill: high versus low) \times 2 (gender: girls versus boys) \times 3 (learning difficulties: general versus reading versus arithmetic) ANOVA on the mean learning-difficulties score was performed. The main effect of academic skill was significant, $F(1, 72) = 50.66$, $p < .0001$, partial $\epsilon^2 = .41$. Teachers indicated fewer learning difficulties in high-achieving students than in low-achieving students. The fact that both the interaction effect between gender and academic skill and the main effect of gender did not reach significant levels (F was less than one for both) revealed that this was true for both girls and boys. The main effect of learning difficulties was also

Table 1. Mean scores and statistics of high- and low-achieving students regarding all domains of learning difficulties, behavioural problems and parental involvement

	Academic skill			<i>d</i>
	High	Low	<i>t</i> test (<i>df</i> = 74)	
Learning difficulties ^a				
General	2.05 (0.55)	3.05 (0.57)	<i>t</i> = 7.90, <i>p</i> < .0001	1.68
Reading	1.78 (0.55)	2.66 (0.66)	<i>t</i> = 6.38, <i>p</i> < .0001	1.48
Arithmetic	1.99 (0.65)	2.97 (0.68)	<i>t</i> = 6.40, <i>p</i> < .0001	1.48
Behavioural problems ^b				
Internalized	0.40 (0.27)	0.45 (0.38)	<i>t</i> = 0.63, <i>p</i> = .53	0.14
Externalized	0.32 (0.37)	0.56 (0.57)	<i>t</i> = 2.12, <i>p</i> = .04	0.49
Task behaviour	0.45 (0.42)	0.73 (0.52)	<i>t</i> = 2.61, <i>p</i> = .01	0.61
Parental involvement ^c				
Cognitive	3.02 (0.53)	2.57 (0.54)	<i>t</i> = -3.69, <i>p</i> < .0001	0.86
School	3.03 (0.49)	2.65 (0.55)	<i>t</i> = -3.26, <i>p</i> = .002	0.76
Home	3.07 (0.50)	2.66 (0.49)	<i>t</i> = -3.62, <i>p</i> < .0001	0.84

^a A high mean score refers to a high level of learning difficulties.

^b A high mean score refers to a high level of behavioural problems.

^c A high mean score refers to a high level of parental involvement.

significant, $F(2, 144) = 12.32$, $p < .0001$, partial $\varepsilon^2 = .15$. Subsequent *t* tests showed that general learning difficulties were significantly higher than reading difficulties, $t(75) = 5.43$, $p < .0001$ (mean difference was .33; 95% CI of .21 to .45). Arithmetic problems were also significantly higher than reading difficulties, $t(75) = 3.83$, $p < .001$ (mean difference was .26; 95% CI of .12 to .39). The difference between general learning difficulties and arithmetic problems did not reach a significant level, $t(75) = 1.21$, $p = .23$ (mean difference was .07; 95% CI of -.05 to .19).

To assess the effect of academic skill and gender on the severity of behavioural problems, a 2 (academic skill: high versus low) \times 2 (gender: girls versus boys) \times 3 (behavioural problems: internalized versus externalized versus task behaviour) ANOVA on the mean behavioural-problems score was performed. The main effect of academic skill was significant ($F(1, 72) = 3.87$, $p = .05$, partial $\varepsilon^2 = .05$). The interaction effect between academic skill and behavioural problems also reached significance ($F(2, 144) = 3.26$, $p = .04$, partial $\varepsilon^2 = .04$). Subsequent analyses indicated that high- and low-achieving students had statistically similar levels of internalized behaviour ($t(74) = 0.63$, $p = .53$; mean difference was .05; 95% CI of -.10 to .20), whereas low-achieving students showed significantly more externalized behaviour ($t(74) = 2.12$, $p = .04$; mean difference was .23; 95% CI of .01 to .46) and more task-behaviour problems than high-achieving students ($t(74) = 2.61$, $p = .01$; mean difference was .28; 95% CI of .07 to .50). The main effect of gender was significant ($F(1, 72) = 5.60$, $p = .02$, partial $\varepsilon^2 = .07$), as was the interaction between gender and behavioural problems ($F(2, 144) = 3.69$, $p = .03$, partial $\varepsilon^2 = .05$). Subsequent analyses indicated that girls and boys had statistically similar levels of internalized behaviour ($t(74) = 0.57$, $p = .57$; mean difference was .05; 95% CI of -.12 to .21), whereas boys showed significantly more externalized behaviour ($t(74) = 1.95$, $p = .06$; mean difference was .24; 95% CI of -.005 to .48) and task-behaviour problems ($t(74) = 2.71$, $p = .008$; mean difference was .32; 95% CI of .08 to .55) than girls.

To assess the effect of academic skill and gender on the level of perceived parental involvement, a 2 (academic skill: high versus low) \times 2 (gender: girls versus boys) \times 3 (parental involvement: cognitive versus school versus home) ANOVA on the mean perceived parental-involvement score was performed. The main effect of academic skill was significant and showed that perceived parental involvement was higher in high-achieving students than in low-achieving students ($F(1, 72) = 7.47, p = .008$, partial $\varepsilon^2 = .09$). The main effect of gender was not significant ($F(1, 72) = 1.18, p = .28$, partial $\varepsilon^2 = .02$) but the interaction effect between academic skill and gender was ($F(1, 72) = 4.31, p = .04$, partial $\varepsilon^2 = .06$). Subsequent analyses indicated that high-achieving boys ($M = 3.15, SD = 0.41$, 95% CI of 2.97 to 3.33) had higher levels of perceived parental involvement than low-achieving boys ($M = 2.59, SD = 0.50$, 95% CI of 2.46 to 2.77), as well as both high-achieving ($M = 2.78, SD = 0.55$, 95% CI of 2.25 to 3.06) and low-achieving girls ($M = 2.70, SD = 0.43$, 95% CI of 2.44 to 2.97; all Fisher's *PLSD* $s < .05$). All three other groups had statistically equal levels of perceived parental involvement. The main effect of perceived parental involvement was not significant ($F(2, 144) = 2.14, p = .12$, partial $\varepsilon^2 = .03$) and nor were any of the other interaction effects (all F were less than 1).

Learning difficulties, behavioural problems and parental involvement

Table 2 lists the correlation coefficients among the domains of learning difficulties, behavioural problems and all scales of perceived parental involvement. All three domains showed significant intra-correlations, indicating the intra-relatedness of each of the domains. Learning difficulties and perceived parental involvement showed the strongest intra-correlations. Within the domain of behavioural problems, task behaviour correlated strongly with externalized behaviour, whereas internalized behaviour showed moderate correlations with externalized behaviour and task behaviour. With respect to inter-correlations, general learning difficulties correlated significantly with parental involvement_{school} and reading disability correlated significantly with the parental involvement_{cognitive}. None of the remaining inter-correlations reached significant levels.

Table 2. Pearson's product moment correlation coefficients among learning difficulties, behavioural problems and parental involvement

	2	3	4	5	6	7	8	9
1. General learning difficulties	.75*	.79*	.13	.12	.33	-.32	-.37*	-.23
2. Reading difficulties	-	.73*	.12	.14	.30	-.39*	-.34	-.28
3. Arithmetic difficulties	-	-	.02	-.01	.16	-.29	-.25	-.19
4. Internalized behaviour	-	-	-	.41*	.40*	-.16	-.15	-.12
5. Externalized behaviour	-	-	-	-	.73*	-.26	-.33	-.31
6. Task behaviour	-	-	-	-	-	-.08	-.15	-.12
7. Parental involvement cognitive	-	-	-	-	-	-	.77*	.80*
8. Parental involvement school	-	-	-	-	-	-	-	.87*
9. Parental involvement home	-	-	-	-	-	-	-	-

$N = 76$; *significant correlation coefficients after Bonferroni correction ($p < .05$).

Discussion

The results of the first analyses of the present study suggest that teachers in special education assess the remediation possibilities of their students solely on the severity of the learning difficulties. The more severe the learning disability the smaller the chance they consider it to be remediable. This finding does not parallel results established with teachers in regular education whose referral practices are based not just on the severity of the learning difficulties but also on teachers' perceptions of the students' behaviour in the classroom (Drame, 2002; Gottlieb & Alter, 1994; Gottlieb & Weinberg, 1999) and on teachers' perceptions of students' parental involvement (Mamlin & Harris, 1998; Zellman & Waterman, 1998).

The difference between the present finding and the referral practices of teachers in regular education could be the result of a relatively homogeneous population in special education schools. After all, their behavioural problems, and possibly their parents' reduced level of involvement, might have been additional reasons for referring these students to special education, reducing the potential diversity that is present in regular education classes.

This conclusion, however, is a little premature because the results of subsequent analyses indicated that the students in this study are not viewed as a homogeneous group. First, teachers reliably distinguish between high- and low-achieving students with respect to externalized behaviour, task behaviour and all three domains of parental involvement. In all cases, high-achieving students were perceived as students who had fewer externalized problems, fewer task-behavioural problems and whose parents were more involved than low-achieving students. In sum, teachers generally perceive high-achieving students more positively than low-achieving students. Second, teachers perceive boys' behaviour differently from girls. In line with earlier research, boys have more externalized behaviour and more task-behaviour problems than girls. This finding parallels the results of a study on the perceptions of teachers in mainstream education (Wehmeyer & Schwartz, 2001). Moreover, the perceived parental involvement of high-achieving boys was significantly higher than that of low-achieving boys and of both high- and low-achieving girls. This result is also convergent with findings established with teachers in regular education. Childs and McKay (1997, 2001) showed that they attributed behavioural problems of boys almost always to their socio-economic background, whereas no such pattern was visible for the problems of girls. Third, the fact that none of the inter-correlations between the domains of learning difficulties, behavioural problems and parental involvement were at the upper limit indicates that teachers are perfectly capable of distinguishing between the severity of learning difficulties, the amount of behavioural problems and the level of parental involvement.

An interesting paradox emerges from the results obtained in the present study. On the one hand, based on the finding that teachers in special education estimate their students' remediation possibilities solely on the basis of the severity of the learning disability, it seems that teachers have a rather differentiated view of their students with learning difficulties. On the other hand, based on the findings that (a) remediation possibility is closely related to academic achievement and (b) academic achievement is related to the perception of behavioural problems and parental involvement, it seems that teachers are inclined to associate learning difficulties with externalized behavioural problems and a lack of parental involvement. After all, students who have limited remediation possibilities are also the ones with a low academic skill and students with

low academic skill are perceived to have more behavioural problems and lower levels of parental involvement.

All things considered, teachers in special education distinguish between the 'good' and the 'poor' student. The 'good' student is perceived to have relatively high academic skills, high levels of remediation possibilities, low levels of externalized behaviour and task-behaviour problems and high levels of parental involvement compared with the 'poor' student. Special education teachers in our study not only discriminated between the good and poor student, they also distinguished between girls and boys in a perceptive rather stereotypical way (Wehrmeyer & Schwartz, 2001). Boys and girls were perceived to have equal levels of internalized behaviour, whereas boys supposedly had higher levels of externalized behaviour and task-behaviour problems than girls. Moreover, low-achieving boys are perceived as having the worst remediation possibilities because they combine high levels of behavioural problems with low levels of perceived parental involvement. Low- and high-achieving girls take an intermediate position because they combine low levels of perceived parental involvement with relatively low levels of behavioural problems. Thus, it appears that the theoretical notion of the ideal or model student, initially alluding to students in regular education equally applies to the population of students in special education.

The focus of the present study was teachers' *perceptions* of students in special education. Notwithstanding the fact that objective measures for the assessment of academic achievement, behavioural problems and learning difficulties, as well as actual parental involvement, were not administered, our design has important ecological validity. After all, daily educational practices in the Netherlands, and probably elsewhere, are most often based on the subjective judgements of teachers. Teachers who refer students either from mainstream to special education or from special to mainstream education do not administer standardized behavioural tests, nor do they usually verify their perception of actual parental involvement in a student's education. In other words, most teachers have to rely on their subjective judgement when it concerns the behavioural domain and parental involvement. Only with respect to academic achievement can teachers in the Netherlands resort to a battery of standardized tests developed by Cito (Cito is the Central Institute of Test Development in Arnhem, the Netherlands).

We hasten to state that teachers' perceptions are not necessarily unjustified. The present study does not address this issue. Empirical research on the relationship between learning difficulties and the level of parental involvement is absent. Literature on the concomitance of learning difficulties and behavioural problems indicates that 24–52% of children with learning difficulties demonstrate a high incidence of concurrent behavioural and emotional problems (Bender, 1987; Hallahan, Lloyd, Kauffman, Weiss, & Martinez, 2005; Harris, King, Reifler, & Rosenberg, 1984; McConaughy, Mattison, & Peterson, 1994), which is four times as high as that in children without learning difficulties (Schachter, Pless, & Bruck, 1991; for a review on the concomitance of learning difficulties and emotional and behavioural disorders, see Rock, Fesler, & Church, 1997).

Although co-morbidity may be high among students with learning difficulties, there is also a substantial proportion of students with learning difficulties who do not suffer from behavioural problems. If the theoretical notion of the ideal or model student is empirically sound, there is a slight danger that behavioural problems of students with learning difficulties may be overestimated, which may result in students with learning difficulties being referred to special education based on behavioural problems rather

than on their level of learning difficulties; a practice that has been repeatedly reported by Drame (2002), Gottlieb and Alter (1994) and Gottlieb and Weinberg (1999). Conversely, it may also well be that teachers in mainstream education only refer students who actually *have* concomitant learning and behavioural problems because they consider themselves insufficiently equipped to deal with the additional behavioural problems. Note that it is not so much the learning difficulties that cause students to drop out of school but rather their personality and behavioural problems (Bender, 1987). This, however, leaves the role of the assumed involvement of the parents unsolved; a factor badly in need of empirical study.

Returning to the main question of our study, the perception of teachers in special education, we conclude that similar perception mechanisms operate in special education teachers as in mainstream education teachers. Again, it remains an open question as to whether the ideal or model student image is a relevant theoretical concept in special education but it is without doubt that teachers in special education perceive students with low remediation possibilities as the ones with low academic skill, and students with low academic skill are perceived to have more behavioural problems and lower levels of perceived parental involvement. The present study does not permit an answer to the question of what percentage of students were considered eligible for referral back to mainstream education but recent figures present a gloomy picture. A Ministry of Education report (Ministerie van Onderwijs & Cultuur en Wetenschap, 2004) shows that in 2003, 241 students returned to mainstream education, which amounts to as little as 0.5% of all students in special education. Recall that an important aim of the WSNS-policy in the Netherlands is to enable students to return to mainstream education as quickly as possible (see Introduction). The fact that few children return to mainstream education indicates that the most severe cases have been referred to special education, which suggests that only students with both learning and behavioural problems are attending special education schools in the Netherlands. If so, there has been a dramatic, qualitative change in the population of special education schools since the latest educational law. It is not the student with only learning disabilities who receives specialized remedial help in special education (such a student can be treated adequately by the regular education teacher) but rather the student with concomitant learning and behavioural problems. Because teachers in special education have not (yet?) been trained to treat or deal with children with behavioural problems, this would explain the limited number of students who are referred back to mainstream education.

Although this study may have raised more questions than answers, one thing is clear: similar mechanisms are at work in special and regular education. Students with high academic achievement levels are perceived as having fewer behavioural problems and more highly involved parents than students with low academic achievement levels. Whether this is due to justified or unjustified teachers' perceptions is a matter for future research. What is more important is that stereotyping of students (justly or not) poses a serious problem for the Dutch reintegration policy.

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