Three key aspects of the school environment are crucial for the prevention and management of social, emotional, and behavioural difficulties (SEBD) in schools. These include an adequate instructional environment, a supportive social-emotional climate, and a systematic process of identification and intervention. This paper addresses these critical aspects by presenting results from two studies in primary education in The Netherlands. According to teachers, one in six pupils in mainstream primary schools exhibits some kind of SEBD. Severe cases of aggressive behaviour or ADHD present the greatest difficulties for teachers. The focus in mainstream schools is on the provision of a supportive social-emotional environment and on the identification of SEBD, with little attention to an adequate instructional environment or consistent interventions. This paper describes a systematic approach to the prevention and early intervention of SEBD which will address this issue.

**Keywords**: SEBD, prevention, intervention, systematic approach, Pedagogical-Didactic - Kernel Structure

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**Introduction**

Pupils with social, emotional and behaviour difficulties (SEBD) are an obvious cause for concern for many teachers as well as for themselves. Compared with other special needs groups, they are more likely to have problems in completing their education successfully and to obtain lower reading and math scores (Groom and Rose 2004). They are twice as likely to drop out of the education system prematurely than pupils without SEBD (Landrum, Tankersley, and Kaufmann 2003). Moreover, those with severe conduct problems run a serious risk of developing lifelong patterns of social maladjustment (Kauffman

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1 Email: E.Smeets@its.ru.nl
2005).

Hermanns, Öry, and Schrijvers (2005) state that the emergence of social, emotional and behavioural problems in children depends on the individual child’s predisposition and the social context. An important aspect of the social context is the school where children and young persons spend a considerable amount of their time. An inadequate school environment contributes to the development and/or exacerbation of social, emotional and behavioural difficulties; conversely a healthy one may help to reduce and/or prevent such difficulties. The problems posed by SEBD in children’s and young people’s lives therefore call for our efforts to manage and reduce the risk of pupils developing such difficulties, and to intervene as early as possible once such difficulties manifest themselves. In seeking to prevent pupils from developing SEBD, and to detect SEBD at an early stage and introduce effective interventions, we need to examine the following key aspects of the school environment:

- the instructional environment;
- the social-emotional environment;
- the process of identification and intervention.

*The instructional environment*

Every pupil should be involved in classroom activities that match his or her level of competence (Poulou and Norwich 2000). This applies to the education of all pupils, and it is obviously important for pupils with SEBD as well. Research shows that the latter have more positive learning experiences when they can assess and manage their own learning (Cooper 1993). Pupils should therefore be encouraged to take responsibility for their own behaviour, where they are actually empowered to manage their own learning activities and learning processes (Fletcher-Campbell and Wilkin 2003). However, according to Cartledge and Talbert Johnson (1996), teachers have been found to perceive pupils with SEBD as unlikely to be motivated for school work. In addition, many teachers believe that these pupils are not capable of making effective decisions about their own learning. Teachers should provide a challenging learning environment and stimulate pupils to engage in active knowledge construction (Collins 1996). Instructional methods need to match pupil characteristics, since the interactions between these elements are particularly relevant to the development of individual competence and the corresponding feelings of self-efficacy and self-regulation (Mooij 2006).
**The social-emotional environment**

A healthy social-emotional environment in school has been shown to reduce SEBD. This includes a consistent policy on the behaviour that is expected from the pupils (Daniels et al. 1999). Several interventions which have been found to be effective in this regard include amongst others, reinforcement, whether positive, differential, or negative; precise requests; clear, unambiguous behaviour rules; continuous positive feedback when pupils follow the rules; and a hierarchy of sanctions for rule-breaking (Fletcher-Campbell and Wilkin 2003; Landrum, Tankersley, and Kaufmann 2003). Circle time may also help to reduce SEBD, since it provides opportunities to discuss issues of concern in the group and to find solutions to these issues (Fletcher-Campbell and Wilkin 2003). Teachers should also seek to promote a positive self-image amongst pupils, and enhance their self-confidence by gaining the pupils’ confidence, expressing personal interest, and showing supportive behaviour (Cartledge and Talbert Johnson 1996; Poulou and Norwich 2000).

**The process of identification and intervention**

The process of identification and intervention is a key factor in addressing the special educational needs of pupils, including those with SEBD. There are five stages involved in this process (Van der Leij, Kool, and Van der Linde-Kaan 1998), namely detecting problems; analysing problems; preparing solutions; applying solutions; and evaluating solutions. In the identification of SEBD, a monitoring system that addresses pupils’ social-emotional development should be available together with a system that tracks their cognitive development (Doolaard, Cremers-Van Wees and Luyten 2002). Schools also need to acquire information about the pupils’ difficulties and special educational needs when they are first admitted to school. This information may be acquired from pre-school facilities, as well as from parents (Mooij and Smeets 1999); clearly parents are an invaluable source of information about their children (Wolfendale 1992). After a problem has been detected, its nature would then need to be determined, followed by an intervention to deal with the problem. An individual education plan (IEP) may provide a basis for such interventions. Besides cognitive aspects, affective goals can also be set in an IEP, such as fostering self-confidence, diminishing feelings of depression or developing a positive attitude towards school work (Tod, 1999). Pupils with SEBD may also need direct and systematic instruction in social skills, in order to increase the likelihood of their being accepted by teachers and peers (Gresham, Elliot and Black 1987; Chen 2006).

Teachers’ competences are crucial in detecting SEBD and preparing and applying appropriate
interventions (Miller 2003). A very important factor is that the school staff understands the nature of social, emotional and behavioural difficulties (Daniels et al. 1999). Many teachers are ill-informed about intervention strategies, and should therefore be trained and assisted in managing behaviour and helping pupils to develop appropriate social behaviours (Cartledge and Talbert Johnson 1996). In addition, they need to possess sufficient management skills, and should be able to apply a broad range of intervention strategies (Groom and Rose 2004). Indeed the effectiveness of classroom-based strategies aimed at managing problem behaviour and teaching appropriate behaviour depends mainly on the skill and confidence of the teacher (Alvarez 2007).

**Methodology**

This paper addresses the following research questions:

- What is the extent of SEBD in mainstream primary schools as perceived by teachers, and what types of SEBD are they able to deal with in their classrooms?
- What measures are taken in case of SEBD with respect to the instructional environment, the social-emotional environment, and the process of identification and intervention?
- How can the school environment be optimised for pupils with SEBD?

The following sections present a number of findings from two studies that have been carried out recently at the Institute for Applied Social Sciences of Radboud University, Nijmegen, The Netherlands. The studies were the following:

1) A quantitative study: a large-scale survey examining the role of primary schools and primary school teachers in providing education and support adapted to the needs of pupils with special educational needs, including those with SEBD (Smeets et al. 2007; Van der Veen, Smeets, and Derriks in press). School principals and teachers at a representative sample of 420 mainstream primary schools participated in the study. Questionnaires were completed by 352 school principals and 2,197 teachers. These questionnaires included sections on the attitudes towards inclusive education, the teachers’ competences in teaching these pupils, and the school’s pastoral care system for these pupils. In addition, teachers were presented with vignettes describing various kinds of behaviour difficulties exhibited by pupils, and asked whether they would be able to teach these pupils in their classroom. They were also asked to complete a questionnaire for each student with special educational needs in their class, stating the type of problem/s being exhibited by the pupils.
2) A qualitative study: case studies carried out in mainstream primary schools, focusing in more detail on the way schools cater for the needs of pupils with SEBD. In addition, the study considered the regional support available to these schools. The study encompassed 12 mainstream primary schools grouped in 5 regional clusters (Smeets and Van Gennip 2005; Mooij & Smeets in press). In each case study, face-to-face interviews were held with the school cluster co-ordinators, the special educational needs co-ordinators, and persons liaising between schools and youth care institutions. A total of 35 interviews were held. The interviews with special educational needs co-ordinators focused on the school’s policy on identification and intervention; the facilities and support available at the school; and the support by, and cooperation with, agencies outside the school. The other interviews focused on the regional support provided to schools, policies and actions aimed at intervention and prevention of SEBD, and collaboration between the agencies and local educational authorities.

The final section in this paper then presents a systematic approach to the prevention and early intervention of SEBD in school. This approach may help educators overcome the difficulties they currently have in this area; it was developed in recent years and is being implemented in a number of schools as part of a collaborative project involving researchers, special educational needs co-ordinators, and teachers (Mooij 2006; Mooij and Smeets 2006, in press).

Results of studies
The extent of the problem

In the quantitative study, teachers at mainstream primary schools were asked to provide information on the types of problems they have encountered in their classes. Nine types were specified in the questionnaire, including three types of SEBD: internalising problem behaviour, externalising problem behaviour, and autism. On average, the teachers estimated that 16.5 per cent of their pupils have SEBD. They estimated that approximately 12 per cent of their pupils presented problem behaviour of an internalising nature, whereas 9 per cent demonstrated externalising problem behaviour. In addition, 1.5 per cent of the pupils were identified as having autism.

Vignettes describing various kinds of pupil disorders or difficulties were presented to the teachers. Three vignettes were developed for each problem type. Vignette A described a relatively mild version of the disorder in question. Vignette B added more complexity to the description of vignette A,
including the pupil lagging behind in his or her learning progress, while Vignette C presented a more severe disorder. Five series of vignettes were related to SEBD, namely those addressing attention-deficit/hyperactivity syndrome (ADHD), autism, social-emotional problems, fear of failure, and aggressive behaviour. Teachers were asked to indicate whether they would be able to provide adequate instruction to the pupils with the various conditions in their classroom. In order to reduce the teachers’ work load, two versions of the instrument were used and thus not all vignettes were presented to all teachers. The results are presented in Table 1. These results are based on vignettes that have been filled in by 876 teachers or more.

Table 1 – Teachers’ assessment of whether they are able to provide adequate instruction to pupils with various types of difficulties

<table>
<thead>
<tr>
<th>Condition</th>
<th>Yes, in the present situation</th>
<th>Only with additional support and facilities</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHD (vignette A)</td>
<td>81%</td>
<td>16%</td>
<td>3%</td>
</tr>
<tr>
<td>ADHD (vignette B)</td>
<td>33%</td>
<td>54%</td>
<td>13%</td>
</tr>
<tr>
<td>ADHD (vignette C)</td>
<td>3%</td>
<td>20%</td>
<td>77%</td>
</tr>
<tr>
<td>Autism (vignette A)</td>
<td>62%</td>
<td>30%</td>
<td>8%</td>
</tr>
<tr>
<td>Autism (vignette B)</td>
<td>11%</td>
<td>40%</td>
<td>49%</td>
</tr>
<tr>
<td>Autism (vignette C)</td>
<td>15%</td>
<td>35%</td>
<td>50%</td>
</tr>
<tr>
<td>Social-emotional problems (vignette A)</td>
<td>71%</td>
<td>26%</td>
<td>3%</td>
</tr>
<tr>
<td>Social-emotional problems (vignette B)</td>
<td>38%</td>
<td>52%</td>
<td>10%</td>
</tr>
<tr>
<td>Social-emotional problems (vignette C)</td>
<td>28%</td>
<td>47%</td>
<td>25%</td>
</tr>
<tr>
<td>Fear of failure (vignette A)</td>
<td>92%</td>
<td>8%</td>
<td>0%</td>
</tr>
<tr>
<td>Fear of failure (vignette B)</td>
<td>53%</td>
<td>41%</td>
<td>6%</td>
</tr>
<tr>
<td>Fear of failure (vignette C)</td>
<td>20%</td>
<td>52%</td>
<td>28%</td>
</tr>
<tr>
<td>Aggressive behaviour (vignette A)</td>
<td>51%</td>
<td>34%</td>
<td>15%</td>
</tr>
<tr>
<td>Aggressive behaviour (vignette B)</td>
<td>34%</td>
<td>34%</td>
<td>32%</td>
</tr>
<tr>
<td>Aggressive behaviour (vignette C)</td>
<td>5%</td>
<td>11%</td>
<td>84%</td>
</tr>
</tbody>
</table>

As one can see from Table 1, more than 50 per cent of the teachers who completed the vignettes, felt competent enough to provide instruction to the mild cases of fear of failure, ADHD, social-
emotional problems, autism and aggressive behaviour, without additional support or facilities. The same applies to the moderate case of fear of failure. The majority of teachers however, said they cannot cope with severe cases of ADHD or aggressive behaviour in their classroom. Fifty per cent of the teachers regarded severe cases of autism as a barrier that cannot be overcome.

The instructional environment

In the qualitative study we examined a number of case studies in relation to how schools addressed SEBD. We found that the majority of schools did not make any reference to special instructional activities as part of their programmes to prevent and manage SEBD. Only two out of ten schools regarded adaptive instruction as an important element in the prevention of SEBD. In one of these two schools, the year group system was considered to be inadequate and the school had begun to experiment with differentiated group composition. Cooperative learning, including peer tutoring, was perceived by some of the schools to be beneficial in preventing SEBD. Some schools considered that direct instruction within a structured approach was very beneficial for students with SEBD.

The social-emotional environment

On the other hand, the qualitative study findings suggest that the schools put much more emphasis on the social-emotional environment than on the instructional context. The focus is on enhancing positive behaviour by discussing matters of various kinds, including problems and pupils’ feelings, during circle time, emphasising the importance of mutual respect, seeking pupil commitment to attending to their tasks, and rewarding good behaviour. Another factor in the social-emotional environment is the importance teachers attach to providing pupils with SEBD with a structured and predictable environment. Most schools have adopted fixed behaviour rules, which are recorded in a conduct and/or an anti-bullying protocol. Several schools emphasise that a consistent approach by the whole team is needed to prevent and manage SEBD.

The process of identification and intervention

According to the special educational needs co-ordinators (SENCO) who participated in the case studies, SEBD is identified both systematically and spontaneously. The observation of pupil behaviour plays the main role in both cases. A systematic approach is used in eight out of twelve schools, with teachers making use of questionnaires that explore the social-emotional characteristics of the pupils
and/or sociograms that represent the relationships and social processes in the classroom. The teacher and the SENCO discuss those pupils whose scores are below a specified threshold. If considered appropriate, an individual education plan (IEP) is then drawn up by the SENCO and/or the teacher. However, in contrast to the cases of learning difficulties, schools are not accustomed to using IEPs in connection with SEBD. According to a number of SENCOs, their schools require a more systematic and collaborative approach to SEBD. If additional support is needed, external professionals may be consulted, such as the school counsellor, a special education counsellor, or a youth care advisory team. Schools are also aware of the importance of involving parents in the SEBD intervention. Talks with parents are scheduled on a regular basis, especially in cases of SEBD. However, according to SENCOs, parents are not consulted systematically in order to detect potential SEBD characteristics when their children start attending school.

Towards a systematic approach to SEBD

In view of the theoretical approaches to the prevention and management of SEBD in school, as well as the results of the studies described in this paper, the following recommendations for the improvement in educational practice have been proposed:

• a more systematic approach to the identification of SEBD and the setting up and evaluation of various prevention and intervention strategies;
• more focus on the provision of an adequate instructional environment for children at risk of or with SEBD;
• better communication between schools and parents about the pupils’ social, emotional, and behavioural development.

Development of a systematic approach

Researchers, special educational needs co-ordinators, and teachers are working together to develop and implement a systematic approach to realise improvements as outlined earlier in an integrated way in schools (Mooij 2006; Mooij and Smeets 2006, in press). The approach aims at providing instruction that is tailored to the needs of all pupils, including those with SEBD. This approach is based on a model of guidelines presented in Table 2. These guidelines refer to diagnostic, instructional, managerial and systemic aspects of teaching and learning (Mooij 2006, 2007). A set of five guidelines is outlined with respect to the desired differentiation of learning procedures and materials (see the second column in
The first step is the definition of a pedagogical-didactic kernel structure (PDKS) for different domains and subdomains. A PDKS represents concepts and subconcepts from different disciplines. It refers to the overall hierarchical structure of competence domains characterised by standard tasks and activities to assess associated levels of competence. The next step involves the structuring of these domains in terms of skills, subskills and instructional lines. Psychometrically valid indicators must then be included in the instructional lines, to evaluate the learning progress of pupils. Next, groups of learners can be organised in flexible ways and matched with various teachers. Finally integrated systems should be used for monitoring, evaluation, and administration of teaching and learning processes.

Table 2 Guidelines on a systematic approach to teaching and learning processes tailored to the educational needs of pupils (Mooij, 2006)

<table>
<thead>
<tr>
<th>Diagnostic aspects</th>
<th>Integration by, and use of, ICT support</th>
<th>Strategies to improve development and learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify a pedagogical-didactic kernel structure for different domains and subdomains</td>
<td>2.1 Facilitate construction and use of a pedagogical-didactic kernel structure</td>
<td>3.1 Use a learner’s entry characteristics to stipulate instructional lines</td>
</tr>
<tr>
<td>Instructional aspects</td>
<td>2.2 Enhance structuring, transparency, and flexible use of instructional lines</td>
<td>3.2 Create and control pro-social relationships in and around school</td>
</tr>
<tr>
<td>1.2 Structure domains of competence in terms of skills, subskills and instructional lines</td>
<td>2.3 Facilitate individualised instruction, collaborative learning, and self-regulation</td>
<td>3.3 Use collaborative didactic procedures to stimulate self-regulation</td>
</tr>
<tr>
<td>1.3 Include psychometrically valid indicators to evaluate learning progress</td>
<td>2.4 Encourage differentiated and multilevel evaluation of learning</td>
<td>3.4 Concentrate teacher coaching on those pupils most in need</td>
</tr>
<tr>
<td>Managerial aspects</td>
<td>1.4 Organise and match flexible groups of learners and teachers / coaches</td>
<td></td>
</tr>
<tr>
<td>1.5 Use integrated systems for monitoring, evaluation, and administration</td>
<td>2.5 Integrate instruction and learning across different contexts and points in time</td>
<td>3.5 Apply multilevel indicators to improve instruction and learning</td>
</tr>
<tr>
<td>Systemic aspects</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The adequate design and use of supporting ICT greatly enhances the theoretical and practical potential for improving education (see the third column in Table 2). The use of ICT can facilitate the construction and use of a PDKS. In the classroom ICT can provide more structure in and transparency of teaching and learning, and it can support the flexible use of instructional lines. Thus it can facilitate individualised instruction, as well as collaborative learning, and it can foster students’ self-regulation. ICT can assist in providing assessment and management of individual or group learning progress in
different instructional or organisational contexts, at multiple levels. Moreover, longitudinal progress or portfolio information can be linked to others involved, such as parents, other coaches, school administration, or researchers.

A third set of guidelines refers to the systemic improvement of development and learning progress (see the fourth column of Table 4). This improvement can occur by creating conditions that promote the learning processes of individual learners and groups of learners. For example, using a learner’s entry characteristics to assign play materials or instructional (sub)lines just above the actual achievement level, is important to encourage and motivate pupils (Bennathan and Boxall 1996; Walker et al. 1998). Moreover, it is necessary to create and control prosocial relationships in and around school in order to build and maintain constructive learning processes, both individually and in small groups of learners (Alschuler 1980). This is an important factor in the prevention and management of SEBD. Instructionally supported collaboration between pupils in small groups is another condition that may enable more motivating and more self-regulated learning processes and outcomes. In addition, collaboration between pupils may help the teacher or coach to give more support to the pupils who need it most. Finally, indicators at several levels can be used to gain insight into the quality of instruction and learning and to make improvements in this area.

A Pedagogical-Didactic Kernel Structure and an internet based software package

The researchers developed a prototype PDKS that resulted in a set of seven hierarchically structured competence domains and subdomains, with specific skills and subskills. These include language; general cognition; social-emotional performance; mathematics; physical-medical aspects; general psychological characteristics; and motor activities. In addition, an internet based software package was developed to be used in the application of PDKS. The prototype was named DIMS, having diagnostic, instructional, managerial, and systemic functions. With the aid of DIMS, a teacher can, for example, request specific concepts in a competence domain, insert and request pictures of specific learning materials and activities, and assign different activities to different learners. Individual education plans can be drawn up and integrated within PDKS for pupils in need of specific approaches or tailor-made support. In addition, a screening procedure was developed to assess pupils’ entry characteristics when they start primary school at the age of four (Mooij and Smeets 1999; Mooij 2000) and integrated in the software package. It consists of a checklist to assess the child’s level of competence in several domains compared to his or her age-peers. The checklist can be completed by parents upon school admission and by the
teacher after the child’s first month at school. To indicate the child’s level of competence in a specific area, the observers compare the child’s behaviour with that of his or her peers. The checklist can be used to estimate the amount of specific support needed by the pupil in question in specific competence areas. Moreover, the outcomes can help to structure the communication about a pupil by the parents, one or more teachers, and other professionals who may be involved. More information on the development and pilot use of the systematic approach can be found in Mooij and Smeets (2006).

Conclusion

On the basis of these and other studies carried out in SEBD in the Netherlands, this paper suggests a systematic approach to the identification of SEBD and the setting up and evaluation of various prevention and intervention strategies, with particular focus on the provision of adequate instructional environment. The use of this systematic will provide for instruction that is tailored to the specific needs and capabilities of pupils. As a result, instruction may be more challenging and pupils, including those at risk of developing SEBD, may become more engaged in learning processes. In addition, the system facilitates the adaptation of instruction to pupils’ entry characteristics, as well as the monitoring of pupils’ progress in various competence domains. It also makes it possible for schools, parents and external agencies to exchange information and engage in regular communication. Combined with a greater focus on continued development of teachers’ competencies in the management of SEBD, this systematic approach can provide a valuable contribution to reducing and preventing SEBD in schools and classrooms.

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