

**BEHAVIORAL PROBLEMS AND SOCIO-EMOTIONAL WELL-BEING OF
CHILDREN WITH LEARNING DISABILITIES
IN REGULAR AND SPECIAL PRIMARY SCHOOLS¹**

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Summary

Learning disabilities and behavioral problems for a long time have been studied as relatively separate phenomena. Despite clinical evidence, little or no attention was paid to the relationship of both problem areas. Recent empirical research indicates that there is a certain comorbidity of both problem domains. The nature of their relationship, however, stays relatively vague. We find a number of factors that influence the interaction of both developmental aspects and observe an evolution from exclusive attention to child-oriented variables to involving social context variables. Among the child variables the cognitive and metacognitive functioning takes a central position. Self-esteem, attribution of success and failure, expectation of success and failure and self-regulation turn out to influence to an important degree the relationship between learning and behavioral problems. Among the social context variables the school setting is an important factor. In this article, we present the results of our own research on this topic.

Introduction

In orthopedagogics as in developmental psychopathology and child and youth psychiatry learning disabilities and behavioral problems for a long time have been studied as relatively separate phenomena. Little or no attention was paid to the relationship of both problem areas. The reason for this is to be found among others in the strict separation of so-called primary and secondary learning problems, which is strongly stressed by leading authors (Dumont, 1994; Lerner, 1997). In clinical practice however there is often mention of behavioral and emotional problems with learning disabled children. Also thanks to the view that teaching and education should not be focused on cognitive development exclusively, but should address the whole person, attention was being paid to the relationship of problems in the acquisition of subject matter (learning problems in the large sense) on the one hand and problems in the pupil's psychosocial functioning (behavioral problems in the large sense) on the other hand. Empirical research indicates that there is a certain comorbidity of both (Ritter, 1989; Schachter, Pless & Bruck, 1991; Salyer, Holmstrom & Noshpitz, 1991; Vaughn, Zaragosa, Hogan & Walker, 1993; Ghesquière, Grietens & Hellinckx, 1997). The nature of their relationship, however, stays vague. In the literature on this relationship there are three main hypotheses (Rourke & Del Dotto, 1994; Dumont, 1994):

- learning disabilities - by mediating factors and processes - may cause behavioral problems
- Behavioral problems can have repercussions on the necessary conditions for learning at school and in this way cause learning problems
- the pupils' progress in the acquisition of the subject matter as well as their psycho-social functioning is defined by their genetic and/or neuro(psycho)logical profile.

It may be assumed that in the group of children and adolescents with learning as well as behavioral problems empirical evidence can be found for each of the above mentioned hypotheses. Therefore it is actually assumed that the pupil's learning at school and psycho-social functioning are influencing each other mutually.

A study of the literature proves that research of the relationship between learning at school and psycho-social functioning is relatively scarce. In recent publications (a/o. Coosemans, 1992; Veerman, 1992; Verhaeghe, 1992; Stevens, 1994; Rourke & Del Dotto, 1994; Haager & Vaughn, 1995; Stiehr Smith & Nagle, 1995; Tur-Kaspa & Bryan, 1995; Dyson, 1996; Barga, 1996; Kavale & Forness, 1996; Riddick, 1996) we find a number of factors that influence the interaction of both developmental aspects. We observe an evolution from exclusive attention to child-oriented variables to involving social context variables. Among the child variables the cognitive and metacognitive functioning takes a central position (Veerman, 1993; Huntington & Bender, 1993; Vaughn & Hogan, 1994; Montgomery, 1994; Riddick, 1996). Self-esteem, attribution of success and failure, expectation of success and failure and self regulation turn out to influence to an important degree the relationship between learning and behavioral problems. It has been observed that learning disabled children in general have a self-concept which is more negative than that of non-learning disabled children (Heymans, 1990). It moreover has been proven that a negative self-concept often goes with behavioral and emotional problems and with a negative feeling of well-being at school (Brutsaert, 1993; Veerman 1993).

In recent research this child oriented point of view has been embedded in an ecological model. Dishion, French en Patterson (1995) are discerning four levels. The first level is that of the intra-individual factors (such as age, sex or temperament). The second level is that of relational factors, among others parenting practices and the relationships with peers. The third level is that of the so-called *'behavioral settings'*, the contexts that are taking such an important place in a child's life (a/o. school and environment). Finally there is the level of society or the macrocontext (e.g. mass media, cultural values and norms). Especially levels two and three are present in the research into the relation between learning and behavioral problems. The social environment characteristics that are studied are very diverse. The more important ones are:

- the family's socio-economic status and its educational practice;
- the educational orientation, the feedback strategies, the teacher's expectations and his attributions;
- social acceptance by peers.

Conceptual model

At the moment, there is no coherent theory on how the different factors that have been mentioned above influence the relationship between learning and behavioral problems. Thus a full formulation and checking of an hypothesis is not possible. In our investigation we start from a conceptual model that contains a number of the variables that have been mentioned. The relationships we propose are but a suggestion.

The first hypothesis concerning the relationship between learning disabilities and behavioral problems is the starting point of the conceptual model that is at the basis of our research. This means that we assume that behavioral problems are a consequence of learning disabilities. We also assume that the socio-emotional well-being may be an intermediate variable. Learning disabilities affect socio-emotional well-being which may cause behavioral problems. We finally suppose that the relationships we propose, will vary according to the type of education (special versus ordinary education) and sex.

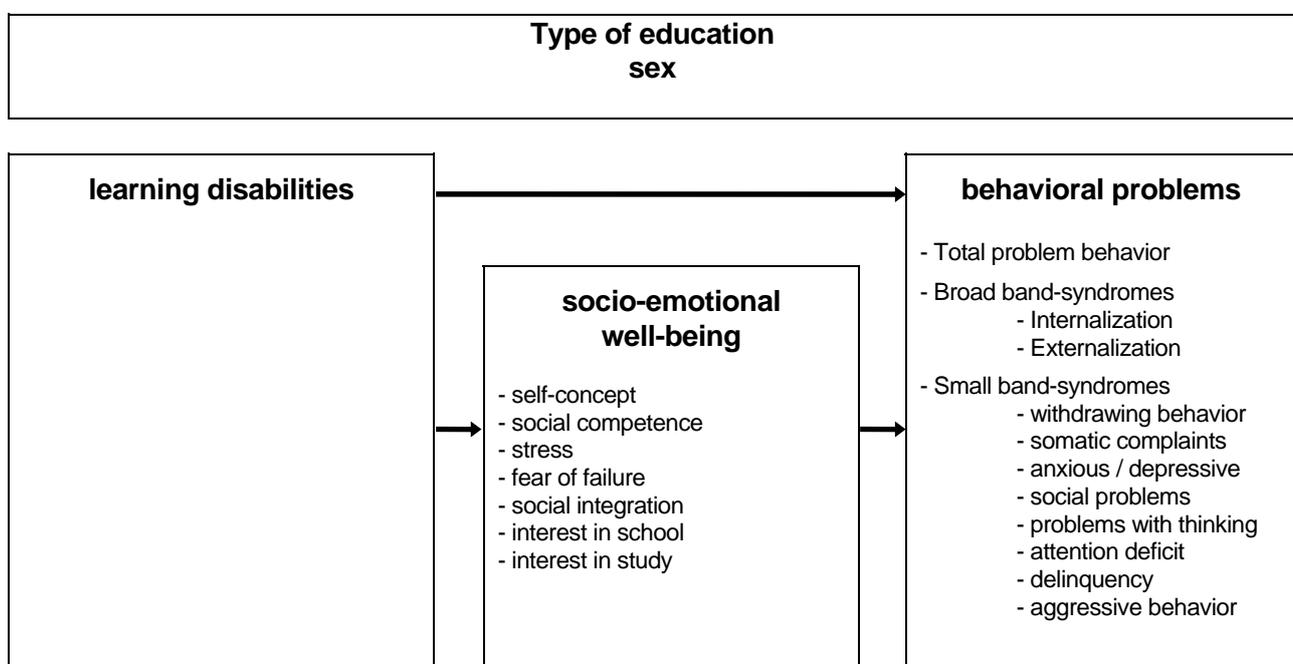


Figure 1: Scheme of the conceptual model.

The following hypotheses are being checked:

- Do learning disabled children have more behavioral and emotional problems than other children?
- Do learning disabled children have different behavioral problems depending on whether they are in

- special or in regular education?
- Do learning disabled children present less evidence of socio-emotional well-being than other children?
- Do learning disabled children differ in socio-emotional well-being depending on whether they are in special or in regular education?
- Is there a connection between on the one hand learning disabled children's stay in special education and the number of behavioral problems and the degree of socio-emotional well-being?
- Do these relationships show a difference as to sex?

For practice it is important to have an insight into these relationships. When remediating learning disabled children one should pay attention not only to bettering the cognitive process but also to possible behavioral problems and socio-emotional well-being.

Research elements

The sample consists of 85 children, 42 of them have learning disabilities and 43 do not. The diagnosis of learning disability is founded primarily on the school's psychopedagogical counselor's insight. As a control the "Pace Test Arithmetic" (a test for measuring arithmetic ability) (de Vos, 1992) and the "Brus-one-minute-test" (a word recognition test) (Brus & Voeten, 1972) was administered to each child. Learning disabled children underachieved seriously on at least one of these tests. Children without learning disabilities did not fall behind on either of both tests. By means of a WISC-R score or a RAKIT score it moreover was checked whether the learning disabled children's IQ was higher than 85. Children with serious sensorial and physical problems were excluded as well as those who had been neglected as to teaching and parenting.

Age varied from 8 to 13 years, the average being 10,2 years. At the time of our research the non learning disabled children were in the third or the fifth grade. Those with learning disabilities were attending a type-8 school (school for learning disabled pupils) in special education (n=24). The learning disabled children who were attending a regular school (n=18) are from all grades, except the first. Distribution according to sex is uneven, 47 boys and 38 girls. The group of non learning disabled children consists of 19 boys and 24 girls. The group of learning disabled pupils consists of 28 boys and 14 girls. This unbalance reflects the prevalence data that were found in research of the population (APA, 1994). Table 1 gives the distribution of the number of children according to sex, age and whether they are learning disabled or not. Table 2 gives the distribution of learning disabled children.

Table 1: Distribution of the number of children (n=85) according to sex, age and whether they are learning disabled or not (LD)

Sex	LD	Age (in years)						Total
		8	9	10	11	12	13	
Boys	Yes	2	5	7	6	5	3	28
	No	0	8	0	11	0	0	19
Girls	Yes	2	3	5	1	2	1	14
	No	0	12	0	12	0	0	24
Total		4	28	12	30	7	4	85

Table 2: Distribution of learning disabled children according to the type of education age and sex

Type of	Sex	Age (in years)						Total
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education		8	9	10	11	12	13	
Special (BLO)	Boys	1	1	3	4	5	3	17
	Girls	0	1	3	0	2	1	7
Regular (GLO)	Boys	1	4	4	2	0	0	11
	Girls	2	2	2	1	0	0	7
Total		4	8	12	7	7	4	42

Research instruments that have been used

The presence of behavioral problems in learning disabled children and those who are not has been diagnosed indirectly by using a parent questionnaire and a teacher questionnaire, both were standardized according to sex and age. The "Child Behavior Checklist" (CBCL) by Achenbach (1991a) and the "Teacher Report Form" (TRF) by Achenbach (1991b) have been chosen because of their psychometric qualities, the ease of completion and the possibility of treating the data in a special computer program (see Hellinckx, De Munter, & Grietens 1991, 1993). The CBCL and the TRF enable us to have an insight into the "total problem behavior" of the pupils concerned, the "broad-band syndromes" (internalizing and externalizing behavior problems), and the "small-band syndromes" (withdrawing, somatic complaints, anxious and depressive behavior, social problems, thinking and attention problems, delinquent and aggressive behavior).

Socio-emotional well-being has been measured by means of questionnaires developed by Brutsaert (1990; 1991; 1993) who considers socio-emotional well-being as a conglomerate of the following 7 dependent characteristics: self-concept, social competence, stress, fear of failure, social integration, interest in school and interest in study. The psychometric data given by Brutsaert for the seven different questionnaires are very adequate - taking into consideration the respondents' age (primary school) and the questionnaires' contents.

Research results

1 Are learning disabilities and behavioral problems related?

The presence of behavioral problems has been diagnosed by means of the CBCL and the TRF.

The *parent questionnaire* (CBCL) was to be completed by either father or mother, 72 mothers and 42 fathers completed the questionnaire. The *teacher questionnaire* (TRF) has been completed for 85 pupils.

We have compared problem behavior reported by mother, father or teacher for learning disabled pupils and for those who are not. The difference in average score between learning disabled pupils and those who are not on the different syndrome scales were calculated by means of the t-procedure for two independent samples (Moore & McCabe, 1993, 440). It is a one-tailed test. We expect mothers (resp. fathers) of children with learning disabilities (n=36 for mothers, n=26 for fathers) to report more problem behavior than mothers (resp. fathers) of children who have no learning disabilities (n=36 for mothers, and n=16 for fathers). We also expect teachers to report more problem behavior for children who have learning disabilities than for children who do not.

Table 3: Results of the t-test for the difference in problem behavior between learning disabled pupils and those who are not as reported by mothers (n= 72) fathers (n=42) and teachers (n=85)

Problem behavior	Mothers		Fathers		Teachers	
	t	p (df=35)*	t	p (df= 15)*	t	p (df=41)*
Total score	3.05	0.0022	5.01	0.0001	6.12	0.0000
Internalization	2.41	0.0107	3.97	0.0006	5.46	0.0000
Externalization	2.41	0.0107	3.29	0.0025	4.61	0.0000
withdrawn	1.70	0.0490	2.43	0.0141	4.70	0.0000
somatic complaints	1.20	0.1191	2.34	0.0168	3.04	0.0021
anxious/depressive	2.57	0.0073	4.05	0.0005	5.20	0.0000
social problems	3.97	0.0002	5.09	0.0001	5.40	0.0000
thinking problems	2.09	0.0220	3.42	0.0019	3.10	0.0017
attention problems	4.99	0.0000	5.91	0.0000	6.29	0.0000
delinquent	2.57	0.0073	4.14	0.0006	4.05	0.0001
aggressive	2.27	0.0147	3.70	0.0011	4.53	0.0000

* the p-value is calculated in a t(k)-distribution, k(df) being equal to the minimum of (n1-1) and (n2-1) (see Moore & McCabe, 1993, 439)

Data in connection with the total score for problem behavior prove that mothers, as well as fathers and teachers report significantly more behavior problems in learning disabled children than in those who are not. We come to the same conclusion with regard to the broad-band syndromes internalization and externalization and for all small-band syndromes with the exception of somatic complaints reported by mothers.

1.1 Is there a difference in problem behavior between learning disabled boys and girls?

Research (Hellinckx, De Munter & Grietens, 1991, 1993) proves that boys and girls differ as to the nature of the problem behavior that is reported. Boys appear to show more externalizing behavior and girls more internalizing problem behavior. Vonk & Ellemers (1993) have observed that teachers, because of sex stereotypes, have different expectations and that, as a consequence their perception and approach of boys are different from that of girls.

We have checked problem behavior reported by mothers, fathers and teachers regarding learning disabled boys and girls.

Table 4: Result of the test on difference in problem behavior between learning disabled girls and boys reported by mothers (n= 36) fathers (n=26) or teachers (n=85)

Problem behavior	Mothers		Fathers		Teachers	
	Boys=24; Girls=12		Boys=17; Girls=9		Boys=28; Girls=14	
	t	p (df=11)	t	p (df= 8)	t	p (df=13)
Total score	0.92	0.1887	-0.41	0.3463	1.69	0.0574
Internalization	0.66	0.2614	0.34	0.3713	0.82	0.2135
Externalization	1.13	0.1413	-0.49	0.3186	1.47	0.0827
withdrawn	0.09	0.4650	-0.64	0.2700	0.61	0.2762
somatic complaints	0.84	0.2094	1.15	0.1417	0.79	0.2218
anxious/depressive	0.76	0.2316	0.15	0.4422	0.76	0.2304
social problems	-0.24	0.4074	-1.04	0.1644	0.76	0.2304
thinking problems	0.26	0.3998	-0.16	0.4384	1.61	0.0657
attention problems	0.02	0.4922	-1.05	0.1622	2.31	0.0190
delinquent	1.19	0.1295	-0.32	0.3786	1.66	0.0604
aggressive	1.34	0.1036	-0.53	0.3053	1.36	0.0985

From the total score on problem behavior, the broad-band and the small-band syndromes (except the

attention problems), it can be seen that mothers, as well as fathers and teachers do not report significantly more behavioral problems for learning disabled boys or girls. Teachers however report significantly more attention problems for learning disabled boys than for learning disabled girls.

1.2 Do mother, father and teacher report other problem behavior for learning disabled pupils?

With the help of the t-procedure for coupled pairs (Moore & McCabe, 1993, 418) we have compared the behavioral problems that were reported by mothers, fathers and teachers for learning disabled children. We have found no significant difference between the behavioral problems reported by fathers and mothers.

Teachers report significantly more than mothers and fathers:

- withdrawal (mother: $t=2.48$, $df=35$, $p=0.0090$; father: $t=2.88$, $df=25$, $p=0.0040$) and
- attention problems (mothers: $t=3.38$, $df=35$, $p=0.0009$; fathers: $t=2.38$, $df=25$, $p=0.0126$).

Fathers report significantly more than teachers:

- externalizing behavior ($t=2.61$, $df=25$, $p=0.0075$),
- thinking problems ($t=1.86$, $df=25$, $p=0.0373$),
- delinquent behavior ($t=2.17$, $df=25$, $p=0.0199$) and
- aggressive behavior ($t=2.57$, $df=25$, $p=0.0083$).

The fact that learning disabled children at home show more externalizing problem behavior (aggressive and delinquent behavior) towards the father than towards the mother and towards the teacher in class can be understood from the fact that in the family the father still is the authority. For learning disabled children this might be more of a frustration than of an incentive. In class on the contrary children are expected to sit still and to pay attention, this may explain why they show less externalizing problem behavior towards the teacher, the teachers however report more attention problems and withdrawal. We perhaps may assume that children with learning disabilities in class, because of their learning disability, soon loose interest and motivation, which is of consequence for attention, interest and withdrawal.

1.3 Is there a difference in behavioral problems between learning disabled pupils in special primary education (BLO) and in regular primary education (GLO)?

For the 18 learning disabled children in GLO 17 mothers and 14 fathers completed the CBCL. For the 24 pupils in BLO 19 mothers and 12 fathers completed the CBCL. The TRF was completed for 18 learning disabled pupils attending GLO and for 24 learning disabled pupils attending BLO. The results are given in table 5.

Table 5: Result of the test on the difference in problem behavior of learning disabled pupils in GLO and BLO as reported by mothers, fathers and teachers

Problem behavior	Mothers		Fathers		Teachers	
	t	p(df=16)	t	p(df=11)	t	p(df=18)
Total score	-0.04	0.4843	0.49	0.3169	2.05	0.0276
Internalization	0.15	0.4413	0.85	0.2067	2.39	0.0140
Externalization	-0.23	0.4105	-0.05	0.4805	1.88	0.0382
withdrawn	0.93	0.1831	1.14	0.1393	2.01	0.0298
somatic complaints	-0.88	0.1959	-0.55	0.2967	1.40	0.0893
anxious/depressive	0.27	0.3953	1.28	0.1134	2.32	0.0161
social problems	1.23	0.1182	2.21	0.0246	1.50	0.0755
thinking problems	0.68	0.2531	1.10	0.1474	1.38	0.0922
attention problems	-0.16	0.4374	0.53	0.3033	0.95	0.1773
delinquent	-0.59	0.2817	-0.02	0.4922	1.36	0.0953
aggressive	-0.12	0.4530	-0.06	0.4766	1.91	0.0361

The difference in incidence of problem behavior with learning disabled pupils in GLO and BLO reported by *mothers* is not significant. *Fathers* of learning disabled pupils attending BLO report significantly more social problems than fathers of learning disabled children attending GLO. BLO *teachers* report more learning disabled pupils with behavioral problems than GLO teachers. The same significant difference is to be found for the broad band syndromes externalizing and internalizing behavior, and for the small band syndromes withdrawal, anxiety, depression and aggression.

1.3.1 Comparison of problem behavior reported by mother, father and teacher of learning disabled pupils in GLO and BLO

No significant differences are to be found regarding behavioral problems reported by father and mother of learning disabled pupils attending GLO and BLO. We compare the reports of mothers and those of teachers of problem behavior as well as the reports by fathers and those by teachers first with learning disabled GLO-children and then with learning disabled BLO-children.

Mothers of learning disabled children attending GLO report significantly more than teachers:

- externalization ($t=2,18$, $df=16$, $p=0,0223$),
- somatic complaints ($t=2,61$, $df=16$, $p=0,0095$),
- delinquent behavior ($t=2,54$, $df=16$, $p=0,0109$) and
- aggressive behavior ($t=1,98$, $df=16$, $p=0,0326$).

Fathers of learning disabled GLO-children report significantly more problem behavior than teachers:

- total score ($t=2,06$, $df=13$, $p=0,0300$),
- externalizing behavior ($t=3,18$, $df=13$, $p=0,0036$),
- somatic complaints ($t=2,61$, $df=13$, $p=0,0108$),
- delinquent behavior ($t=2,64$, $df=13$, $p=0,0102$) en
- aggressive behavior ($t=3,01$, $df=13$, $p=0,0050$).

Teachers report significantly more attention problems than mothers ($t=-2,68$, $df=16$, $p=0,0082$) and fathers ($t=-2,20$, $df=13$, $p=0,0232$).

Let us have a look at the learning disabled children in BLO

Teachers report significantly more than mothers of learning disabled children in BLO:

- internalizing behavior ($t=-1,92$, $df=18$, $p=0,0354$),
- withdrawal ($t=-2,13$, $df=18$, $p=0,0236$) and
- attention problems ($t=-2,41$, $df=18$, $p=0,0134$)

Teachers report significantly more withdrawal than fathers of learning disabled children in BLO ($t=-2,57$, $df=11$, $p=0,0130$).

We may therefore put that parents of learning disabled children in GLO report more behavior problems than parents of learning disabled children in BLO. In BLO it are the teachers who report more problem behavior than parents.

1.3.2 Comparison as to sex of the perception of problem behavior by mother, father and teacher of learning disabled children in BLO and GLO

Regarding sex we have checked in BLO and in GLO separately whether mothers, fathers or teachers report different problem behavior for learning disabled boys and learning disabled girls.

The results:

	Mother		Father		Teacher	
	BLO	GLO	BLO	GLO	BLO	GLO
Boys	17	11	8	9	17	11
Girls	7	6	4	5	7	7

Because of their small number the fathers' reporting cannot be tested statistically. As to the mothers and the teachers no significant differences were to be found in BLO and GLO between reported problem behavior of learning disabled boys and learning disabled girls.

2 Is there a relationship between learning disabilities and socio-emotional well-being?

This relationship was assessed by means of the pupil questionnaire by Brutsaert (1993). Brutsaert scales well-being in 7 aspects: self-concept, social competence, stress, fear of failure, social integration, interest in study and interest in school. The questionnaire was completed by the pupils in the class.

We check whether socio-emotional well-being is lower with learning disabled pupils than with those who are not. At the same time we check whether there is a difference in well-being between learning disabled girls and learning disabled boys.

Table 6: Results of the test on the difference in socio-emotional well-being between learning disabled (=42) and non-learning disabled pupils (n=43)

Socio-emotional well-being	t	p (df=41)
self-concept	-2.03	0.0244
social competence	-1.78	0.0412
stress	0.17	0.4329
fear of failure	1.31	0.0987
social integration	-1.48	0.0733
interest in study	-1.61	0.0575
interest in school	-0.82	0.2085

This analysis shows that the averages on the stress questionnaire are almost the same for learning disabled (average=.73, s=.31) and non learning disabled pupils (ave.=.71, s=.32). According to Brutsaert (1993, 23) there is stress when burden outbalances supporting power. His operationalisation of this variable consists of all possible psychosomatic complaints. This might explain why we did not find a difference in this field.

On the questionnaires on self-concept and social competence learning disabled pupils are scoring significantly lower than those who are not. Brutsaert (1993, 21) considers self-concept to be a primary carrier of socio-emotional well-being. This concept is related to the way an individual lives his personal identity and accepts him/herself as he/she is. Learning disabilities affect personal identity. Learning disabled children more easily develop feelings of inferiority than children who are not. This outcome is confirmed by what we have found in the literature.

Social integration is defined by Brutsaert (1993, 22) as the degree to which a persons assumes personal responsibility for what is happening to him/her. For our research this means that non-learning disabled pupils have a stronger feeling of competence, of being able to cope and of being in control of what is happening than learning disabled pupils.

Brutsaert has observed that girls score significantly lower on self-concept and social competence than boys and that girls score significantly higher on stress and fear of failure than boys.

2.1 Is there a difference in well-being between learning disabled girls and learning disabled boys?

The results are given in table 7.

Table 7: Results of the test on differences in well-being between learning disabled girls (n=14) and learning disabled boys (n=28)

Socio-emotional well-being	t	p (df=13)
self-concept	0.89	0.1948
social competence	1.09	0.1478
stress	-2.02	0.0322
fear of failure	-1.92	0.0385
social integration	1.62	0.0646
interest in study	0.52	0.3059
interest in school	-0.09	0.4648

Learning disabled girls score significantly higher on stress and fear of failure than learning disabled boys. It is probably not the learning disability but rather sex that is responsible for this. Girls in general are more prone to stress and fear of failure than boys (Brutsaert, 1993).

2.2 Is there a difference in socio-emotional well-being between learning disabled pupils in BLO (n=24) and in GLO (n=18)?

Learning disabled pupils from BLO and from GLO on average differ significantly on two aspects of socio-emotional well-being. A significantly higher stress ($t=-2,00$ $df=17$, $p=0,0304$) is observed and a lower social integration ($t=1,94$, $df=17$, $p=0,0346$) in learning disabled children from GLO as compared to learning disabled pupils from BLO. This indicates that BLO has a positive influence on those two aspects of well-being. An analysis of the average of the other aspects proves that well-being is more positive for children from BLO than for children from GLO. These differences however are not significant.

2.2.1 Comparison as to sex of the well-being of learning disabled pupils in GLO and BLO

In the GLO-sample there are 11 learning disabled boys and 7 learning disabled girls. In BLO we have tested 17 learning disabled boys and 7 learning disabled girls. The averages of learning disabled boys and girls from BLO do not differ significantly.

In GLO one significant difference is to be found. The average of learning disabled girls on fear of failure is significantly higher than for learning disabled boys.

3 Does the number of behavioral problems increase and does well-being increase according to the time spent in BLO

A director of a BLO-school in this research suggested that children who have been attending special education for a longer time gradually show less problem behavior. We have tested this hypothesis with the help of Pearson correlations.

Table 8: Pearson correlations between the number of years in BLO and problem behavior

behavior problems	Mothers		Fathers		Teachers	
	r	p(one-tailed)	r	p(one-tailed)	r	p(one-tailed)
total score	-.4530	0.0257	-.0585	0.4283	-.0807	0.3539
internalization	-.4254	0.0347	-.0805	0.4017	-.0960	0.3276
externalization	-.4661	0.0221	-.1103	0.3664	.0234	0.4566
withdrawn	-.1113	0.3249	.2681	0.1997	-.1119	0.3012
somatic complaints	-.2383	0.1629	-.0214	0.4736	-.1145	0.2971
anxious/depressive	-.5276	0.0101	-.2302	0.2358	-.0780	0.3585
social problems	-.1332	0.2932	.2332	0.2328	.0613	0.3880
thinking problems	-.1895	0.2185	-.0528	0.4352	-.3342	0.0552
attention problems	-.1896	0.2183	.0172	0.4788	-.1968	0.1783
delinquent	-.3342	0.0810	-.1066	0.3707	.0782	0.3581
aggressive	-.4849	0.0176	-.1091	0.4788	.0095	0.4824

The mainly negative Pearson correlations indeed point into the direction of a decrease of behavioral problems in proportion to the increasing number of years in BLO. The fact that all p-values are under .50 supports our supposition. It are especially mothers who report a significant decrease of problem behavior of their learning disabled children, in connection with the whole of problem behavior as well as with the broad-band syndromes internalizing and externalizing behavior, and the small-band syndromes anxious, depressive and aggressive.

Is there an increase in socio-emotional well-being in function of the number of years in BLO?

Table 9: Pearson correlations between different aspects of well-being and the number of years in BLO (n=24)

Socio-emotional well-being	r	p (one-tailed)
self-concept	-.1810	0.1986
social competence	-.2646	0.1057
stress	.2561	0.1135
fear of failure	-.2543	0.1152
social integration	.1162	0.2943
interest in study	.2645	0.1058
interest in school	.4023	0.0256

Only school interest seems to improve significantly in accordance with the number of years that have been spent in BLO. When we have a look at the operationalization of interest in school then we may declare that BLO-children are more proud in accordance with the number of years they have been in BLO. The Brutsaert scale for measuring interest in school was composed of 3 statements viz. (1) this school really offers the opportunity of learning a lot, if one is willing to, (2) I am really proud to be a pupil of this school, and (3) when I compare my school with other schools, I think I have no reason to complain.

Discussion

Research establishes that information from different sources on the same child's problem behavior coincides but to a small degree. This is explained by the fact that behavior varies according to the child's situation (Verhulst, 1985; Rutter, 1989; Deboutte, 1989; Hellinckx, De Munter & Grietens, 1991). We observe that the different informants (mothers, fathers and teachers) report significantly more behavioral problems of learning disabled children than of those who are not. Learning disabled children display more problem behavior than those who are not learning disabled, in class as well as at home.

Learning disabled children suffer more from a low self-concept and inferior social competence than non learning disabled children. Remediation therefor should pay attention not only to the learning disability but also to behavioral and emotional problems that go with them. As to the low self-concept attention should be paid to the development of feelings of inferiority and to a decrease of self-esteem. In connection with the inferior social competence one should be aware of the fact that learning disabled children easily attribute their good marks to luck or to easy exam questions rather than to their own possibilities.

Teachers of learning disabled BLO-children report significantly more behavioral problems than teachers of learning disabled GLO-children. The questionnaires on socio-emotional well-being on the other hand that have been completed by the pupils show that learning disabled BLO-pupils report less stress and better social integration than learning disabled GLO-children. Fathers of learning disabled BLO-children report more social problems than fathers of learning disabled GLO-children. It is possible that when committing a child to BLO the behavioral problem partly brings about the decision. But there is also the possibility that because of the BLO-placement the pupils self-concept is so low that it causes behavioral problems. On the other hand there is the positive observation that the more years a pupil spends in BLO the less behavioral problems he shows, and the prouder he is on his school.

Parents and teachers did not perceive any significant difference in problem behavior between learning disabled boys and girls. As to socio-emotional well-being learning disabled girls display significantly more stress and fear of failure than learning disabled boys. In BLO however no sex difference is found. In GLO we simply observe that learning disabled girls display more fear of failure than learning disabled boys. It is striking that this sex difference is not found in BLO. How can we explain? Girls in general have a self-concept that is inferior to that of non learning disabled boys. Learning disabled boys on the other hand have a self-concept that is inferior to that of non-learning disabled boys. Does the self-concept of learning disabled boys approach that of learning disabled girls and is it because of this that there is no sex difference in behavioral problems in BLO or in socio-emotional well-being? Further research is desirable.

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